

115TH CONGRESS }  
2d Session

HOUSE OF REPRESENTATIVES

{ REPORT  
115-???

NATIONAL DEFENSE AUTHORIZATION ACT  
FOR FISCAL YEAR 2019

—  
R E P O R T

OF THE

COMMITTEE ON ARMED SERVICES  
HOUSE OF REPRESENTATIVES

ON

H.R. 5515

together with

ADDITIONAL AND DISSENTING VIEWS

[Including cost estimate of the Congressional Budget Office]



MAY 15, 2018.—Committed to the Committee of the Whole House on the  
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# CONTENTS

---

	Page
Purpose of the Legislation .....	000
Rationale for the Committee Bill .....	000
Hearings .....	000
Committee Position .....	000
Explanation of the Committee Amendments .....	000
Relationship of Authorization to Appropriations .....	000
Summary of Discretionary Authorizations in the Bill .....	000
Budget Authority Implication .....	000
<b>DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS .....</b>	<b>000</b>
<b>TITLE I—PROCUREMENT .....</b>	<b>000</b>
Aircraft Procurement, Army .....	000
Items of Special Interest .....	000
Apache attack helicopters .....	000
Light utility helicopter .....	000
Report on efforts to reduce operational and maintenance costs for CH-47 .....	000
Unmanned aerial system units for Army National Guard .....	000
Missile Procurement, Army .....	000
Items of Special Interest .....	000
Stinger missile modernization program .....	000
Procurement of Weapons and Tracked Combat Vehicles, Army .....	000
Items of Special Interest .....	000
Armored brigade combat team modernization .....	000
M240 medium machine gun modernization .....	000
M3E1 Carl Gustaf weapon system .....	000
Paladin Integrated Management .....	000
Stryker upgrades .....	000
Procurement of Ammunition, Army .....	000
Items of Special Interest .....	000
M58 MICLIC .....	000
Other Procurement, Army .....	000
Items of Special Interest .....	000
CREW electronic counter-measure systems .....	000
Enhanced rapid airfield construction capability .....	000
Mine resistant ambush protected vehicle sustainment .....	000
Tactical Communication and Protective Systems (TCAPS) authoriza- tion .....	000
Tactical network modernization .....	000
Tactical wheeled vehicle industrial base sustainment .....	000
Aircraft Procurement, Navy .....	000
Items of Special Interest .....	000
Current and future anti-submarine warfare system study .....	000
Long-range naval carrier aviation .....	000
MQ-4 .....	000
Navy Reserve F/A-18 aircraft .....	000
Weapons Procurement, Navy .....	000
Items of Special Interest .....	000
Advanced Low Cost Munition Ordnance .....	000
Shipbuilding and Conversion, Navy .....	000
Items of Special Interest .....	000
Frigate .....	000
Nimitz-class aircraft carrier service life extension .....	000
Other Procurement, Navy .....	000
Items of Special Interest .....	000

IV

	Page
Arleigh Burke-class destroyer radar backfit .....	000
MH-60R dipping sonar upgrades .....	000
SPY-6 inherent capabilities .....	000
Surface ship torpedo defense .....	000
Procurement, Marine Corps .....	000
Items of Special Interest .....	000
Indoor Simulated Marksmanship Trainers .....	000
Rapid acquisition of Rifle Integrated Controller .....	000
Aircraft Procurement, Air Force .....	000
Items of Special Interest .....	000
A-10 replacement wings .....	000
Air Force enlisted pilot implementation initiatives .....	000
B-2 secure communication modernization plan .....	000
C-130H modernization efforts .....	000
C-130H propulsion systems upgrade .....	000
Compass Call transition plan .....	000
F-15C Eagle Passive Active Warning and Survivability System .....	000
F-35 autonomic logistics information system .....	000
F-35 canopy transparencies .....	000
F-35 sustainment affordability .....	000
Future sustainment of remotely piloted aircraft tactical intelligence and strike capabilities .....	000
OA-X light attack aircraft program .....	000
Production adjustment for KC-46A air refueling aircraft .....	000
RQ-4 Global Hawk and EQ-4 battlefield airborne communications node aircraft .....	000
Total Force C-17 Fleet Management Plan .....	000
Total Force KC-135R net centric operations and battlespace aware- ness .....	000
U-2 .....	000
Missile Procurement, Air Force .....	000
Items of Special Interest .....	000
AIM-120 production rate .....	000
Other Procurement, Air Force .....	000
Items of Special Interest .....	000
Deployable Air Base Systems .....	000
Procurement, Defense-Wide .....	000
Items of Special Interest .....	000
Common Analytical Laboratory System .....	000
Multi-Domain Command and Control .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Authorization of Appropriations .....	000
Section 101—Authorization of Appropriations .....	000
Subtitle B—Army Programs .....	000
Section 111—National Guard and Reserve Component Equipment Re- port .....	000
Section 112—Limitation on Availability of Funds for M27 Infantry Automatic Rifle Program .....	000
Subtitle C—Navy Programs .....	000
Section 121—Increase in Number of Operational Aircraft Carriers of the Navy .....	000
Section 122—Procurement Authority for Ford Class Aircraft Carrier Program .....	000
Section 123—Full Ship Shock Trial for Ford Class Aircraft Carrier .....	000
Section 124—Multiyear Procurement Authority for Amphibious Vessels .....	000
Section 125—Multiyear Procurement Authority for Standard Missile- 6 .....	000
Section 126—Multiyear Procurement Authority for E-2D Aircraft .....	000
Section 127—Multiyear Procurement Authority for F/A-18E/F Aircraft and EA-18G Aircraft .....	000
Section 128—Modifications to F/A-18 Aircraft to Mitigate Physiological Episodes .....	000
Section 129—Frigate Class Ship Program .....	000
Section 130—Limitation on Procurement of Economic Order Quantities for Virginia Class Submarine Program .....	000
Section 131—Limitation on Use of Funds for DDG-51 Destroyers .....	000
Subtitle D—Air Force Programs .....	000

	Page
Section 141—Inventory Requirement for Air Refueling Tanker Aircraft; Limitation on Retirement of KC-10A Aircraft .....	000
Section 142—Limitation on Use of Funds for KC-46A Aircraft Pending Submittal of Certification .....	000
Section 143—Retirement Date for VC-25A Aircraft .....	000
Section 144—Contract for Logistics Support for VC-25B Aircraft .....	000
Section 145—Multiyear Procurement Authority for C-130J Aircraft .....	000
Section 146—Removal of Waiting Period for Limitation on Availability of Funds for EC-130H Compass Call Recapitalization Program .....	000
Section 147—Findings and Sense of Congress Regarding KC-46 Aerial Refueling Tankers .....	000
Subtitle E—Defense-Wide, Joint, and Multiservice Matters .....	000
Section 151—Buy-to-Budget Acquisition of F-35 Aircraft .....	000
Section 152—Certification on Inclusion of Technology to Minimize Physiological Episodes in Certain Aircraft .....	000
TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION .....	000
Research, Development, Test, and Evaluation, Army .....	000
Items of Special Interest .....	000
Accelerated integration to counter emerging threats .....	000
Assured Position, Navigation and Timing .....	000
Targeted Soldier Borne Sensor efforts .....	000
Computational molecular modeling and simulation for material development .....	000
Future digital munitions and integration .....	000
Future Vertical Lift .....	000
Harnessing Emerging Research Opportunities to Empower Soldiers ..	000
High energy laser systems integration laboratory .....	000
Improved Turbine Engine Program .....	000
Initial Maneuver-Short Range Air Defense capability .....	000
Iron Dome experimentation and assessment for short-range air defense .....	000
Lightweight metal matrix composite technology for combat and tactical vehicles .....	000
M119 105mm self-propelled artillery system technology .....	000
Mobile camouflage system .....	000
Personal Protective Equipment advance technology development .....	000
Shoot-on-the-Move experimentation for short range air defense systems .....	000
Soldier power and composite armor development .....	000
Squad multipurpose equipment transport .....	000
Supercavitating ammunition technology .....	000
Third Generation Forward-Looking Infrared development .....	000
Transport telemedicine system .....	000
Urban warfare training .....	000
Research, Development, Test, and Evaluation, Navy .....	000
Items of Special Interest .....	000
Academic partnerships for undersea unmanned warfare research .....	000
Artificial intelligence and computer vision technologies in Navy unmanned systems .....	000
Briefing for the Senate Committee on Armed Services and the House Committee on Armed Services on US Navy's efforts to expand carrier air wing long-range strike capability .....	000
Briefing on Navy support for research into autonomous systems .....	000
Briefing on ongoing engine noise reduction efforts .....	000
Consolidated Afloat Networks and Enterprise Services .....	000
Defense University Research Instrumentation Program .....	000
Directed energy and non-lethal weapons technology policy and guidance .....	000
E2-D Advanced Hawkeye Identification Friend or Foe .....	000
Joint Air-to-Ground Missile for fixed wing aircraft (JAGM-F) integration .....	000
Marine Corps Group 5-class unmanned aircraft development .....	000
Maritime intelligence, surveillance, and reconnaissance capabilities demonstration .....	000
Naval underwater test ranges .....	000
MQ-25 Unmanned Carrier Aviation program .....	000
Navy Explosive Ordnance Disposal recovery operations .....	000

VI

	Page
Navy Next Generation Enterprise Network .....	000
Navy Theater Anti-Submarine Warfare prototyping .....	000
Ocular Interruption System .....	000
Passive rocket propelled grenade armor protection technology .....	000
Small Business Innovation Research—Automated Test and Retest Program .....	000
TH-57 follow-on training system .....	000
U.S. Navy MH-60R helicopter antisubmarine warfare and aircraft health monitoring .....	000
Warfighter safety and performance .....	000
Research, Development, Test, and Evaluation, Air Force .....	000
Items of Special Interest .....	000
Academic and industrial partnerships for aerospace materials .....	000
Academic partnerships for modeling, design, and analysis of un- manned air platforms .....	000
Advanced engine development program .....	000
Advanced pilot training program .....	000
Advanced radar threat system emitters .....	000
Advanced Turbine Engine Gas Generators .....	000
Aerospace composite structures manufacturing .....	000
Air Force test and evaluation support .....	000
Air Operations Center software modernization utilizing agile develop- ment software processes .....	000
Autonomous life support system .....	000
Education and outreach for anti-tampering and cybersecurity re- search .....	000
F-15 ALQ-128 electronic warfare warning set .....	000
F-35 follow-on development .....	000
Metals Affordability Initiative .....	000
Passive ground-based imaging of space objects .....	000
Precision metrology tools .....	000
Recapitalization of Battle-Management, Command and Control, and associated intelligence capabilities in support of ground forces .....	000
Reusable hypersonic vehicle structure development .....	000
Robust aircraft electrical power and thermal management systems .....	000
Secure-live-virtual-constructive advanced training environment .....	000
Small diameter bomb II cost reduction initiative .....	000
Technology Transition Program .....	000
Wide-area motion imagery intelligence capability .....	000
Wind energy development radar mitigation efforts .....	000
Research, Development, Test, and Evaluation, Defense-Wide .....	000
Items of Special Interest .....	000
Advanced ceramic capabilities .....	000
Antitoxin to combat botulinum toxin .....	000
Autonomous capabilities .....	000
Central Test and Evaluation Investment Program .....	000
Chemical, biological, radiological, nuclear, and explosive standoff de- tection .....	000
Common data environment for modeling and simulation .....	000
Contraband cellular devices .....	000
Counter small tactical unmanned air systems .....	000
Counter-unmanned aerial system threat detection .....	000
Enhanced Maritime Biological Detection .....	000
Fielding of radiation detection devices .....	000
Future uses of synthetic biology .....	000
Historically black colleges and universities, and minority serving in- stitutions .....	000
Innovative installation capabilities .....	000
Joint Regional Security Stacks .....	000
Joint threat warning system .....	000
Military Free Fall School .....	000
Minerva Research Initiative .....	000
National Hypersonics Initiative .....	000
National lab integration in defense innovation hubs .....	000
Non-lethal directed energy technologies .....	000
Protect DIB critical technologies .....	000
Rapidly deployable radar system .....	000



VII

	Page
Report on DoD target and threat systems .....	000
Research to enhance the understanding of adversarial influence operations .....	000
Use of authority for transactions other than contracts and grants by the Department of Defense .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Authorization of Appropriations .....	000
Section 201—Authorization of Appropriations .....	000
Subtitle B—Program Requirements, Restrictions, and Limitations .....	000
Section 211—Modification of Authority to Carry Out Certain Prototype Projects .....	000
Section 212—Extension of Directed Energy Prototype Authority .....	000
Section 213—Prohibition on Availability of Funds for the Weather Common Component Program .....	000
Section 214—Limitation Pending Certification on the Joint Surveillance Target Attack Radar System Recapitalization Program .....	000
Section 215—Limitation on Availability of Funds for F-35 Continuous Capability Development and Delivery .....	000
Section 216—Limitation on Availability of Funds Pending Report on Agile Software Development and Software Operations .....	000
Section 217—Limitation on Availability of Funds for Certain High Energy Laser Advanced Technology .....	000
Section 218—Plan for Elimination or Transfer of the Strategic Capabilities Office of the Department of Defense .....	000
Section 219—National Security Science and Technology Strategy .....	000
Section 220—Modification of CVN-73 to Support Fielding of MQ-25 Unmanned Aerial Vehicle .....	000
Subtitle C—Reports and Other Matters .....	000
Section 221—Report on Survivability of Air Defense Artillery .....	000
Section 222—Report on T-45 Aircraft Physiological Episode Mitigation Actions .....	000
Section 223—Report on Efforts of the Air Force to Mitigate Physiological Episodes Affecting Aircraft Crewmembers .....	000
Section 224—Briefing on Use of Quantum Sciences for Military Applications and Other Purposes .....	000
Section 225—Report on Defense Innovation Unit Experimental .....	000
TITLE III—OPERATION AND MAINTENANCE .....	000
ITEMS OF SPECIAL INTEREST .....	000
Logistics and Sustainment Issues .....	000
Briefing on Rapidly Deployable Structures .....	000
Corrosion Prevention for Improved Air Force Readiness .....	000
Innovative Engine Sustainment Wash-Down Management Program .....	000
Leveraging Technology to Improve Equipment Readiness .....	000
Life Cycle Costs of Major Defense Acquisition Programs .....	000
Management of Navy Legacy F/A-18 Aircraft .....	000
Navy Next-Generation Small Arms Weapons Training and Readiness Requirements .....	000
Navy Ship Maintenance and Repair .....	000
Supply of Aviation Parts and Spares .....	000
Readiness Issues .....	000
Additive Manufacturing in Depot Facilities .....	000
Adversary Air Training .....	000
Army Soldier and Squad Virtual Trainer .....	000
Assessment of Navy Standard Workweek .....	000
Availability and Sufficiency of Training Ranges to Conduct Training against Near-Peer Adversaries .....	000
Briefing on Security Forces Assistance Brigade Location Plan .....	000
CONUS Training Facilities .....	000
Entry Control Facility Technology .....	000
Foreign Language Readiness .....	000
Forward Deployed Naval Force Ship Maintenance and Repair Capacity .....	000
Immersive Virtual Shipboard Environment Training .....	000
Information Operations .....	000
Live, Virtual, and Constructive Training Solution Enhancements .....	000
Military Working Dog Capacity and Facilities .....	000
Modeling and Simulation for Training, Exercises, and Joint Planning .....	000

VIII

	Page
Modernization and Integration of Major Range and Test Facilities Bases .....	000
Surface Fleet Live Fire Training .....	000
Universal Camouflage Inventory and Overdye Technology .....	000
Other Matters .....	000
Air Refueling Capability and Capacity .....	000
Disposition of Excess Military Ground Vehicles .....	000
Fluorine-Free Fire Fighting Foam .....	000
Improving Water Security and Efficiency on Installations .....	000
Joint Navy-Coast Guard Arctic Strategy .....	000
Meeting Readiness Requirements Efficiently .....	000
Motorcycle Safety Training .....	000
Open-Air Disposal of Munitions and Mmunition Constituents .....	000
Physical Security at U.S. Shipyards .....	000
Quality of Life at Remote Sites .....	000
Regional Biosecurity Plan .....	000
Review of Household Good Weight Allowances .....	000
Review of Mandatory Training Required by Law .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Authorization of Appropriations .....	000
Section 301—Authorization of Appropriations .....	000
Subtitle B—Energy and Environment .....	000
Section 311—Inclusion of Consideration of Energy and Climate Resiliency Efforts in Master Plans for Major Military Installations .....	000
Section 312—Use of Proceeds from Sales of Electrical Energy Derived from Geothermal Resources for Projects at Military Installations Where Resources Are Located .....	000
Section 313—Extension of Authorized Periods of Permitted Incidental Takings of Marine Mammals in the Course of Specified Activities by Department of Defense .....	000
Section 314—State Management and Conservation of Species .....	000
Subtitle C—Logistics and Sustainment .....	000
Section 321—Examination of Naval Vessels .....	000
Section 322—Overhaul and Repair of Naval Vessels in Foreign Shipyards .....	000
Section 323—Limitation on Length of Overseas Forward Deployment of Naval Vessels .....	000
Section 324—Temporary Modification of Workload Carryover Formula .....	000
Section 325—Limitation on Use of Funds for Implementation of Elements of Master Plan for Redevelopment of Former Ship Repair Facility in Guam .....	000
Section 326—Business Case Analysis for Proposed Relocation of J85 Engine Regional Repair Center .....	000
Section 327—Army Advanced and Additive Manufacturing Center of Excellence .....	000
Subtitle D—Reports .....	000
Section 331—Matters for Inclusion in Quarterly Reports on Personnel and Unit Readiness .....	000
Section 332—Annual Comptroller General Reviews of Readiness of Armed Forces to Conduct Full Spectrum Operations .....	000
Section 333—Surface Warfare Training Improvement .....	000
Section 334—Report on Optimizing Surface Navy Vessel Inspections and Crew Certifications .....	000
Subtitle E—Other Matters .....	000
Section 341—Coast Guard Representation on Explosive Safety Board .....	000
Section 342—Shiloh National Military Park Boundary Adjustment and Parker's Crossroads Battlefield Designation .....	000
Section 343—Sense of Congress Regarding Critical Minerals .....	000
TITLE IV—MILITARY PERSONNEL AUTHORIZATIONS .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Active Forces .....	000
Section 401—End Strengths for Active Forces .....	000
Section 402—Revisions in Permanent Active Duty End Strength Minimum Levels .....	000
Subtitle B—Reserve Forces .....	000
Section 411—End Strengths for Selected Reserve .....	000

## IX

	Page
Section 412—End Strengths for Reserves on Active Duty in Support of the Reserves .....	000
Section 413—End Strengths for Military Technicians (Dual Status) .....	000
Section 414—Maximum Number of Reserve Personnel Authorized To Be on Active Duty for Operational Support .....	000
Subtitle C—Authorization of Appropriations .....	000
Section 421—Military Personnel .....	000
TITLE V—MILITARY PERSONNEL POLICY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Active Military Service of the Korean Constabulary .....	000
Best Practices for Prevention and Response to Sexual Assault .....	000
Briefing on Commissioning Production of Senior Reserve Officer Training Corps .....	000
Briefing on Credentialing Programs .....	000
Briefing on Department of Defense Inspector General Processing Times .....	000
Comptroller General Report on Active Duty Female Retention .....	000
Deconflicting Reserve Component and Expeditionary Civilian Deployments to Provide Adequate Dwell Time .....	000
Federal Wildland Firefighting Education in the Transition Assistance Program (TAP) .....	000
Foreign Area Officer Personnel Training and Career Management .....	000
Foster and Adoptive Military Families .....	000
Implicit Bias Training .....	000
Incorporating Consideration of Advanced Technologies into Professional Military Education .....	000
Interagency Recruitment Cooperation Efforts .....	000
Joint Professional Military Education and Professional Military Education Curricula .....	000
Military Academy Preparatory School Class Enrollment .....	000
Report on Certain Victims' Rights in Connection with Prosecution of Sex-Related Offenses .....	000
Report on Legal Training for Commanders .....	000
Report on Processes for Federal Recognition of Promotion of Commissioned National Guard Officers .....	000
U.S. Air Force Pilot Staff Requirements Validation .....	000
U.S. Special Operations Command Preservation of the Force and Families Program Contract Support .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Regular Component Management .....	000
Section 501—Expansion of Authority to Award Constructive Service Credit for Advanced Education, Experience, or Training, upon Original Appointment as a Commissioned Officer .....	000
Section 502—Surface Warfare Officers Career Paths .....	000
Section 503—Authority of Selection Boards to Recommend Officers of Particular Merit Be Placed at the Top of the Promotion List .....	000
Section 504—Deferred Deployment for Members Who Give Birth .....	000
Section 505—Codification of Lowered Grade for Retired Officers or Persons Who Committed Misconduct in a Lower Grade .....	000
Section 506—Retention of Military Technicians Who Lose Dual Status under Certain Circumstances .....	000
Subtitle B—Reserve Component Management .....	000
Section 511—Placement of National Guard Military Technicians (Dual Status) in the Competitive Service .....	000
Section 512—Authorized Strength and Distribution in Grade .....	000
Section 513—National Guard Promotion Accountability .....	000
Section 514—Extension of Authority for Pilot Program on Use of Retired Senior Enlisted Members of the Army National Guard as Army National Guard Recruiters .....	000
Subtitle C—General Service Authorities and Correction of Military Records .....	000
Section 521—Enlistments Vital to the National Interest .....	000
Section 522—Statement of Benefits .....	000
Section 523—Modification to Forms of Support That May Be Accepted in Support of the Mission of the Defense POW/MIA Accounting Agency .....	000
Section 524—Correction of Military Records Website .....	000

	Page
Section 525—Modification of DD Form 214 to Include Email Addresses	000
Section 526—Public Availability of Reports Related to Senior Leader Misconduct	000
Section 527—Appointment and Training of Personnel to Staff the Board of Corrections for Military and Naval Records	000
Subtitle D—Military Justice	000
Section 531—Minimum Confinement Period Required for Conviction of Certain Sex-Related Offenses Committed by Members of the Armed Forces	000
Section 532—Punitive Article in the Uniform Code of Military Justice on Domestic Violence	000
Section 533—Defense Advisory Committee on Investigation, Prosecution, and Defense of Sexual Assault in the Armed Forces	000
Section 534—Modification of Military Rules of Evidence to Exclude Admissibility of General Military Character toward Probability of Innocence in Any Offense Not Strictly Related to Performance of Military Duties	000
Section 535—Improved Crime Reporting	000
Section 536—Oversight of Registered Sex Offender Management Program	000
Subtitle E—Other Legal Matters	000
Section 541—Security Clearance Reinvestigation of Certain Personnel Who Commit Certain Offenses	000
Section 542—Consideration of Application for Transfer for a Student of a Military Service Academy Who Is the Victim of a Sexual Assault or Related Offense	000
Section 543—Standardization of Policies Related to Expedited Transfer in Cases of Sexual Assault	000
Section 544—Development of Oversight Plan for Implementation of Department of Defense Harassment Prevention and Response Policy	000
Section 545—Development of Resource Guides Regarding Sexual Assault for the Military Service Academies	000
Section 546—Report on Victims in MCIO Reports	000
Subtitle F—Member Education, Training, Resilience, and Transition	000
Section 551—Permanent Career Intermission Program	000
Section 552—Improvements to Transition Assistance Program	000
Section 553—Employment and Compensation of Civilian Faculty Members at the Joint Special Operations University	000
Section 554—Program to Assist Members of the Armed Forces in Obtaining Professional Credentials	000
Section 555—Extension of Pilot Program to Assist Members in Obtaining Post-Service Employment	000
Section 556—Direct Employment Pilot Program for Members of the Reserve Components and Veterans	000
Section 557—Extended Duration of Availability of Military OneSource Program Services for Members of the Armed Forces upon their Separation or Retirement	000
Section 558—Comptroller General Briefing and Report on Permanent Employment Assistance Centers	000
Section 559—Activities to Increase Awareness of Apprenticeship Programs	000
Subtitle G—Defense Dependents' Education and Military Family Readiness Matters	000
Section 561—Enhancement and Clarification of Family Support Services for Family Members of Members of Special Operations Forces	000
Section 562—Additional Matters for Assessment and Report on Child-care Services of the Department of Defense	000
Section 563—Continued Assistance to Schools with Significant Numbers of Military Dependent Students	000
Section 564—Department of Defense Education Activity Misconduct Database	000
Section 565—Report on Assessment of Frequency of Permanent Changes of Station of Members of the Armed Forces on Employment among Military Spouses	000
Subtitle H—Decorations and Awards	000
Section 571—Limitations on Authority to Revoke Certain Military Decorations Awarded to Members of the Armed Forces	000

XI

	Page
Section 572—Authorization for Award of Expeditionary Medal to Certain Marines for Actions on June 8, 1995 .....	000
Subtitle I—Miscellaneous Reports and Other Matters .....	000
Section 581—Public Availability of Top-Line Numbers of Deployed Members of the Armed Forces .....	000
Section 582—Criteria for Interment at Arlington National Cemetery .....	000
Section 583—Report on General and Flag Officer Costs .....	000
Section 584—Report on Outside Employment of Senior Personnel .....	000
Section 585—Limitation on Use of Funds Pending Submittal of Report on Army Marketing and Advertising Program .....	000
TITLE VI—COMPENSATION AND OTHER PERSONNEL BENEFITS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Availability of Alcohol at Military Commissary Stores .....	000
Examination of Flexible/Noncontinuous Maternity Leave .....	000
Imminent Danger Pay Adjudication Process .....	000
Small Business Purchasing Contracts for Fresh Fruits and Vegetables for the Defense Commissary Agency (“DeCA”) .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Pay and Allowances .....	000
Section 601—Prompt Review of Request for Imminent Danger Pay .....	000
Section 602—Application of Basic Allowance for Housing to Members of the Uniformed Services in the Virgin Islands .....	000
Section 603—Mandatory Increase in Insurance Coverage under Servicemembers’ Group Life Insurance for Members Deployed to Combat Theaters of Operation .....	000
Section 604—Military Housing Privatization Initiative .....	000
Section 605—Per Diem Allowance Policies .....	000
Subtitle B—Bonuses and Special Incentive Pays .....	000
Section 611—One-Year Extension of Certain Expiring Bonus and Special Pay Authorities .....	000
Subtitle C—Other Matters .....	000
Section 621—Expansions of Installation Benefits to Surviving Spouses, Dependent Children, and Other Next of Kin .....	000
Section 622—Transportation on Military Aircraft on a Space-Available Basis for Disabled Veterans with a Service-Connected, Permanent Disability Rated as Total .....	000
Section 623—Extension of Parking Expenses Allowance to Civilian Employees at Recruiting Facilities .....	000
Section 624—Advisory Boards Regarding Military Commissaries and Exchanges .....	000
Section 625—Study and Report on Development of a Single Defense Resale System .....	000
TITLE VII—HEALTH CARE PROVISIONS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Advanced Pain Management Fellows Program .....	000
Athletic Trainers .....	000
Chronic Traumatic Encephalopathy (CTE) .....	000
Comprehensive Women’s Health for Active Duty .....	000
Department of Defense Action Plan for Countering Infectious Diseases ..	000
Diabetes Prevention Program .....	000
Direct Report Language on National Guard Mental Health .....	000
Exceptional Family Member Program .....	000
GAO Audit of TRICARE .....	000
Global Health Engagement Organization Consolidation .....	000
Improving Delivery of Mental Health Services .....	000
Improving Health Care Choices for Severely Injured Service Members ..	000
Joint Advanced Orthopedic Surgical Training .....	000
Mental Health Care in the Military Health System .....	000
Military Entrance Processing Command Physical Examination Model ..	000
Military Nurse Work Experience .....	000
Military Nutrition and Diet Planning .....	000
Mitigating Work Place Violence in Military Treatment Facilities .....	000
Orthotics for New Recruits .....	000
Periodic Health Assessment Analysis .....	000
Podiatric Surgeons in the Military .....	000
Podiatry in the Military .....	000

XII

	Page
Study on CT Angiography and Fractional Flow Reserve Computed Tomography in the Military Health System .....	000
Support for Global Health Security Agenda and Briefing on Joint Staff Recommendations .....	000
Therapeutic Service Dog Training Program for Service Members .....	000
TRICARE Managed Care Support Contractor Reporting .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—TRICARE and Other Health Care Benefits .....	000
Section 701—TRICARE Medicare Advantage Demonstration Program ..	000
Section 702—Pilot Program on Treatment of Members of the Armed Forces for Post-Traumatic Stress Disorder Related to Military Sexual Trauma .....	000
Section 703—Pilot Program on Cryopreservation and Storage .....	000
Subtitle B—Health Care Administration .....	000
Section 711—Transition of Administration by Defense Health Agency of Military Medical Treatment Facilities .....	000
Section 712—Sharing Information with State Prescription Drug Monitoring Programs .....	000
Section 713—Improvement to Notification to Congress of Hospitalization of Combat-Wounded Members of the Armed Forces .....	000
Section 714—Improvements to Trauma Center Partnerships .....	000
Section 715—Wounded Warrior Policy Review .....	000
Section 716—Joint Force Medical Capabilities Development and Standardization .....	000
Subtitle C—Reports and Other Matters .....	000
Section 721—Establishment of Triservice Dental Research Program .....	000
Section 722—Increasing the Number of Appointed Directors of the Henry M. Jackson Foundation for the Advancement of Military Medicine .....	000
Section 723—Extension of Authority for Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund .....	000
Section 724—Inclusion of Gambling Disorder in Health Assessments and Related Research Efforts of the Department of Defense .....	000
Section 725—Medical Simulation Technology and Live Tissue Training within the Department of Defense .....	000
Section 726—Limitation on Changes to Federal Emergency Services Certification Levels of the Air Force .....	000
Section 727—Strategic Medical Research Plan .....	000
Section 728—Independent Evaluation of Mental Health Care .....	000
Section 729—Study on Reimbursement Rates for Mental Health Care Providers under TRICARE Prime and TRICARE Select in the East and West Regions of the TRICARE Program .....	000
TITLE VIII—ACQUISITION POLICY, ACQUISITION MANAGEMENT, AND RELATED MATTERS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Assessment of Acquisition Workforce .....	000
Briefing on Athletic Footwear for New Recruits .....	000
Comptroller General Report on the Issuance of Regulations in the Defense Federal Acquisition Regulation Supplement .....	000
Contract Incentives for Superior Supplier Performance .....	000
Core Logistics Capability .....	000
Data Rights Impact to Sustainment .....	000
Domestic Samarium Cobalt Magnet Manufacturing .....	000
Ensuring Availability of Beryllium .....	000
Final Activities of and Archiving of Records for Advisory Panel on Streamlining and Codifying Acquisition Regulations .....	000
Installation of Command, Control, Communication and Computer Systems .....	000
Mandatory Arbitration Briefing .....	000
Manufacturing Extension Partnership Program .....	000
National Defense Stockpile .....	000
Navy Build-to-Print Cost Savings .....	000
One Hundred Percent Employee-Owned Contractors .....	000
Report on REE-Bearing Waste Recycling .....	000
LEGISLATIVE PROVISIONS .....	000

	Page
Subtitle A—Streamlining of Defense Acquisition Statutes and Regulations .....	000
Section 800—Effective Dates; Coordination of Amendments .....	000
Part I—Consolidation of Defense Acquisition Statutes in New Part V of Subtitle A of Title 10, United States Code .....	000
Section 801—Framework for New Part V of Subtitle A .....	000
Part II—Redesignation of Sections and Chapters of Subtitles B, C, and D to Provide Room for New Part V of Subtitle A .....	000
Section 806—Redesignation of Sections and Chapters of Subtitle D of Title 10, United States Code—Air Force .....	000
Section 807—Redesignation of Sections and Chapters of Subtitle C of Title 10, United States Code—Navy and Marine Corps .....	000
Section 808—Redesignation of Sections and Chapters of Subtitle B of Title 10, United States Code—Army .....	000
Section 809—Cross References to Redesignated Sections and Chapters ..	000
Part III—Repeals of Certain Provisions of Defense Acquisition Law .....	000
Section 811—Amendment to and Repeal of Statutory Requirements for Certain Positions or Offices in the Department of Defense .....	000
Section 812—Repeal of Certain Defense Acquisition Laws .....	000
Section 813—Repeal of Certain Department of Defense Reporting Requirements .....	000
Subtitle B—Amendments to General Contracting Authorities, Procedures, and Limitations .....	000
Section 821—Contract Goal for the AbilityOne Program .....	000
Section 822—Increased Micro-Purchase Threshold Applicable to Department of Defense Procurements .....	000
Section 823—Preference for Offerors Employing Veterans .....	000
Section 824—Revision of Requirement to Submit Information on Services Contracts to Congress .....	000
Section 825—Data Collection and Inventory for Services Contracts .....	000
Section 826—Competition Requirements for Purchases from Federal Prison Industries .....	000
Section 827—Requirement for a Fair and Reasonable Price for Technical Data Before Development or Production of Major Weapon Systems .....	000
Section 828—Revisions in Authority Relating to Program Cost Targets and Fielding Targets for Major Defense Acquisition Programs .....	000
Section 829—Revision of Timeline for Use of the Rapid Fielding Pathway for Acquisition Programs .....	000
Section 830—Clarification of Services Contracting Definitions .....	000
Subtitle C—Provisions Relating to Commercial Items .....	000
Section 831—Revision of Definition of Commercial Item for Purposes of Federal Acquisition Statutes .....	000
Section 832—Definition of Subcontract .....	000
Section 833—Limitation on Applicability to Department of Defense Commercial Contracts of Certain Provisions of Law and Certain Executive Orders and Regulations .....	000
Section 834—Modifications to Procurement through Commercial E-Commerce Portals .....	000
Subtitle D—Industrial Base Matters .....	000
Section 841—Requirement That Certain Ship Components Be Manufactured in the National Technology and Industrial Base .....	000
Section 842—Report on Domestic Sourcing of Specific Components for All Naval Vessels .....	000
Section 843—Removal of National Interest Determination Requirements for Certain Entities .....	000
Section 844—Pilot Program to Test Machine-Vision Technologies to Determine the Authenticity and Security of Microelectronic Parts in Weapon Systems .....	000
Subtitle E—Small Business Matters .....	000
Section 851—Department of Defense Small Business Strategy .....	000
Section 852—Prompt Payments of Small Business Contractors .....	000
Section 853—Increased Participation in the Small Business Administration Microloan Program .....	000
Section 854—Amendments to Small Business Innovation Research Program and Small Business Technology Transfer Program .....	000
Section 855—Construction Contract Administration .....	000

XIV

	Page
Section 856—Broadband and Emerging Information Technology Coordinator .....	000
Section 857—Amendments to the Small Business Investment Act of 1958 .....	000
Section 858—Consolidated Budget Justification for the Department of Defense Small Business Innovation Research Program and Small Business Technology Transfer Program .....	000
Section 859—Funding for Procurement Technical Assistance Program ..	000
Section 860—Exemption of Certain Contracts from the Periodic Inflation Adjustments to the Acquisition-Related Dollar Threshold .....	000
Subtitle F—Other Matters .....	000
Section 871—Additional Requirements for Negotiations for Noncommercial Computer Software .....	000
Section 872—Removal of Requirement for Risk and Sensitivity Analysis of Baseline Estimates in Selected Acquisition Reports .....	000
Section 873—Prohibition on Acquisition of Sensitive Materials from Non-Allied Foreign Nations .....	000
Section 874—Transfer or Possession of Defense Items for National Defense Purposes .....	000
Section 875—Expedited Hiring Authority for Shortage Category Positions in the Acquisition Workforce .....	000
Section 876—Extension of Prohibition on Providing Funds to the Enemy .....	000
Section 877—Repeal of Certain Determinations Required for Grants of Exceptions to Cost or Pricing Data Certification Requirements and Waivers of Cost Accounting Standards .....	000
Section 878—Reporting on Projects Performed through Transactions Other Than Contracts, Cooperative Agreements, and Grants .....	000
Section 879—Standardization of Formatting and Public Accessibility of Department of Defense Reports to Congress .....	000
Section 880—Defending United States Government Communications ....	000
TITLE IX—DEPARTMENT OF DEFENSE ORGANIZATION AND MANAGEMENT .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Organization and Management of the Department of Defense Generally .....	000
Section 901—Authority of Secretary of Defense to Determine Command and Control Relationships .....	000
Section 902—Civilian Personnel Management .....	000
Section 903—Performance of Civilian Functions by Military Personnel ..	000
Section 904—Roles of Under Secretary of Defense for Policy and Under Secretary of Defense for Intelligence .....	000
Section 905—Designation of Navy Commanders .....	000
Subtitle B—Comprehensive Pentagon Bureaucracy Reform and Reduction .....	000
Section 911—Authorities and Responsibilities of the Chief Management Officer of the Department of Defense .....	000
Section 912—Authorities and Responsibilities of the Inspector General of the Department of Defense .....	000
Section 913—Transition of Certain Defense Agencies and Department of Defense Field Activities .....	000
Section 914—Actions to Increase the Efficiency and Transparency of the Defense Logistics Agency .....	000
Section 915—Review of Functions of Defense Contract Audit Agency and Defense Contract Management Agency .....	000
Section 916—Streamlining of Defense Finance and Accounting Services .....	000
Section 917—Reduction in Number of Chief Information Officers in the Senior Executive Service .....	000
Section 918—General Provisions .....	000
Subtitle C—Other Matters .....	000
Section 921—Artificial Intelligence and Machine Learning Policy and Oversight Council .....	000
Section 922—Limitation on Transfer of the Chemical, Biological, and Radiological Defense Division of the Navy .....	000
TITLE X—GENERAL PROVISIONS .....	000
ITEMS OF SPECIAL INTEREST .....	000



	Page
Counter-Drug Activities .....	000
Colombian Security and the U.S.-Colombian Partnership .....	000
DOD Support to Combating the Opioid Epidemic .....	000
United States-Mexico Security Cooperation .....	000
Other Matters .....	000
Assessment of Air National Guard and Air Force Reserve Involuntary Mobilization Plans to Support Special Operations Activities .....	000
Briefing on Ukrainian Special Operations Forces Training .....	000
Civil Support Team Information Management System .....	000
Close Combat Lethality Task Force .....	000
Counter-Unmanned Aircraft System Authority for United States Faci- ties and Assets .....	000
Counterterrorism Effectiveness Research .....	000
Development and Procurement of Combat Equipment and Clothing for Female Servicemembers in Combat Occupations .....	000
Foreign Currency Fluctuation Account .....	000
Friendly Force Identification in Close Air Support .....	000
Genetic and Medical Information Security .....	000
MQ-9 Enterprise Supporting Air Combat Command and Air Force Special Operations Command Activities .....	000
National Guard Access to Department of Defense Owned Unmanned Aircraft Systems .....	000
Preparedness of U.S. Forces to Counter North Korean Chemical and Biological Weapons .....	000
Report on NORTHCOM Response to Hurricane Maria .....	000
Review of National Guard Capabilities in Support of Incident Aware- ness and Assessment Mission Operations .....	000
Senior Civilian or Military Leaders in Charge of Audit and Financial Management .....	000
Soo Locks .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Financial Matters .....	000
Section 1001—General Transfer Authority .....	000
Section 1002—Expertise in Audit Remediation .....	000
Section 1003—Authority to transfer funds to Director of National Intel- ligence for CAPNET .....	000
Section 1004—Independent Public Accountant Audit of Financial Sys- tems of the Department of Defense .....	000
Subtitle B—Counterdrug Activities .....	000
Section 1011—Department of Defense Support for Combating Opioid Trafficking and Abuse .....	000
Subtitle C—Naval Vessels and Shipyards .....	000
Section 1021—Inclusion of Operation and Sustainment Costs in Annual Naval Vessel Construction Plans .....	000
Section 1022—Purchase of Vessels Using Funds in National Defense Sealift Fund .....	000
Section 1023—Purchase of Vessels Built in Foreign Shipyards with Funds in National Defense Sealift Fund .....	000
Section 1024—Technical Corrections and Clarifications to Chapter 633 of Title 10, United States Code, and Other Provisions of Law Regard- ing Naval Vessels .....	000
Section 1025—Retention of Navy Hospital Ship Capability .....	000
Subtitle D—Counterterrorism .....	000
Section 1031—Definition of Sensitive Military Operation .....	000
Section 1032—Prohibition on Use of Funds for Transfer or Release of Individuals Detained at United States Naval Station, Guantanamo Bay, Cuba, to the United States .....	000
Section 1033—Prohibition on Use of Funds to Construct or Modify Facilities in the United States to House Detainees Transferred from United States Naval Station, Guantanamo Bay, Cuba .....	000
Section 1034—Prohibition on Use of Funds for Transfer or Release of Individuals Detained at United States Naval Station, Guantanamo Bay, Cuba, to Certain Countries .....	000
Subtitle E—Miscellaneous Authorities and Limitations .....	000
Section 1041—Notification on the Provision of Defense Sensitive Sup- port .....	000

	Page
Section 1042—Coordinating United States Response to Malign Foreign Influence Operations and Campaigns .....	000
Section 1043—Workforce Issues for Military Realignments in the Pacific .....	000
Section 1044—Mitigation of Operational Risks Posed to Certain Military Aircraft by Automatic Dependent Surveillance-Broadcast Equipment .....	000
Section 1045—Limitation on Availability of Funds for Unmanned Surface Vehicles .....	000
Section 1046—Program for Department of Defense Controlled Unclassified Information in the Hands of Industry .....	000
Section 1047—Protection of Emerging and Foundational Technologies ..	000
Subtitle F—Studies and Reports .....	000
Section 1051—Additional Matter for Inclusion in Annual Report on Civilian Casualties in Connection with United States Military Operations .....	000
Section 1052—Department of Defense Review and Assessment on Advances in Artificial Intelligence and Machine Learning .....	000
Section 1053—Report on Joint Enterprise Defense Infrastructure .....	000
Section 1054—Report on Proposed Consolidation of Department of Defense Global Messaging and Counter Messaging Capabilities .....	000
Section 1055—Comprehensive Review of Professionalism and Ethics Programs for Special Operations Forces .....	000
Section 1056—Munitions Assessments and Future-Years Defense Program Requirements .....	000
Section 1057—Report on Establishment of Army Futures Command .....	000
Section 1058—Assessment of Department of Defense Electromagnetic Spectrum Warfare Enterprise .....	000
Section 1059—Report on Support for Non-Contiguous States and Territories in the Event of Threats and Incidents .....	000
Section 1060—Report on Low-Boom Flight Demonstration .....	000
Section 1061—Report on Cyber-Enabled Information Operations .....	000
Subtitle G—Other Matters .....	000
Section 1071—Technical, Conforming, and Clerical Amendments .....	000
Section 1072—Principal Advisor on Countering Weapons of Mass Destruction .....	000
Section 1073—Receipt of Firearm or Ammunition .....	000
Section 1074—Federal Charter for Spirit of America .....	000
Section 1075—Transfer of Aircraft to Other Departments .....	000
Section 1076—Reauthorization of National Aviation Heritage Area .....	000
Section 1077—Recognition of America's Veterans .....	000
Section 1078—National Commission on Military Aviation Safety .....	000
Section 1079—Target Practice and Marksmanship Training Support .....	000
Section 1080—Sense of Congress on Adversary Air Capabilities .....	000
Section 1081—Sense of Congress Regarding Organic Attack Aviator Training Capability .....	000
Section 1082—Sense of Congress on the Legacy, Contributions, and Sacrifices of American Indian and Alaska Natives in the Armed Forces .....	000
Section 1083—Amateur Radio Parity .....	000
Section 1084—Sense of Congress Regarding the International Borders of the United States .....	000
Section 1085—Program to Commemorate 75th Anniversary of World War II .....	000
TITLE XI—CIVILIAN PERSONNEL MATTERS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Civilian Talent Recruitment .....	000
Direct Hiring Authority .....	000
Presidential Management Fellows Program .....	000
Recruitment and Hiring of Navy Astronomers .....	000
Workplace Flexibility for Federal Civilians .....	000
LEGISLATIVE PROVISIONS .....	000
Section 1101—Direct Hire Authority for the Department of Defense for Certain Competitive Service Positions .....	000
Section 1102—Modification of Direct Hire Authority for the Department of Defense for Post-Secondary Students and Recent Graduates ..	000

XVII

	Page
Section 1103—Extension of Overtime Rate Authority for Department of the Navy Employees Performing Work Aboard or Dockside in Support of the Nuclear-Powered Aircraft Carrier Forward Deployed in Japan .....	000
Section 1104—One-Year Extension and Expansion of Authority to Waive Annual Limitation on Premium Pay and Aggregate Limitation on Pay for Federal Civilian Employees Working Overseas .....	000
Section 1105—Appointment of Retired Members of the Armed Forces to Positions in or under the Department of Defense .....	000
Section 1106—Extension of Authority to Conduct Telework Travel Expenses Test Programs .....	000
Section 1107—Personnel Demonstration Projects .....	000
Section 1108—Expanded Flexibility in Selecting Candidates from Referral Lists .....	000
Section 1109—Temporary and Term Appointments in the Competitive Service .....	000
TITLE XII—MATTERS RELATING TO FOREIGN NATIONS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Carrier Presence in the Middle East .....	000
Casualty Evacuation in U.S. Africa Command Area of Operations .....	000
Combined Joint Task Force-Horn of Africa .....	000
Coordinating Efforts to Counter the Malign Activities of the People's Republic of China and the Russian Federation Across Combatant Commands .....	000
Department of Defense Inspector General Audit of Foreign Military Sales .....	000
Foreign Military Sales .....	000
Improved Coordination of Activities in Africa with International Partners .....	000
International Armaments Cooperation .....	000
Multilateral Cooperation on the Korean Peninsula .....	000
Naval Mine Countermeasure Capability in the U.S. Central Command's Area of Operations .....	000
Non-Standard Acquisition in Foreign Military Sales .....	000
Report on New START Treaty .....	000
Report on U.S. Casualty Estimates for Armed Conflict with North Korea .....	000
Security and Stability in Venezuela .....	000
Support to Syrian Women .....	000
Tactical Wheeled Vehicle Support to the Afghan National Defense and Security Forces .....	000
Trans-Saharan Counterterrorism Partnership (TSCTP) .....	000
U.S. Military Education and Training Locations .....	000
Western Hemisphere Region Report on Strategy to Increase Engagement with Region .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Assistance and Training .....	000
Section 1201—Report on the Use of Security Cooperation Authorities ..	000
Section 1202—Clarification of Authority to Waive Certain Expenses for Activities of the Regional Centers for Security Studies .....	000
Section 1203—NATO Strategic Communications Center of Excellence ..	000
Section 1204—NATO Cooperative Cyber Defense Center of Excellence ..	000
Section 1205—Participation in and Support of the Inter-American Defense College .....	000
Section 1206—Increase in Cost Limitation for Small Scale Construction Related to Security Cooperation .....	000
Section 1207—Report on Security Cooperation with Haiti .....	000
Section 1208—Review and Report on Processes and Procedures Used to Carry Out Section 362 of Title 10, United States Code .....	000
Subtitle B—Matters Relating to Afghanistan and Pakistan .....	000
Section 1211—Extension of Authority to Transfer Defense Articles and Provide Defense Services to the Military and Security Forces of Afghanistan .....	000
Section 1212—Extension of Authority for Reimbursement of Certain Coalition Nations for Support Provided to United States Military Operations .....	000

XVIII

	Page
Section 1213—Extension and Modification of Commanders’ Emergency Response Program .....	000
Section 1214—Report on Assistance to Pakistan .....	000
Subtitle C—Matters Relating to Syria, Iraq, and Iran .....	000
Section 1221—Extension and Modification of Authority to Provide Assistance to Counter the Islamic State of Iraq and Syria .....	000
Section 1222—Extension of Authority to Provide Assistance to the Vetted Syrian Opposition .....	000
Section 1223—Extension and Modification of Authority to Support Operations and Activities of the Office of Security Cooperation in Iraq ...	000
Section 1224—Sense of Congress on Ballistic Missile Cooperation to Counter Iran .....	000
Section 1225—Strategy to Counter Destabilizing Activities of Iran .....	000
Section 1226—Report on Compliance of Iran under the Chemical Weapons Convention .....	000
Section 1227—Report on Potential Release of Chemical Weapons or Chemical Weapons Precursors from Barzeh Research and Development Center and Him Shinshar Chemical Weapons Storage and Bunker Facilities in Homs Province of Syria .....	000
Section 1228—Report on Cooperation between Iran and the Russian Federation .....	000
Subtitle D—Matters Relating to the Russian Federation .....	000
Section 1231—Prohibition on Availability of Funds Relating to Sovereignty of the Russian Federation over Crimea .....	000
Section 1232—Limitation on Availability of Funds Relating to Implementation of the Open Skies Treaty .....	000
Section 1233—Comprehensive Response to the Russian Federation’s Material Breach of the INF Treaty .....	000
Section 1234—Modification and Extension of Ukraine Security Assistance Initiative .....	000
Section 1235—Statement of Policy on United States Military Investment in Europe .....	000
Section 1236—Imposition of Sanctions with Respect to Certain Persons Providing Sophisticated Goods, Services, or Technologies for Use in the Production of Major Defense Equipment or Advanced Conventional Weapons .....	000
Section 1237—Extension of Limitation on Military Cooperation between the United States and the Russian Federation .....	000
Section 1238—Sense of Congress regarding Russia’s Violations of the Chemical Weapons Convention .....	000
Section 1239—United States Actions regarding Material Breach of INF Treaty by the Russian Federation .....	000
Section 1240—Limitation on Availability of Funds to Extend the Implementation of the New START Treaty .....	000
Subtitle E—Matters Relating to the Indo-Pacific Region .....	000
Section 1251—Support for Indo-Pacific Stability Initiative .....	000
Section 1252—United States Strategy on China .....	000
Section 1253—Strengthening Taiwan’s Force Readiness .....	000
Section 1254—Modification, Redesignation, and Extension of Southeast Asia Maritime Security Initiative .....	000
Section 1255—Missile Defense Exercises in the Indo-Pacific Region with United States Regional Allies and Partners .....	000
Section 1256—Quadrilateral Cooperation and Exercise .....	000
Section 1257—Name of United States Indo-Pacific Command .....	000
Section 1258—Requirement for Critical Languages and Expertise in Chinese, Korean, and Russian .....	000
Section 1259—Modification of Report Required under Enhancing Defense and Security Cooperation with India .....	000
Section 1260—Statement of Policy on Naval Vessel Transfers to Japan ..	000
Section 1261—Report and Public Notification on China’s Military, Maritime, and Air Activities in the Indo-Pacific Region .....	000
Section 1262—Senior Defense Engagement with Taiwan .....	000
Section 1263—Limitation on Use of Funds to Reduce the Total Number of Members of the Armed Forces on Active Duty Who Are Deployed to the Republic of Korea .....	000
Section 1264—Enhancing Missile Defense Cooperation with Partners ...	000
Subtitle F—Other Matters .....	000

XIX

	Page
Section 1271—Report on Status of the United States Relationship with the Republic of Turkey .....	000
Section 1272—Sense of Congress on Unity of Gulf Cooperation Council Member Countries .....	000
Section 1273—Report on United States Government Police Training and Equipping Programs for Mexico .....	000
Section 1274—Authority to Increase Engagement and Military-to-Military Cooperation with Western Balkans Countries .....	000
Section 1275—Technical Corrections Relating to Defense Security Cooperation Statutory Reorganization .....	000
Section 1276—United States-Israel Countering Unmanned Aerial Systems Cooperation .....	000
Section 1277—Three-Year Extension of Authorization of Non-Conventional Assisted Recovery Capabilities .....	000
Section 1278—Revision of Statutory References to Former NATO Support Organizations and Related NATO Agreements .....	000
Section 1279—Sense of the Congress Concerning Military-to-Military Dialogues .....	000
Section 1280—Modifications to Global Engagement Center .....	000
Section 1281—Report on Acquisition and Cross-Servicing Agreements ..	000
Section 1282—Prohibition on Provision of Weapons and Other Forms of Support to Certain Organizations .....	000
Section 1283—Certification and Authority to Terminate Funding for Academic Research Relating to Foreign Talent Programs .....	000
Section 1284—Sense of Congress on Support for Georgia .....	000
Section 1285—Sense of Congress on Support for Estonia, Latvia, and Lithuania .....	000
Section 1286—Report on United States Strategy in Yemen .....	000
Section 1287—Report on Hizballah .....	000
TITLE XIII—COOPERATIVE THREAT REDUCTION .....	000
ITEMS OF SPECIAL INTEREST .....	000
Future of the Cooperative Threat Reduction Program .....	000
LEGISLATIVE PROVISIONS .....	000
Section 1301—Funding Allocations .....	000
Section 1302—Specification of Cooperative Threat Reduction Funds .....	000
TITLE XIV—OTHER AUTHORIZATIONS .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Military Programs .....	000
Section 1401—Working Capital Funds .....	000
Section 1402—Chemical Agents and Munitions Destruction, Defense ..	000
Section 1403—Drug Interdiction and Counter-Drug Activities, Defense-Wide .....	000
Section 1404—Defense Inspector General .....	000
Section 1405—Defense Health Program .....	000
Section 1406—National Defense Sealift Fund .....	000
Subtitle B—Other Matters .....	000
Section 1411—Authority for Transfer of Funds to Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund for Captain James A. Lovell Health Care Center, Illinois .....	000
Section 1412—Authorization of Appropriations for Armed Forces Retirement Home .....	000
Section 1413—Quarterly Briefing on Progress of Chemical Demilitarization Program .....	000
TITLE XV—AUTHORIZATION OF ADDITIONAL APPROPRIATIONS FOR OVERSEAS CONTINGENCY OPERATIONS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Cargo Inspections to Counter Vehicle Borne IED Threats .....	000
National Guard and Reserve Component Equipment Account .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Authorization of Appropriations .....	000
Section 1501—Purpose of Certain Authorizations of Appropriations .....	000
Section 1502—Procurement .....	000
Section 1503—Research, Development, Test, and Evaluation .....	000
Section 1504—Operation and Maintenance .....	000
Section 1505—Military Personnel .....	000
Section 1506—Working Capital Funds .....	000

	Page
Section 1507—Drug Interdiction and Counter-Drug Activities, Defense-Wide .....	000
Section 1508—Defense Inspector General .....	000
Section 1509—Defense Health Program .....	000
Subtitle B—Financial Matters .....	000
Section 1511—Treatment as Additional Authorizations .....	000
Section 1512—Special Transfer Authority .....	000
Subtitle C—Limitations, Reports, and Other Matters .....	000
Section 1521—Afghanistan Security Forces Fund .....	000
Section 1522—Joint Improvised-Threat Defeat Fund .....	000
TITLE XVI—STRATEGIC PROGRAMS, CYBER, AND INTELLIGENCE MATTERS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Space Activities .....	000
Briefing on Deployed Satellite Communications Terminals .....	000
Briefing on Supply Chain for In-Space Propulsion Thrusters .....	000
Commercial Satellite Imagery .....	000
Commercial Space Situational Awareness Capabilities .....	000
Criteria for Launch Service Agreement Down-Select .....	000
GPS Backup Demonstration .....	000
Launch Support and Infrastructure Modernization .....	000
Launch Vehicle Upper Stage Mission Enhancement .....	000
Next Generation Overhead Persistent Infrared Satellites .....	000
Plan for Use of Allied Launch Services in Case of Emergency Need .....	000
Portable Satellite Data Receiver Status .....	000
Rapid Satellite Capability Reconstitution .....	000
Satellite Communications .....	000
Space Flag Exercise and Responsive Launch .....	000
Use of Commercial Items in Follow-On Wideband Communications System .....	000
Missile Defense Programs .....	000
Airborne Tracking and Targeting System .....	000
Cruise Missile Threat to Hawaii .....	000
Cybersecurity of Ballistic Missile Defense System .....	000
Hypersonic Defense .....	000
Maintenance of Patriot Batteries .....	000
Options to Supplement Missile Defense of Hawaii .....	000
Patriot Interceptor Inventory .....	000
Protection of Ballistic Missile Defense System Components .....	000
Standard Missile-3 Testing and Reliability .....	000
Warfighter Procedures for Responding to and Releasing Information Regarding an Inbound Ballistic Missile Threat .....	000
Nuclear Forces .....	000
Air Force Global Strike Command and Nuclear Deterrence Institute .....	000
B83-1 Nuclear Gravity Bomb .....	000
Comptroller General Review of Plans to Swap B61 Bombs in Europe .....	000
Nuclear Survivability and Hostile Environments Testing .....	000
Perimeter Security at NATO Nuclear Bases .....	000
Plutonium Pit Production and Reuse .....	000
Tonopah Test Range Land Use Agreement .....	000
Cyber-Related Matters .....	000
Addressing Readiness Deficiencies through the Hacking for Defense Innovation Education Program .....	000
Comptroller General Review of Current Military Cyber Operations .....	000
Comptroller General Review of Information Operations Strategy .....	000
Cyber Scholarship Program .....	000
Information Security Continuous Monitoring and Comply-to-Connect Implementation .....	000
Joint Enterprise Defense Infrastructure .....	000
Mitigation of Autonomous Systems .....	000
Network Protection .....	000
Operational Cyber Testing of Weapons Systems .....	000
Plan to Enhance Coordination with Universities and Industry on Cyber Education .....	000
Securing Personally Identifiable Information .....	000
Threat Cyberspace Operations .....	000
Intelligence Matters .....	000

	Page
Foundational Intelligence Analysis Modernization .....	000
Insider Threat Detection and User Activity Monitoring .....	000
Insider Threat Risk Model Validation .....	000
Intelligence Combat Support Agencies .....	000
Intelligence Support to Cyber Operations .....	000
Science, Technology, Engineering, and Math Careers in Defense Intel- ligence .....	000
Security and Intelligence Role in Export Control .....	000
Security Clearance Background Investigation Reciprocity .....	000
Strengthening Oversight of the Military Intelligence Program Budget ...	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Space Activities .....	000
Section 1601—Improvements to Acquisition System, Personnel, and Or- ganization of Space Forces .....	000
Section 1602—Rapid, Responsive, and Reliable Space Launch .....	000
Section 1603—Provision of Space Situational Awareness Services and Information .....	000
Section 1604—Budget Assessments for National Security Space Pro- grams .....	000
Section 1605—Enhancement of Positioning, Navigation, and Timing Capacity .....	000
Section 1606—Use of Small- and Medium-Size Buses for Strategic and Tactical Satellite Payloads .....	000
Section 1607—Designation of Component of Department of Defense Responsible for Coordination of Modernization Efforts Relating to Military-Code Capable GPS Receiver Cards .....	000
Section 1608—Designation of Component of Department of Defense Responsible for Coordination of Hosted Payload Information .....	000
Section 1609—Limitation on Availability of Funds for Joint Space Op- erations Center Mission System .....	000
Section 1610—Evaluation and Enhanced Security of Supply Chain for Protected Satellite Communications Programs and Overhead Per- sistent Infrared Systems .....	000
Section 1611—Report on Protected Satellite Communications .....	000
Section 1612—Plan on Space Warfighting Readiness .....	000
Section 1613—Study on Space-Based Radio Frequency Mapping .....	000
Section 1614—Plan to Provide Persistent Weather Imagery for United States Central Command .....	000
Subtitle B—Defense Intelligence and Intelligence-Related Activities .....	000
Section 1621—Role of Under Secretary of Defense for Intelligence .....	000
Section 1622—Security Clearance for Dual Nationals .....	000
Section 1623—Department of Defense Counterintelligence Polygraph Program .....	000
Section 1624—Defense Intelligence Business Management Systems .....	000
Section 1625—Modification to Annual Briefing on the Intelligence, Sur- veillance, and Reconnaissance Requirements of the Combatant Com- mands .....	000
Section 1626—Prohibition on the Availability of Funds for Department of Defense Assuming Background Investigation Mission for the Fed- eral Government .....	000
Subtitle C—Cyberspace-Related Matters .....	000
Section 1631—Amendments to Pilot Program Regarding Cyber Vulner- abilities of Department of Defense Critical Infrastructure .....	000
Section 1632—Budget Display for Cyber Vulnerability Evaluations and Mitigation Activities for Major Weapon Systems of the Department of Defense .....	000
Section 1633—Transfer of Responsibility for the Department of Defense Information Network to United States Cyber Command .....	000
Section 1634—Pilot Program Authority to Enhance Cybersecurity and Resiliency of Critical Infrastructure .....	000
Section 1635—Pilot Program on Regional Cyber Security Training Cen- ter for the Army National Guard .....	000
Section 1636—Procedures and Reporting Requirement on Cybersecurity Breaches and Loss of Personally Identifiable Information .....	000
Section 1637—Cyber Institutes at the Senior Military Colleges .....	000
Section 1638—Study and Report on Reserve Component Cyber Civil Support Teams .....	000

	Page
Subtitle D—Nuclear Forces .....	000
Section 1641—Under Secretary of Defense for Research and Engineer- ing and the Nuclear Weapons Council .....	000
Section 1642—Long-Range Standoff Weapon Requirements .....	000
Section 1643—Acceleration of Ground-Based Strategic Deterrent Pro- gram and Long-Range Standoff Weapon Program .....	000
Section 1644—Procurement Authority for Certain Parts of Interconti- nental Ballistic Missile Fuzes .....	000
Section 1645—Prohibition on Reduction of the Intercontinental Ballistic Missiles of the United States .....	000
Section 1646—Extension of Prohibition on Availability of Funds for Mobile Variant of Ground-Based Strategic Deterrent Missile .....	000
Section 1647—Independent Study on Nuclear Weapons Launch-Under- Attack Option .....	000
Section 1648—Extension of Annual Report on the Plan for the Nuclear Weapons Stockpile, Nuclear Weapons Complex, Nuclear Weapons De- livery Systems, and Nuclear Weapons Command and Control System .....	000
Section 1649—Sense of Congress on Nuclear Posture of the United States .....	000
Section 1650—Sense of Congress on Extended Nuclear Deterrence in the Indo-Pacific Region .....	000
Subtitle E—Missile Defense Programs .....	000
Section 1661—Development of Persistent Space-Based Sensor Architec- ture .....	000
Section 1662—Boost Phase Ballistic Missile Defense .....	000
Section 1663—Improvements to Research and Development and Acqui- sition Processes of Missile Defense Agency .....	000
Section 1664—Layered Defense of the United States Homeland .....	000
Section 1665—Testing of Redesigned Kill Vehicle Prior to Production .....	000
Section 1666—Requirements for Ballistic Missile Defense Capable Ships .....	000
Section 1667—Multiyear Procurement Authority for Standard Missile- 3 Block IB Missiles .....	000
Section 1668—Limitation on Availability of Funds for Army Lower Tier Air and Missile Defense Sensor .....	000
Section 1669—Missile Defense Radar in Hawaii .....	000
Section 1670—Reports on Unfunded Priorities of the Missile Defense Agency .....	000
Section 1671—Report on Ballistic Missile Defense .....	000
Section 1672—Sense of Congress on Missile and Rocket Defense Co- operation between the United States and Israel .....	000
Subtitle F—Other Matters .....	000
Section 1681—Extension of Commission to Assess the Threat to the United States from Electromagnetic Pulse Attacks and Similar Events .....	000
Section 1682—Procurement of Ammonium Perchlorate and Other Chemicals for Use in Solid Rocket Motors .....	000
Section 1683—Conventional Prompt Global Strike Hypersonic Capabili- ties .....	000
Section 1684—Report Regarding Industrial Base for Large Solid Rocket Motors .....	000
Section 1685—National Intelligence Estimate with Respect to Russian and Chinese Interference in Democratic Countries .....	000
DIVISION B—MILITARY CONSTRUCTION AUTHORIZATIONS .....	000
PURPOSE .....	000
MILITARY CONSTRUCTION AND FAMILY HOUSING OVERVIEW .....	000
Section 2001—Short Title .....	000
Section 2002—Expiration of Authorizations and Amounts Required To Be Specified by Law .....	000
Section 2003—Effective Date .....	000
TITLE XXI—ARMY MILITARY CONSTRUCTION .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
LEGISLATIVE PROVISIONS .....	000
Section 2101—Authorized Army Construction and Land Acquisition Projects .....	000



XXIII

	Page
Section 2102—Family Housing .....	000
Section 2103—Authorization of Appropriations, Army .....	000
Section 2104—Extension of Authorizations of Certain Fiscal Year 2015 Projects .....	000
TITLE XXII—NAVY MILITARY CONSTRUCTION .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
Aegis Ashore Poland Austere Housing .....	000
Infrastructure in Support of Submarine Training and Operational Re- quirements .....	000
Public Shipyard Infrastructure .....	000
Red Hill Bulk Underground Fuel Storage Facility .....	000
Tijuana Sewage Runoff .....	000
LEGISLATIVE PROVISIONS .....	000
Section 2201—Authorized Navy Construction and Land Acquisition Projects .....	000
Section 2202—Family Housing .....	000
Section 2203—Improvements to Military Family Housing Units .....	000
Section 2204—Authorization of Appropriations, Navy .....	000
TITLE XXIII—AIR FORCE MILITARY CONSTRUCTION .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
Infrastructure Investments in Support of Research and Development Contracts .....	000
LEGISLATIVE PROVISIONS .....	000
Section 2301—Authorized Air Force Construction and Land Acquisition Projects .....	000
Section 2302—Family Housing .....	000
Section 2303—Improvements to Military Family Housing Units .....	000
Section 2304—Authorization of Appropriations, Air Force .....	000
Section 2305—Modification of Authority to Carry Out Certain Phased Project Authorized in Fiscal Years 2015, 2016, and 2017 .....	000
Section 2306—Modification of Authority to Carry Out Certain Fiscal Year 2017 Project .....	000
Section 2307—Modification of Authority to Carry Out Certain Fiscal Year 2018 Project .....	000
Section 2308—Additional Authority to Carry Out Certain Fiscal Year 2019 Projects .....	000
Section 2309—Additional Authority to Carry Out Project at Travis Air Force Base, California, in Fiscal Year 2019 .....	000
TITLE XXIV—DEFENSE AGENCIES MILITARY CONSTRUCTION .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
LEGISLATIVE PROVISIONS .....	000
Section 2401—Authorized Defense Agencies Construction and Land Ac- quisition Projects .....	000
Section 2402—Authorized Energy Conservation Projects .....	000
Section 2403—Authorization of Appropriations, Defense Agencies .....	000
Section 2404—Extension of Authorizations of Certain Fiscal Year 2015 Projects .....	000
TITLE XXV—INTERNATIONAL PROGRAMS .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Facilities and Infrastructure for U.S. Military Personnel at North At- lantic Treaty Organization Host Nation Bases .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—North Atlantic Treaty Organization Security Investment Pro- gram .....	000
Section 2501—Authorized NATO Construction and Land Acquisition Projects .....	000
Section 2502—Authorization of Appropriations, NATO .....	000
Subtitle B—Host Country In-Kind Contributions .....	000
Section 2511—Republic of Korea Funded Construction Projects .....	000
TITLE XXVI—GUARD AND RESERVE FORCES FACILITIES .....	000

	Page
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Project Authorizations and Authorization of Appropriations ...	000
Section 2601—Authorized Army National Guard Construction and Land Acquisition Projects .....	000
Section 2602—Authorized Army Reserve Construction and Land Acqui- sition Projects .....	000
Section 2603—Authorized Navy Reserve and Marine Corps Reserve Construction and Land Acquisition Projects .....	000
Section 2604—Authorized Air National Guard Construction and Land Acquisition Projects .....	000
Section 2605—Authorized Air Force Reserve Construction and Land Acquisition Projects .....	000
Section 2606—Authorization of Appropriations, National Guard and Reserve .....	000
Subtitle B—Other Matters .....	000
Section 2611—Modification of Authority to Carry Out Certain Fiscal Year 2016 Project .....	000
Section 2612—Modification of Authority to Carry Out Certain Fiscal Year 2018 Project .....	000
Section 2613—Additional Authority to Carry Out Certain Fiscal Year 2019 Project .....	000
TITLE XXVII—BASE REALIGNMENT AND CLOSURE ACTIVITIES .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
LEGISLATIVE PROVISIONS .....	000
Section 2701—Authorization of Appropriations for Base Realignment and Closure Activities Funded through Department of Defense Base Closure Account .....	000
Section 2702—Additional Authority to Realign or Close Certain Mili- tary Installations .....	000
Section 2703—Prohibition on Conducting Additional Base Realignment and Closure (BRAC) Round .....	000
TITLE XXVIII—MILITARY CONSTRUCTION GENERAL PROVISIONS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Allied Pilot Training on Advanced Pilot Trainer .....	000
Comptroller General Review of Utilities Privatization .....	000
Core Sampling at Joint Base San Antonio .....	000
Department of Defense Lands Leases in Hawaii .....	000
Incremental Funding of Military Construction Projects .....	000
Naval Academy Dairy Farm .....	000
Operational Energy Technologies .....	000
Privatization of On-Base Lodging .....	000
Relocation of Defense Non-Tactical Generator and Rail Equipment Cen- ter, Hill Air Force Base, Utah .....	000
Wireless Communications on Base .....	000
Yucca Mountain .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Military Construction Program and Military Family Housing	000
Section 2801—Commercial Construction Standards for Facilities on Leased Property .....	000
Section 2802—Extension of Temporary, Limited Authority to Use Oper- ation and Maintenance Funds for Construction Projects Outside the United States .....	000
Section 2803—Small Business Set-Aside for Contracts for Architectural and Engineering Services and Construction Design .....	000
Section 2804—Authority to Obtain Architectural and Engineering Serv- ices and Construction Design for Defense Laboratory Modernization Program .....	000
Section 2805—Repeal of Limitation on Certain Guam Project .....	000
Section 2806—Enhancing Force Protection and Safety on Military In- stallations .....	000
Section 2807—Limitation on Use of Funds for Acquisition of Furnished Energy for New Medical Center in Germany .....	000

	Page
Section 2808—Treatment of Leases of Non-Excess Property Entered into with Insured Depository Institutions .....	000
Subtitle B—Real Property and Facilities Administration .....	000
Section 2811—Optional Participation in Collection of Information on Unutilized and Underutilized Military Installation Properties Available for Homeless Assistance .....	000
Section 2812—Force Structure Plans and Infrastructure Capabilities Necessary to Support the Force Structure .....	000
Section 2813—Retrofitting Existing Windows in Military Family Housing Units To Be Equipped with Fall Prevention Devices .....	000
Section 2814—Updating Prohibition on Use of Certain Assessment of Public Schools on Department of Defense Installations to Supersede Funding of Certain Projects .....	000
Subtitle C—Land Conveyances .....	000
Section 2821—Authority for Transfer of Administrative Jurisdiction over Certain Lands, Marine Corps Air Ground Combat Center Twentynine Palms, California, and Marine Corps Air Station Yuma, Arizona .....	000
Section 2822—Public Inventory of Guam Land Parcels for Transfer to Government of Guam .....	000
Section 2823—Land Conveyance, Naval Academy Dairy Farm, Gambrills, Maryland .....	000
Section 2824—Technical Correction of Description of Limestone Hills Training Area Land Withdrawal and Reservation, Montana .....	000
Section 2825—Land Conveyance, Wasatch-Cache National Forest, Rich County, Utah .....	000
Subtitle D—Military Land Withdrawals .....	000
Section 2831—Indefinite Duration of Certain Military Land Withdrawals and Reservations and Improved Management of Withdrawn and Reserved Lands .....	000
Section 2832—Designation of Potential Wilderness Area .....	000
Subtitle E—Other Matters .....	000
Section 2841—Defense Community Infrastructure Program .....	000
Section 2842—Restrictions on Use of Funds for Development of Public Infrastructure in Commonwealth of Northern Mariana Islands .....	000
Section 2843—Study and Report on Coleman Bridge, York River, Virginia .....	000
Section 2844—Certifications Required Prior to Transfer of Certain Veterans Memorial Object .....	000
TITLE XXIX—OVERSEAS CONTINGENCY OPERATIONS MILITARY CONSTRUCTION .....	000
SUMMARY .....	000
ITEMS OF SPECIAL INTEREST .....	000
Explanation of Funding Adjustments .....	000
LEGISLATIVE PROVISIONS .....	000
Section 2901—Authorized Army Construction and Land Acquisition Projects .....	000
Section 2902—Authorized Navy Construction and Land Acquisition Projects .....	000
Section 2903—Authorized Air Force Construction and Land Acquisition Projects .....	000
Section 2904—Authorized Defense Agencies Construction and Land Acquisition Projects .....	000
Section 2905—Authorization of Appropriations .....	000
Section 2906—Restrictions on Use of Funds for Planning and Design Costs of European Deterrence Initiative Projects .....	000
DIVISION C—DEPARTMENT OF ENERGY NATIONAL SECURITY AUTHORIZATIONS AND OTHER AUTHORIZATIONS .....	000
TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS .....	000
OVERVIEW .....	000
ITEMS OF SPECIAL INTEREST .....	000
National Nuclear Security Administration .....	000
Overview .....	000
Weapons Activities .....	000
Defense Nuclear Security and related construction projects .....	000
Directed Stockpile Work .....	000

	Page
Domestic uranium .....	000
Fusion technology pathways .....	000
Inertial Confinement Fusion .....	000
Infrastructure .....	000
Lithium and tritium .....	000
Report on IW-1 and W78 replacement .....	000
Secure transportation asset and Mobile Guardian Transporter .....	000
Streamlined and innovative approaches to non-nuclear construction projects .....	000
Weapons Activities and the Future Years Nuclear Security Program ..	000
Defense Nuclear Nonproliferation .....	000
Future nuclear proliferation challenges .....	000
Nuclear Counterterrorism and Incident Response program .....	000
Naval Reactors .....	000
Naval Reactors program .....	000
Federal Salaries and Expenses .....	000
Management and operating contracts for national security labora- tories .....	000
Security clearance investigations for the nuclear security enterprise ..	000
Environmental and Other Defense Activities .....	000
Overview .....	000
Defense Environmental Cleanup .....	000
Briefings on vapor events at Hanford Site .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—National Security Programs and Authorizations .....	000
Section 3101—National Nuclear Security Administration .....	000
Section 3102—Defense Environmental Cleanup .....	000
Section 3103—Other Defense Activities .....	000
Section 3104—Nuclear Energy .....	000
Subtitle B—Program Authorizations, Restrictions, and Limitations .....	000
Section 3111—Security Clearance for Dual Nationals Employed by Na- tional Nuclear Security Agency .....	000
Section 3112—Department of Energy Counterintelligence Polygraph Program .....	000
Section 3113—Extension of Enhanced Procurement Authority to Man- age Supply Chain Risk .....	000
Section 3114—Low-Yield Nuclear Weapons .....	000
Section 3115—Use of Funds for Construction and Project Support Ac- tivities Relating to MOX Facility .....	000
Section 3116—Prohibition on Availability of Funds for Programs in Russian Federation .....	000
Section 3117—Prohibition on Availability of Funds for Research and Development of Advanced Naval Nuclear Fuel System Based on Low- Enriched Uranium .....	000
Section 3118—Limitation on Availability of Funds Relating to Submis- sion of Annual Reports on Unfunded Priorities .....	000
Subtitle C—Reports .....	000
Section 3121—Notification Regarding Release of Contamination at Hanford Site .....	000
Subtitle D—Other Matters .....	000
Section 3131—Inclusion of Capital Assets Acquisition Projects in Activi- ties by Director for Cost Estimating and Program Evaluation .....	000
Section 3132—Whistleblower Protections .....	000
TITLE XXXII—DEFENSE NUCLEAR FACILITIES SAFETY BOARD .....	000
LEGISLATIVE PROVISIONS .....	000
Section 3201—Authorization .....	000
TITLE XXXIV—NAVAL PETROLEUM RESERVES .....	000
LEGISLATIVE PROVISIONS .....	000
Section 3401—Authorization of Appropriations .....	000
TITLE XXXV—MARITIME MATTERS .....	000
ITEMS OF SPECIAL INTEREST .....	000
Maritime Security Program .....	000
LEGISLATIVE PROVISIONS .....	000
Subtitle A—Maritime Administration .....	000
Section 3501—Authorization of the Maritime Administration .....	000
Section 3502—Compliance by Ready Reserve Fleet Vessels with SOLAS Lifeboats and Fire Suppression Requirements .....	000

XXVII

	Page
Section 3503—Maritime Administration National Security Multi-Mission Vessel Program .....	000
Section 3504—Permanent Authority of Secretary of Transportation to Issue Vessel War Risk Insurance .....	000
Section 3505—Use of State Maritime Academy Training Vessels .....	000
Subtitle B—Coast Guard .....	000
Section 3521—Alignment with Department of Defense and Sea Services Authorities .....	000
Section 3522—Preliminary Development and Demonstration .....	000
Section 3523—Contract Termination .....	000
Section 3524—Reimbursement for Travel Expenses .....	000
Section 3525—Capital Investment Plan .....	000
Section 3526—Major Acquisition Program Risk Assessment .....	000
Section 3527—Marine Safety Implementation Status .....	000
Section 3528—Retirement of Vice Commandant .....	000
Section 3529—Large Commercial Yacht Code .....	000
Subtitle C—Coast Guard and Shipping Technical Corrections .....	000
Chapter 1—Coast Guard .....	000
Section 3531—Commandant Defined .....	000
Section 3532—Training Course on Workings of Congress .....	000
Section 3533—Miscellaneous .....	000
Section 3534—Department of Defense Consultation .....	000
Section 3535—Repeal .....	000
Section 3536—Mission Need Statement .....	000
Section 3537—Continuation on Active Duty .....	000
Section 3538—System Acquisition Authorization .....	000
Section 3539—Inventory of Real Property .....	000
Chapter 2—Maritime Transportation .....	000
Section 3541—Definitions .....	000
Section 3542—Authority to Exempt Vessels .....	000
Section 3543—Passenger Vessels .....	000
Section 3544—Tank Vessels .....	000
Section 3545—Grounds for Denial or Revocation .....	000
Section 3546—Miscellaneous Corrections to Title 46, U.S.C. ....	000
Section 3547—Miscellaneous Corrections to Oil Pollution Act of 1990 .....	000
Section 3548—Miscellaneous Corrections .....	000
DIVISION D—FUNDING TABLES .....	000
Section 4001—Authorization of Amounts in Funding Tables .....	000
Summary of National Defense Authorizations for Fiscal Year 2019 .....	000
National Defense Budget Authority Implication .....	000
TITLE XLI—PROCUREMENT .....	000
Section 4101—Procurement .....	000
Section 4102—Procurement for Overseas Contingency Operations .....	000
TITLE XLII—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION .....	000
Section 4201—Research, Development, Test, and Evaluation .....	000
Section 4202—Research, Development, Test, and Evaluation for Overseas Contingency Operations .....	000
TITLE XLIII—OPERATION AND MAINTENANCE .....	000
Section 4301—Operation and Maintenance .....	000
Section 4302—Operation and Maintenance for Overseas Contingency Operations .....	000
TITLE XLIV—MILITARY PERSONNEL .....	000
Section 4401—Military Personnel .....	000
Section 4402—Military Personnel for Overseas Contingency Operations .....	000
TITLE XLV—OTHER AUTHORIZATIONS .....	000
Section 4501—Other Authorizations .....	000
Section 4502—Other Authorizations for Overseas Contingency Operations .....	000
TITLE XLVI—MILITARY CONSTRUCTION .....	000
Section 4601—Military Construction .....	000
Section 4602—Military Construction for Overseas Contingency Operations .....	000
TITLE XLVII—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS .....	000
Section 4701—Department of Energy National Security Programs .....	000

XXVIII

	Page
Department of Defense Authorization Request .....	000
Communications from Other Committees .....	000
Congressional Budget Office Estimate .....	000
Statement Required by the Congressional Budget Act .....	000
Committee Cost Estimate .....	000
Advisory of Earmarks .....	000
Oversight Findings .....	000
General Performance Goals and Objectives .....	000
Statement of Federal Mandates .....	000
Federal Advisory Committee Statement .....	000
Applicability to the Legislative Branch .....	000
Duplication of Federal Programs .....	000
Disclosure of Directed Rule Makings .....	000
Committee Votes .....	000
Changes in Existing Law Made by the Bill, as Reported .....	000
Additional Views .....	000
Dissenting Views .....	000

115TH CONGRESS }  
2d Session } HOUSE OF REPRESENTATIVES { REPORT  
115-

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NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL  
YEAR 2019

\_\_\_\_\_  
MAY --, 2018.—Committed to the Committee of the Whole House on the State of the  
Union and ordered to be printed

\_\_\_\_\_  
Mr. THORNBERRY, from the Committee on Armed Services,  
submitted the following

R E P O R T

together with

ADDITIONAL AND DISSENTING VIEWS

[To accompany H.R. 5515]

[Including cost estimate of the Congressional Budget Office]

The Committee on Armed Services, to whom was referred the bill (H.R. 5515) to authorize appropriations for fiscal year 2019 for military activities of the Department of Defense and for military construction, to prescribe military personnel strengths for such fiscal year, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill as amended do pass.

The amendments are as follows:

The amendment strikes all after the enacting clause of the bill and inserts a new text which appears in italic type in the reported bill.

The title of the bill is amended to reflect the amendment to the text of the bill.

## PURPOSE OF THE LEGISLATION

The bill would: (1) authorize appropriations for fiscal year 2019 for procurement and for research, development, test, and evaluation (RDT&E); (2) authorize appropriations for fiscal year 2019 for operation and maintenance (O&M) and for working capital funds; (3) authorize for fiscal year 2019 the personnel strength for each Active Duty component of the military departments, and the personnel strength for the Selected Reserve for each Reserve Component of the Armed Forces; (4) modify various elements of compensation for military personnel and impose certain requirements and limitations on personnel actions in the defense establishment; (5) authorize appropriations for fiscal year 2019 for military construction and family housing; (6) authorize appropriations for Overseas Contingency Operations; (7) authorize appropriations for fiscal year 2019 for the Department of Energy national security programs; and (8) authorize appropriations for fiscal year 2019 for the Maritime Administration.

## RATIONALE FOR THE COMMITTEE BILL

H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019, is a key mechanism through which Congress fulfills one of its primary responsibilities as mandated in Article I, Section 8, of the Constitution of the United States, which grants Congress the power to provide for the common defense, to raise and support an Army, to provide and maintain a Navy, and to make rules for the government and regulation of the land and naval forces. Rule X of the House of Representatives provides the House Committee on Armed Services with jurisdiction over the Department of Defense generally and over the military application of nuclear energy. The committee bill includes findings and recommendations resulting from its oversight activities, conducted through hearings, briefings, and roundtable discussions with Department of Defense and Department of Energy civilian and military officials, intelligence analysts, outside experts, and industry representatives, and it is informed by institutional experience.

The committee believes that America's military faces strategic challenges, including the re-emergence of strategic competitors such as the Russian Federation and the People's Republic of China; threats posed by the Islamic Republic of Iran and the Democratic People's Republic of Korea; and those posed by the Islamic State of Iraq and the Levant, al-Qaida, and other terrorist groups. H.R. 5515 adheres to the Bipartisan Budget Act of 2018, and it provides the Department of Defense and the Department of Energy with important policy authorities to speed decision making and improve agility, while restoring readiness and increasing capabilities and capacities.

### *National Defense Strategy*

H.R. 5515 builds on the National Defense Strategy's recognition of long-term strategic competition. It empowers the Under Secretary of Defense for Policy



to develop, implement, and integrate Department of Defense activities across all geographic regions and military functions and domains, and to lead the integration of Department of Defense activities across the interagency of the Federal Government.

With respect to Russia, the bill maintains the long-standing prohibition of military-to-military cooperation with Russia; it maintains the prohibition of U.S. Government recognition of the illegal occupation of Crimea; it funds the President's request of \$250.0 million for assistance to Ukraine, including for lethal defensive items; and, it funds the President's request for \$6.3 billion for the European Defense Initiative (EDI) to further reinforce the U.S. presence in Europe, and it moves the EDI-request for the Army Pre-positioned Stock United Set to the base budget.

With respect to the whole-of-society plans of the Chinese Community Party of the People's Republic of China (PRC), the bill directs the creation of a whole-of-government strategy to confront these plans; it improves security cooperation to counter the PRC's rising influence in Africa, Southeast Asia, and other regions; and, it improves Taiwan's self-defense capabilities by expanding joint training, foreign military sales, the use of security cooperation authorities, and senior-level military-to-military engagement initiatives.

H.R. 5515 also continues the committee's efforts to reorganize the U.S. Government's efforts with respect to malign foreign influence operations and campaigns by directing the President to designate an official on the staff of the National Security Council to coordinate a whole-of-government response to these operations and campaigns.

### *Impacts on Military Preparedness*

The committee is particularly concerned by the state of military readiness. In 2017, nearly four times as many members of the military died in training accidents as were killed in combat. In all, 21 service members died in combat while 80 died as a result of non-combat, training-related accidents. This spring alone, 25 were killed in military aviation mishaps. In 2017, there were a total of 60 Class-A aviation mishaps across the services.

These mishaps are not limited to military aviation. This past summer, the Navy lost 17 Sailors in separate collisions involving the USS John S. McCain and the USS Fitzgerald.

H.R. 5515 makes it a top priority of the Department of Defense to increase training of the Joint Force to promote readiness. The funding will allow the Army to conduct 20 Combat Training Center rotations in fiscal year 2019, including 4 rotations for the Army National Guard, doubling the number of Brigade Combat Teams sent to the Center. It will authorize funding for the Army to hold two Security Force Assistance Brigade (SFAB) culminating training events a year, enhancing the Army's combat capability and capacity. The funding in the National Defense Authorization Act for Fiscal Year 2019 enables the Marine Corps to continue maximizing the capacity of their full-spectrum collective training exercises

to help restore the capability of the Marine Air-Ground Task Force. H.R. 5515 includes increased funding for equipment maintenance, spare parts, and training to rebuild readiness for ships, aircraft squadrons, and ground units.

The proposal fully supports the President's budget request of \$2.8 billion for the procurement of spare airplane parts for the Navy, Marine Corps, and Air Force. And it also provides \$21.8 billion for equipment maintenance and \$3.7 billion for spare parts; this represents an increase of \$927.9 million over the Fiscal Year 2018 Omnibus.

H.R. 5515 also takes specific steps to restore and rebuild the readiness of the U.S. Navy. It directs the Navy to provide clear chains of command for operations, for building readiness, and for shipyard maintenance. It would limit the time a Navy vessel is forward deployed to more than 10 years, and it would increase the number of Navy vessels authorized for construction. It accelerates construction of the fourth Ford-class aircraft carrier, authorizes two additional Littoral Combat Ships, and supports two additional Virginia-class attack submarines in fiscal years 2022 and 2023.

### *Reforming the Department of Defense: Promoting Efficiency, Effectiveness, and Agility*

The FY16, FY17 and FY18 National Defense Authorization Acts (NDAAs) included several reforms to the Department of Defense, including reforms to the Department's acquisition processes and to the Office of the Secretary of Defense.

H.R. 5515 focuses on the defense agencies and field activities (DAFAs) that are not part of a military service and do not report directly to the Secretary of Defense. It empowers the newly-created Department of Defense Chief Management Officer (CMO) to eliminate redundancy and cross enterprise activities (e.g., logistics, civilian resource management, real property management, and services contracting). It also requires the CMO to review and assess the function of each DAFA to validate its usefulness to the Joint Force or to recommend its elimination or transformation.

## HEARINGS

Committee consideration of the National Defense Authorization Act for Fiscal Year 2019 results from posture and budget-related hearings that began on February 14, 2018, and that were completed on April 19, 2018. The full committee conducted 9 hearings and the 6 subcommittees conducted a total of 23 sessions during this time period. Additionally, over the past year, the committee conducted numerous policy and program oversight hearings, including hearings in support of its reform initiatives, to inform its development of the legislative proposals contained in this Act.

## COMMITTEE POSITION

On May 9, 2018, the Committee on Armed Services held a markup session to consider H.R. 5515. The committee ordered the bill H.R. 5515, as amended, favorably reported to the House of Representatives by a recorded vote of 60-1, a quorum being present.

## EXPLANATION OF THE COMMITTEE AMENDMENTS

The committee adopted an amendment in the nature of a substitute during the consideration of H.R. 5515. The title of the bill is amended to reflect the amendment to the text of the bill. The remainder of the report discusses the bill, as amended.

## RELATIONSHIP OF AUTHORIZATION TO APPROPRIATIONS

The bill does not provide budget authority. This bill authorizes appropriations; subsequent appropriations acts will provide budget authority. However, the committee strives to adhere to the recommendations as issued by the Committee on the Budget as it relates to the jurisdiction of this committee.

The bill addresses the following categories in the Department of Defense budget: procurement; research, development, test, and evaluation; operation and maintenance; military personnel; working capital funds; and military construction and family housing. The bill also addresses the Armed Forces Retirement Home, Department of Energy National Security Programs, the Naval Petroleum Reserve, and the Maritime Administration.

Active Duty and Reserve personnel strengths authorized in this bill and legislation affecting compensation for military personnel determine the remaining appropriation requirements of the Department of Defense. However, this bill does not provide authorization of specific dollar amounts for military personnel.

## SUMMARY OF DISCRETIONARY AUTHORIZATIONS IN THE BILL

The President requested discretionary budget authority of \$708.1 billion for programs within the jurisdiction of the committee for fiscal year 2019. Of this amount, \$617.1 billion was requested for “base” Department of Defense programs, \$69.0 billion was requested for Overseas Contingency Operations requirements covering the entire fiscal year, \$21.8 billion was requested for Department of Energy national security programs and the Defense Nuclear Facilities Safety Board, and \$0.2 billion was requested for defense-related activities associated with the Maritime Administration.

The committee recommends an overall discretionary authorization of \$708.1 billion in fiscal year 2019. The committee authorization is a \$16.0 billion increase above the levels provided for in the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

The table preceding the detailed program adjustments in division D of this report summarizes the committee’s recommended discretionary authorizations by

appropriation account for fiscal year 2019 and compares these amounts to the President's request.

### BUDGET AUTHORITY IMPLICATION

The President's total request for the national defense budget function (050) in fiscal year 2019 is \$725.5 billion, as estimated by the Congressional Budget Office. In addition to funding for programs addressed in this bill, the total 050 request includes discretionary funding for national defense programs not in the committee's jurisdiction, discretionary funding for programs that do not require additional authorization in fiscal year 2019, and mandatory programs.

The table preceding the detailed program adjustments in division D of this report details changes to the budget request for all aspects of the national defense budget function.

# DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

## TITLE I—PROCUREMENT

### AIRCRAFT PROCUREMENT, ARMY

#### Items of Special Interest

##### *Apache attack helicopters*

The committee understands the Army's current aviation modernization and equipping strategy that resulted from the Army's Aviation Restructure Initiative currently resources the Army National Guard (ARNG) to retain 4 attack reconnaissance battalions for a total of 72 AH-64 Apache attack helicopters. The committee notes that these ARNG attack reconnaissance battalions would be equipped with 18 AH-64 attack helicopters as compared to the Active Component battalions that are equipped with 24 AH-64 attack helicopters. The committee is aware the ARNG is no longer solely the strategic reserve of the past, but also an operational force, and provides significant capability through rotational support to combatant commanders. The committee believes that given the current global threat environment, reliance on ARNG capabilities is expected to increase.

Therefore, the committee believes that all 4 ARNG attack reconnaissance battalions should be equipped with 24 AH-64 attack helicopters, the same as Active Component battalions, in order to improve overall readiness and compatibility between the ARNG and Active Component. The committee encourages the Secretary of the Army to plan, program, and budget for 24 additional AH-64 attack helicopters to address ARNG requirements across the Future Years Defense Program.

##### *Light utility helicopter*

The budget request included \$6.4 million for utility helicopter modifications to the UH-60 Black Hawk and the UH-72A Lakota helicopters, but contained no funding for UH-72A life-cycle sustainment and product improvements. The UH-72A Lakota helicopter provides general aviation support for aviation units in the Active and Reserve Components. The committee supports the requirement to conduct mid-life sustainment and product improvement activities for the UH-72A, and includes funding to conduct the analysis, engineering, certification, and risk reduction activities necessary to update the UH-72A Life Cycle Support Plan. The committee also recognizes that the UH-72A was initially fielded without aircraft survivability equipment, which could potentially limit the Active Component and Army National Guard's utilization of the UH-72A platform. As reflected in Division D of this Act, the committee recommends additional funding for the National Guard and Reserve Component Equipment Account (NGREA). The committee understands that while

no requirements have been formally identified for UH-72A Lakota ballistic armor or aircraft survivability equipment by the National Guard Bureau, should a requirement be put forth, the committee expects the Army National Guard to utilize NGREA funds.

The committee recommends \$16.4 million, an increase of \$10.0 million, in utility helicopter modifications for UH-72A life-cycle sustainment and product improvements. Further, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by February 8, 2019, on the Army's long-term sustainment strategy for the UH-72A Lakota helicopter fleet.

#### *Report on efforts to reduce operational and maintenance costs for CH-47*

The committee is aware the Army has recently validated a new specification for an improved thermal-acoustic blanket for CH-47 helicopters, which does not appear to be reflected in the logistics and material databases and support system. By greatly improving capabilities over current blankets, including dry/wet weight, air permeability, thermal and acoustic insulation, and durability the Army has developed a cost-effective way to significantly reduce operational and maintenance costs for the heavy lift fleet. The committee commends the Army for this effort, and directs the Secretary of the Army to provide a briefing to the Armed Services Committees of the House of Representatives and Senate no later than September 28, 2018 detailing plans to outfit all current and future CH-47s with this enhanced capability and the status of the material and logistics supply chain's incorporation of this new specification. The briefing should include a schedule for fielding blankets for the current fleet and the status of inserting the new specification into CH-47 block II production.

#### *Unmanned aerial system units for Army National Guard*

The committee understands the Army's current fielding plan for MQ-1C Gray Eagle units includes Active Duty combat aviation brigades and intelligence units, and that at present no systems are planned for fielding to the Army National Guard. However, the committee notes that there are many missions involving military support to civilian authorities for which the MQ-1C Gray Eagle could contribute, including wildfire response, search and rescue, border security, counter-narcotics, and communications support during emergencies. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by March 1, 2019, on the potential utility, feasibility, and cost of establishing MQ-1C Gray Eagle units in the Army National Guard. The briefing shall include, at a minimum, a detailed analysis of the resources needed to create a minimum of two Gray Eagle companies in the Army National Guard, and an analysis of how such units could provide support to civilian authorities for domestic emergencies.

## MISSILE PROCUREMENT, ARMY

### Items of Special Interest

#### *Stinger missile modernization program*

The committee supports the Army's accelerated strategy to restore capacity and capability in Short-Range Air Defense (SHORAD) teams, to include reconstituting man-portable air defense teams using Stinger missiles to counter current and emerging threats from fixed-wing aircraft, rotary-wing aircraft, and unmanned air systems (UAS). However, the committee has significant concerns regarding the adequacy of the Army's Stinger missile inventory, as well as the resiliency of the associated industrial base that produces key components, including those required for the Stinger missile seeker.

The committee recognizes the requirement for Stinger missiles will likely increase as a result of increased demand for SHORAD capability. The Army's current acquisition strategy does not include any new production of Stinger missiles, and instead implements a service life extension program (SLEP) for existing Stinger missiles. The committee notes that the last new Stinger missile was produced in 2001, and that missiles expire annually due to attrition and decay. While the Stinger SLEP program does extend the missile life by 10 years and improves counter-UAS capability by adding a proximity fuze, the current SLEP program will not mitigate the decline in Stinger missile inventory. Further, the Stinger SLEP program does not address the capability of the Stinger guidance section, electronics or seeker.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by December 3, 2018, on the Stinger Modernization Program. The briefing should address the Army's strategy to mitigate the decline of the Stinger missile inventory, to include required funding, maintenance of the Stinger industrial base, and modernization of the Stinger program in the out-years.

## PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

### Items of Special Interest

#### *Armored brigade combat team modernization*

In the committee report accompanying the National Defense Authorization Act for Fiscal Year 2018 (H. Rept. 115-200), the committee expressed concerns about the stability of armored brigade combat team (ABCT) modernization funding in fiscal year 2018 and beyond, noting that the Army was currently modernizing one ABCT every 2 years at best. Furthermore, in H. Rept. 115-200 the committee encouraged the Army to fully modernize at least one ABCT per year, and the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91)

authorized the additional funding necessary to modernize one complete ABCT. The committee is encouraged by the Army's increased investment for ABCT modernization in the budget request.

Given this increased investment for ABCT modernization, the committee believes the Army should examine the cost benefits of using multiyear procurement contracts for combat vehicle platforms comprising ABCTs. However, the committee is also aware the Army has concerns over the loss of fiscal flexibility that occurs when it commits to a multiyear contract.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by December 3, 2018, on the results of a cost-benefit analysis comparing a traditional 5-year multiyear contract for ABCT platforms with an alternative 3-year multiyear contract with 2 successive single-year options.

In addition, the committee is concerned that the Army's current nomenclature for a critical part of the ABCT, the M1 Abrams tank, has become so complicated that it fails to communicate the importance of the Army's planned upgrades for the tank. Specifically, the committee is concerned that Army's use of "M1A1 situational awareness," "M1A2 system enhancement program version 3," and "M1A2 system enhancement program version 4" to refer to Army upgrade programs for the M1 Abrams tank fails to clearly and concisely convey the significant capability upgrades resident in these efforts. The committee encourages the Army to change, as soon as possible, to clearer M1 Abrams upgrade program descriptions such as the "M1A3" and "M1A4" to more efficiently describe these programs. The committee believes that such a change does not require any additional testing or funding.

#### *M240 medium machine gun modernization*

The committee is concerned the Army may be assuming too much risk in the small arms industrial base with respect to the family of M240 medium machine guns. Current funding profiles could lead to a potential production line shutdown. The shutdown of existing production lines would create significant operational impacts if requirements increase. The committee notes that the budget request included \$2.1 million for M240 production; however, no funding is projected for new production in fiscal year 2020 or fiscal year 2021. The committee encourages the Army to closely monitor this critical industrial base and work with the original equipment manufacturer to develop courses of action to ensure the production line remains viable and capable of supporting potential increased requirements.

The committee directs the Secretary of the Army to provide a briefing to the Committee on Armed Services of the House of Representatives by September 28, 2018. This briefing shall include, at a minimum:

- (1) the projected service life of the current M240 inventory;
- (2) the Army's plan and schedule to replace the current M240 inventory either with newer M240 models or an entirely new system;



(3) how the Army will address increased requirements caused by increases in end strength and combat formations;

(4) relevant cost analysis for restarting the M240 production line after a period of dormancy; and

(5) a description of interaction and communication with the original equipment manufacturer regarding capacity challenges and minimum sustaining production rates.

Additionally, the committee directs the Secretary of the Army to provide an advisability and feasibility study to the House Committee on Armed Services by September 28, 2018, on transitioning the existing fleet of M240B medium machine guns to the lighter-weight M240L configuration. This assessment shall include the estimated costs associated with this transition and using current inventories of M240Bs.

### *M3E1 Carl Gustaf weapon system*

The committee understands the M3E1 Carl Gustaf is the Army's current platform for addressing the Army's multi-role anti-armor anti-personnel weapon system requirement. The committee notes that the Army is implementing a directed requirement signed in January 2017 to expand the fielding of lightweight Carl Gustaf systems to infantry and scout platoons in its infantry brigade combat teams and Stryker brigade combat teams.

The committee notes, however, that the Army does not have plans or funding for a precision-guided round for the Carl Gustaf that will provide pinpoint, multitarget engagement capability at substantially extended ranges. The committee is aware of an emerging U.S. Special Operations Command requirement for a Guided Carl Gustaf Munition and encourages the Army to accelerate development and production of a precision-guided round for the Carl Gustaf weapon system.

### *Paladin Integrated Management*

The base budget request included \$351.8 million for 30 M109A7 Paladin Integrated Management (PIM) self-propelled howitzers. The M109A7 PIM program modernizes the legacy M109A6 Paladin self-propelled howitzer and M992A2 Field Artillery Ammunition Support Vehicle.

The committee has worked closely with the Army to stabilize production for combat vehicle programs and armored brigade combat team modernization in order to maintain overmatch against near-peer and peer strategic competitors. As such, the committee is concerned that the Army's budget request for the Paladin Integrated Management program does not adequately fund the current production contract. The committee notes that the Army has decreased planned PIM funding in fiscal year 2019 by approximately \$237.0 million and that this funding decrease has resulted in a loss of 24 vehicle sets below the original 60 sets authorized under the contract. Furthermore, the committee understands the Army plans to increase production back to 60 sets per year beginning in fiscal year 2020. The committee

believes this variance from planned and contracted funding amounts could cause significant disruptions to the PIM supply chain. The committee encourages the Army to maintain funding for PIM consistent with the 60 vehicles sets per year included in its current production contract.

Therefore, the committee recommends \$426.8 million, an increase of \$75.0 million, to increase production for the M109A7 PIM program.

### *Stryker upgrades*

The budget request contained \$21.9 million for the procurement of three conversions of Stryker flat-bottom hull vehicles to the Double V-Hull (DVH) configuration with Engineering Change Proposal (ECP) 1 upgrades resulting in a Stryker DVHA1 vehicle to be fielded in Stryker brigade combat teams (SBCTs). The budget request also contained \$287.5 million for Stryker vehicle modifications to resolve reliability, lethality, safety, operational, and performance degradation issues in Stryker vehicles.

The committee understands the Stryker DVHA1 ECP addresses mobility and electrical power degradation issues resulting from over 10 years supporting overseas contingency combat operations, as well as other improvements in network capability intended to provide the platform for future evolution of the fleet. The committee notes that the Chief of Staff of the Army just recently completed an assessment of Stryker program priorities and directed that all six remaining SBCTs convert to the Stryker DVHA1 configuration. The committee supports this directed requirement, and believes the conversion would provide SBCTs with a more survivable vehicle, as well as regain the mobility and automotive performance lost due to the additional weight of the existing survivability upgrades. To facilitate and support this effort in fiscal year 2019, the committee notes the Army has requested realignment of \$149.3 million from the Stryker modification budget request, and also has identified new unfunded requirements for Stryker upgrades.

The committee recommends an additional \$188.8 million to accelerate Stryker DVHA1 upgrades for SBCTs. The committee also recommends the realignment of \$149.3 million from the Stryker modification budget request for Stryker DVHA1 upgrades. The committee recommends a total of \$360.0 million, a total increase of \$337.3 million, for Stryker DVHA1 upgrades.

## PROCUREMENT OF AMMUNITION, ARMY

### Items of Special Interest

#### *M58 MICLIC*

The committee has continuing interest in the Department of Defense's plans to modify and upgrade the M58 Mine Clearing Line Charge (MICLIC). This antiquated system has been employed by the United States Marine Corps and U.S. Army since the Vietnam-era. Since the beginning of the Global War on Terrorism,

enemy mines and improvised explosive devices (IEDs) have been used to counter U.S. ground mobility assets. The past 17 years of conflict, coupled with recent trends indicate that these types of defensive tactics and techniques will be used in future engagements. While the enemy continues to adapt, the M58 MICLIC costs \$83.6K per system and has not seen any significant upgrade in capability since its introduction.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than February 1, 2019, on the Army's plan for upgrading or replacing the M58 MICLIC. The briefing should include:

- (1) A description of current MICLIC employment statistics and mission requirements
- (2) An overview of a plan and timeline to upgrade the current system or field a newer variant
- (3) The costs associated with the research, development, test, and evaluation of a new system
- (4) Any employment or effectiveness shortfalls with the current M58 system.

#### OTHER PROCUREMENT, ARMY

##### Items of Special Interest

###### *CREW electronic counter-measure systems*

The budget request contained \$42.7 million for the procurement of counter radio controlled improvised explosive devices (RCIED) electronics warfare (CREW) family of electronic counter measure (ECM) systems to protect dismounted soldiers, fixed-sites, and tactical and combat vehicles. The committee supports this program and notes that the United States Marine Corps and United States Special Operations Command are currently procuring the same family of systems. The committee is aware that the Army has two Program Executive Offices (PEOs) responsible for developing and procuring ground-based mounted and dismounted CREW and ECM systems. The committee notes that PEO Ammunition procures these systems specifically for Army Explosive Ordnance Disposal (EOD) units and that PEO Intelligence, Electronic Warfare & Sensors (IEW&S) for all other Army organizational units. The committee needs to be assured that these PEOs are coordinating effectively on materiel solutions and are engaged in mutually supporting activities regarding CREW ECM systems.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by August 30, 2018, on the Army's efforts to coordinate and synchronize the requirements process, rapid acquisition efforts, and programs of record of PEO IEW&S and PEO Ammunition related to CREW ECM systems.

### *Enhanced rapid airfield construction capability*

The budget request included \$0.9 million for enhanced rapid airfield construction capability (ERACC) equipment.

The committee understands ERACC equipment provides the joint commander with the capability enhancement to rapidly construct new airfields and runways, and to upgrade existing facilities to meet joint task force requests. The committee notes this request specifically provides for the procurement, installation, and fielding of equipment in support of ERACC Type II mission requirements. The committee understands ERACC Type II mission equipment consists of a grade control system that includes a Global Positioning System (GPS) and laser leveling system that is installed on a dozer, grader, scraper and Deployable Universal Combat Earthmover. The committee notes the laser leveling systems allow for precision survey planning with three-dimensional software. The committee understands this system would significantly reduce operational time required for heavy construction missions, and result in fewer machines required to complete missions, as well as fuel savings. The committee believes there are emerging requirements for additional ERACC Type II capability.

The committee recommends \$8.4 million, an increase of \$7.5 million, to accelerate the competitive modernization of ERACC equipment.

### *Mine resistant ambush protected vehicle sustainment*

The committee commends the military services for retaining the most capable mine resistant ambush protected (MRAP) vehicles to meet military operational and training needs, as well as standardizing the fleet to improve long-term sustainment. The committee notes the Army has an enduring requirement of 8,222 MRAP vehicles, and that MRAP vehicles continue to be a critical high demand force protection asset for overseas contingency operations in the U.S. Central Command's area of responsibility. The committee also notes that since the military services finalized the enduring requirements for MRAP vehicles, the military services face an increasingly complex and significantly worse global threat environment.

In this environment, the committee believes demand for MRAP vehicles could increase. Additionally, MRAP vehicles may be needed to fulfill emerging requirements that may not have been fully considered as part of the Army's long-term tactical wheeled vehicle modernization strategy, such as requirements for key leader or command and control vehicles. The committee notes with concern that the Army's budget request contained no funding for MRAP vehicle modifications or improvements for the existing inventory of MRAP vehicles. The committee encourages the Army to take necessary steps to ensure the MRAP vehicle industrial base remains viable.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment, in coordination with the Secretary of the Army, to provide a briefing to the House Committee on Armed Services by December 14,

2018, that details the Army's long-term strategy for planning, programming, and budgeting for long-term sustainment, research and development, and procurement of MRAP vehicle platforms.

#### *Tactical Communication and Protective Systems (TCAPS) authorization*

The House Armed Services Committee is aware that service members are routinely exposed to extreme loud noises that can damage their hearing. The committee further notes that technologies are available that integrate advanced hearing protection into tactical radio headsets, significantly improving communications ability as well as overall situational awareness. The committee is concerned, however, that disparity in the procurement and fielding schedules of these components is leading to inefficiencies that unnecessarily undermine readiness and could jeopardize the long-term health of service members.

Therefore, the committee directs the Secretary of the Army, in coordination with the Director of the Soldier Lethality Cross-Functional Team pilot as well as the appropriate program executive offices, to provide a briefing to the House Committee on Armed Services by September 1, 2018 on potential courses of action to mitigate the aforementioned disparity.

#### *Tactical network modernization*

The committee understands the Army's new tactical network modernization strategy is designed to enable the Army to "fight tonight," while also actively seeking next-generation solutions to stay ahead of potential adversaries. The committee notes this strategy would fix the existing programs that are necessary to fulfill the most critical operational shortfalls, while pivoting to a new acquisition methodology that fosters rapid insertion of new technology. In the report required by section 112 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), the Army stated that "the Army will continually evaluate available solutions, including those that may not have originally been designed for military application, using operational units to demonstrate, experiment with, and test them in the field. The Army will then 'adapt and buy' the best of the tested solutions to meet unique military challenges." Consistent with this new tactical network modernization strategy, the committee expects the Director of the Army's Network Command, Control, Communication, and Intelligence cross-functional team pilot to test and consider readily available, non-developmental tactical communications technologies that deliver the improved performance in voice, video, and data dissemination at the squad and individual soldier level.

#### *Tactical wheeled vehicle industrial base sustainment*

The committee is aware that the Army's Future Years Defense Program (FYDP) projections for the family of medium tactical vehicles (FMTVs) and the family of heavy tactical vehicles (FHTVs) Recapitalization program in the budget

request are significantly lower than corresponding fiscal year 2018 FYDP projections. The committee is concerned that a drastic, unexpected decrease in FYDP procurement projections for these critical vehicle programs could have significant impacts to the medium and heavy tactical wheeled vehicle defense industrial base. The committee notes with concern that this could put at risk the TWV industrial base's ability to provide surge capacity in an emergency. The committee encourages the Secretary of the Army to develop procurement plans for tactical wheeled vehicles and corresponding recapitalization programs that do not place unreasonable pressure on the tactical wheeled vehicle industrial base, nor undermine its capacity for surge production.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by September 30, 2018, on the Army's current acquisition strategy and sustainment strategy for FMTVs and FHTVs. The briefing should also include potential courses of action to minimize impacts to the industrial base, as well as ways to maintain surge capacity across the FYDP.

## AIRCRAFT PROCUREMENT, NAVY

### Items of Special Interest

#### *Current and future anti-submarine warfare system study*

Preceding the Navy Department's MH-60R Mid-Life Upgrade (MLU) in Fiscal Year 20, advances in anti-submarine warfare systems manufactured in the U.S. warrant a review. The committee is encouraged by advances in dipping sonar utilizing low frequency detection and beam-forming technologies, allowing multiple boundary interactions, and interoperability with shipboard sonars and sonobuoys adding greatly enhanced protection to the carrier battle group. Moreover, these advances in technology are derived from U.S. sources, vice foreign technologies.

Additionally, the committee is concerned that the current MH-60R anti-submarine warfare system, Airborne Low Frequency Sonar (ALFS), that serves as the primary ASW sensor in the Carrier Strike Group, has a component failure rate that has depleted the spares inventory, impacting deployed and nondeployed readiness including the ability to support concurrent MH-60R deployments.

Therefore, the committee directs the Secretary of the Navy to submit a report to the House Armed Services Committee by March 1, 2019 on the current operability and readiness issues of ALFS system and the potential utilization of existing, advanced U.S. technologies to upgrade the MH-60R fleet's anti-submarine warfare system.

#### *Long-range naval carrier aviation*

The committee notes that section 1067 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) directed the Secretary

of Defense to provide three independent studies of alternative future fleet platform architectures for the Navy in the 2030 timeframe.

The committee further notes that the three studies concur as to the need for an enhanced carrier-based unmanned long-range strike capability beyond current plans and programs. The committee remains concerned that while the MQ-25 program leverages Unmanned Carrier-Launched Airborne Surveillance and Strike requirements justification, the most recent documentation sent to industry did not include precision strike capability as a requirement. The committee believes that the Navy may be unnecessarily excluding a critical capability and precluding future growth in a platform that will likely be integrated into the carrier air wing for the next 30 years.

Therefore, the committee encourages the Navy to develop an unmanned anti-access penetrating long-range strike capability from the aircraft carrier, in addition to the current focus on the MQ-25A.

#### *MQ-4*

The budget request contained \$577.8 million for procurement of three MQ-4C unmanned aircraft. The committee understands the MQ-4C will be a forward-deployed, land-based, autonomously operated system that provides a persistent maritime intelligence, surveillance, and reconnaissance (ISR) capability using a multi-sensor mission payload. The MQ-4C's unique combination of long endurance and advanced sensors will support combatant commanders and provide a common operational picture of the maritime environment.

The committee supports the budget request of \$577.8 million for procurement of three MQ-4C aircraft. However, how, when, and what quantity of MQ-4C aircraft will be integrated into the Department of Defense's ISR Global Force Management Allocation Process (GFMAP) for airborne ISR aircraft is still unclear. Therefore, the committee also directs the Chairman of the Joint Chiefs of Staff (CJCS), in consultation with the Secretary of the Navy, to provide a briefing to the House Committee on Armed Services, not later than October 15, 2018, that details the strategy and plan to integrate MQ-4C into the CJCS ISR GFMAP process. At a minimum, the briefing should illustrate the methodology that will be used to determine the quantity of MQ-4C aircraft involved in the process, the scheduling start date, the type of aircraft capability, and the capacity of intelligence discipline capability the MQ-4C will provide to the combatant commanders.

#### *Navy Reserve F/A-18 aircraft*

The committee remains concerned about the health and readiness of the Navy Reserve combat air fleet. The committee is aware that the Navy Reserve tactical aviation squadrons provide critical adversary support and strike fighter weapons training to Active Duty forces, and must maintain a high mobilization readiness level as the sole strategic reserve available to the Department of the Navy. The committee understands that the Navy Reserve currently operates 33

legacy F/A-18A+ aircraft that are currently shared between two squadrons. The committee notes that with an average airframe age of 31 years and aircraft systems that are no longer compatible with today's carrier air wing, the Navy Reserve aircraft are increasingly less capable than the F/A-18E/F Super Hornet aircraft used by the Navy's Active Duty fleet. The committee believes that this situation could affect the ability of the two Navy Reserve squadrons to meet requirements for advanced strike employment, and the capability to simulate current advanced threat aircraft. The committee also believes that the legacy F/A-18A+ aircraft needs to be recapitalized with next-generation capability in order to provide realistic threat-representative training for naval aviators and to maintain operational readiness that provides a relevant and deployable reserve to the Active Duty air wings.

Accordingly, the committee directs the Secretary of the Navy, in coordination with the Chief of the Navy Reserve, to provide a briefing to the House Committee on Armed Services not later than December 4, 2018, on its updated plans to recapitalize the Navy Reserve combat air fleet.

#### WEAPONS PROCUREMENT, NAVY

##### Items of Special Interest

###### *Advanced Low Cost Munition Ordnance*

The committee continues to support development of the Advanced Low Cost Munition Ordnance (ALaMO), a guided 57 mm projectile, to counter the growing threats posed by small boat swarms, unmanned aerial systems, and other emerging threats. Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by August 30, 2018, on accelerating development of ALaMO's capabilities to address threats posed by unmanned aerial systems. The briefing should also include, but not be limited to, an evaluation of the current funding profile of this program across the Future Years Defense Program, as well as potential courses of action to accelerate or streamline the current program strategy.

#### SHIPBUILDING AND CONVERSION, NAVY

##### Items of Special Interest

###### *Frigate*

The committee is aware that the Navy awarded five contracts for conceptual design for its new guided missile frigate program, FFG(X), with multiple shipbuilders currently developing their respective designs to compete for a detail design and construction contract award planned for September 2020. This pursuit represents a significant shift from the Navy's previous plans to award a contract in



fiscal year 2018 for a frigate derived from minor modifications to a Littoral Combat Ship (LCS) design. The FFG(X) program intends to leverage the proposed capabilities of the previous frigate plans and expand upon them to create a more lethal and survivable ship to meet the Small Surface Combatant (SSC) requirement. Toward that end, the committee encourages the Secretary of the Navy to emphasize concepts of risk reduction, commonality with existing platform equipment, and reduced acquisition and life cycle and sustainment costs to provide a best value solution for this critical platform. FFG(X) represents a significant investment, with the Navy's fiscal year 2019 long-range shipbuilding plan estimating over \$5.5 billion through fiscal year 2023 for the first 6 frigates, and a total of 20 frigates planned through fiscal year 2030.

Since 2005, the Comptroller General of the United States has reported extensively on the LCS program, the predecessor small surface combatant. Considering the lessons learned during the LCS program, the committee directs the Comptroller General of the United States conduct a review of the FFG(X) program and provide a report to the congressional defense committees by March 1, 2019. The report shall include, at a minimum, analysis on the following:

(1) conceptual design plans and activities to support the advancement of multiple ship designs for a full and open competition in fiscal year 2020;

(2) activities to establish requirements and system specifications, and to develop the program's overall acquisition approach, including cost and schedule estimates, as well as a test strategy; and

(3) plans for the detail design and construction award contract, to include a review of the implications of a potential request by the Navy for a block buy award.

#### *Nimitz-class aircraft carrier service life extension*

In December 2016, the Secretary of the Navy determined that a 355-ship Navy is required to support force structure demands. A part of this force structure requirement is a power projection requirement of 12 aircraft carriers. With the delivery of the USS John F. Kennedy (CVN 79) in 2023, the Navy will reach their 12 aircraft carrier goal but will quickly lose this overall capacity with the programmed retirement of USS Nimitz (CVN 68) in fiscal year 2023.

The committee believes that there are several options to retain required aircraft carrier force structure to include accelerating construction of the Ford-class carriers. Additionally, the committee believes that service life extension options may be available for USS Nimitz. Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by March 1, 2019, on options that exist to extend the service life of USS Nimitz, to include the extension of major components. Additionally, such a briefing should include cost estimates and major modernization components.

## OTHER PROCUREMENT, NAVY

### Items of Special Interest

### *Arleigh Burke-class destroyer radar backfit*

The committee notes that Navy witnesses have provided testimony to the committee and indicated their recommendation to extend the service life of the Arleigh Burke-class destroyers for 45 years. Navy notes that expansion of the service life will allow Navy to reach the 355-ship Navy by 2036 or 2037. The committee supports retention of destroyers beyond their current service life but notes that such support is contingent on providing a comprehensive modernization plan for the entirety of the in-service destroyers. As part of this overall modernization of the destroyer fleet, the committee believes that it is essential the Navy develop a next generation maritime radar system for in service Arleigh Burke class destroyers to address existing and emerging gaps in integrated air and missile defense. The committee understands that the Secretary of the Navy is still developing its strategy for how to pursue this capability. The committee further recognizes that the recent decision to perform a class wide service life extension program (SLEP) on all in service destroyers could have an impact on the timing of a radar backfit program. The committee believes that it would be premature to make any decisions regarding specific radars until the Secretary has completed a comprehensive threat and capabilities based assessment of what will be required for a new radar for in service destroyers. Therefore, the committee directs the Secretary of the Navy to brief the House Armed Services Committee on the details of their DDG-51 radar backfit strategy once an overall modernization strategy has been completed.

### *MH-60R dipping sonar upgrades*

The committee notes numerous advancements in anti-submarine warfare systems preceding the Department of the Navy's MH-60R Mid-Life Upgrade in fiscal years 2020 through 2023. Specifically, the committee is encouraged by advances in dipping sonar utilizing low frequency detection and beam-forming technologies, allowing multiple boundary interaction and interoperability with shipboard sonars and sonobuoys to expand the lethality of Navy forces. The committee is concerned that the current MH-60R anti-submarine warfare system, the airborne low frequency sonar that serves as the primary anti-submarine warfare sensor in the carrier strike group, has a high component failure rate.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by February 1, 2019, on the potential use of existing advanced technologies to upgrade the MH-60R fleet. If available manufactured systems meet or exceed current legacy technologies reliability or capability, then the Department of the Navy is encouraged to conduct a full and open competition for MH-60R dipping sonar upgrades, repairs, and replacements as part of the fleet sustainment of these capabilities.

### *SPY-6 inherent capabilities*

The committee is aware that next generation AN/SPY-6(V) Air and Missile Defense Radars will soon be entering the fleet. As the SPY-6 family of radars begin to deploy and better protect our service members and allies, the committee is also aware that capabilities beyond those designed for nominal radar operations may exist. To provide the committee a better understanding of the full range of capabilities resident in SPY-6(V) radar modular assembly (RMA) based radars, the committee directs the Secretary of the Navy to provide a briefing to the House Armed Services Committee on a plan that will exploit the inherent capabilities of SPY-6(V) within 90 days from the enactment of this Act.

### *Surface ship torpedo defense*

The evolving challenges and tensions in the Indo-Asia-Pacific region underscore the ongoing requirement for a surface ship torpedo defense (SSTD) capability for the Navy's high-value units. The committee understands that the Chief of Naval Operations highlighted this requirement in a 2010 urgent operational need statement and that since that time, potential regional adversaries have continued to improve their submarine and torpedo capabilities. Despite this increasing threat to Navy carrier strike groups and surface platforms, and the continued SSTD testing success and program maturation, the budget request and the Future Years Defense Program inadequately support currently deployed systems and cancel further development of this SSTD capability.

The committee is concerned that this decision is based on the need to balance several years of inadequate funding resources across a range of priorities and that this budgetary dynamic is forcing decisions that put at risk the readiness and security of U.S. naval and Marine forces without adequate alternative plans to mitigate that threat. As raised in previous communications with Navy officials, the committee also has concerns that the Navy has distributed various SSTD program responsibilities among various Navy resource sponsors, which has led to a lack of determined support for efficient program execution and a lack of focused leadership.

In light of these concerns, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by October 1, 2018, that includes, but is not limited to, the following: an assessment of the current and foreseeable torpedo threats facing high-value units and the Navy's plan to adequately protect them, a description of the requirements for SSTD, an assessment of the development program concerning each of the SSTD capability elements, the plan to consolidate responsibility of the SSTD program, and the plan to manage and sustain currently fielded SSTD systems.

## PROCUREMENT, MARINE CORPS

### Items of Special Interest

#### *Indoor Simulated Markmanship Trainers*

The budget request contained \$52.0 million for Marine Corps Training Devices. Of this amount, \$2.7 million was requested for Indoor Simulated Marksmanship Trainers (ISMTs).

The ISMT system is a three-dimensional simulation-based trainer for indoor use, capable of instructing in basic and advanced marksmanship, shoot/no-shoot judgment, combat marksmanship, and weapons employment tactics. The committee recognizes the value of this training system for remedial and virtual instruction to augment live fire upon simulated targets. The committee notes the ISMT systems are used both within the continental United States (CONUS) and outside CONUS. The committee also recognizes the value of this capability in that it would allow for rapid generation of new training scenarios, thus adding new capability quickly and efficiently to meet the training demands resulting from doctrinal and/or mission requirement changes. The committee encourages the Marine Corps to continue to work with the industrial base to improve and upgrade components for the Training Device portfolio.

The committee recommends \$2.7 million, the full amount in the budget request, for the ISMT system.

#### *Rapid acquisition of Rifle Integrated Controller*

The committee understands the Marine Corps is currently evaluating a rifle accessory control unit (RACU) through a two-phase process that should result in fielding capability improvements in the operational performance and close-combat lethality of individual marines. The committee understands the RACU will be fully integrated with current Marine Corps weapons and communication devices and will be evaluated for operational utility at the unit level. The committee recognizes the challenges that exist for an individual marine to operate separate situational awareness, communications, target designators, thermal sights, and other battle management devices. The committee notes the RACU system would consolidate these disparate capabilities into one unified capability. The committee is encouraged by the initial feedback regarding the performance of the RACU during the phase 1 evaluation. The committee understands the phase 2 evaluation should conclude by the end of fiscal year 2018.

The committee expects the Marine Corps to expeditiously complete the phase 2 evaluation and, subject to a successful evaluation, expects the capability to result in a validated requirement. The committee encourages the Commandant of the Marine Corps to consider a rapid acquisition strategy to accelerate the fielding and procurement of the RACU utilizing existing acquisition reform authorities.

## AIRCRAFT PROCUREMENT, AIR FORCE

### Items of Special Interest

#### *A-10 replacement wings*

The base budget request contained \$98.7 million for A-10 aircraft modifications, of which \$79.2 million was included for the A-10 wing replacement program. The committee notes that increases for fiscal years 2017 and 2018 will enable the Department of the Air Force to begin a second wing replacement program for an additional 110 A-10 replacement wings.

The committee continues to believe that sustainment of the 281-aircraft A-10 fleet helps to meet Air Force fighter aircraft capacity requirements. The committee notes that A-10 force structure consists of five Air Reserve Component and four Active Duty squadrons, and that any fewer than nine squadrons will not meet future combatant commander demand for A-10 aircraft. Consequently, subsequent to the test and evaluation of the F-35A and A-10C required by section 134 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), the Department should not take any action to reduce the number of A-10 squadrons. Accordingly, the committee believes the Department of the Air Force should accelerate the A-10 wing replacement program.

The committee recommends \$163.7 million in the base budget for A-10 modifications, an increase of \$65.0 million for the A-10 wing replacement program.

The committee also notes that multiyear contracting strategies have resulted in more efficient and cost effective acquisition programs, and believes such a strategy could also result in cost savings for the A-10 wing replacement program. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than February 15, 2019, on Department of the Air Force plans to utilize a multiyear contracting strategy to procure A-10 replacement wings.

Additionally, the committee notes that exercising the option to deliver the remaining 110 wings on the contract that expired in September 2016 could have resulted in cost savings compared to current plans to contract separately for a second wing replacement program. Therefore, the committee directs the Secretary of the Air Force to provide a report to the House Committee on Armed Services, not later than February 15, 2019, on the cost of the additional 110 A-10 replacement wings using a second contract compared to the cost of exercising the option to procure the 110 A-10 replacement wings on the original contract.

#### *Air Force enlisted pilot implementation initiatives*

The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than March 4, 2019, on the plan to implement the enlisted pilot aircrew requirements of Section 1052 of the FY17 NDAA for the MQ-9 enterprise of the Active, Guard, and Reserve components of the Air Force. Furthermore, the committee directs the Secretary of the Air Force to submit a report to the congressional defense committees not later than April 1, 2019, on the costs, benefits, and feasibility of authorizing enlisted Airmen or Warrant Officers as pilots, navigators, or weapon systems operators on all Air Force aircraft or rotorcraft platforms. The report should also assess and explain any policy

or guidance impediments that would preclude enlisted Airmen or Warrant Officers from serving as pilots, navigators, or weapon systems operators.

### *B-2 secure communication modernization plan*

The committee notes that the Air Force released its "Bomber Vector" in conjunction with its fiscal year 2019 President's budget request which outlines the future of the B-1, B-2, B-52, and B-21 bomber fleets. According to this document, during development and production of the B-21, the Air Force will sustain the B-2 bomber to assure no gaps in bomber force availability. In addition to availability, the committee is concerned that the B-2 bomber fleet must keep pace with the threat level and have no gaps in capability during the transition. This is critical as competitor nations increasingly field anti-access and area denial weapon systems that impede and degrade the Air Force's ability to hold any target at risk around the globe.

The committee is aware that, as noted in the Department of Defense fiscal year 2019 budget request, "modern communications are key enablers for the B-2 in the anti-access/area denial battle-space and directly enhance lethality and force multiplication." The committee is concerned that the Department terminated the Extremely High Frequency Satellite Communications program, which provided two-way, high-bandwidth, secure, survivable, strategic communication in anti-access and area denial environments. In its place, the Air Force has chosen to rely on the Common Very-Low-Frequency Receiver (CVR), which is to provide the B-2 with receive-only, secure, survivable communications.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by February 28, 2019, on the B-2 secure communications modernization plan. This briefing should include the following:

(1) the impact of the Air Force's decision to downgrade B-2 communications capabilities on the ability of the B-2 to perform its critical strike missions in anti-access/area denial environments;

(2) recommend solutions that would enable automated transfer of data to the B-2 and enable the aircraft to operate in a networked fashion with other elements for the long-range strike family of systems and other Air Force and Joint systems; and

(3) provide estimated modernization costs and timelines, and consider opportunities to exploit capabilities developed for other programs.

### *C-130H modernization efforts*

The committee notes that the C-130H aircraft that are flown primarily by the Air National Guard and Air Force Reserve continue to provide critical tactical airlift capabilities and will continue to support this mission for years to come. The committee further notes that in order to sustain mission capability and effectiveness, various sustainment and improvement initiatives are currently

underway. The committee supports all of these initiatives however, it does recognize that shortfalls still remain. Specifically, the C-130H Avionics Modernization Program (AMP) addresses cockpit modernization needs of the aircraft however; the AMP program does not include the flight engineers control panel, which is a key component of the cockpit. Failure to upgrade the flight engineer control panel could leave the C-130H fleet with continued obsolescence issues post AMP. If the Air Force were to decide to upgrade this equipment at a later date, they will have missed the efficiencies of conducting those upgrades concurrent with the AMP upgrades. Therefore, the committee encourages the Air Force to explore the possibility of upgrading the C-130H flight engineer overhead control panel using readily available off the shelf technology. Furthermore, if the Air Force determines that these upgrades are necessary, they should make every effort to upgrade the aircraft in parallel with the AMP program in order to minimize disruption to the operation of the C-130H fleet and mission.

#### *C-130H propulsion systems upgrade*

The budget request contained \$22.1 million for procurement of C-130 modifications but no funds for C-130H propulsion systems upgrades.

The committee continues to support the upgrade of C-130H/LC-130H aircraft with the T56 3.5 engine enhancement and NP2000 8-bladed propeller. The committee notes that the Air National Guard (ANG) completed testing of the T56 3.5 engine enhancement and reported results that exceeded expectations for fuel savings and performance. The committee understands that the ANG expects to issue a full test report in the summer of 2018, to be followed by a business case analysis for upgrading the entire fleet of C-130H/LC-130H aircraft. Additionally, the committee is aware that fiscal year 2016 and 2017 propulsion upgrade funds have been put on contract. The committee expects the Air Force to include the necessary funds to accelerate C-130H/LC-130H upgrades in future base budgets.

The committee recommends \$129.0 million for the C-130H/LC-130H propulsion systems upgrade program.

#### *Compass Call transition plan*

The committee supports the Air Force's efforts to recapitalize the aging EC-130H Compass Call fleet with the more capable EC-37 type aircraft. The committee notes that the Air Force must first comply with the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) and the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) before it can carry on with the transition plan. The Air Force requested \$108.1 million for fiscal year 2019 for one EC-37. The committee is concerned that the Air Force plan to procure one aircraft per year over 10 years in order to recapitalize this fleet is not the most efficient way to move the capability to the field quickly, and may put the Compass Call mission at unacceptable risk of mission failure.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by February 1, 2019, on the Compass Call transition plan. This plan should include:

- (1) courses of action to accelerate the recapitalization of the EC-130H fleet and Baseline 4 development and deployment for incoming EC-37 aircraft;
- (2) attendant timelines for each course of action;
- (3) cost estimates for each course of action;
- (4) recommended course of action and a plan to manage both fleets while supporting combatant commander requirements; and
- (5) an assessment of the potential for future cooperative development and procurement of EC-37B Compass Call aircraft by the Royal Air Force of the United Kingdom and the Royal Australian Air Force in a way that leverages the best practices of the RC-135 cooperative program arrangement with the Royal Air Force of the United Kingdom.

#### *F-15C Eagle Passive Active Warning and Survivability System*

The budget request contained \$147.7 million for procurement of the F-15 Eagle Passive Active Warning and Survivability System (EPAWSS) for the F-15E, but included no funds for procurement of F-15C EPAWSS kits. The F-15 EPAWSS provides radar warning, geo-location, situational awareness, and self-protection solutions to detect and defeat surface and airborne threats in contested environments.

The committee notes that the budget request includes \$137.1 million to continue execution of the engineering, manufacturing and development phase for F-15 C and E aircraft, which includes delivering test assets, development test activities, and continued acquisition support for Milestone C. The committee also notes that the budget request includes \$147.7 million to initiate procurement of F-15E EPAWSS kits, but believes that procurement of F-15C EPAWSS kits is critical to ensure the F-15C's survivability on a modern battlefield in the air superiority mission.

Consequently, the committee recommends \$214.9 million for F-15 EPAWSS procurement, an increase of \$67.2 million for procurement of four F-15C EPAWSS kits. The committee expects that the Department of the Air Force will execute the F-15 EPAWSS procurement upgrade program for the planned 217 F-15Es and 196 F-15Cs.

#### *F-35 autonomic logistics information system*

The F-35 Lightning II is the Department of Defense's largest acquisition program, which will eventually deliver 2,443 F-35 aircraft to the Departments of the Navy and Air Force. The committee believes that the F-35 will form the backbone of U.S. air combat superiority for decades to come, replacing or complementing the legacy tactical fighter fleets of the Air Force, Navy, and Marine Corps with a dominant, multi-role, fifth-generation aircraft capable of projecting



U.S. power and deterring potential adversaries. The committee notes that for the F-35 program's international partners and foreign military sales customers who are participating in the program, the F-35 will become a cornerstone for future coalition operations. The committee believes that the F-35 will help to close a crucial capability gap that will enhance the strength of our security alliances. The committee, therefore, continues its strong support of this essential aircraft development and procurement program.

Consistent with its support of the F-35 program and oversight responsibilities, the committee notes that at a hearing held by the House Committee on Armed Services' Subcommittee on Tactical Air and Land Forces on March 7, 2018, the Navy, Marine Corps, and Air Force witnesses all expressed a concern about the autonomic logistics information system (ALIS). The Air Force witness testified that the ALIS is currently labor-intensive for maintainers and support personnel, negatively affecting flight line operations and workforce development. During a subcommittee visit to Hill Air Force Base, Utah, in April 2018, subcommittee members met with Air Force F-35 maintenance personnel who reported that they are still very disappointed in the autonomic logistics information system, and continue to have to use manual workarounds that take time and effort, resulting in lower aircraft availability and mission capable rates. Given these ongoing problems, the committee will continue to conduct a detailed review of the ALIS program.

#### *F-35 canopy transparencies*

The F-35 canopy transparency is the transparent enclosure over the cockpit of the F-35 aircraft. The committee notes that the F-35 program uses a sole-source contract to procure F-35 canopy transparencies.

The committee understands that the F-22 program uses a two-source acquisition strategy for canopy transparencies, and that competition from that acquisition strategy has resulted in a more secure supply chain, increased innovation, longer product service life, and lower operating costs. Accordingly, the committee believes a two-source acquisition strategy for F-35 canopy transparencies could provide similar benefits.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than December 14, 2018, on the costs, benefits, analysis, and schedule impacts of the F-35 program using a two-source acquisition strategy for F-35 canopy transparencies.

#### *F-35 sustainment affordability*

At a hearing held by the House Committee on Armed Services' Subcommittee on Tactical Air and Land Forces on March 7, 2018, the witnesses all expressed a concern about current operations and sustainment costs and testified that those costs would need to be reduced by over 30 percent to make the F-35 operationally affordable. At that hearing, the Air Force witness testified that if

projected overall costs for the F-35 are not reduced, the Air Force would not be able to afford its planned procurement of 1,763 aircraft. While the F-35 program is currently procuring early production lots of F-35 aircraft, the committee believes opportunities exist to take actions that would reduce future F-35 operations and sustainment costs.

Accordingly, the committee strongly urges the Secretary of the Air Force and the Secretary of the Navy, in concert with the F-35 Joint Program Office, to undertake the necessary actions to reduce F-35 sustainment costs. The committee believes that those actions should include, but not be limited to, addressing spare part shortages, addressing technical data requirements, accelerating both land- and sea-based intermediate maintenance capabilities, and modernization of the autonomic logistics information system.

Additionally, the committee believes that increased F-35 production rates and larger F-35 economies of scale could also help lower unit procurement and sustainment costs. Moreover, the committee also believes that advances in potential adversary aircraft and surface-to-air missile defense systems necessitate a combat fighter force with a higher percentage of fifth generation aircraft. Accordingly, the committee strongly encourages the Department to increase future F-35 production rates.

#### *Future sustainment of remotely piloted aircraft tactical intelligence and strike capabilities*

The budget request contained \$946.6 million for procurement of 29 MQ-9A aircraft.

The committee recognizes that the Air Force has a 380 total aircraft inventory (TAI) requirement for MQ-9A aircraft, and is also using a current metric of 40,000 hours for the MQ-9A airframe service-life determination, an increase of 20,000 hours beyond the validated airframe service-life metric. The committee is also waiting to receive a cost-benefit analysis (CBA) from the Air Force, required by section 137 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), comparing continued procurement of MQ-9A Block 5 aircraft versus a transition to procurement of MQ-9B aircraft that is still in prototype development by the aircraft manufacturer. The committee understands that the Air Force could forgo the option of continued Block 5 upgrades to existing MQ-9A aircraft, and could pursue an option to participate in development and procurement of the MQ-9B aircraft, but the committee still lacks the required information to make an informed determination as to which effort the Air Force should pursue. The committee is also concerned by the Air Force's attempt this year to categorize MQ-9A aircraft that reach their airframe service-life limit as "combat-loss attrition" to justify additional aircraft procurement using Overseas Contingency Operations resources, when past practice has been to categorize combat-loss attrition only as those aircraft that are destroyed or damaged beyond repair due to hostile engagement by adversaries or aircraft accidents. The committee is also concerned by the Air Force's irregular

procurement quantity of aircraft outlined in the Future Years Defense Program (FYDP) and assesses that a more stable profile is needed.

Therefore, the committee recommends \$796.6 million, a decrease of \$149.9 million and quantity of 7 aircraft, for a total procurement of 22 MQ-9A in fiscal year 2019. This decrease will minimize any waste of resources should the aforementioned Air Force CBA favor procuring MQ-9B instead of continuing MQ-9A Block 5 procurement, and also provide a more stable quantity procurement profile during the FYDP without harming TAI goals. The committee also expects the Secretary of the Air Force to adjust the future strategy for sustainment of remotely piloted aircraft tactical intelligence and strike capabilities if the CBA determines it best to procure MQ-9B aircraft instead of MQ-9A Block 5 aircraft.

#### *OA-X light attack aircraft program*

The budget request contained no funds for the OA-X light attack aircraft program. The committee understands that the Department of the Air Force intends to include funding for the OA-X light attack aircraft program in fiscal year 2020.

The committee believes that a light attack fighter aircraft is a continuing and exigent need to conduct close air support, counterinsurgency, armed reconnaissance, and other combat operations in more permissive threat environments. The committee further believes that procurement of light attack aircraft would increase the number of cockpits available to season Air Force pilots, thereby providing improvement to current pilot personnel shortfalls. Additionally, the committee notes that the Air Force Chief of Staff has stated, "A light attack aircraft would not only provide relief to our 4th and 5th generation aircraft, but also bolster our interoperability so we can more effectively employ airpower as an international team."

Accordingly, the committee encourages the Department of the Air Force to accelerate the OA-X light attack program.

Additionally, to ensure the Department of the Air Force procures a low-cost aircraft that will provide cost efficiency along with quality capability, the committee encourages the Department to use a best value, rather than a lowest price technically acceptable, criteria for its source selection decision.

#### *Production adjustment for KC-46A air refueling aircraft*

The budget request contained \$2.56 billion for the procurement of 15 KC-46A air refueling tankers.

The committee notes that the KC-46A program costs remain stable, but the delivery schedule may be further delayed. Currently, the Air Force is reporting three category one deficiencies including two for the remote vision system (RVS) and one for the center-line drogue system (CDS). The Government Accountability Office (GAO) observed in its latest report, GAO-18-353, that the program updated its delivery schedule in 2017 to allow the defense contractor to delay delivery of the first 18 fully capable aircraft by 14 months. This delay moved the delivery date from

August 2017 to October 2018. According to a schedule risk assessment and GAO's analysis, if risk is not mitigated, deliveries could be delayed further to May 2019, 21 months from the originally scheduled delivery. The continued delays are set to cause a backup of unaccepted aircraft awaiting the completion of contractual test and documentation requirements. The defense manufacturer believes that it will meet the current delivery schedule and that it has taken appropriate steps to address all category one deficiencies by improving the RVS visual display and fine-tuning CDS software to reduce the number of unintended refueling disconnects. Given the latest Air Force schedule risk assessment, the committee believes the Secretary of the Air Force could use the variation in quantity provision in the contract to reduce the procurement by three aircraft in fiscal year 2019 without impacting the out-year per unit cost of each aircraft. The committee believes that the three additional aircraft funded in the Consolidated Appropriations Act, 2018 (Public Law 115-141) could be awarded in fiscal year 2019 to help mitigate any production line impact. Elsewhere in this bill, funds have been limited for the procurement of three additional KC-46A aircraft until certain conditions are met. Lastly, the committee believes that it is warranted to reduce funds for interim contractor support concurrent with the late delivery of aircraft. The committee intends to provide strict oversight of this issue and review timelines to compliance to ensure reductions are aligned with ongoing decisions to accept aircraft.

The committee recommends \$2.06 billion, a decrease of \$499.0 million, for the procurement of 12 KC-46A air refueling tankers and \$50.0 million for interim contractor support.

#### *RQ-4 Global Hawk and EQ-4 battlefield airborne communications node aircraft*

The budget request contained \$23.7 million for RQ-4 Global Hawk and EQ-4 modifications, but contained no funding for additional EQ-4 aircraft.

The committee recognizes that the both the RQ-4 and EQ-4 provide critical warfighting capabilities in communications relay and high-altitude intelligence, surveillance, and reconnaissance (ISR) mission areas for combatant commanders (COCOM). The committee is also satisfied that the EQ-4 has transitioned to a formal Air Force program of record. However, the committee is concerned that the current communication architecture for operating the RQ-4 is antiquated, difficult to maintain, and limits the Air Force's ability to fully use the system to meet COCOM demands for increased capacity and capability. The committee also believes that insufficient capacity exists for the robust communications capability the EQ-4 provides to COCOMs, and that based on current quantity of mission support taskings, the EQ-4 fleet of aircraft could reach service-life limits quicker than anticipated, creating an unmitigated capability gap. The committee supports any Air Force plan to initiate development of the RQ-4 Communication System Modernization Program (CSMP) in fiscal year 2020 to meet combatant commander requirements for expanded airborne communications relay and ISR, as well as

establish a pathway to more quickly meet emerging high-altitude, long-endurance ISR and communications requirements.

Therefore, the committee recommends \$128.7 million, an increase of \$105.0 million, for procurement of one additional EQ-4 aircraft and associated modifications. The committee also directs the Secretary of the Air Force to submit a report to the congressional defense committees, not later than February 5, 2019, on the RQ-4 CSMP acquisition strategy. The report should include an updated RQ-4 CSMP acquisition strategy, including a program schedule and budget requirements for development, testing, and fielding of the capability, and a description of how the Air Force is balancing the resources required for CSMP with other efforts to increase RQ-4 sensor capabilities over this same time period.

#### *Total Force C-17 Fleet Management Plan*

The committee notes that the Air Force must carefully manage the life cycle of each of its 222 C-17 strategic airlift aircraft assigned to the Regular, Reserve, and Air National Guard Components from an enterprise point of view in order to extract the maximum amount of utility from this limited resource. The committee is also aware that the Air Force is unable to meet its current requirement for strategic airlift as outlined by the fiscal year 2013 Mobility Capability Requirements Study (MCRS). Furthermore, the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) directed the Secretary of Defense to carry out a new MCRS. This study is to take into account attrition for the first time, which is likely to result in a higher requirement for strategic airlift.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by February 1, 2019, on the Total Force C-17 Fleet Management Plan. This briefing should include:

- (1) a table and timeline that shows when C-17s will be retired by tail number;
- (2) various courses of action that could be pursued and the impact to meeting the strategic airlift requirements;
- (3) limitation or impediments to controlling the retirement timeline of C-17 aircraft; and
- (4) legislative relief that could enable better management of the fleet through retirement.

#### *Total Force KC-135R net centric operations and battlespace awareness*

The committee is aware that all three Air Force components of the Total Force (Regular, Air National Guard, and Reserve) operate the KC-135 Stratotanker, which is Air Mobility Command's primary air refueling platform. The KC-135 provides approximately 87 percent of air refueling support to U.S., allied, and coalition military aircraft.

The committee believes that upgrades to KC-135 defensive systems, including tactical data link technologies, situational awareness displays that bring

real-time threat information, and secure radio capability, greatly enhance KC-135 air refueling, airlift, and aeromedical evacuation missions. These systems are meant to protect the aircraft during takeoff, landing, and refueling flight regimes. Also, the systems offer protection during normal refueling flight operations against both infrared and radar-guided air-to-air missiles. Furthermore, the committee believes that upgrades to the KC-135 Real-Time Information in the Cockpit (RTIC) system would enhance network capability and provide a common processing and display platform resulting in consolidated situational awareness.

As reflected in division D of this Act, the committee recommends additional funding for the National Guard and Reserve Equipment Account. The committee expects the Secretary of the Air Force to consider using these funds to modernize the Air National Guard and Air Force Reserve with RTIC and self-protection commercial off-the-shelf solutions through a competitive process.

## *U-2*

The budget request contained \$106.9 million in PE 34260F for the airborne signals intelligence (SIGINT) enterprise and \$70.6 million in PE 35202F for U-2 sensor development, but contained insufficient funding to develop a single-pod SIGINT capability or accelerate electro-optical and infrared sensor upgrades.

The committee supports the Air Force's renewed commitment to the U-2 program reflected in the President's budget request for fiscal year 2019, and the Future Years Defense Program. To ensure the combat capability needed to stay ahead of emerging threats, the committee supports accelerating U-2 modernization and sustainment efforts. The planned efforts have the potential to provide a substantial leap in intelligence capability to the warfighter over the upcoming years.

Therefore, the committee recommends \$109.9 million in PE 34260F, an increase of \$3.0 million, for single-pod SIGINT development, and recommends \$87.6 million in PE 35202F, an increase of \$17.0 million, to accelerate electro-optical and infrared sensor upgrades. The committee also recommends elsewhere in this Act an increase of \$38.0 million to refurbish and restore U-2 tail number 80-1099 to combat-ready status, and to provide increased high-altitude intelligence, surveillance, and reconnaissance capacity to the combatant commanders.

## MISSILE PROCUREMENT, AIR FORCE

### Items of Special Interest

#### *AIM-120 production rate*

The budget request contained \$552.7 million for procurement of 363 AIM-120 advanced medium-range air-to-air missiles (AMRAAM).

The committee notes that this request is 294 fewer AMRAAM missiles than were projected for fiscal year 2019 in last year's budget request. The committee notes further that additional stocks of the most modern version of the AMRAAM missile is a top priority of numerous combatant commands. While the committee understands that this production rate drop is due to significant delays with the form, fit, function refresh plan to address obsolescence issues, it is concerned that the Air Force is also limiting production quantities of other AMRAAM models sold via foreign military sales (FMS). The committee believes that production of additional FMS variants may help mitigate risk to the supplier base and overall production capacity for the weapon. Therefore, the committee encourages the Secretary of Defense to ensure that the AMRAAM production line is kept at or near full capacity whenever possible, either by increasing production to fill U.S. military requirements or by supplementing production for the U.S. military with higher FMS production.

The committee recommends \$552.7 million, the full amount requested, for AIM-120 AMRAAM procurement.

#### OTHER PROCUREMENT, AIR FORCE

##### Items of Special Interest

###### *Deployable Air Base Systems*

Given increasing threats, the committee supports efforts to enhance U.S., allied, and partner airbase resiliency in the Indo-Pacific region. The committee is especially supportive of the logistics and resiliency investments identified by the Commander of U.S. Pacific Command's (PACOM) critical investments list as well as the forward air base resiliency requirements as identified on PACOM's integrated priority list.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services, no later than December 1, 2018, on potential courses of action, to include rapid acquisition strategies to rapidly procure Deployable Air Base Systems in order to address identified PACOM capability gaps.

#### PROCUREMENT, DEFENSE-WIDE

##### Items of Special Interest

###### *Common Analytical Laboratory System*

The budget request contained \$48.3 million for the Common Analytical Laboratory System (CALs), a tool to enable detection and identification of chemical, biological, radiological, nuclear, and explosive (CBRNE) threats. CALs provides analytical lab capabilities in the field, allowing field commanders to make faster

and more informed response decisions, minimizing the effects of CBRNE threats. The committee recommends \$48.3 million, the amount requested, for the Common Analytical Laboratory System.

### *Multi-Domain Command and Control*

The committee understands the Department of the Air Force and Department of the Navy are undertaking efforts to create robust Multi-Domain Command and Control (MDC2) capabilities. The committee supports each Department's plans to ensure MDC2 program efforts are leveraging rapid experimentation and fielding of forward-deployed modular mission Systems for resilient communications and high-performance computing resources for the MDC2 mission.

Therefore, the committee directs the Secretary of the Air Force and the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by September 1, 2018, that explains future funding and any other requirements to achieve rapid experimentation and fielding of MDC2 capabilities to the warfighter.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—AUTHORIZATION OF APPROPRIATIONS

#### Section 101—Authorization of Appropriations

This section would authorize appropriations for procurement at the levels identified in section 4101 of division D of this Act.

### SUBTITLE B—ARMY PROGRAMS

#### Section 111—National Guard and Reserve Component Equipment Report

This section would modify the annual National Guard and Reserve Component Equipment report, as required by section 10541 of title 10, United States Code, to include an assessment by the Chief of Staff of the Army and the Chief of the National Guard Bureau regarding modernization equipment parity between the active component, Army Reserve, and Army National Guard.

#### Section 112—Limitation on Availability of Funds for M27 Infantry Automatic Rifle Program

This section would limit the obligation or expenditure of 20 percent of the funds for the Marine Corps M27 infantry automatic rifle program until the Commandant of the Marine Corps provides an assessment of the Marine Corps views on the Army's Small Arms Ammunition Configuration Study, and whether



the outcomes of this study are informing future small arms procurement for the Marine Corps. The assessment shall also include details regarding the Marine Corps near- and long-term small arms modernization strategy.

#### SUBTITLE C—NAVY PROGRAMS

##### Section 121—Increase in Number of Operational Aircraft Carriers of the Navy

This section would provide the sense of Congress as to aircraft carrier force structure. Additionally, this section would modify section 5062 of title 10, United States Code, by increasing the required aircraft carrier force structure from 11 to 12 operational aircraft carriers by September 30, 2022.

##### Section 122—Procurement Authority for Ford Class Aircraft Carrier Program

This section would authorize the construction of one Ford class aircraft carrier designated CVN-81.

##### Section 123—Full Ship Shock Trial for Ford Class Aircraft Carrier

This section would require the Secretary of the Navy to incorporate full ship shock trial results into the construction of the Ford class aircraft carrier designated CVN-81.

##### Section 124—Multiyear Procurement Authority for Amphibious Vessels

This section would authorize the Secretary of the Navy to enter into a multiyear procurement for five San Antonio-class amphibious transport dock ships with a Flight II configuration.

##### Section 125—Multiyear Procurement Authority for Standard Missile-6

This section would authorize the Secretary of the Navy to enter into one or more multiyear contracts for 625 Standard Missile-6 missiles beginning in fiscal year 2019, in accordance with section 2306b of title 10, United States Code.

##### Section 126—Multiyear Procurement Authority for E-2D Aircraft

This section would authorize the Secretary of the Navy to enter into one or more multiyear contracts for up to 24 E-2D aircraft beginning in fiscal year 2019, in accordance with section 2306b of title 10, United States Code.

##### Section 127—Multiyear Procurement Authority for F/A-18E/F Aircraft and EA-18G Aircraft

Subject to section 2306b of title 10, United States Code, this section would authorize the Secretary of the Navy to enter into one or more multiyear contracts, beginning with the fiscal year 2019 program year, for the procurement of F/A–18E/F aircraft and EA–18G aircraft.

#### Section 128—Modifications to F/A–18 Aircraft to Mitigate Physiological Episodes

This section would require the Secretary of the Navy to modify the F/A-18 aircraft to reduce the occurrence of, and mitigate the risk posed by, physiological episodes affecting crewmembers of the aircraft, and require the Secretary to include certain minimum modifications, and submit to the congressional defense committees a written update on the status of all modifications to the F/A–18 aircraft carried out pursuant to this section not later than February 1, 2019, and annually thereafter through February 1, 2021.

#### Section 129—Frigate Class Ship Program

This section would require the Secretary of the Navy to procure technical data rights to any acquired frigate class vessel. Additionally, this section would require the Secretary to recompete the frigate class procurement not later than the award of the 10th frigate using the acquired technical data rights.

#### Section 130—Limitation on Procurement of Economic Order Quantities for Virginia Class Submarine Program

This section would modify section 124 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) and prohibit the Secretary of the Navy from entering into economic order quantity contracts for the Virginia-class submarine program until the Secretary certifies that such funding shall be used to enter into economic order quantities for 12 Virginia-class submarines.

#### Section 131—Limitation on Use of Funds for DDG-51 Destroyers

This section would limit expenditures of Shipbuilding and Conversion, Navy, for DDG-51 destroyers until the Secretary of the Navy submits a report as to incorporating degaussing standards into the destroyer program.

### SUBTITLE D—AIR FORCE PROGRAMS

#### Section 141—Inventory Requirement for Air Refueling Tanker Aircraft; Limitation on Retirement of KC-10A Aircraft

This section would require the Secretary of the Air Force to increase the current air refueling tanker fleet from 457 to 479 primary assigned aircraft before it

can begin to retire KC-10A aircraft. The Air Force shall maintain 479 total tanker aircraft thereafter, unless adjusted by the fiscal year 2018 "Mobility Capability and Requirements Study."

#### Section 142—Limitation on Use of Funds for KC-46A Aircraft Pending Submittal of Certification

This section would limit the funds authorized to be appropriated to procure three KC-46A aircraft until the Secretary of the Air Force certifies that both supplemental and military type certifications have been approved and that the first aircraft has been accepted by the Air Force.

#### Section 143—Retirement Date for VC-25A Aircraft

This section would fix the retirement date for the purposes of this statute as it applies to the two Air Force VC-25A aircraft as not later than December 31, 2025.

#### Section 144—Contract for Logistics Support for VC-25B Aircraft

This section would require the Secretary of the Air Force to ensure that the VC-25B contract for logistics support complies with part 17.204(e) of the Federal Acquisition Regulation and also complies with section 2304 of title 10, United States Code, with regard to open competition.

#### Section 145—Multiyear Procurement Authority for C-130J Aircraft

This section would authorize the Secretary of the Air Force to enter into one or more multiyear contracts for up to 52 C-130J aircraft beginning in fiscal year 2019, in accordance with section 2306b of title 10, United States Code.

#### Section 146—Removal of Waiting Period for Limitation on Availability of Funds for EC-130H Compass Call Recapitalization Program

This section would strike the 30-day waiting period imposed on EC-130H funds by section 135(a) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

#### Section 147—Findings and Sense of Congress Regarding KC-46 Aerial Refueling Tankers

This section would express the sense of Congress in support of industry and Air Force ensuring that the first KC-46A tanker is delivered in fiscal year 2018.

### SUBTITLE E—DEFENSE-WIDE, JOINT, AND MULTISERVICE MATTERS

## Section 151—Buy-to-Budget Acquisition of F-35 Aircraft

This section would authorize the Secretary of Defense, subject to section 2308 of title 10, United States Code, to procure a higher quantity of F-35 aircraft than authorized by this Act if such additional procurement does not require additional funds.

## Section 152—Certification on Inclusion of Technology to Minimize Physiological Episodes in Certain Aircraft

This section would require that not later than 15 days before entering into a contract for the procurement of a covered aircraft, the Secretary concerned would submit to the congressional defense committees a written statement certifying that the aircraft to be procured under a contract would include the most recent technological advancements necessary to minimize the impact of physiological episodes on aircraft crewmembers.

## TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

### RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, ARMY

#### Items of Special Interest

##### *Accelerated integration to counter emerging threats*

The Committee supports the accelerated integration capability to counter emerging threats being initiated by the Program Executive Office, Missiles and Space. The Army is developing a government-owned capability to provide cyber-robust networked weapon systems designed to operate within rapidly evolving threat timelines.

The Committee understands this is being accomplished through a unique approach to adapt and respond to real-time threats, dramatically accelerating the timeline to employ resilience in networked weapon systems.

The Committee directs the Secretary of the Army to provide a briefing to the Committee on Armed Services of the House of Representatives by March 1, 2019, on the status of progress being made through this accelerated program.

##### *Assured Position, Navigation and Timing*

In response to global peer threats and demands from combatant commanders, the committee last year expressed its concern that the Army was not moving fast enough to field Assured Position Navigation and Timing (APNT) solutions. APNT solutions are required because of the reliance of military vehicles, communications and weapons systems on precise position, navigation and timing. The committee understands that strategic high-end competitors possess the

capability to disrupt systems that depend on GPS which could pose an unacceptable level of risk to U.S. operations in GPS-denied environments. The committee notes the Army has stood up a Cross Functional Team (CFT) pilot to rapidly assess material development solutions to address the APNT mission area and perceived capability gaps.

In response to Section 236 of the National Defense Authorization Act of Fiscal Year 2018, the Army submitted a report to the congressional defense committees dated March 30th, 2018 that described its approach to test various systems at White Sands Missile Range in the 3rd Quarter of Fiscal Year 2018. The Army's report further described fielding both the A kits and B kits of a Quick Reaction Capability to specific units starting in the Second Quarter of Fiscal Year 2019. The committee understands that this testing is ongoing.

The committee directs the Secretary of the Army, in coordination with the Director of the Army's APNT CFT pilot, to provide a briefing to the House Committee on Armed Services by September 1, 2018 that outlines potential courses of action to begin immediate procurement of these systems, subject to successful test and evaluations.

#### *Targeted Soldier Borne Sensor efforts*

The committee is encouraged by the Army's efforts to field the new Soldier Borne Sensor (SBS) capability to the warfighter and is encouraged by the Army's recognition of this capability requirement at the squad level. The committee understands the additional visual and situational awareness provided by the sensor to the warfighter will improve the survivability and lethality of the force. The committee also notes that a capability to operate within high-threat and GPS-denied areas, including but not limited to indoors and within tunnels, is currently available with SBS technologies under evaluation. However, the committee understands there are concerns regarding the current generation of thermal sensors associated with ongoing SBS technology evaluations. Specifically, the committee understands that current thermal sensors reportedly do not provide sufficient resolution to meet desired performance objectives. The committee encourages the Secretary of the Army to focus development efforts to accelerate technology development of electro-optic and infrared sensors that could be carried by the SBS.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by September 28, 2018, on current development efforts to address and resolve concerns regarding electro-optic and infrared sensor capabilities within the SBS platform. This briefing shall also include a detailed analysis of the electro-optic and infrared sensor technologies under evaluation and a plan for addressing the SBS requirement.

#### *Computational molecular modeling and simulation for material development*

The committee is aware the use of modeling and simulation during development of materials and other technologies may result in cost savings and

other benefits, such as enhanced lethality and survivability. The committee understands that computational molecular modeling and simulation results subsequently tested using cold spray synthesis and mechanical testing have resulted in new repair techniques for armor, helmets, and other personal protective equipment. The committee, therefore, encourages the Army Research Lab to continue the utilization of computational molecular research for material development.

### *Future digital munitions and integration*

The committee recognizes the importance for the Army to retain lethality overmatch within its aviation portfolio. The committee continues to support the Army's Future Vertical Lift and Joint Multi-Role technology demonstration initiatives. However, the committee is concerned about the Army's ability to mitigate Apache helicopter and Grey Eagle Unmanned Aerial System munitions and launcher obsolescence limitations for the foreseeable future. The committee believes existing and emerging threats are key factors to ensuring lethality overmatch. As digital aviation-launched munitions evolve, the need for the Army to retain flexibility in aircraft to munitions integration is critical to ensuring Army Aviation platforms retain a decisive edge.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than September 15, 2018, on the following:

- (1) all requirements, acquisition program plans, and developmental initiatives that address the modernization strategy for all aviation platform munitions and launchers beyond currently fielded systems; and
- (2) recommendations on the utility for any development efforts that would modernize aviation launchers and munitions.

### *Future Vertical Lift*

The committee understands that dedicated investment in incremental rotorcraft upgrades has kept America's current vertical lift aviation capabilities viable, and will continue to enable the fleet to bridge capability gaps through the near term. The committee believes that as more dangerous threats emerge at an accelerated pace in the mid-term, unwavering investment in advanced future disruptive technologies like Future Vertical Lift (FVL) will enable rotorcraft aviation to retain overmatch through significant capability improvements in reach, speed, protection, and lethality.

The committee notes that the Army leads the Department of Defense's rotorcraft technology portfolio, which needs additional research and development funding to regain America's world leadership in rotorcraft innovation. Because of America's eroding lead in rotorcraft capability, the committee encourages the Department to explore opportunities to accelerate the FVL program in order to

meet national security challenges. The committee expects the Department to maximize full and open competition in doing so.

The committee believes that fiscal years 2019 and 2020 are pivotal years for the FVL modernization efforts, as critical technology demonstrations provide essential evidence during the completion of the FVL analysis of alternatives, and the Army uses this data and analysis to inform its path forward. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by December 3, 2018, on the outcome of the analysis of alternatives and on any other analysis utilized in deciding the Army's priority of rotorcraft investment for FVL prior to the release of a request for proposal.

### *Harnessing Emerging Research Opportunities to Empower Soldiers*

The committee is aware of the work being done by the Army's Warfighter Technology directorate in improving the protection, survivability, mobility, and combat effectiveness of the Army. The committee is also aware of Harnessing Emerging Research Opportunities to Empower Soldiers (HEROES), an ongoing joint research and development initiative involving both academia and industry. The committee understands that the HEROES initiative accelerates research and innovation through integration of intellectual assets and research facilities, such as those at Natick Laboratory and others. The committee believes programs like HEROES provide benefit to research in areas of advanced ballistic polymers for body armor, fibers to make uniforms more fire resistant, and lightweight structures for advanced shelters that provide tangible benefits to the warfighter. Therefore, the committee encourages the Army to continue to support such programs.

### *High energy laser systems integration laboratory*

The committee has continuing interest in the Army's research, development, and testing of high energy laser weapons systems. The committee is aware of the Army's efforts to develop a high energy laser system integration laboratory in order to provide an interactive means to conduct warfighter assessments and develop the tactics, techniques, and procedures required to employ this technology. The committee recognizes this integration will be critical in bridging the gap from developmental technology to operational capability, while mitigating risk and ensuring warfighter utility. The committee encourages the Army to continue to mature the high energy laser system integration lab, as well as the benefit these activities provide to the research, development, and testing of directed energy weapons.

### *Improved Turbine Engine Program*

The Improved Turbine Engine Program (ITEP) is a competitive acquisition program designed to develop a more fuel efficient and powerful engine to upgrade and enhance the performance and operational readiness of the current Black Hawk

and Apache helicopter fleets. This new engine will increase operational capabilities in high altitudes and hot conditions while reducing operating and support costs. The committee has supported significant Army investments into competitive technology development programs for turbine engines over the past decade. During this time, the Army has made significant progress in maturing technologies that will lower ITEP programmatic risk with the goal of improving warfighting capabilities. In addition, the committee has encouraged the Army to prioritize maintenance and sustainment costs for ITEP to ensure the continued affordability of the program.

The committee also acknowledges the benefits of improved fuel efficiencies through lower specific fuel consumption that the ITEP will bring to the battlefield. This program represents a cost-effective approach to modernizing Army aviation and the committee continues to encourage the Army to pursue opportunities to accelerate the fielding of this capability. The committee recognizes 2019 as a crucial year for the program with Engineering Manufacturing Development (EMD) source selection slated for first quarter fiscal year 2019. Given the positive progress of this critical program, the committee is fully funding ITEP in fiscal year 2019 and encourages the Army to robustly fund ITEP in the EMD phase of the program.

#### *Initial Maneuver-Short Range Air Defense capability*

The committee is aware that the Army's critical capability gap for Air and Missile Defense remains protecting maneuvering forces. The committee understands that Army maneuver formations require short range air defense (SHORAD) and counter-UAS (CUAS) capabilities that can cover a wide range of air threats to include: unmanned aircraft systems (UAS), rotary wing (RW), fixed wing (FW), and rockets artillery and mortars (RAM). As such, the committee understands the Army is pursuing cross-domain, multi-dimensional solutions that can address these threats as part of a maneuver short-range air defense and indirect fires protection capability. The committee encourages the Army to consider areas where commonality exists between current CUAS and SHORAD mission platforms and technologies.

The committee understands the Army has formalized a directed requirement to initiate integration and procurement of an initial Maneuver-Short Range Air Defense (IM-SHORAD) capability on a Stryker combat vehicle. The IM-SHORAD directed requirement requires capability to counter threats posed by UAS, RW, FW, and RAM, as well as address an emerging operational need in support of Operation Atlantic Resolve to provide air and missile defense protection of Stryker and Armored Brigade Combat Teams. The committee understands the acquisition strategy to support this directed requirement is still being developed.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by September 14, 2018, on the Army's accelerated acquisition strategy for the IM-SHORAD initiative, as well as identify requirements that are similar to both the SHORAD and CUAS missions. The briefing should also address capabilities currently under development or already



fielded that could simultaneously address the CUAS and M-SHORAD mission areas.

*Iron Dome experimentation and assessment for short-range air defense*

The budget request included \$38.0 million in PE 64020A for cross functional team (CFT) advanced development and prototyping.

The committee understands the Army established six CFT pilots to examine how the Army could leverage existing resources and accelerate getting needed capability to the warfighter. The Army's critical capability gap for Air and Missile Defense (AMD) remains protecting the maneuvering force and is aware the AMD CFT pilot is focused on accelerating delivery of a maneuver short-range air defense (SHORAD) capability. The committee commends the AMD CFT for getting an approved directed requirement for an interim-maneuver SHORAD capability that accelerated the original schedule by 5 years. The committee notes the AMD CFT is also reviewing other AMD capability gaps for the protection of fixed and semi-fixed sites. The committee expects the AMD CFT to immediately address capability gaps in the areas of indirect fire protection capability and AMD.

Since 2011, Congress has provided over \$1.5 billion for the procurement of Iron Dome batteries for the State of Israel, a system with demonstrated capability against a wide-range of threats. There is value in experimenting with the Iron Dome system through demonstrations to assess operational suitability for the fixed and semi-fixed site AMD mission, and M-SHORAD missions. Such demonstrations will evaluate challenges associated with integration of the Iron Dome command and control system with the existing AMD C2 system and sensors.

The committee recommends \$68.0 million, an increase of \$30.0 million, in PE 64020A to support the acquisition of Iron Dome hardware and associated integration activities, for the operational demonstration of the Iron Dome system against a range of threats to evaluate issues associated with the following:

- (1) integrating the Iron Dome launcher into a U.S. Army AMD architecture for complimentary support of fixed, semi-fixed, and M-SHORAD operations;
- (2) re-designing the Iron Dome launcher to be compatible with the Indirect Fire Protection Capability Multi-Mission Launcher; and
- (3) potential options for accelerating development of the Skyhunter missile.

Further, the committee directs the Director of the AMD CFT to provide a briefing to the House Committee on Armed Services by April 2, 2019, on the Army's plans for this experiment and demonstration. If warranted by the demonstration results, the committee directs the Director of the AMD CFT to provide a follow-on briefing on the advisability and feasibility of rapidly transitioning Iron Dome hardware for immediate use, with budgetary recommendations and schedules for accelerated procurement of additional systems.

*Lightweight metal matrix composite technology for combat and tactical vehicles*

In the committee report (H. Rept. 115-200) accompanying the National Defense Authorization Act for Fiscal Year 2018, the committee recognized the versatility and broad application that Metal Matrix Composite (MMC) Technology provides for the Armed Forces by reducing the weight of parts by 50 percent and increasing their service life by three to four times that of traditional steel parts. The committee understands the U.S. Army Tank and Automotive Research, Development, and Engineering Command (TARDEC) is currently evaluating technologies that can reduce vehicle weight, reduce fuel consumption, increase payload capacity, and extend service life of combat and tactical vehicles, and that MMC technology is part of this ongoing evaluation. The committee supports these efforts and recommends the U.S. Army TARDEC continue to test MMC technology, develop and field components that can reduce vehicle weight, reduce fuel consumption, increase payload capacity, and extend service life.

#### *M119 105mm self-propelled artillery system technology*

The committee understands the Army is examining the operational benefits of procuring a self-propelled 105mm howitzer in order to address existing capability gaps for infantry brigade combat teams (IBCTs) indirect fires capabilities. The committee understands that recent demonstrations as part of the Army's Maneuver and Fires Integration Experiment at Fort Sill produced positive results. The committee supports continued demonstrations of this capability and is aware of a potential future demonstration under consideration by the 18th Airborne Corps. The committee understands the demonstrated system incorporated artillery soft recoil technology with existing 105mm artillery systems and then integrated these technologies onto an existing light tactical vehicle. The committee expects the outcomes from these demonstrations to inform future operational requirements and procurement strategies.

The committee believes this capability could enable the Army to achieve significant improvements in combat capability and lethality through only a modest reinvestment of funding for current or future planned M119 105mm howitzer modifications. Further, the committee also believes a light, self-propelled 105mm artillery system could substantially improve the deterrence posture of the U.S. Army and allied armies in Europe that may face sophisticated, quick-fire counter-battery systems.

The committee directs the Secretary of the Army, in coordination with the Directors of the Long-Range Precision Fires and Soldier Lethality cross-functional teams, to provide a briefing to the House Committee on Armed Services by December 14, 2018, on the advisability and feasibility of rapidly accelerating the testing, evaluation, and procurement of a self-propelled 105mm howitzer to address the indirect fire capability gaps in IBCTs. The briefing shall include feedback and results from recent demonstrations of self-propelled 105mm howitzer technology, specifically the demonstration that occurred as part of the Army's Maneuver and Fires Integration Experiment at Fort Sill.

### *Mobile camouflage system*

The committee notes the longstanding success of our allied partner nations who employ mobile camouflage systems on their combat vehicles, especially within the North Atlantic Treaty Organization and the European theater. These relatively inexpensive camouflage net systems provide enhanced signature management protection, reduce heat and temperature inside and around combat vehicles, and yield fuel savings without interfering with the operation of the vehicles. Army commanders have expressed an immediate operational need for mobile camouflage systems, in particular woodland, desert, and Arctic variants. The committee is aware of the Army's ongoing operational testing of mobile camouflage systems at the National Training Center, and encourages further acceleration of those efforts.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by September 28, 2018, that outlines the mobile camouflage system test results and the Army's plan and timeline to fund the accelerated development and fielding of these systems to the warfighter.

### *Personal Protective Equipment advance technology development*

The budget request contained \$18.0 million in PE 63827A for soldier systems-advanced development.

The committee recognizes advancements the military services have made in researching and developing materials for Personal Protective Equipment (PPE). The committee notes that this work has steadily reduced the weight of and increased ballistic protection for items like helmets, body armor, and protective undergarments designed for the men and women of the Armed Forces. The committee understands, based on the views of senior defense laboratory scientists, that further research on current materials, such as ceramics and Kevlar, are experiencing diminishing returns. The committee supports further research on advanced materials like high molecular weight polyethylene film and new and harder ceramics like boron suboxide.

Therefore, the committee recommends \$28.0 million, an increase of \$10.0 million, in PE 63827A for PPE advanced materials research.

### *Shoot-on-the-Move experimentation for short range air defense systems*

The budget request contained \$61.1 million in PE 63313A for Missile and Rocket Advanced Technology, to include investment in missile components enabling detection and full kinematic capabilities to develop shoot-on-the-move capability for future short range air defense (SHORAD).

The committee is aware the Army is currently pursuing a near-term maneuver short range air defense (M-SHORAD) capability; however, the near-term solution will not include a shoot-on-the-move capability. The committee understands the capability to shoot-on-the-move would potentially be considered as a future capability requirement as part of follow-on M-SHORAD increments. The

committee believes that the development and demonstration of a shoot-on-the-move capability could enable future combat formations to be protected from modern and advanced air and missile delivered fires while maneuvering, and enable continuous force protection during offensive operations.

The committee recommends \$71.1 million, an increase of \$10.0 million, in PE 63313A to accelerate the development and potential demonstration of shoot-on-the-move capability for M-SHORAD platforms and associated systems.

#### *Soldier power and composite armor development*

The budget request contained \$28.6 million in PE 62105A for Materials Technology research.

The committee understands that soldier power and composite armor technology development is critical to meeting the increased power demands of soldiers' equipment, while reducing weight. The committee recognizes that conformal wearable battery technology provides a lightweight, flexible power solution that offers greater mobility and flexibility than current capabilities, while streamlining the various battery types and sizes carried by the soldiers. The committee notes these capabilities provide soldiers with expeditionary power, as well as multiple power management alternatives that are all designed for combat operations in austere environments and can be tailored to any mission. The committee supports these programs and believes that they will help to reduce the soldiers' combat carrying load, while meeting the future demands of an increased power burden as well as maximizing survivability and protection. The committee encourages the Army to continue to work with the industrial base to improve and upgrade components in the soldier power and composite armor portfolio to potentially reduce weight and cost, as well as to improve overall performance.

The committee recommends \$29.6 million, an increase of \$1.0 million, in PE 62105A for Materials Technology research.

#### *Squad multipurpose equipment transport*

The committee understands the Army is conducting a 12-month technology demonstration leading to a capabilities production document and eventual procurement of a squad multipurpose equipment transport system (SMET). The SMET is an unmanned ground vehicle that will transport equipment for specific missions, resupply, and extended operations, thereby reducing soldier load and increasing squad mobility. The committee supports the Army's use of other transaction authority to achieve a rapid start to this effort, and encourages the Army to seek additional ways to expedite acquisition of this critical capability.

The committee directs the Army's Program Executive Officer for Combat Support and Combat Service Support to provide a briefing to the House Committee on Armed Services by November 30, 2018, that includes:

- (1) options to accelerate this acquisition strategy;

- (2) courses of action to ensure the delivered system meets all key performance parameters;
- (3) findings and analysis from the user evaluations conducted by two brigade combat teams; and
- (4) an assessment of each variant's reliance on generators versus batteries, power generation capabilities, noise signatures, abilities to adapt to additional systems such as flail and mine rollers, dual stretchers, backhoe and loader kits, as well as any other capabilities considered to be essential by the program executive officer.

### *Supercavitating ammunition technology*

In the committee report accompanying the National Defense Authorization Act for Fiscal Year 2018 (H. Rept. 115-200), the committee noted that supercavitating ammunition can be used in various operational environments, including air-to-air, water-to-water, air-to-water, and water-to-air, and that this technology could potentially address critical mission capability gaps for the warfighter. The committee also directed the U.S. Army Program Executive Officer (PEO) for Ammunition, who acts as the single manager of all conventional ammunition, to provide a briefing to the House Committee on Armed Services on the current status of supercavitating ammunition technology across the Department ammunition enterprise. The briefing acknowledged that the entire ammunition enterprise of the Department of Defense recognizes the value of supercavitating ammunition, and indicated that several efforts are underway to evaluate its performance. The committee notes that this technology is currently in use by the Department of the Navy and that other organizations in the Department of Defense are evaluating supercavitating small caliber ammunition. The committee is pleased that the Department of Defense is continuing to evaluate the performance of this technology and remains supportive of these efforts.

Therefore, the committee directs the PEO for Ammunition, in coordination with all relevant Department of Defense agencies, to provide a briefing to the House Committee on Armed Services by September 14, 2018, on all current test and evaluation activity currently ongoing and planned for supercavitating ammunition technology.

### *Third Generation Forward-Looking Infrared development*

The committee is aware of a growing parity in U.S. Army sights and sensors against current and emerging threats, particularly when it comes to combat vehicle platforms. The committee is concerned that the Third Generation Forward-Looking Infrared (FLIR) development program is proceeding at too slow of a pace to ensure it will enter production as an integrated system in the next Abrams tank and Bradley Fighting Vehicle upgrades.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by March 15, 2019, on the

Army's plans to synchronize the Third Generation FLIR program with the M1A2 SEP V4 Abrams Upgrade and M2A5 Bradley Fighting Vehicle upgrade. The briefing should also include potential courses of action for, and costs associated with, the acceleration of Third Generation FLIR development.

#### *Transport telemedicine system*

The committee is aware that the Department of Defense is developing capabilities that would provide telemedicine and remote physiological monitoring for casualty care of deployed forces. The committee recognizes that such telemedicine capabilities can provide useful reachback support for complex injuries, especially for sensitive organs where combat medics and surgeons may not have in-depth specialty training. The committee encourages the Department to continue to experiment with and examine ways to use emerging telemedicine capabilities to allow for consultation with specialty subject matter experts to provide soldiers on the battlefield with access to high-quality care for complex and difficult injuries. Additionally, the committee supports the idea of partnering with subject matter experts in order to provide direct, real-time consultation between geographically dispersed military and civilian medical personnel; this would support complex diagnostic and surgical problems, as well as allow conferencing for complicated, but less urgent, patient management decisions and virtualized training and continuing medical education.

#### *Urban warfare training*

The committee has continuing interest in the Department of Defense's ability to prepare for and operate in complex, densely populated urban terrain. Recent trends reflect that the future of global violence is urban, and that the next war will likely be fought in densely populated cities. The committee is supportive of the Department's ongoing efforts, but remains concerned with the lack of Army prioritization and resourcing to address these challenges. The committee is particularly concerned with the Army's lack of realistic training sites that reflect the scale and density of real-world urban operating environments. The committee believes the Army should more aggressively prepare for urban warfare and explore the construction of an urban warfare training center that focuses on basic and advanced skills to fight, survive, and win in urban operating environments. This training should address the challenges associated with vertical, subterranean, and dense urban terrain, and the inclusion and integration of joint and interagency enablers.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than February 1, 2019, on the Army's plan for urban warfare training. The report should include:

- (1) a description of urban warfare training requirements;
- (2) an overview of a plan and timeline to integrate urban warfare training within the Army;

- (3) an identification of costs associated with an urban warfare training program;
- (4) a feasibility study on the construction of an urban warfare training center;
- (5) feasibility of utilizing existing private facilities and contracting training iterations until a final DOD facility can be constructed;
- (6) any critical technology, maneuver, or mobility shortfalls associated with operating in a dense urban environment; and
- (7) force design impacts or considerations within the Army.

## RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, NAVY

### Items of Special Interest

#### *Academic partnerships for undersea unmanned warfare research*

The budget request contained \$58.0 million in PE 62747N for undersea warfare applied research.

The committee supports the Navy's efforts to develop the next generation of nuclear submarines and other undersea systems and capabilities. Specifically, the committee supports research, development, testing, and demonstration of maritime robotic systems that may be used for security and surveillance, inspection and survey, munitions retrieval, and environmental monitoring.

The committee understands that there are additional opportunities to enhance development of the next generation submarines and maritime robotics technology in the areas of autonomy, adaptive decision making, docking, 3-D imaging, energy technologies such as marine and hydrokinetic convertors, and data transfer. The committee believes that university-based research and innovation centered on the development of maritime robotic technology and other capabilities required for advanced undersea warfare will be essential in maintaining the Navy's competitive advantage.

Therefore, the committee recommends \$78.0 million, an increase of \$20.0 million, in PE 62747N. Elsewhere in this title, the committee notes the importance of partnerships with academia to advance unmanned platforms and systems in order to maintain a competitive war fighting advantage.

#### *Artificial intelligence and computer vision technologies in Navy unmanned systems*

The committee has continuing interest in the Navy's ability to leverage artificial intelligence, machine learning, and computer vision in exploitation and analysis. The committee also recognizes the increasing amounts of imagery and other sensor data that Navy unmanned undersea and unmanned surface vessels generate, and the demand this creates for additional processing, exploitation, management, and dissemination of information. The committee recommends the Navy synchronize their efforts with the Under Secretary of Defense for Intelligence,

and ensure that unmanned undersea and unmanned surface vessel computer vision and artificial intelligence requirements are incorporated into Project Maven and other Department of Defense research and development programs. The committee supports the Department's initiatives to leverage commercial technology and innovative solutions to rapidly address current Department challenges, and believes the Navy can benefit from similar capabilities.

*Briefing for the Senate Committee on Armed Services and the House Committee on Armed Services on US Navy's efforts to expand carrier air wing long-range strike capability*

The committee notes that the aircraft carrier air wing has been optimized for striking power and sortie generation and believes that it may not be configured to support the long-range strike required by current and future threat systems. While the introduction of the F-35C will significantly expand stealth capabilities, the F-35C could require increased range to address necessary targets. The committee believes that several options could be used to address this issue to include developing a stealth tanker capability, improved engine technology or to develop and procure a strike capability that is purposely built to strike at increased range. The committee further notes that the Navy previously desired to significantly increase the carrier air wing range with the development of the A-12 aircraft. The committee understands that the A-12 would have included a 5,000-pound internal carriage payload, stealth, and a range of 800 nautical miles. While the committee believes that requirements to support this capability remain relevant and the technology available, the development of the A-12 aircraft was mired in acquisition challenges that eventually resulted in the cancellation of the program. While the committee further believes that the Department of Defense has successfully developed a suite of long-range intelligence, surveillance and reconnaissance capabilities, the committee also believes that it is vital that the Navy develop a carrier-based long-range strike capability.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the Senate Committee on Armed Services and the House Committee on Armed Services by January 25, 2019, on options to expand the strike range of a carrier air wing in a contested environment, including manned and unmanned capabilities, and, Department of the Navy capabilities it plans to pursue in the Next Generation Air Dominance capability.

*Briefing on Navy support for research into autonomous systems*

The committee is aware of the Robotarium, a laboratory hosted at the Georgia Institute of Technology, sponsored by the Office of Naval Research (ONR), where researchers conduct experiments with interconnected, heterogeneous unmanned ground and aerial systems. The committee is supportive of competitively awarded grant programs that enhance academia's ability to conduct complex experiments with autonomous systems. As the role of autonomous systems in



operations is expected to grow, the Committee believes it will be increasingly important for ONR to continue to fund initiatives that prepare future engineers to conduct cutting edge research in this discipline, especially with different classes of autonomous systems including unmanned underwater vehicles, unmanned surface vehicles, and unmanned aerial vehicles operating simultaneously across multiple domains. Therefore, the committee directs the Director of ONR to brief the House Committee on Armed Services by November 1, 2018, on initiatives that enhance the ability of academia to conduct complex experiments with autonomous systems.

#### *Briefing on ongoing engine noise reduction efforts*

The Committee continues to support ongoing efforts to reduce engine noise from the F-414 engine on the F/A-18 E/F Super Hornet and E/A-18 G Growler.

Attachments, known as chevrons, could reduce the noise associated with operations of these aircraft. A reduction in engine noise would benefit sailors working in close proximity to the aircraft, particularly on the carrier deck, and communities near installations home to these squadrons.

Having received the briefing required by the House Report to the Fiscal Year 2018 National Defense Authorization Act, the committee is aware that the Navy may be requesting authority to reprogram Fiscal Year 2018 funding in order to engineer, manufacture, proof and test redesigned chevrons. The Committee supports such a request, provided the funding source is a program with unexecutable funds.

The Committee is aware that these funds would be used to develop an improved chevron design which could achieve significant noise reduction at full military power. The committee directs the Secretary of the Navy to brief the House Committee on Armed Services no later than September 30, 2018 on engineering plans for Fiscal Year 2018 and 2019 and potential applications of chevron designs to additional aircraft.

#### *Consolidated Afloat Networks and Enterprise Services*

The committee acknowledges the Navy's efforts to modernize the functions of its existing command, control, communications, computers, and intelligence network systems through Consolidated Afloat Networks and Enterprise Services (CANES) installation. The committee recognizes that, through CANES, the Navy seeks to build a more responsive and adaptable information technology platform by creating a common computing environment that will increase capabilities, address cybersecurity vulnerabilities, and lower sustainment costs across the fleet. Therefore, the committee continues to support full deployment of CANES, as scheduled, to ensure the Navy's networking environment remains adequately equipped for information warfare.

#### *Defense University Research Instrumentation Program*

The budget request contained \$119.4 million in PE 61103N for University Research Initiatives.

The Defense University Research Instrumentation Program (DURIP), administered by the Office of Naval Research, provides academic institutions conducting research for the Department of Defense the ability to acquire the necessary infrastructure to support high-quality research. Additionally, the instrumentation developed and acquired through the DURIP process ensures that the next generation of scientists and engineers are trained with cutting-edge capabilities for the defense science and technology workforce. The committee understands there is additional opportunity for the Navy to facilitate research in an area of interest to the Navy through the DURIP program.

Therefore, the committee recommends \$129.4 million, an increase of \$10.0 million, in PE 61103N, to support the acquisition of infrastructure required by universities to conduct cutting-edge Navy research.

#### *Directed energy and non-lethal weapons technology policy and guidance*

The budget request contained \$27.6 million in PE 63851M for Joint Non-Lethal Weapons testing.

The committee continues to support the Department of Defense's efforts to develop non-lethal technologies as a materiel solution to provide military commanders with a non-lethal capability to protect military bases, security perimeters, and other secured spaces. The committee acknowledges the importance of these technologies as a force multiplier that gives service members more options, and minimizes civilian casualties and collateral damage. Recent development efforts of High Power Radio Frequency directed energy technologies have advanced these weapons to a maturity that can be used globally by the military services and combatant commands to stop vehicles, vessels, and other systems. The committee is concerned that the lack of policy, strategy, and guidance for employment of these non-lethal weapons has limited the potential benefits of deploying these technologies for use more broadly across the combatant commands.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by November 1, 2018, on the future strategy for non-lethal weapons, including development of appropriate policy and guidance for employment. The briefing should also describe the current organizational structure of the non-lethal weapons program and consider the assignment of a joint proponent for non-lethal weapons who would be responsible for coordinating command requirements, facilitating policy development, and setting conditions for further integration of these capabilities.

The committee recommends \$32.6 million, an increase of \$5.0 million, in PE 63851M for the Non-Lethal Weapons program.

#### *E2-D Advanced Hawkeye Identification Friend or Foe*

The budget request contained \$223.6 million for the E-2D Advanced Hawkeye program.

The committee notes that the E-2D Identification Friend or Foe (IFF) Interrogation System has certain limitations at long range. These limitations affect the ability of the crewmembers to identify threats at range, reducing critical time to react. The committee also notes that applying meta-materials to the E-2D IFF system may improve the E-2D IFF range detection and overall ability of the fleet to react against distant threats.

The committee recommends \$225.6 million, an increase of \$2.0 million, for the E-2D Advanced Hawkeye program.

#### *Joint Air-to-Ground Missile for fixed wing aircraft (JAGM-F) integration*

The committee notes the Department of the Navy, with the eventual retirement of the Maverick missile has similar requirements as the Air Force for Joint Air-to-Ground Fixed (JAGM-F) missile on its AV-8B Harrier, F/A-18C/D/E/F Hornet, and F-35B/C aircraft. JAGM-F is an improvement to the Army's JAGM which will allow the missile to be eject-launched from fixed-wing aircraft to eliminate time sensitive moving targets and high value covered/sheltered and armored targets. The committee understands JAGM-F will be able to combat adverse weather, low visibility and austere communication environments on land and at sea while engaging multiple targets near simultaneously in multiple engagement modes.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by February 8, 2019 that provides potential options for accelerating Navy and Marine Corps efforts with respect to integrating JAGM on fixed-wing aircraft.

#### *Marine Corps Group 5-class unmanned aircraft development*

The budget request contained \$25.3 million in PE 34240M for development of advanced tactical unmanned aircraft system capabilities.

The committee understands that the Marine Corps plans to develop a medium- to large-sized, long-range, medium-altitude, multi-mission, unmanned aircraft system that can persist and survive in an anti-access, area-denial contingency environment. The committee is also aware of multiple capabilities and platforms across joint-service portfolios that could likely mitigate, if not eliminate, the capability gaps and shortfalls identified in the Marine Corps' Initial Capabilities Document, from August 10, 2016, "Marine Air Ground Task Force Unmanned Aircraft System Expeditionary Capabilities." The committee believes the Marine Corps underestimates the required communications, data link, launch, mission execution, and recovery infrastructure, or the human capital resources required to train, operate, maintain, and sustain such a system. The Marine Corps also underestimates the necessary human capital resources required to meet current deployment-to-dwell policy and guidance issued by the Secretary of Defense.

Therefore, the committee recommends \$10.3 million, a decrease of \$15.0 million, in PE 34240M for development of advanced tactical unmanned aircraft system capabilities. The committee also directs the Chairman of the Joint Requirements Oversight Council to provide a briefing to the House Committee on Armed Services, not later than February 5, 2019, that assesses all existing or future joint-service capabilities that are similar in nature to the Marine Corps' planned system, and includes a detailed explanation for why each of those joint-service capabilities could not mitigate or fulfill the gaps or shortfalls identified by the Marine Corps. The committee also directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services, not later than February 5, 2019, that explains the acquisition and funding strategy of the Marine Corps to affordably develop and field an unmanned capability of this nature, and the personnel, funding, infrastructure, and mission-execution resources that would be needed to viably sustain and support this capability.

#### *Maritime intelligence, surveillance, and reconnaissance capabilities demonstration*

The budget request contained no funding for the MS-177A maritime enhanced sensor demonstration program.

The committee notes that the Navy has the opportunity to leverage a \$300.0 million Air Force investment in the MS-177A sensor, which is meant to improve maritime target detection and long-range imaging. This investment could significantly reduce procurement costs and expedite fielding. The committee is aware that U.S. Pacific Command (PACOM) identified the MS-177A in its fiscal year 2018 integrated priority list for consideration. The committee believes that having an organic Navy MS-177A demonstration in the PACOM area of responsibility could help the Navy to assess the full range of anti-surface unit warfare and anti-submarine warfare capabilities. In addition, the MS-177A would help gather needed intelligence against threats in the PACOM strategic environment. The MS-117A would improve the Navy organic capability to conduct standoff anti-surface unit warfare intelligence, surveillance, reconnaissance, and long-range positive identification of targets.

The committee recommends \$23.5 million for the MS-177A maritime enhanced sensor demonstration program.

#### *Naval underwater test ranges*

The committee has continuing interest in the Department of Defense's plan to redevelop and modernize the Barking Sands Tactical Underwater Range (BARSTUR). The committee report (H. Rept. 114-577) accompanying the Department of Defense Appropriations Act, 2017, directed the Navy to submit a report to the congressional defense committees on the plan to redevelop and modernize BARSTUR. The report was submitted on October 13, 2017. The report provided by the Navy noted that BARSTUR is an invaluable asset to numerous Hawaii-based and transiting subsurface, surface, and aviation platforms. The

committee notes the underwater range is used extensively to conduct submarine sonar, fire control, and weapons technical and operational evaluations, and serves a critical role in hosting the world's largest international maritime warfare exercise, Rim of the Pacific. This exercise serves as a means of promoting stability in the region and represents a unique training opportunity to foster and sustain cooperative relationships that are necessary for ensuring the safety of sea lines of communication and security in the Pacific Ocean. The committee remains concerned about the readiness and operational status of the Barking Sands Tactical Underwater Range and its ability to support critical training and exercises. The committee encourages the Navy to aggressively sustain the modernization timeline, begin the program requirement and acquisition process, and support a competitive source selection and contract award to achieve operational capability in fiscal year 2026.

#### *MQ-25 Unmanned Carrier Aviation program*

The budget request contained \$718.9 million for the MQ-25 Unmanned Carrier Aviation program.

The committee supports the Navy's efforts to develop and field a carrier-based unmanned aerial system to provide refueling as well as intelligence, surveillance, and reconnaissance support to the fleet. The committee notes that the Chief of Naval Operations intends to accelerate this program by 2 years in order to provide this capability by 2026. To date, the Navy has provided insufficient air vehicle justification. Budget documents state that \$598.78 million will go to Air Segment Primary Hardware Development with very little further justification or cost estimates.

The committee recommends a decrease of \$116.9 million, for a total of \$602.0 million, to procure one test article for the MQ-25 Unmanned Carrier Aviation program.

#### *Navy Explosive Ordnance Disposal recovery operations*

Navy Explosive Ordnance Disposal (EOD) forces require a safe, effective, and supportable means to conduct Raise, Tow, and Beach (RTB) operations. These operations entail attaching suitable lifting mechanisms to the item of interest on the sea bed (e.g., threat items, Unexploded Ordnance (UXO), salvage items), actuating the lifting mechanism to raise the item to the sea surface, and securing and/or transporting the item of interest to a safe environment for subsequent action. The committee notes that Navy desired to employ the MK V Ordnance Recovery Air Bag (ORCA), a commercial-off-the-shelf (COTS) lift bag with similar lift capacity to legacy requirements. However, the ORCA system was never transitioned to a program of record that could replace the Mod 1 because the system experienced numerous material and design shortcomings making its continued use unacceptable without significant design modifications. Last year, Navy reassessed this issue and determined that the EOD Lift Balloon capability should be provided

by the MK 2 MOD 2 Flotation Bladder Assembly. The committee notes that comparable capabilities exist to support this requirement including a developmental lift balloon and an automated tow coupling actuation system currently in limited use by EOD. Therefore, the committee directs the Secretary of the Navy to provide a brief to the House Armed Services Committee by October 1, 2018 that provides a comparison of the current program of record with other developmental efforts.

#### *Navy Next Generation Enterprise Network*

The committee acknowledges the Defense Information System Agency's current role in providing network management and security to the Navy's networks. The committee is also aware that the Navy has sought commercial sector input for modernizing its information technology services through the Navy Next Generation Enterprise Network. The committee recognizes that employing advanced commercial network capabilities for end-to-end network connectivity can promote rapid innovation, lead to cost efficiencies, and enhance security capabilities. Therefore, the committee encourages the Department of Defense, where practicable, to take advantage of commercial-off-the-shelf capabilities for supporting, securing, and modernizing its networks.

#### *Navy Theater Anti-Submarine Warfare prototyping*

The committee understands that the Navy plans to begin a Deployables Program of Record (PoR) in fiscal year 2020 which intends to address operational gaps in wide area undersea surveillance. The committee commends the Navy for conducting a robust prototyping program as a part of Theater Anti-Submarine Warfare (TASW) efforts since fiscal year 2015, which will inform future requirements and will produce valuable technical and operational information regarding the fielding and employment of deployables capabilities. However, the committee is also aware that under the current fiscal year 2020 start timeline, tested production units from the Deployable System of Systems Project effort will not be operationally available until late 2022. Therefore, the committee directs the Secretary of the Navy to brief the House Committee on Armed Services by August 30, 2018 as to a plan to maximize the capabilities that have been achieved from current prototyping efforts as well as how the Secretary intends to mitigate the operational gaps that could result because of the Deployables PoR fielding schedule.

#### *Ocular Interruption System*

The Committee is aware the Marine Corps' new Ocular Interruption System, which will replace the current decades-old system, represents a materiel solution providing personnel a single, non-lethal hail and warning capability applicable across the range of military operations where the objective is to minimize civilian casualties and limit collateral damage. The Committee is concerned with the budget request's proposed reduction of the Marine Corps Approved Acquisition

Objective (AAO) requirement of 1,758 units from the previously stated goal of 1,848 units, and the delay of Full Operational Capability (FOC) until the fourth quarter of fiscal year 2020. The Committee is further concerned that the AAO requirement and the FOC timeline may have been altered without an associated change in requirements. Therefore, the Committee directs the Commandant of the Marine Corps to provide a briefing, not later than September 1, 2018, to the House Armed Services Committee on a plan to potentially fulfill its original AAO requirement of 1,848 units. This briefing shall include to planned delivery order schedule, pricing per unit, and fielding schedule.

*Passive rocket propelled grenade armor protection technology*

The committee notes there have been significant improvements in passive rocket propelled grenade (RPG) armor protection over legacy RPG armor systems, which are heavy and cumbersome, and present form, fit, and function constraints, particularly for Marine Corps ground combat tactical vehicle fleets operating in expeditionary environments. The committee encourages the Secretary of the Navy to consider lightweight RPG armor solutions that provide protection against RPG attacks while maintaining the ability to fold flat against the vehicle to allow for rapid deployment and transport from amphibious ships and aircraft.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by February 1, 2019, on the testing, evaluation, and integration of lightweight, textile, and flexible RPG armor solutions that provide protection against RPG attacks, while maintaining the ability to fold flat against the vehicle to allow for rapid deployment and transport from amphibious ships and aircraft.

*Small Business Innovation Research—Automated Test and Retest Program*

The committee recognizes the Small Business Innovation Research (SBIR) program is a valuable tool to engage small business and provide a pathway for innovators to conduct business with the Department of Defense. The National Defense Authorization Act of 2012 (Public Law 112-81), Section 5001, also known as the SBIR/STTR Reauthorization Act of 2011, mandates that agencies, to the greatest extent practicable, shall issue Phase III awards to the SBIR award recipients that developed the technology. The committee is aware that the technology developed for the Automated Test and Retest Program has demonstrated success that has led to an enterprise-wide approach, and offers cost savings over current efforts. The committee encourages the Navy to continue to support SBIR award recipients to the greatest extent practicable for any Phase III awards associated with the Automated Test and Retest Program.

Therefore, the committee directs the Secretary of the Navy, no later than 31 January 2019, to provide to the Committee on Armed Services of the House of Representatives, a briefing on the Automated Test and Retest Program. The briefing should include an overview of SBIR award recipients associated with this

program, the Navy's methodology and process for considering SBIR Phase III awards, and a plan detailing how the Navy's Automated Test and Retest program will comply with the SBIR/STTR Reauthorization Act of 2011 for future contract awards.

#### *TH-57 follow-on training system*

The budget request contained no funds in PE 63208N for the TH-57 follow-on training system program.

The committee notes that the Department of the Navy procured the TH-57B and TH-57C helicopters used to train Navy, Marine Corps, Coast Guard, and foreign military partners between November 1981 and December 1985. The committee further notes that budget justification materials submitted with the budget request for fiscal year 2019 describe the TH-57 training system as experiencing obsolescence, diminishing manufacturing sources and material shortages, and increasingly expensive operating costs relating to aging aircraft issues. The committee understands that this situation results in potential pilot training shortfalls that will have a negative impact on readiness.

Accordingly, the committee believes the Department of the Navy should accelerate the program to procure a follow-on system to replace the TH-57B and TH-57C helicopters. The committee recommends \$1.0 million in PE 63208N for this purpose.

#### *U.S. Navy MH-60R helicopter antisubmarine warfare and aircraft health monitoring*

The committee understands the U.S Navy operates a fleet of Antisubmarine Warfare (ASW) equipped MH-60R helicopters. The committee notes the MH-60R is fitted with advanced mission systems and sensors that are capable of detecting and engaging modern submarines in littoral and open ocean scenarios. However, the committee understands that the current ASW sonobuoy receiver is heavy and limited to its specific mission of receiving and transmitting data to and from U.S Navy sonobuoy fields for analysis through acoustic processors.

The committee is aware that new Size Weight and Power (SWaP) receiver technology currently being used on the DDG-51 that could provide the Navy with enhanced capability while also reducing weight on the MH-60R by over forty pounds. Additionally, the committee understands that the new receiver has the capability to integrate a Next Generation Health Monitoring System (NGHMS), which has the potential to replace the current HUMS system on the aircraft, saving an additional fifty pounds of critical weight. The committee is also aware the U.S. Army is currently conducting demonstrations of NGHMS on the UH-72 Lakota light utility helicopter.

The committee directs the Secretary of the Navy, or his designee, to provide a briefing to the House Committee on Armed Services by September 28, 2018 that provides operational details of the DDG-51 SWaP receiver to include capabilities,



any challenges associated with integration with NGHMS and subsequently onto the MH-60R platform. The briefing should also include a notional plan for testing this technology as well as a notional acquisition strategy.

#### *Warfighter safety and performance*

The budget request contained \$56.2 million in PE 62236N for Warfighter Sustainment Applied Research.

The committee notes that this program has been instrumental in technology efforts to improve warfighter safety, prevent occupational injury in hazardous, deployed areas, and minimize the effects of extreme environments. The committee believes additional research focused on the safety, performance, and resilience of Navy divers can further reduce risk during dangerous missions in adverse conditions. Research areas that warrant additional focus include studies on decompression sickness, oxygen toxicity, optimization of diver performance, and assessment of the impact of thermal stress. This research can also illuminate human performance characteristics and technologies that have implications across a much larger set of mission-relevant performance calculations.

The committee recommends \$56.2 million, the amount requested, in PE 62236N for Warfighter Sustainment Applied Research.

### RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, AIR FORCE

#### Items of Special Interest

#### *Academic and industrial partnerships for aerospace materials*

The budget request contained \$42.0 million in PE 63680F for the manufacturing technology program.

The Air Force has been studying materials for advanced aerospace needs to enhance lethality and survivability in accordance with the 2018 National Defense Strategy. The committee understands developing and manufacturing advanced materials can be challenging, and that opportunity may exist for the Air Force Research Laboratory to leverage existing relationships, and form new partnerships, with higher education and industrial partners in the Manufacturing Technology Program to better understand these challenges. Specifically, the committee believes greater leveraging of software and simulation tools to assess new machining, composite manufacturing, casting, and additive manufacturing technologies being developed by original equipment manufacturers, will ultimately improve advanced material development and manufacturing.

Therefore, the committee recommends \$47.0, an increase of \$5.0 million, in PE 63680F to develop advanced materials and increase advanced materials manufacturing through academic and industrial partnerships to better support aerospace needs.

*Academic partnerships for modeling, design, and analysis of unmanned air platforms*

The budget request contained \$190.9 million in PE 62203F for aerospace propulsion research and development.

The committee is aware that the Air Force performs a wide range of advanced research and engineering in multi-disciplinary design for unmanned air platforms. Further, the committee recognizes that advanced modeling and design, as well as quicker comparative analyses, are beneficial to this effort. The committee believes that academia is well-suited to partner with the Air Force on modeling, design, and comparative analysis through the use of Educational Partnership Agreements, which are mutually beneficial agreements that may also enhance the Air Force's effort to recruit a diverse and educated workforce.

Therefore, the committee recommends \$195.9 million, an increase of \$5.0 million, in PE 62203F for Educational Partnership Agreements for unmanned platforms.

Elsewhere in this title, the committee notes the importance of partnerships with academia to advance unmanned platforms and systems in order to maintain a competitive war fighting advantage.

*Advanced engine development program*

The budget request contained \$1.2 billion in PE 64858F for technology transition programs, of which \$790.4 million was included for the advanced engine development project.

The advanced engine development project enables demonstration of advanced turbine engine prototypes. The committee notes that the main effort in this project is the adaptive engine transition program, which is maturing fuel-efficient adaptive engine component technologies and reducing associated risk in preparation for next-generation propulsion system development for multiple combat aircraft applications. The committee understands that adaptive engine technology enables next generation combat aircraft capabilities by combining the efficiency of high-bypass turbofans used by commercial airlines with the performance demanded of military fighter engines. This technology has undergone initial development through the adaptive engine technology and adaptive engine technology demonstrator programs, which the committee has supported in past years. The committee believes that both legacy aircraft and future aircraft can benefit from this capability and technology. Therefore, the committee encourages the Department of the Air Force to continue to make the necessary investments in these critical technology demonstrations and engine developments to ensure operational capability is achieved at the earliest opportunity.

The committee recommends \$790.4 million, the full amount requested, in PE 64858F in order to continue the advanced engine development project, and further encourages the Department of Defense to consider early initiation of

development programs aimed at transitioning advanced engines into the field for both legacy and future combat weapon systems.

#### *Advanced pilot training program*

The budget request contained \$265.5 million in PE 65223F for the advanced pilot training (APT) program. The APT program will replace the Air Education Training Command's aging T-38C fleet with new aircraft, a ground-based training system, a maintenance training system, and support infrastructure currently used in the fighter/bomber advanced Specialized Undergraduate Pilot Training track, as well as in the Introduction to Fighter Fundamentals program.

The committee continues to view the APT program as a critical program to replace the aging T-38C aircraft in order to train student pilots in an advanced training aircraft so they can make a more effective transition to fifth-generation combat aircraft upon graduation from undergraduate pilot training. The committee notes that for fiscal year 2018, contract award had been planned for late 2017, and has now been delayed until the summer of 2018. If the delay in contract award extends beyond the summer of 2018, the committee expects the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services within 30 days of the delay announcement, detailing the reasons for further delay, impact on aircraft delivery, and efforts to mitigate the delay so that initial and full operational capability remains on schedule.

The committee recommends \$265.5 million, the full amount requested, in PE 64233F to continue the APT program. The committee also expects the Secretary of the Air Force to provide the briefing to the House Committee on Armed Services directed in the committee report (H. Rept. 115-200) accompanying the National Defense Authorization Act for Fiscal Year 2018, on potential options to accelerate the APT program, subsequent to contract award.

#### *Advanced radar threat system emitters*

The budget request contained \$35.9 million in PE 64735F for Department of the Air Force combat training range development, of which \$34.8 million was included for development of a family of advanced radar threat system (ARTS) emitters. The ARTS programs develop, design, build, and test threat system simulators based on advanced foreign-fielded surface-to-air missile (SAM) radar threat systems. ARTS will be used at Department of Defense training ranges for fourth- and fifth-generation aircrew training and tactics development to increase combat effectiveness and aircrew survivability by training aircrews to engage or defend against an advanced SAM threat before encountering it in actual combat to stress their tactics, techniques, and procedures.

The committee understands that ARTS radars would add modern, high-fidelity threat training devices to the ranges that are capable of interacting with fifth-generation sensor-fusion technologies. During a visit to Hill Air Force Base, Utah, in April 2018, F-35A pilots briefed committee members that current training

ranges are not equipped with the threat radars necessary to provide the most effective training for F-35 pilots, and the committee believes that the ARTS emitter programs should be accelerated.

Accordingly, the committee recommends \$62.9 million in PE 64735F for Air Force combat training range development, an increase of \$27.0 million, to accelerate the ARTS emitter programs, and understands that this amount is executable in fiscal year 2019.

#### *Advanced Turbine Engine Gas Generators*

The Advanced Turbine Engine Gas Generator project develops and demonstrates core engine technologies to address the growing need for affordable small turbofans utilized in current and future missile and remotely piloted aircraft propulsion systems. The project develops and demonstrates technology to reduce cost of ownership by half while improving mission flexibility and fuel consumption to increase range. It will also pave the way for providing much needed competition where there currently is none. The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services, not later than February 15, 2019, on Department of the Air Force plans to fund technologies which lead to low cost, high performance turbofan engines of up to 1,200 pounds of thrust.

#### *Aerospace composite structures manufacturing*

The budget request contained \$42.0 million in PE 63680F for the Air Force manufacturing technology program. Of this amount, \$30.1 million was requested for advanced manufacturing technology, including agile manufacturing capabilities.

The committee believes that manufacturing technology related to cost reduction for aerospace composite structures is a particularly important part of this overall effort. Specifically, the committee encourages work on production cost reduction methods, low-cost tooling, and agile manufacturing technologies to enable future Air Force unmanned systems requirements to be achieved at an affordable cost.

The committee recommends \$42.0 million, the full amount requested, in PE 63680F for the Air Force manufacturing technology program.

#### *Air Force test and evaluation support*

The budget request contained \$692.8 million in PE 65807F for Department of the Air Force test and evaluation support. The committee notes that this amount is \$14.5 million, or about 2 percent, higher than the budget request for fiscal year 2018. The committee also notes that test facilities, capabilities, and resources operated through this program include wind tunnels, rocket and jet engine test cells, armament test ranges, civilian payroll, and contractor services.

In the committee report (H. Rept. 115-200) accompanying the National Defense Authorization Act for Fiscal Year 2018, the committee reported on a

briefing it received on a comprehensive assessment of Major Range and Test Facility Base needs and investments to meet the testing required for fifth- and sixth-generation aircraft and air armament, including hypersonic strike weapons. The committee noted that among its findings were that fifth- and sixth-generation aircraft and weapons introduce test and evaluation gaps, and that significant research and development and operations and support investments are required to fill those gaps.

For fiscal year 2018, Department of the Air Force officials informed the committee that funding for test and evaluation support is about \$30.0 million below its historical norms, and that this funding erosion has diminished the ability of the Air Force Test and Evaluation (T&E) enterprise to support T&E of next-generation capabilities in the near term. Since the budget request for fiscal year 2019 would only provide an inflation increase over the previous year, the committee believes that the budget request for fiscal year 2019 is also about \$30.0 million below historical norms.

Consequently, the committee recommends \$724.7 million in PE 65807F for Air Force test and evaluation support, an increase of \$31.9 million, to provide improved open-air range test capabilities on a timeline that supports the Air Force's roles in the development of next-generation platforms and air armament, and addresses the growing range challenges.

*Air Operations Center software modernization utilizing agile development software processes*

The budget request contained \$106.1 million in PE 27410F for the Air and Space Operations Center (AOC), of which, \$97.6 million is for development of applications and software for the AOC utilizing agile software development and operations (Ag DevOps) techniques.

The committee is disappointed in the past attempt to modernize and upgrade AOC capability through the AOC 10.2 program and the waste of fiscal resources that occurred as a result of AOC 10.2 program termination. The committee is concerned by the Air Force's lack of knowledge regarding contractual insights and cost data, the inability to explain cost-estimation tools and planning considerations necessary to formulate budgets, and how the Air Force values the goods and services received for the resources expended.

Therefore, the committee recommends \$79.6 million in PE 27410F, a decrease of \$26.5 million, for development of applications and software for the AOC utilizing Ag DevOps techniques. The committee also includes a provision elsewhere in this title that would provide the Secretary of the Air Force 25 percent of authorized funding recommended until the Secretary provides a report to the congressional defense committees on software development cost-estimation tools needed to develop "should-cost" models, information regarding costs incurred to date for software development, and a sufficiency review of the report by the

Department of Defense Director, Defense Pricing and Acquisition Policy office prior to submitting the report to Congress.

*Autonomous life support system*

The budget request contained \$36.5 million in PE 63456F for human effectiveness advanced technology development, but included no funds for an autonomous life support system (ALSS). An ALSS is a system in development that would monitor the physiologic state, respiratory profile, and environmental conditions of a pilot in a fighter or training aircraft. It automatically adjusts to the pilot's physiologic demands, thereby diminishing the prospect that a pilot would be subjected to a physiological episode resulting from an inadequate supply of oxygen.

A National Aeronautics and Space Administration (NASA) report conducted by the NASA Engineering and Safety Center, dated September 14, 2017, on F/A-18 and EA-18 fleet physiological episodes, recommended the development of systems that would monitor a pilot's physiologic state. The committee understands that the Air Force's 711th Human Performance Wing is pursuing a cooperative research and development agreement with a contractor to develop an ALSS that includes capabilities for monitoring inhaled and exhaled gas. The committee further understands that the scope of funded work should also include the monitoring of pilot physiology for heart rate, pulse or tissue oxygenation, and estimated core temperature, and that an increase in funds for this purpose would accelerate the development of an ALSS.

Consequently, the committee recommends \$46.5 million, an increase of \$10.0 million, in PE 63456F.

*Education and outreach for anti-tampering and cybersecurity research*

The committee recognizes the role that anti-tampering technology plays in safeguarding U.S. military weapon systems from theft, reverse engineering, and exploitation. The committee acknowledges and supports the Air Force's highly focused efforts to grow technological advances in this area. Therefore, the committee encourages the Department of Defense to fully fund programs that support anti-tampering research and development. Furthermore, the committee encourages the Department to leverage talent from Historically Black Colleges and Universities (HBCUs) that have a proven track record of excellence in this particular field. The committee recognizes the vital contributions that HBCUs have made in supporting defense readiness and national security priorities through successful research initiatives.

*F-15 ALQ-128 electronic warfare warning set*

The budget request contained \$192.9 million in PE 27134F for development of F-15 systems, but included no funds for development of the ALQ-128 electronic warfare warning set (EWWS). The ALQ-128 EWWS is a countermeasures receiver

used on the F-15C, D, and E aircraft. The ALQ-128, used in concert with other systems, provides active jamming against enemy radar threats.

The committee notes that with the fielding of upgraded active electronically scanned array radars on the F-15 fleet, the aircraft's automatic electronic warfare warning countermeasures and active jamming capability was lost because the legacy ALQ-128 EWWS is not compatible with the new antennas and cannot be upgraded. The committee understands that an ALQ-128 development program to re-design the ALQ-128 would regain the lost warfighter capability to provide active jamming against enemy radar threats, and is necessary to provide an expandable and upgradeable system to meet mission requirements.

Therefore, the committee recommends \$242.9 million, an increase of \$50.0 million, in PE 27134F for development of the ALQ-128 EWWS.

### *F-35 follow-on development*

The committee notes that the F-35 program has accomplished the final developmental test flight of the system development and demonstration (SDD) phase of the program on April 11, 2018. While the SDD required flight test is now complete, the committee further notes that flight testing continues in support of phased capability improvements and modernization of the F-35 air system in an effort formerly known as block four and now known as continuous capability development and delivery (C2D2). The C2D2 program will provide timely, affordable incremental warfighting capability improvements to maintain joint air dominance against evolving threats to the United States and its allies.

Section 224(b) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) directed the Secretary of Defense to submit a report to the congressional defense committees that contains the basic elements of an acquisition baseline for the F-35 block four program. However, the report delivered in January 2018 provided only an initial insight into the basic elements of the F-35 C2D2 program. The committee understands that a complete report is planned to be submitted in March 2019, and believes that the basic elements of an acquisition baseline are vital to the ability of the committee to conduct its oversight responsibilities of a significant F-35 modernization budget.

Therefore, elsewhere in this Act, the committee recommends a provision that would limit the obligation of funds for the F-35 C2D2 program until the Secretary of Defense submits the complete report required by section 224(b) of Public Law 114-328.

The committee also notes that in its annual report on the F-35 program, the Director of Operational Test and Evaluation assessed that the F-35 C2D2 schedule was not executable due to insufficient test resources, including an inadequate number of test aircraft configured to conduct C2D2 test flight activity. Accordingly, the committee believes the Department should procure an additional six new test aircraft, two in each of the F-35A, F-35B, and F-35C configuration, to support the

C2D2 program so that capability improvements and modernization can be more rapidly developed and procured to meet evolving threats.

### *Metals Affordability Initiative*

The budget requested contained \$37.9 million in PE 63112F for Advanced Materials for Weapons System.

The committee recognizes the importance of this program in providing affordable materials and manufacturing technologies across the entire life-cycle of aerospace materials. Specifically, the Air Force Research Lab-managed Metals Affordability Initiative has reduced metallic aircraft component costs and accelerated the implementation and transfer of technologies across a wide range of aircraft platforms. The committee notes the value of this public-private partnership and the risk sharing model that has directly led to a nearly \$2.4 billion return on the U.S. Government's investment. The committee recommends the Secretary of the Air Force create a dedicated funding line for the Metals Affordability Initiative to show the Air Force's clear commitment to this program.

The committee recommends \$47.9 million, an increase of \$10.0 million, in PE 63112F for Advanced Materials for Weapons System.

### *Passive ground-based imaging of space objects*

The committee is aware of the progress with ground-based space imaging experiments being made by the Air Force Research Laboratory's (AFRL) Joint United States-United Kingdom Research Team. The committee recognizes the potential for high resolution imaging of geosynchronous satellites that also supports the AFRL Science, Technology, Engineering, and Mathematics education goals. The committee is also aware of positive initial test results and additional ground based experiments using full scale baseline separations of over 100 meters between the tracking telescopes. The committee recommends the AFRL continue ground-based space imaging experimentation with passive/unobtrusive optical amplitude interferometry imaging in combination with other surveillance systems for Department of Defense applications.

### *Precision metrology tools*

The budget request contained \$125.3 million in PE 62102F for materials research and development.

The committee recognizes that metrology, or the development of precise measurement tools, is an important aspect of materials research. As the ability to manipulate materials at the subatomic scale, and to generate new and novel materials from computational design, continues to advance, it will also require further development of precision measuring tools. The committee encourages the Air Force to explore new and innovative methods to develop and provision for these



tools, including through public-private partnerships to field and maintain cutting-edge metrology systems.

Therefore, the committee recommends \$128.3 million, an increase of \$3.0 million, in PE 62102F to support the development of advanced, precision metrology tools.

*Recapitalization of Battle-Management, Command and Control, and associated intelligence capabilities in support of ground forces*

The budget request contained no funds in PE 37581F for the Joint Surveillance Target and Attack Radar System (JSTARS) Recapitalization (Recap) program, and \$14.9 million for research and development, and \$9.9 million for procurement activities related to the legacy E-8C JSTARS program.

The committee is concerned and disagrees with the Air Force's decision to terminate the JSTARS Recap program. While the committee understands the Air Force's desire to transition to a new "family of systems" concept for providing intelligence to the Joint Force, it believes that the proposed plan involves significant risk in terms of technology development, integration, cost, and schedule, and therefore the termination of the JSTARS Recap program is unwarranted and will create a significant gap in overall ISR capability and capacity. While the Air Force claims to have accounted for such risks in its decision, the committee does not believe it is appropriate to accept these risks given the importance of this mission area to the Joint Force. In addition, the committee notes that the Air Force's decision on the JSTARS Recap program directly contradicts numerous Department of Defense analyses, and senior-officials' testimony provided to Congress regarding requirements, capabilities, war-gaming, and affordability that justified the existence and execution of the JSTARS Recap program, as recently as part of the fiscal year 2018 budget request.

Further, the committee is also concerned that the Air Force's decision could impose an unacceptable level of risk to joint ground forces that will rely heavily upon JSTARS Recap to provide reliable, consistent, accurate, and highly integrated Battle-Management, Command and Control, and Ground Moving Target Indicator intelligence capabilities. Finally, the committee believes that the Air Force's decision did not take into account the significantly improved capabilities and increased capacity that the JSTARS Recap aircraft, utilizing a modern aircraft design with fifth-generation radar technology and integrated software processing, is currently designed to bring to the battlefield as compared to the current fleet of legacy E-8C aircraft.

Therefore, the committee recommends \$623.0 million, an increase of \$623.0 million, in PE 37581F to fund the JSTARS Recap program's continued development. The committee also includes a provision elsewhere in this title that addresses this program.

*Reusable hypersonic vehicle structure development*

The budget request contained \$130.5 million in PE 62201F, and \$125.4 million in PE 62102F for aerospace vehicle technologies and materials. The committee supports the Department of Defense's efforts to accelerate the testing and development of hypersonic vehicles. The committee believes further investment in the development of economically efficient reusable hypersonic systems will extend national defense capabilities beyond the limits of expendable systems. Additional reusable hypersonic vehicle structure development and thermal protection system development is necessary to enable rapid global response to threats, and extend the survivability of platforms in highly contested environments. Further research focused on ceramic matrix components, fabrication, assembly, and full-scale component testing is necessary in order to meet the Air Force's fiscal year 2019 test bed vehicle operations goals. The committee recommends \$140.5 million, an increase of \$10.0 million, in PE 62201F and \$135.34 million, an increase of \$10.0 million, in PE 62102F for aerospace vehicle technologies and materials, to accelerate the development of reusable and air-launched hypersonic vehicle structures.

#### *Robust aircraft electrical power and thermal management systems*

The budget request contained \$115.5 million in PE 63216F and \$190.9 million in PE 62203F for the development and demonstration of electrical power, thermal management, and distribution for aerospace applications.

The committee recognizes the Air Force is highly focused on developing directed energy and laser weapons systems, both for self-protection and to provide offensive capability for future aircraft. In order to meet those goals, the Air Force will not just need a lasing system and optics with the size and weight to be incorporated into aircraft-sized systems, but it will also need an end-to-end power generation system that can meet all of these new power demands in addition to all of the other electrical and avionics subsystems on these aircraft. The committee encourages the Air Force to focus developmental work on the aerospace electrical power for lightweight and efficient power technologies needed for those future aircraft concepts.

Therefore, the committee recommends \$125.5 million, an increase of \$10.0 million, in PE 63216F, and \$195.9 million, an increase of \$5.0 million, in PE 62203F, to accelerate design, fabrication, and testing to support a light-weight, robust electrical power and thermal management system for future aircraft needs.

#### *Secure-live-virtual-constructive advanced training environment*

The budget request included \$112.5 million in PE 62202F for Human Effectiveness Applied Research, a program element that includes learning and operational readiness.

The committee notes that this project supports research on the application of cognitive science for performance improvement by enhancing training in mission-relevant environments. This includes advanced technology demonstrations for a

secure live-virtual-constructive advanced training environment and live-virtual-constructive cockpit technologies. The committee recognizes the important advances that have resulted from this particular technology demonstration since its inception in 2015, and looks forward to a joint services proof of concept demonstration, as well as accelerated encryption and waveform development. As the U.S. Air Force continues to seek ways to leverage cutting-edge technologies in realistic training and improve mission readiness, the committee is interested in ensuring the joint interoperability of this technology in fifth generation aircraft.

The committee recommends \$112.5 million, the full amount requested, in PE 62202F for Human Effectiveness Applied Research.

#### *Small diameter bomb II cost reduction initiative*

The committee understands the small diameter bomb increment II (SDB II) is a joint program between the Air Force and Navy. The SDB II can be used on every tactical fixed-wing aircraft platform and provides the warfighter the capability to attack mobile targets from stand-off ranges, through inclement weather and adverse conditions. The committee notes that since the award of the initial production contract the cost of an all up round (AUR) has increased largely as a result of lower-than-expected quantities of the tri-mode seeker that is currently used on SDB II for other precision guided munition programs. The committee is concerned that this could negatively impact potential planned procurement of SDB IIs in the out-years, and as a result could delay SDB II fielding when the program is scheduled to increase production.

The committee encourages the Secretary of the Air Force to examine implementing potential cost reduction efforts to address rising AUR costs related to the tri-mode seeker at this early stage of SDB II production in order to maximize return on investment for the Department of Defense and the taxpayer.

#### *Technology Transition Program*

The budget request contained \$1.2 billion in PE 64858F for the Technology Transition Program.

The committee commends the program's efforts to accelerate and transition technologies and prototypes into acquisition programs of record and operational use. The committee notes a majority of the funds are allocated towards advanced engine development and prototyping, and is concerned that only \$87.2 million is allocated for experimentation with other technologies. The investment in non-engine technologies is insufficient to address the critical technology and development required to transition systems-of-systems research, mixing low-tech and high-tech assets in a combat-effective framework, and scalable and additive manufacturing solutions.

The committee recommends an increase of \$15.0 million in PE 64858F for non-engine technology experimentation and competitively awarded transition programs within the Technology Transition Program.

### *Wide-area motion imagery intelligence capability*

The budget request contained \$175.3 million in PE 35206F for development of airborne reconnaissance systems, but contained no funding for continued development and modernization of wide-area motion imagery (WAMI) beyond line-of sight (BLOS) capabilities.

The committee notes that persistent, near real-time day and night WAMI capability is considered by operational commanders to be a critical BLOS intelligence, surveillance, and reconnaissance capability for numerous combat units. WAMI capability has been deployed in support of combat operations in the Islamic Republic of Afghanistan since 2010 and in the Republic of Iraq since 2015; however, despite the invaluable capability that WAMI provides, the Air Force has only been able to provide four steady-state unmanned aircraft system lines of WAMI capability. The committee understands that 2 years ago, the Department of Defense validated a U.S. Central Command Joint Urgent Operational Need Statement that requires the further development and procurement of WAMI BLOS capabilities for forward-deployed operations. The committee notes that previous funding has resulted in preliminary multi-intelligence fusion capabilities, near-vertical-direction finding, and enhanced BLOS capabilities. However, a lack of fiscal year 2019 funding will impede final delivery of these capabilities, and will prevent necessary sensor system upgrades to satisfy validated warfighter requirements.

Accordingly, the committee recommends \$186.1 million in PE 35206F, an increase of \$10.8 million, for development of WAMI BLOS sensor improvements, and to continue processing and exploiting improvements that would enable automated multi-intelligence sensor fusion.

### *Wind energy development radar mitigation efforts*

The budget request contained \$6.3 million in PE 35114F for the Air Traffic Control, Approach, and Landing System.

The committee understands the growing importance of renewable energy as a national security imperative, in particular the rapid expansion of wind energy as an alternative energy source. The committee also recognizes the potential impact of wind energy development on the operational readiness, training activities, safety, and force protection of Department of Defense service members, aircraft, and installations. Given the expected increase in the U.S. wind energy development, mitigation approaches must be further developed and accelerated.

The committee recommends that the U.S. Government and industry continue to evaluate the impacts of existing and planned wind energy developments in coordination with the Federal Interagency Wind Turbine Radar Impact Mitigation Working Group, and develop best practices for radar mitigation strategies. The committee is aware of an existing pilot program by the U.S. Transportation Command and Air Mobility Command to integrate gap-filler radar systems into their air traffic control operations to mitigate the impact of wind energy developments. This mitigation pilot program has reduced false target alerts

and improved the situational awareness of air traffic control operators and the safety of aircrew. The committee recommends additional analysis to assess the feasibility and development requirements associated with the integration, operation, and performance of gap-fill radars integrated into existing air traffic command and control systems.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than October 31, 2018, on the status of the pilot mitigation project and strategy for developing gap-filler radar thresholds and requirements.

Additionally, the committee recommends \$8.8 million, an increase of \$2.5 million, in PE 35114F for the Air Traffic Control, Approach, and Landing System.

## RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, DEFENSE-WIDE

### Items of Special Interest

#### *Advanced ceramic capabilities*

The committee is interested in advancements in dual-use ceramic capabilities and production technologies. The committee is aware that recent advancements in smelting have significant overlap with ceramic production methods and could lower ceramic production costs. Advanced ceramic capabilities have demonstrated versatility in critical military applications, including composite armor for soldier and vehicle protection, and for use in advanced hypersonic vehicle development.

Therefore, the committee directs the Under Secretary of Defense for Research and Engineering, no later November 1, 2018, to provide to the Committee on Armed Services of the House of Representatives a briefing on dual-use ceramic capabilities. The briefing should include an overview of advances in ceramic production processes and technologies, the benefits ceramic capabilities provides, and any forecasted adoption of ceramic capabilities into current weapon systems.

#### *Antitoxin to combat botulinum toxin*

Botulinum neurotoxin type A (BoNT/A) is a highly potent toxin, as well as a medical therapy with numerous uses in neurophysiology. The Department of Defense is managing efforts to develop a vaccine against BoNT/A; however, the potential impact of BoNT/A vaccination on future benefits of the medical uses of BoNT/A is unknown. These benefits include treatment of post-traumatic stress disorder-associated migraines and amputation pain.

The committee understands that the Department is also pursuing a small molecule antitoxin drug to combat BoNT/A, which could be used by military personnel without impacting future use of medical therapies derived from BoNT/A. Therefore, the committee encourages the Secretary of Defense to continue its work

to develop a monoclonal antibody-based BoNT/A antitoxin drug through the Joint Program Executive Office for Chemical and Biological Defense.

### *Autonomous capabilities*

Not later than April 1, 2019, the Secretary of Defense shall submit to the committee on Armed Services an assessment on the consequences of the international proliferation of autonomous weapons, including those utilizing artificial intelligence and machine learning, and a strategy for U.S. engagement in international discussions. In conducting such an assessment, the Secretary of Defense shall consider each of the following:

(1) An evaluation of the consequences of an arms race in autonomous weapons, cyber weapons, artificial intelligence and machine learning, both from the domestic and competitor point of views.

(2) An explanation of the of the concept of "appropriate human judgement" and how it differs from "meaningful human control".

(3) An explanation of the U.S. strategy towards influencing how other nations approach autonomous weapons, including human judgement, national safety review processes, and stability concerns.

Further, the study should include an assessment of the current policy guidelines with respect to the role of autonomy in offensive and defensive cyberspace operations, and a discussion of how artificial intelligence and machine learning could impact current policy and doctrine. In conducting such an assessment, the Secretary of Defense shall evaluate the sufficiency of Department of Defense policies governing autonomy in cyberspace.

### *Central Test and Evaluation Investment Program*

The budget request contained \$258.7 million in PE 64940D8Z for the Central Test and Evaluation Investment Program (CTEIP). The committee notes that CTEIP has been used to fund the development of critically needed, high-priority test and evaluation capabilities for the Department of Defense. CTEIP has used a corporate approach to combine service and Department requirements to maximize opportunities for joint efforts and avoid unwarranted duplication of test capabilities. The committee recommends additional focus on developing a geospatial architecture to assist in the testing, analysis, and visualization of cyber and electronic warfare threat systems, and their impact in a radio frequency compromised environment.

The committee encourages the Department to explore efforts to automate data collection and analysis capabilities, thereby reducing manual data entry and expediting the preparation of products and reports. The committee recommends \$258.7 million, the amount requested, in PE 64940D8Z for the Central Test and Evaluation Investment Program.

### *Chemical, biological, radiological, nuclear, and explosive standoff detection*

The committee is aware of the enduring challenge of detecting chemical, biological, radiological, nuclear, and explosive (CBRNE) threats from a safe distance. The committee is also aware of a new technology that may be capable of dynamic wavelength modulation of laser light with potential applications in multiple mission areas, including standoff detection of CBRNE threats. Given the use of chemical weapons in the Syrian Arab Republic and the threat of CBRNE use in the Democratic People's Republic of Korea, sensors capable of standoff detection would provide early warning, thereby increasing timelines to prepare and respond to threats. Therefore, the committee encourages the Department of Defense to continue its efforts to develop standoff CBRNE detection.

#### *Common data environment for modeling and simulation*

The committee recognizes that common data environments can yield benefits, such as increased interoperability and strong modeling and simulation (M&S) capabilities. The committee supports continued funding for projects that provide critical Department of Defense-wide data services, such as the Army's Enterprise Data Services Common Data Production Environment. The committee is aware that in the committee report (S. Rept. 115-125) accompanying the National Defense Authorization Act for Fiscal Year 2018, the Senate Committee on Armed Services directed the Secretary of Defense to take actions to identify and address data collection, analysis, and sharing issues that limit robust M&S. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by November 1, 2018, on the Department's findings from the directive in S. Rept. 115-125.

#### *Contraband cellular devices*

The committee is aware that the illegal use of cellular devices in Federal prisons is on the rise. The committee is also aware that new technologies, such as managed access systems, are being developed, tested, and deployed to detect the use of contraband cellular devices among Federal prison populations. The committee acknowledges that military correctional facilities are often plagued with the same ills that infiltrate Federal correctional facilities. Therefore, the committee encourages the Department of Defense to study the effectiveness of new technologies that detect contraband cellular devices to identify and prevent instances of such use in military correctional facilities.

#### *Counter small tactical unmanned air systems*

The committee notes that Class I and II unmanned air systems (UAS), which in most cases are readily available commercial-off-the-shelf small and lightweight UAS, can be employed by state and non-state actors for use against U.S. military and civilian personnel. The committee understands that current maneuver short range air defense initiatives, as well as counter-UAS initiatives would address

fixed-wing, rotorcraft, and medium-to-large UAS platforms. The committee is concerned by the rapid proliferation of small UAS and believes the military services should examine all potential combined kinetic and non-kinetic options to immediately address this perceived capability gap in organic air defense for Army Maneuver Brigades.

The committee directs the Secretary of the Defense to provide a briefing to the House Committee on Armed Services by December 15, 2018 that provides an update on current Department of Defense programs to counter class I and II UAS. The briefing shall include:

- (a) The command responsible for developing and promulgating counter-UAS performance requirements;
- (b) A resource plan for developing and assessing potential material solutions for near-term and mid-term timeframes;
- (c) How the Department of Defense intends to ensure that units at the battalion and below echelons will be capable of defeating single and swarming Class 1 and II UAVs; and
- (d) The procedures whereby technical assessments will be shared and coordinated with the other military services.

#### *Counter-unmanned aerial system threat detection*

The committee is interested in advancements in counter-unmanned aerial system (C-UAS) technology and the threat these systems pose to the Armed Forces. The committee supports ongoing efforts by the U.S. Army and U.S. Special Operations Command to develop and employ unmanned aerial system (UAS) threat detection technology, and commends the services for recognizing the seriousness of the threat. In light of recent UAS attacks in the U.S. Central Command area of responsibility, the committee is concerned about the increased threat from unmanned aerial systems to forward operating bases and special operations forces personnel. The committee believes additional advancements in scalable C-UAS technologies are necessary to effectively detect, track, neutralize, and ensure the force protection and operational security of deployed service members.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by October 31, 2018, on the employment of C-UAS systems. The briefing should include an assessment of the UAS threat to the Armed Forces, a roadmap for C-UAS threat detection technology and capabilities, and the results of operational fielding of C-UAS systems.

#### *Enhanced Maritime Biological Detection*

The budget request contained \$145.7 million in PE 64384BP for Contamination Avoidance (CA) Engineering Manufacturing Development (EMD) within the Department of Defense Chemical and Biological Defense Program (CBDP).



The Enhanced Maritime Biological Detection (EMBD) program, an ongoing effort that began in fiscal year 2017, is included in CA EMD and will transition technology from the Joint United States Forces Korea Portal and Integration Threat Recognition Advanced Technology Demonstration to a program of record for the U.S. Navy. EMBD will complete development, testing, integration, and production of a lower cost biological point detection system that will detect, collect, and identify biological warfare agent aerosols, and provide automated warning at a lower sustained cost.

The committee recommends \$145.7 million, the amount requested in PE 64384BP, for CA EMD within the CBDP.

#### *Fielding of radiation detection devices*

The committee is encouraged by the Army's efforts to field additional radiation detection devices, and endorses the Army's efforts in fiscal year 2019 to develop and field the next-generation Joint Personal Dosimeter–Individual (JPD-I), an individual dosimeter that includes immediate visual alert, measurement of radiation dose, and inclusion of a comprehensive record of radiation exposure over a soldier's career. The committee encourages the Army to conduct a rigorous, fair, and open competition for this new system to ensure the best dosimeter is developed and selected.

#### *Future uses of synthetic biology*

The committee is aware of recent advancements in synthetic biology, genomics, biotechnology, and related novel technologies that may enhance human performance and improve traditional approaches to healthcare. This includes enhancing human ability to perform through stressful and resource-limited environments, improving decision making, minimizing the time between disease identification and treatment, and augmenting human immune systems to defeat a variety of diseases, rather than depending on specific vaccines and therapeutics. The development of advanced biosensors to understand hypoxia is a current example of the type of human performance challenges that can be addressed through these advancements.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by December 1, 2018, on how the Department of Defense may leverage these advancements, when appropriate, and in accordance with ethical standards, U.S. law, our nation's values, and Department of Defense policy, to enhance service members' performance, increase lethality and survivability, and improve battlefield healthcare. The briefing should also identify opportunities, when appropriate and feasible, to facilitate the maturation of capabilities based on recent advancements.

#### *Historically black colleges and universities, and minority serving institutions*

The budget request contained \$30.4 million in PE 61228D8Z for research work with historically black colleges and universities, and minority serving institutions (HBCU/MI).

The committee recognizes the important role this program plays in bolstering the research capabilities and capacities at HBCU/MIs. Not only is such work important in meeting the defense research needs of the Department of Defense, but the committee also believes it provides an added benefit by diversifying the supply of scientists, engineers, and researchers working on the Department of Defense's most challenging problems.

Therefore, the committee recommends \$40.4 million, an increase of \$10.0 million, in PE 61228D8Z for additional research between historically black colleges and universities, and minority serving institutions, as well as increased teaming opportunities between these institutions and other research universities with experience supporting the Department's unique requirements.

#### *Innovative installation capabilities*

The budget request contained \$29.4 million in PE 63342D8W for the Defense Innovation Unit Experimental (DIUx).

DIUx supports the identification, development, and demonstration of game-changing technologies to satisfy joint force priorities at a faster pace than the traditional Department of Defense planning, programming, budgeting, and execution process. As DIUx leverages partnerships with academic institutions, science and technology communities, and private industries, the committee recognizes the advantages that DIUx may provide to accelerate fielding of decisive technical capabilities and interoperability while mitigating operational risk to the warfighter and promoting affordability.

The committee supports the objective of DIUx to maintain U.S. technological superiority across the range of military operations. The committee believes DIUx should also increase efforts to support technological superiority at Department installations by addressing critical technological needs. This may also include mitigation of cybersecurity vulnerabilities identified during the ongoing review of critical infrastructure being conducted by the Department as directed in section 1650 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328).

Therefore, the committee recommends prioritizing critical technological needs at Department installations, and directs the Director of DIUx to provide a briefing to the House Committee on Armed Services by October 1, 2018, on a plan to invest in the rapid insertion of innovative installation capabilities.

#### *Joint Regional Security Stacks*

The committee supports the Department of Defense's efforts to secure and simplify the Department's network environment through modernization.

Specifically, the committee supports continued use of the Joint Regional Security Stacks (JRSS) and the modernization, streamlining, and optimization of JRSS architecture to improve performance, reduce the Department's attack surface, and eliminate outdated technical redundancy. The committee believes incorporation of next-generation technology may further increase the Department's cybersecurity posture and resiliency. Therefore, the committee encourages the Defense Information Systems Agency to make full use of next-generation packet brokers which reduce costs by employing active-failover features, reducing redundancy of cybersecurity tools, and implementing new technology that eliminates duplicate network traffic.

#### *Joint threat warning system*

The committee recognizes that the Joint Threat Warning System (JTWS) provides credible threat warning and intelligence information to special operations forces (SOF). The committee notes that this program has been critical to enhancing the situational awareness of SOF elements by alerting them to threats to the force and illuminating targeting opportunities. The committee is concerned that the program does not include an air-variant precision high frequency band capability. This gap in coverage exposes SOF operators to unknown threats and decreases their situational awareness. The committee recommends U.S. Special Operations Command further explore collection capabilities that address this critical air-variant high frequency gap in coverage.

#### *Military Free Fall School*

The committee is aware of the increased demand being placed on the U.S. Army's Military Free Fall School (MFFS). The committee understands the increased student throughput is largely a result of the expanded population of U.S. Army Special Operations Command personnel who are required to attend MFFS. Consequently, the increased student throughput has resulted in shortfalls in resourcing, an over-reliance on contract personnel, and an increased risk to students and cadre. Therefore, the committee directs the Commander, U.S. Special Operations Command to provide a briefing to the House Committee on Armed Services not later than October 15, 2018, on Special Operations Force Military Free Fall requirements, the funds expended, the expected cost of operating the MFFS across the Future Years Defense Program, and any change in the rate of MFFS safety incidents or injuries from fiscal years 2012 through 2018.

#### *Minerva Research Initiative*

The committee recognizes the valuable contributions the Minerva Research Initiative has had on social science research relevant to national security. This initiative has supported innovations in social science and translated important scientific discoveries in the field of counter-terrorism and counter-violent

extremism. The committee believes similar research examining our peer and near-peer adversaries' growing influence and competitive advantage against the United States is necessary. According to the National Security Strategy of 2017, the People's Republic of China is reasserting its influence in order to deny the United States access in times of crisis and contest the Department of Defense's ability to operate freely in decisive locations. The committee believes additional national security-related social science research dedicated towards the Russian Federation, China, the Islamic Republic of

Iran, and the Democratic People's Republic of Korea, and their export of military and security technology, will help understand these nations' true intentions and develop and implement strategy aimed at countering their influence.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than November 16, 2018, on the feasibility of expanding the Minerva Research Initiative to state actors, including Russia, China, Iran, and North Korea. The briefing should include the program's ability to provide substantive research addressing peer and near-peer adversary statecraft, to include, but not limited to, foreign influence, foreign investment, emerging technologies, and military exports.

#### *National Hypersonics Initiative*

The committee is aware of a National Hypersonics Initiative under development by the Under Secretary of Defense for Research and Engineering, in conjunction with the military services, defense labs, and the Defense Advanced Research Projects Agency. The committee recognizes the growing amount of resources and emphasis placed by the Department of Defense on the research and development of hypersonic vehicle technology. The committee supports the development of a National Hypersonics Initiative, and believes it is prudent and consistent with the roles and responsibilities granted to the Department's Joint Hypersonics Transition Office as authorized in the National Defense Authorization Act of 2018 (Public Law 115-91). The committee is interested in any impact that the Treaty Between the United States of America and The Union of the Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles, signed in 1987 and commonly referred to as the INF Treaty, is having on the research and development of hypersonic vehicle technology. The committee understands there is concern that the INF treaty obligations may limit the Department of Defense's ability to flight-test and operationally employ hypersonic vehicles.

Therefore, the committee directs the Under Secretary of Defense for Research and Engineering to provide a briefing to the House Committee on Armed Services not later than September 15, 2018, on the status of the National Hypersonics Initiative and any impacts of the INF Treaty obligations on the research, development, prototyping, testing, or employment of hypersonic vehicle technology.

### *National lab integration in defense innovation hubs*

The committee has continuing interest in the Department of Defense laboratories and engineering centers, their responsiveness to Department of Defense requirements, and maximizing their expertise and reach. The Department's laboratories are integral to the Department's ability to retain capability in areas where the private sector has no commercial interest, and ensuring that commercial solutions are adapted for warfighter needs in a timely manner so that the United States remains dominant in the land, air, sea, space, and cyber domains.

The committee recommends that the Department better enable laboratories and centers to embrace an open and innovative posture, while simultaneously becoming more active in the Department's requirements process. The committee is aware of the Army Research Lab's Open Campus project as an example of open innovation that encourages groundbreaking advances in basic and applied research areas through increased collaboration with the broader research enterprise. The committee believes that this serves as a model for laboratories to become more ingrained in the scientific and research communities, both locally and globally, and become a greater sensor for disruptive technologies that present opportunities or highlight vulnerabilities for the Department. Additionally, the committee recommends that the laboratories increase their presence in innovation hubs across the United States, like those established by the Defense Innovation Unit Experimental, and enhance existing relationships with the Strategic Capabilities Office and the Defense Advanced Research Projects Agency.

Therefore, the committee directs the Under Secretary of Defense for Research and Engineering to provide a briefing to the House Committee on Armed Services not later than October 1, 2018, on the respective plan for further integrating the laboratories across defense and commercial innovation hubs, and maximizing their expertise and reach. The briefing should include a robust plan and timeline for increasing the Department's laboratory joint presence in innovation hubs across the United States.

### *Non-lethal directed energy technologies*

The committee continues to support the need to minimize collateral damage, pursue all available avenues to reduce civilian casualties, and prevent damage to infrastructure in engagements abroad. The use of non-lethal directed energy technologies provides many opportunities to do so. Some of these technologies have matured and are already employed by military service and combatant commands in the operational environment across the globe. These technologies have the capacity to stop ground vehicles, small vessels, and unmanned aerial vehicles from infringing upon protected spaces, or to deny access to secured facilities. The committee continues to encourage the Department of Defense to make greater efforts to use these technologies where appropriate. Elsewhere in this report, the need for concurrent policy development, sustained

integrated non-lethal directed energy technologies, and continued development of next-generation directed energy non-lethal technologies, like the Marine Corps' Ocular Interruption System, is addressed.

#### *Protect DIB critical technologies*

The committee recognizes the importance of safeguarding defense industrial base (DIB) critical technologies from cyber and economic actions conducted by our adversaries. The challenge in doing so is particularly acute as supply chains become increasingly globalized, as noted in the report published by the RAND Corporation entitled "U.S. Authorities and DoD Options for Protecting the Defense Industrial Base from Cyber Intrusions and Economic Enticement, Influence, and Control." The report calls attention to the difficulties in protecting DIB members with supply chains in foreign countries and the resulting risks to the integrity of various critical technologies and materials.

Therefore, the committee directs the Undersecretary of Defense for Research and Engineering (R&E) to provide a briefing to the House Armed Services Committee no later than 1 March 2019 on activities and investments the Department is making with respect to foreign suppliers of critical technologies to national defense to ensure their integrity, including microelectronics.

#### *Rapidly deployable radar system*

The committee is aware of U.S. Special Operations Command's efforts to accelerate development of an ultra-low power, rapidly deployable radar system. This modular technology can enhance radar situational awareness for special operations forces elements in austere environments. The committee notes the value of this technology and its relevance in current conflicts, particularly due to the persistent threat of adversary controlled, small unmanned aerial systems. The committee looks forward to the results of additional testing and encourages the integration of this ultra-low power, rapidly deployable radar with other counter-unmanned aerial system efforts across the Department of Defense.

#### *Report on DoD target and threat systems*

The Committee recognizes that military capabilities of adversary nations continue to improve over time thus challenging the ability of the United States military to project power and protect its national interests throughout the world. In order to ensure thorough and realistic testing and evaluation of defense weapons systems and effective operational unit training, it is imperative that DoD continues to develop and maintain a sufficient inventory of realistic targets and threat systems that accurately represent the capability of adversary nations. In support of that imperative, the Committee believes that the status and adequacy of target and threat systems programs need to be assessed.

The Secretary of Defense shall conduct a review of the Department's targets and threat systems in support of test and evaluation and training and shall identify recommended actions to address shortcomings in those systems in a final report.

The review, recommendations, and final report shall address, but not be limited to, the following:

(A) All airborne, seaborne, ground, and undersea targets and target control systems used to support open air test and evaluation and warfighter training exercises;

(B) All real and simulated threat systems used to support open air test and evaluation and warfighter training exercises;

(C) The degree to which all of the above systems replicate both current and future threats;

(D) The adequacy of target and threat systems inventories to meet current and future test and evaluation and training requirements;

(E) The ability of the above systems to support effective testing and evaluation of future U.S. combat and weapon systems;

(F) The ability of the above systems to support effective warfighter training against future threats.

Not later than one year after the date of enactment, the Secretary shall submit to the congressional defense committees a final report on the review and recommended actions to address all shortcomings in the abilities of DoD targets and threat systems to effectively support open air test and evaluation events and training exercises.

#### *Research to enhance the understanding of adversarial influence operations*

Manipulation of the global information environment by adversaries using both human and machine means poses a challenge to the viability of democratic institutions and social stability. The committee is aware of research conducted by the Defense Advanced Research Projects Agency (DARPA) to develop technologies for high-fidelity simulation of online social behavior, while testing and measuring simulation accuracy and other research projects to better understand influence. For example, the Social-Cognitive Information Security research program uses modeling and simulation to examine how behavior is manipulated in a way that compromises cyber or social infrastructures.

The committee is aware that the Secretary of Defense recently designated the Commander, U.S. Special Operations Command, to be the Joint Proponent for Military Information Support Operations (MISO), and to establish a global messaging/counter-messaging capability. The committee believes research conducted to enhance the understanding of the impact of adversarial manipulation of the global information environment may complement and inform information operation activities of the Department of Defense. Therefore, the committee encourages the Director of DARPA and the Commander, U.S. Special Operations

Command, to collaborate and provide for transition of appropriate research projects that enhance and complement MISO.

*Use of authority for transactions other than contracts and grants by the Department of Defense*

The committee recognizes the need for agility and innovation in the procurement process. The committee believes that, when used appropriately, other transaction authority (OTA) of section 2371 of title 10, United States Code, can provide the necessary flexibility to give the Department of Defense a competitive edge in the commercial marketplace.

The National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) modified and made permanent the Department's ability to carry out certain prototype projects using OTA. Further recognizing the benefits of OTA, section 867 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) required the Secretary of Defense to establish a preference for using other transactions (OTs) "in circumstances determined appropriate by the Secretary."

The committee supports the Department's continued use of OTA to rapidly explore cutting-edge technologies and reduce barriers to attract non-traditional defense contractors. The committee also acknowledges the Department's guidance that OTs should be used appropriately by individuals possessing the requisite level of business acumen and judgment to operate in a "relatively unstructured environment."

However, the committee is increasingly concerned by a perceived lack of transparency surrounding the use of OTA within the Department. The committee is particularly concerned by the limited details provided on the Defense Innovation Unit Experimental's use of OTA to award a large-scale follow-on production contract for cloud services. While the Department significantly reduced the original award from \$950.0 million to \$65.0 million, and greatly limited the scope of the production agreement, the committee remains concerned about the Department's failure to provide a comprehensive explanation for how such a large-scale award was made unbeknownst to senior Department officials, and why the award was later reduced.

Therefore, the committee urges the Department to exercise greater prudence and transparency when employing OTA to prevent misuse and abuse. The committee also urges the Department to reiterate through established guidelines that OTA is not a means for circumventing appropriate use of the Federal Acquisition Regulation, and that full and open competition should be used to the maximum extent practicable to maintain a sense of integrity, fairness, and credibility in the Federal procurement process.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—AUTHORIZATION OF APPROPRIATIONS



## Section 201—Authorization of Appropriations

This section would authorize appropriations for research, development, test, and evaluation at the levels identified in section 4201 of division D of this Act.

### SUBTITLE B—PROGRAM REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS

#### Section 211—Modification of Authority to Carry Out Certain Prototype Projects

This section would make modifications to section 2371b of title 10, United States Code, regarding use of transactions other than contracts and grants for follow-on production.

#### Section 212—Extension of Directed Energy Prototype Authority

This section would extend the directed energy prototype authority provided for in section 219(c)(4) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328) through fiscal year 2019.

#### Section 213—Prohibition on Availability of Funds for the Weather Common Component Program

This section would restrict funding for further development of meteorological situational awareness sensor programs for unmanned aircraft systems, and require the Secretary of the Air Force to submit a report to the congressional defense committees that describes requirements, existing technologies, current program efforts, testing and evaluation, and a fielding plan for capabilities associated with providing meteorological situational awareness to unmanned aircraft aircrews.

The committee notes that the Air Force office for Unmanned Aircraft Systems (UAS) Innovations and Integration under the Deputy Chief of Staff of the Air Force for Intelligence, Surveillance, and Reconnaissance (HAF/A2) began an initiative in 2010 to develop an UAS sensor that could provide real-time meteorological situational awareness for UAS aircrews to increase mission effectiveness and mitigate reliance upon weather forecasting capabilities in geographic regions with limited or no weather services provided for flight operations. The effort culminated in 2015 and cost the Air Force \$10.6 million. On October 30, 2015, the then-12th Air Force Commander, and now current Deputy Chief of Staff of the Air Force for Operations (HAF/A3), validated key global weather requirements for UAS operations, to include: increasing UAS situational awareness of current and predicted state of environmental phenomena to maximize mission effectiveness, efficiency, safety, resource protection, and risk management; relaying all onboard-UAS weather data and information, such as air temperature, humidity, wind speed and direction, turbulence, ice accretion, and weather radar in real-time; and increasing real-time, on-board weather collection capability to

provide pilot situational awareness and support Air Force forecast processes. However, the HAF/A2 sensor remains non-deployed, despite the Air National Guard Air Force Reserve Command Test Center finding the sensor and its associated software to be potentially operationally effective and suitable in a formal report published in January 2018. More concerning to the committee is that a separate development effort is being undertaken by HAF/A3 weather officials that appears to duplicate the technology. Thus, this section would restrict further funding for additional systems until the Air Force provides a report that will allow the committee to evaluate the need for additional capability.

#### Section 214—Limitation Pending Certification on the Joint Surveillance Target Attack Radar System Recapitalization Program

This section would restrict obligation of funding for the Advanced Battle-Management System (ABMS) of Systems initiative of the Department of the Air Force, as well as a portion of the proposed divestment of legacy E-8C aircraft contained in the fiscal year 2019 budget request. The restriction would remain in effect until the Secretary of the Air Force certifies to the congressional defense committees that the Joint Surveillance Target Attack Radar System (JSTARS) Recapitalization (Recap) program, as submitted and described in the fiscal year 2018 budget request, is proceeding unhindered with originally planned activities associated with engineering, manufacturing, and development; low-rate initial production; production; and initial contractor support. This section also would require the Comptroller General of the United States to provide a report to the congressional defense committees that assesses the acquisition strategy associated with ABMS, and would require the Secretary of the Air Force to submit a report to the congressional defense committees that includes a strategy for accelerating the JSTARS Recap program, while also managing appropriately the legacy fleet of E-8C aircraft. This section would also authorize use of JSTARS Recap program funding to maintain the program office's functionality.

#### Section 215—Limitation on Availability of Funds for F-35 Continuous Capability Development and Delivery

This section would limit the obligation or expenditure of 25 percent of the funds for the F-35 continuous capability development and delivery program until 15 days after the Secretary of Defense provides the congressional defense committees a detailed cost estimate and baseline schedule for the program. This section does not apply to any funds authorized to be appropriated by this Act for the development of F-35 dual capable aircraft capability.

#### Section 216—Limitation on Availability of Funds Pending Report on Agile Software Development and Software Operations

This section would temporarily restrict funding for software development efforts that use agile development and operations methodology until the Secretary of the Air Force provides a report to the congressional defense committees that describes the cost-estimation tools, the types of contracts, and the mitigation efforts to avoid duplicative development related to the strategy for modernizing and upgrading existing software at worldwide Air Force Air Operations Centers.

#### Section 217—Limitation on Availability of Funds for Certain High Energy Laser Advanced Technology

This section would limit the availability of 50 percent of the funds authorized to be appropriated by this Act, or otherwise made available for fiscal year 2019, until the Secretary of Defense provides the High Energy Laser logical roadmap and assessment to the congressional defense committees.

#### Section 218—Plan for Elimination or Transfer of the Strategic Capabilities Office of the Department of Defense

This section would direct the Secretary of Defense to submit a plan to the congressional defense committees by March 1, 2019, for the elimination or transfer of the functions of the Strategic Capabilities Office to another organization or element of the Department of Defense.

#### Section 219—National Security Science and Technology Strategy

This section would direct the Secretary of Defense to develop a National Security Science and Technology Strategy to prioritize Department of Defense science and technology efforts and investments. The Secretary of Defense would be required to submit the most recent version of the strategy to the congressional defense committees not later than February 4, 2019, and annually thereafter through December 31, 2021.

#### Section 220—Modification of CVN-73 to Support Fielding of MQ-25 Unmanned Aerial Vehicle

This section would require the Navy to fund the modification of CVN-73 during its refueling and overhaul period in support of future MQ-25 unmanned carrier aircraft operations.

### SUBTITLE C—REPORTS AND OTHER MATTERS

#### Section 221—Report on Survivability of Air Defense Artillery

This section would require the Secretary of the Army to submit a report to the Committees on Armed Services of the Senate and the House of Representatives

by March 1, 2019, on efforts to improve Army Air Defense Artillery (ADA) survivability and require the Army to assess measures that could better enhance ADA defenses, both active and passive.

The committee is concerned that U.S. Army Air Defense Artillery units may lack required active and passive non-kinetic capabilities and training to maximize their level of survivability against sophisticated threats. The committee recognizes that ADA is a critical and increasingly important component of Joint Integrated Air and Missile Defense. The committee also supports continued modernization and expansion of ADA capability.

#### Section 222—Report on T-45 Aircraft Physiological Episode Mitigation Actions

This section would require the Secretary of the Navy to submit a report to the congressional defense committees by March 1, 2019, on modifications made to T-45 aircraft and associated ground equipment to mitigate the risk of physiological episodes among T-45 aircraft crewmembers, and would require the Secretary include certain elements in such report.

#### Section 223—Report on Efforts of the Air Force to Mitigate Physiological Episodes Affecting Aircraft Crewmembers

This section would require the Secretary of the Air Force to submit a report to the congressional defense committees by March 1, 2019, on all efforts of the Air Force to reduce the occurrence of, and mitigate the risk posed by, physiological episodes affecting crewmembers of covered aircraft and would require the inclusion of certain elements in such report. In this section, the term “covered aircraft” would mean F-35A aircraft of the Air Force, T-6A aircraft of the Air Force, and any other aircraft of the Air Force as determined by the Secretary of the Air Force.

#### Section 224—Briefing on Use of Quantum Sciences for Military Applications and Other Purposes

This section would require the Secretary of Defense to provide to the congressional defense committees a briefing and plan for using quantum sciences for military applications and other purposes.

#### Section 225—Report on Defense Innovation Unit Experimental

This section would require the Under Secretary of Defense for Research and Engineering to submit a report to the congressional defense committees by May 1, 2019, on the integration of Defense Innovation Unit Experimental into the broader Department of Defense research and engineering community, the unit's measures of effectiveness, the number and type of transitions, and the impacts of the unit's initiatives and investments on the Department.

## TITLE III—OPERATION AND MAINTENANCE

### ITEMS OF SPECIAL INTEREST

#### LOGISTICS AND SUSTAINMENT ISSUES

##### Briefing on Rapidly Deployable Structures

The committee is aware that the military services, including but not limited to the Air Force Civil Engineer Center at Tyndall Air Force Base, are testing and evaluating options that improve the deployability, safety, and energy efficiency of structures used by the Armed Forces in a variety of operational environments. Of particular interest is the use of such structures in remote areas, where access to reliable energy sources can be difficult and environmental conditions can be severe. As such efforts continue, the committee encourages the Department of Defense to allocate appropriate resources for the research, development, test, evaluation, and procurement of structures that leverage energy efficient and insulation technologies.

Toward that end, the committee directs the Assistant Secretary of Defense for Energy, Installations, and Environment to provide a briefing to the House Armed Services Committee, by September 28, 2018, on the Department of Defense's efforts to leverage energy efficient technologies in deployed structures, particularly those capabilities that support operations in remote environments. This briefing shall include, a detailed assessment of recent tests and evaluations of such structures conducted by the military services, including but not limited to findings and analysis regarding thermal efficiency, energy generation and use, modularity, and other required capabilities; a description of key requirements, such as billeting, medical, command and control, and humanitarian and disaster relief, that could be addressed by these structures across the military services; and a plan to develop and promulgate guidance throughout the Department of Defense regarding energy efficient structures in operational environments.

##### Corrosion Prevention for Improved Air Force Readiness

The committee recognizes the importance of efforts to minimize corrosion, decrease aerodynamic drag, and reduce environmental and occupational risks in aircraft operations. These efforts include the application of alternative coatings applied to aircraft, such as powder-applied coatings, that increase durability while minimizing hazardous air pollutants and volatile organic compounds. In addition, the committee recognizes the importance of innovative technologies that can rapidly and efficiently remove coatings, such as advanced laser technologies, that enable the safe and efficient repair and sustainment of aircraft skin made of metal or composite materials. In addition to surface coatings, adhesives and sealants are critical to providing corrosion protection and structural strength. Lighter weight

sealants can reduce aircraft weight, extending operational range and reducing fuel consumption. Furthermore, advances are being made in screening technologies to reduce the amount of time required to validate a material's performance and incorporate it into aircraft maintenance strategy. The committee supports additional efforts that incorporate a range of targeted solutions designed to minimize corrosion and meet Air Force needs for manned and unmanned aircraft. The committee encourages the Secretary of the Air Force to continue to support those efforts that improve operational capability and reduce the cost and amount of time required to sustain these weapon systems.

#### Innovative Engine Sustainment Wash-Down Management Program

The committee notes that aircraft flown by the United States Navy and United States Marine Corps often fly in corrosive or dusty environments. As a result, contaminants adhere to the turbine blades behind the combustion chamber and could adversely affect engine performance or operation. The committee believes the Department of the Navy should assess what additional operational or maintenance actions could be taken to further to improve fuel efficiency and aircraft availability rates in these corrosive and dusty environments. The committee understands the Navy and Marine Corps must be able to operate independently worldwide and that targeted investments in energy efficiency enhance combat capability and reduce need for logistics support. The committee understands that maintenance practices and technologies exist for aircraft engine sustainment, to include using "washdown" processes, that could potentially improve fuel efficiency, extend the servicelife of engine components and in turn, improve overall aviation readiness.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by September 28, 2018 on the advisability and feasibility of the establishment of a pilot program led by the Commander, U.S. Naval Air Systems Command (NAVAIR) to test new technologies and best practices in operational energy and resiliency for engine sustainment which reduces maintenance costs, improves aircraft availability rates, and lowers aircraft fuel consumption rates.

#### Leveraging Technology to Improve Equipment Readiness

The committee notes that readiness is defined by the Department of Defense as "the ability of military forces to fight and meet the demands of assigned missions" and is supported by personnel, training, and equipment readiness. Increasing and sustaining equipment readiness relies on balancing modernization initiatives with ensuring the proper maintenance, utilization, and sustainment of existing weapon systems. The committee is aware of innovative maintenance technologies and practices that may help reduce costs and the time that equipment and weapon systems are down for maintenance, while helping to maximize lifespan and operational availability rates. A significant amount of data can be captured through embedding diagnostic sensors and collecting operator observations,

enabling predictive analytic software to proactively identify pending maintenance issues. The committee encourages the service secretaries to seek additional opportunities to leverage innovative technologies and maintenance practices, either as demonstration projects or by incorporating them into a fleet maintenance plan, to increase maintenance responsiveness and the operational availability of weapon systems.

### Life Cycle Costs of Major Defense Acquisition Programs

The committee notes that section 2340 note of title 10, United States Code, requires the Department of Defense to ensure competition throughout the life cycle of major defense acquisition programs and the acquisition strategy for each major defense acquisition program includes measures to ensure competition or the option of competition and adequate documentation of the rationale for selection.

Furthermore, the committee notes that section 2340 note of title 10 requires whenever a decision regarding source of repair results in a plan to award a contract for performance of maintenance and sustainment of a major weapon system or subsystem of a major weapon system, the Department shall take actions to ensure that, to the maximum extent practicable and consistent with statutory requirements, contracts for such maintenance and sustainment are awarded on a competitive basis and give full considerations to all sources.

The committee is concerned about the life cycle costs of major defense acquisition programs and how the Department's implementation of section 2340 note of title 10 is impacting these associated program costs.

The committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services, not later than December 1, 2018, on the Department's implementation of section 2340 note of title 10. Specifically, the briefing will include the strategy for each major defense acquisition program, the measures taken to ensure competition at both the contract and subcontract level, and the impact of these measures on the life cycle costs for each major defense acquisition program. Additionally, the briefing will include for each major defense acquisition program the consideration of competition throughout the maintenance and sustainment phases.

### Management of Navy Legacy F/A-18 Aircraft

The committee is aware of the Department of the Navy's intent to divest legacy F/A-18 aircraft when the majority of the F/A-18 aircraft inventory remains non-flyable due to maintenance backlogs and availability of spare parts. Further, these aircraft experience high physiological event rates. Even so, the committee was encouraged by the Navy's decision to award an alternative-source contract for F/A-18 A/B/C/D depot-level maintenance to reduce the backlog of legacy F/A-18 depot-level maintenance. This contract, awarded in February 2016, can help improve overall aviation readiness rates. The committee is concerned, however, that the Navy's plan for managing the life cycle of the fleet is not clear.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by November 30, 2018, on the Navy's plans for the F/A-18 legacy fleet. The briefing should address the divestiture plan for the F/A-18 aircraft and the rationale for divestiture. For the aircraft remaining, the briefing should address the readiness recovery plans, including plans to fully utilize the alternative-source depot-level maintenance contract.

#### Navy Next-Generation Small Arms Weapons Training and Readiness Requirements

The committee is concerned that after 5 years, the Navy has not developed a comprehensive plan to address significant small arms training shortfalls identified following the 2013 Washington Navy Yard shooting. The committee reiterated these concerns in the committee report (H. Rept. 114-537) accompanying the National Defense Authorization Act for Fiscal Year 2017. The report directed the Navy to evaluate innovative, non-program-of-record small arms and crew-served training systems to improve Navy security force and fleetwide small arms tactical and crew-served training. The committee is aware of next-generation synthetic small arms training systems that can provide consistent, metrics-based proof of live-fire transfer across warfighter skill levels for individual and crew-served training. Such systems, which reduce ammunition expenditure and training time, have been demonstrated by the Navy Expeditionary Combat Command. The committee believes that these systems can improve reaction time and decision making under stress, skills critical to determining hostile intent and making escalation of force decisions. Given the benefits of these next-generation systems, the committee is concerned that the Navy has continued to rely on legacy simulation systems built for other services, without consideration of unique Navy small arms training and readiness requirements.

Therefore, the committee directs the Commander of U.S. Fleet Forces Command to provide a briefing to the House Committee on Armed Services not later than November 30, 2018, regarding a comprehensive plan to meet small arms training requirements, how next-generation synthetic small arms training systems will be integrated into the comprehensive plan, and the Navy's acquisition strategy to support small arms training requirements.

#### Navy Ship Maintenance and Repair

The committee is aware that the Navy changed its contracting strategy for ship maintenance and repair in 2013, moving away from the system used since 2004. Despite this change, the Navy continues to experience delays in completing ship availabilities, leading to a reduction in the time a ship's crew has to prepare for deployment. The committee appreciates the need to control costs and to resolve all emergent maintenance issues when a ship is in a maintenance availability. However, the committee is not persuaded that the Navy's current Multiple Award Contract, Multiple Order (MAC-MO) mechanism is always the best contracting approach. The committee has learned of delays in renegotiating contracts while



vessels sit idle in the yard, as well as third party planning contractors not obtaining long lead time materials when needed. The committee is aware that the Comptroller General of the United States looked at similar issues, described in Government Accountability Office report GAO-17-54, issued in 2016.

To better understand what adjustments may be needed to make improvements to the Navy's ship maintenance and repair process, the committee directs the Comptroller General to:

(1) compare the Navy's execution of the MAC-MO strategy against the previous Multi-Ship, Multi-Option strategy, with particular emphasis on cost, lost operational days, and on-time completion;

(2) assess the effectiveness of third party planners in the MAC-MO strategy, including their performance in developing stable well-defined requirements during advance planning;

(3) assess the adequacy of the Navy's structure for contract oversight;

(4) assess the stability and viability of the ship repair industrial base, including private industry's capacity to recruit and retain critically skilled workers and maintain safe and efficient facilities; and

(5) assess advantages, disadvantages, or key differences between the MAC-MO and Multi-Ship, Multi-Option strategy depending on the location where the work will be performed.

The committee directs the Comptroller General to submit a report to the Committees on Armed Services of the Senate and the House of Representative by March 1, 2019, on these matters and recommendations to improve the Navy's contracting process.

### Supply of Aviation Parts and Spares

The committee is concerned by the rate of non-mission capable aircraft due to issues with supply of parts and spares. The committee is aware of numerous examples of aircraft that have been non-mission capable for several months waiting for the arrival of a part. Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services not later than September 30, 2018, on the Department's efforts to address issues associated with the availability and supply of aviation parts and spares. At minimum, the briefing should provide an update on the rate of non-mission capable aircraft due to supply, specific actions the Department is taking to decrease this rate, and commercial and industry best-practices for maintenance and supply that may be adopted as part of an overall strategy to improve aircraft mission capability rates.

## READINESS ISSUES

### Additive Manufacturing in Depot Facilities

The committee is encouraged by the progress that depots and arsenals in each military department are making in developing additive manufacturing capabilities. The committee understands that this capability allows depots to quickly manufacture parts that are no longer available from commercial suppliers, allowing rapid repair of essential operational equipment. However, there remains substantial room across each of the services to add more additive manufacturing capacity. Additionally, the committee has observed little commonality across the Department of Defense in addressing intellectual property issues associated with this process.

The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than December 3, 2018, on a strategy to further integrate additive manufacturing capabilities into industrial facilities across the Department to speed parts production, return equipment to the force, and improve material readiness. The briefing should also address progress in resolving legal and patent questions around use of additive manufacturing.

#### Adversary Air Training

The committee notes that the budget request contained increased funds for the Air Force to provide more adversary air contracted support for Red Flag exercises, Warfighter Integration Center, and combat air force fighter formal training unit locations. The committee also notes that the budget request contained increased funds for the Navy to provide adversary air support at specialized schools including the Naval Strike and Air Warfare Center. The committee supports these efforts to contract for adversary air training to aid aviation readiness recovery. Contract support will make more combat-coded pilots available for operational duties rather than adversary air training missions and reduce the number of training hours being placed on airframes. In acquiring contracted services for adversary air, the committee encourages the Secretary of the Air Force and the Secretary of the Navy to maximize competition and ensure the contracts provide flexibility to adjust to emerging training requirements. Finally, the committee encourages the Secretary of the Air Force and Secretary of the Navy to seek opportunities to coordinate adversary air requirements to reduce overall costs and maximize the support to aviation readiness recovery of both departments.

#### Army Soldier and Squad Virtual Trainer

The committee commends the Army's decision to replace its legacy small arms simulation trainer and call for fire trainer with an advanced Soldier and Squad Virtual Trainer (S/SVT) program to achieve next-generation synthetic small arms, call for fire, use of force, and close quarters combat training and readiness objectives. The committee believes continued improvement of these systems is essential to future success of small units on the battlefield. The committee believes the Army should consider key capabilities such as the use of biometrics, advanced human performance techniques, cognitive drills, and robust data collection to verify

soldier improvement. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than December 3, 2018, that details the status of the Army's plan for S/SVT and how key capability and system requirements currently projected by the Army are being accounted for, and will be implemented, in the final S/SVT program in order to sustain readiness.

#### Assessment of Navy Standard Workweek

The committee notes that the Navy's Comprehensive Review identified fatigue and ineffective crew rest management in the four mishaps that occurred in the Western Pacific in 2017. As noted in the review, "if crewmembers are overly fatigued, mission accomplishment, performance, and safety are in jeopardy." The Comprehensive Review went on to recommend the Navy establish a comprehensive fatigue management policy, and a circadian ship and watch rotation for surface ships.

The committee directs the Chief of Naval Operations to provide a briefing to the House Committee on Armed Services not later than September 30, 2018, that identifies how Chief of Naval Operations Instructions, and other relevant policy documents, have been updated to implement the recommendations of the Comprehensive Review and address crew fatigue, watch rotations, and overall workload for crewmembers of surface ships.

#### Availability and Sufficiency of Training Ranges to Conduct Training against Near-Peer Adversaries

To build and sustain full-spectrum combat readiness, the military services must train on ranges that replicate the capabilities of near-peer adversaries. Such training requires ranges with sizable land, sea, and air space to accommodate the tactics of modern systems and weapons. In addition, modern war demands extensive training on weapons employment and target identification, as potential adversaries possess complex air defenses and highly sophisticated electronic countermeasures. However, training ranges lack sufficient capability and capacity to support full-spectrum training requirements, including the replication of near-peer adversaries' capabilities. Further, because of the strategic significance of forward-deployed and rotational forces, building overseas training range capabilities is becoming more important to sustaining full-spectrum readiness.

The committee is concerned that the Department of Defense's training range infrastructure is not keeping up with the demand to support full-spectrum training requirements. Therefore, the committee directs the Comptroller General of the United States to assess the following:

(1) the extent to which the Department of Defense has identified the current capacity of training range infrastructure to meet the military services' demand for range access;

(2) the extent to which the Department of Defense has evaluated the training range infrastructure to determine whether it is sufficient to conduct training against near-peer adversary capabilities; and

(3) the extent to which the Department of Defense has developed a comprehensive strategy and investment plan to improve the availability and sufficiency of training ranges to meet the Department's training needs.

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services not later than February 1, 2019, on the findings of this review and to submit a report to the congressional defense committees on a date agreed to at the time of the briefing.

### Briefing on Security Forces Assistance Brigade Location Plan

The committee recognizes that a future Security Forces Assistance Brigade (SFAB) construct should highly encourage an expansion of alliances and partnerships as called for in the 2018 National Defense Strategy. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services, not later than January 1, 2019, on the strategic alignment decision matrix and installations plan for the fielding of the Security Forces Assistance Brigades. The plan shall include an assessment of the feasibility and advisability of stationing SFABs appropriately to address the requirements of the geographic combatant commands.

### CONUS Training Facilities

In support of the Department of State's Anti-Terrorism-Assistance program, many commercial companies created state of the art CONUS training facilities that provided critical skills to deployable personnel. However, these CONUS training facilities are now being underutilized due to an increased tendency to conduct training OCONUS. These training facilities have successfully increased readiness and contributed to overall mission success through partnerships with programs such as U.S. Military Afghanistan-Pakistan Hands (APH) as well as U.S. Military Observer Group (USMOG). The committee is aware of the excess capacity available at these commercial training facilities and encourages the Department of Defense and Department of State to use them to further enhance anti-terrorism training. Therefore, the committee directs the Secretary of Defense, in coordination with the Secretary of State, to provide a report by March 1, 2019 detailing the requirement for all services to conduct enhanced and critical skills training. In addition, this report should detail the feasibility of using CONUS facilities to conduct this antiterrorism training and identify any training backlogs and any facility infrastructure shortfalls that exist in order to accomplish this type of training.

### Entry Control Facility Technology

The committee remains concerned about the physical security of U.S. military facilities, both in the continental United States as well as abroad. Entry control points at such facilities are particularly vulnerable and require special attention and protection. The committee recognizes the need to continually assess new technology and develop enhanced entry control options in order to protect Department of Defense facilities against evolving adversarial technologies, such as drones and autonomous vehicles. The committee encourages the service secretaries to seek additional opportunities to leverage innovative technologies and research and development in order to enhance overall security, reduce military construction requirements, reduce annual operation and maintenance costs, increase joint interoperability, and protect valuable resources.

### Foreign Language Readiness

The committee believes that a globally engaged military force requires an adequate number of personnel trained and proficient in foreign languages. The committee notes the significant number of personnel who attend the Defense Language Institute–Foreign Language Center, the John F. Kennedy Special Warfare Center and School, and other foreign language training programs each year, as well as the global allocation of linguists among the geographic combatant command areas of responsibility. The committee believes these institutions can be augmented by innovative online programs conducted as a traditional classroom, with a live instructor engaging a small student group. Such programs reduce the need for travel and have proven more effective than self-paced instruction. The committee also notes efforts by the Department of Defense to recruit and utilize native speakers of critical languages to support combatant command requirements. Despite the critical requirements for foreign language expertise in certain career fields, the committee is concerned that the overall foreign language readiness of the total force is not adequately documented and assessed.

Therefore, the committee directs the Under Secretary of Defense for Personnel and Readiness to provide a briefing to the House Committee on Armed Services not later than March 1, 2019, that assesses the foreign language readiness of the total force. The briefing shall address the required number of personnel trained and proficient in foreign languages, the current number of personnel trained and proficient in foreign languages, and the distribution of linguist personnel to the appropriate combatant commands; identify any gaps in foreign language readiness to include specific shortfalls in critical languages and mitigations to address those gaps; and assess the current foreign language training, education, and proficiency testing programs.

### Forward Deployed Naval Force Ship Maintenance and Repair Capacity

The committee notes that since 2006, the Navy has doubled the number of surface ships assigned to overseas homeports, with more than 14 percent of the Navy's ships based at ports in the Kingdom of Bahrain, the Italian Republic, the

Kingdom of Spain, and Japan. The committee also notes that combatant commander demand for naval presence drives the Navy to base ships at overseas ports. However, the extent to which the Navy has the capacity for ship maintenance and repairs overseas is not clear.

To assess that capacity, the committee directs the Comptroller General of the United States to review the following:

- (1) ship maintenance and repair capacity overseas in either U.S. ports or foreign repair yards;
- (2) to what extent has the Navy identified and taken action to address its overseas maintenance requirements;
- (3) to what extent has the Navy identified the underlying causes of overseas maintenance overruns;
- (4) mitigation options to address any maintenance shortfalls; and
- (5) any other issues the Comptroller General determines appropriate with respect to forward deployed naval force ship maintenance and repair capacity.

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services not later than November 12, 2018, on the Comptroller General's preliminary findings and to submit a final report to the congressional defense committees on a date agreed to at the time of the briefing.

#### Immersive Virtual Shipboard Environment Training

The committee notes that the Navy has used game-based learning concepts and immersive virtual shipboard environment (IVSE) training for select watch stations aboard Littoral Combat Ships (LCS). The committee understands that IVSE courses offer scalable solutions that have led to faster qualification and certification times, a higher degree of training proficiency, and increased knowledge retention. The committee notes that the Navy's Strategic Readiness Review recognized that the Navy must "foster a culture of learning and create the structures and processes that fully embrace this commitment" in order to restore readiness, yet the Navy has made little progress in adopting proven methods to cultivate the learning culture.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services, not later than September 28, 2018, on the Navy's plans to improve training. The briefing should:

- (1) identify training benefits and lessons learned from the Navy's experience with game-based learning concepts and IVSE training for LCS watch stations;
- (2) outline a plan, including associated timelines, for applying such training to Navy and Marine Corps training requirements across all naval surface ship platforms in alignment with the Chief of Naval Operations' tenet of achieving high-velocity learning using 21st century technology;
- (3) identify discrete mission areas where insufficient assets are available to provide traditional training to achieve full-spectrum readiness and where IVSE

would improve watch-station training, including training for new platform development programs, coastal riverine operations, and amphibious operations; and (4) provide a report to the Committees on Armed Services of the Senate and House of Representatives by March 1, 2019 on the advisability and feasibility of procuring, altering, or otherwise modifying the Navy's bridge simulators, including the Navigation, Seamanship, and Shiphandling Trainer, to enable high-fidelity physical representation of the different bridge layouts, characteristics, and operating environments of ships across the fleet.

### Information Operations

The committee understands the growing importance of space and cyber operations in military operations and in another provision elsewhere in this Act directed the Secretary of Defense to report readiness to conduct operations in the space and cyber domains. The committee believes that information operations are similarly becoming a major factor in military planning and that operational skill in conducting information operations will be critical to future military success. Therefore, the committee directs the Secretary of Defense to assess the value of measuring and regularly reporting the readiness of the joint force to conduct information operations and report his recommendations to the Committees on Armed Services of the Senate and the House of Representatives by January 31, 2019.

### Live, Virtual, and Constructive Training Solution Enhancements

The committee recognizes the important role that live training systems play as part of a comprehensive effort to improve readiness. The committee is aware the Army and Marine Corps are planning for the use of live, virtual, and constructive (LVC) simulation training systems that emphasize joint interoperability. However, the committee is concerned that despite recent progress advancing such LVC capabilities there remain challenges in both fielding and integrating live training devices with both individual and collective training objectives. Additional challenges occur when planned upgrades to new and existing vehicle platforms occur without the corresponding modifications to the training systems. The committee believes that the acquisition and fielding of training systems must be synchronized with the procurement, fielding, and modernization of weapon systems to ensure the services' overall training objectives are supported in a coordinated and cost-effective manner. In addition, the committee encourages the military departments to ensure that new LVC training systems are interoperable with both the joint force infrastructure and the advanced training systems of key allied nations and coalition partners.

The committee directs the Secretary of the Army, in coordination with the Secretary of the Navy, to provide a briefing to the House Committee on Armed Services not later than December 3, 2018, on the plans of the Army and Marine Corps to utilize live training systems as part of readiness recovery and long-term training efforts. The briefing should address the plans and timelines for fielding live

training systems and synchronizing such efforts with the fielding or modernization of weapon systems and efforts to ensure such systems are interoperable with our military partners and allies.

### Military Working Dog Capacity and Facilities

The committee is aware that military working dogs are a critical enabler to both facility and operational force security and that the operational need continues to grow. The committee is concerned about the average age of the military working dog population and the capacity to train and access new dogs and handlers to meet future requirements. Additionally, the committee notes that investments in military working dog facilities have not kept pace with the increased demand for military working dogs.

Therefore, the committee directs the Secretary of the Air Force, as the executive agent for the military working dog program, to provide a briefing to the House Committee on Armed Services not later than December 1, 2018, that addresses:

- (1) the total current and future requirement for military working dogs, handlers, and instructors by mission capability;
- (2) the total number of military working dogs and handlers currently available for operational tasking by mission capability;
- (3) an assessment of the condition and capacity of military working dog facilities to support current and future requirements, to include the ability to provide adequate medical care as well as meet mission training requirements; and
- (4) an assessment of capability gaps and plans to mitigate these gaps, including programmed investments.

### Modeling and Simulation for Training, Exercises, and Joint Planning

The committee recognizes that the defense modeling and simulation technological and industrial base, including in academia, industry, and government, is an important national security asset. The committee appreciates that the Department of Defense continues to use modeling and simulation technologies across the spectrum of defense activities, including for training, exercises, and joint planning activities. The committee encourages the military services and the combatant commanders to maximize the use of modeling and simulation, including in service, joint, and combined exercises; in joint planning for theater operations and contingencies that cannot be accurately planned for by other means; and in the development of options for senior leadership at the strategic level.

The committee believes it is important for Congress to have a clearer understanding of the benefits and impacts of the Department's use of modeling and simulation. Therefore, the committee directs the Secretary of Defense to provide a report to the House Committee on Armed Services not later than November 30, 2018 on the effects of integrating modeling and simulation into the review and



development of operational plans, joint training and exercises, and high-priority security cooperation initiatives.

### Modernization and Integration of Major Range and Test Facilities Bases

The committee notes a lack of consistent policy and standardized processes within the Department of Defense to guide the Director of Operational Test and Evaluation and the Director of Test Resource Management Center (TRMC) in scheduling systems utilized by shared military test and training ranges. The committee is concerned that lack of standardization fails to optimize these vital resources nor accommodate joint force utilization. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than January 23, 2019, on its plan to standardize major range and test facilities bases (MRTFB) scheduling. At a minimum, the briefing should:

- (1) identify processes to standardize and integrate current scheduling systems between the joint users of MRTFB ranges and facilities;
- (2) identify process that efficiently integrates next generation aircraft avionics, propulsion and weapons systems test and training;
- (3) optimizes use and capacity of training range land and airspace between competing needs; and,
- (4) provide recommendations on metrics and methods which will ensure each service has an equal opportunity to test and train on MRTFB.

### Surface Fleet Live Fire Training

The committee recognizes the Navy's desire to increase fleet readiness training and exercise ship systems before deployment by including live-firing of missiles in pre-deployment training exercises. The committee also notes the Navy's Standard Missile-3 Block IA inventory is approaching the end of service life. Furthermore, the committee is aware that in lieu of demilitarization, the Navy intends to assess repurposing these missiles to conduct live-fire readiness training using shipboard ballistic missile defense systems. The committee encourages this initiative and directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services not later than November 5, 2018, on the Navy's progress in making SM-3 Block IA missiles approaching the end of their service life available for live-fire readiness training for ships and crews.

### Universal Camouflage Inventory and Overdye Technology

The committee notes the Army's transition from Universal Camouflage Pattern (UCP) to Operational Camouflage Pattern (OCP) for soldier uniforms and personal equipment, even though the Army possesses a substantial inventory of now obsolete UCP products. The committee is also aware of Program Executive Office Soldier's efforts to evaluate overdye technologies and processes. This evaluation could validate processes that could alter UCP printed products into a

color palette that blends with the new camouflage prints, allowing the Army to conserve resources by overdyng UCP materials for use with OCP patterned equipment.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than August 31, 2018, that includes any current efforts to repurpose and field UCP personal equipment, any evaluations of overdye technologies and processes, and a business case analysis of fielding these overdye technologies and processes.

## OTHER MATTERS

### Air Refueling Capability and Capacity

The committee notes that air refueling capability is a critical component of logistical capacity and that the Air National Guard fulfills the majority of air refueling requirements. The committee notes that section 144 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) required the Secretary of Defense to carry out a mobility capability and requirements study that includes an assessment of the air refueling tanker aircraft military requirement. Upon completion of the study, the committee is interested in how the Air Force will support the requirements for force structure and strategic laydown of aircraft necessary to implement the study.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services, not later than March 1, 2019, on how the Air Force will support the requirements for aerial refueling. At a minimum, the briefing shall include:

- (1) the current and future laydown plans for air refueling locations;
- (2) an overview of air refueling operations per air refueling wing locations to include the number of sortie requests, the number of sorties fulfilled, and the locations or missions the sorties supported;
- (3) fully mission capable and aircraft availability rates for all air refueling wings over the past 5 years;
- (4) an assessment of how the Air National Guard force structure, across all States and territories, can be leveraged to support current and emerging air refueling requirements;
- (5) a description of the long-term plan to maintain adequate refueling capability to meet current and emerging requirements;
- (6) a review of manpower levels across the air refueling force, an identification of current and projected skill set gaps, and recommendations on how to address these gaps; and
- (7) an overview of how the Air Force will determine the disposition of KC-135 aircraft as they are replaced by arrival of KC-46 aircraft.

### Disposition of Excess Military Ground Vehicles

The committee notes that the Defense Logistics Agency's Disposition Services is responsible for disposing of excess property received from the military services. Excess military property is screened for reutilization within the Department of Defense; transfer to other Federal agencies; donation to State and local governments, or other qualified organizations; or sale to the general public. As part of the screening process, Disposition Services must assess demilitarization (DEMIL) requirements for the excess property to prevent unauthorized use or the compromise of national security. For ground vehicles, such DEMIL requirements can range from the removal of certain parts and components to the full mutilation and scrapping of the vehicle. The committee is aware of concerns that types of ground vehicles heretofore available for donation are now consigned to scrap.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment, in coordination with the Commander of the Defense Logistics Agency, to submit a report to the congressional defense committees by February 1, 2019, regarding the disposition of military ground vehicles.

The report should include classes and types of Department of Defense military ground vehicles eligible to be considered in the donation and sale program and explanation of the DEMIL codes used in the determination process. Additionally, the report should outline the DEMIL code determination process for ground vehicles, whether applicable policies were followed when ground vehicles previously made available to State and local governments or civilian military museums have instead been scrapped, and steps taken to reevaluate current policies and practices. Finally, the report should include measures taken by the Disposal Services program to improve transparency so that State and local governments or civilian military museums have appropriate access to ground vehicles.

### Fluorine-Free Fire Fighting Foam

The committee is aware that the military departments are in the process of replacing legacy aqueous film forming foam (AFFF) with an AFFF that does not contain perfluorooctane sulfonate (PFOS) compounds. In addition, the committee is aware the Department of Defense has undertaken research and development efforts related to fluorine-free AFFF. The committee encourages the Department to accelerate such efforts, to the extent possible. Therefore, the committee directs the Assistant Secretary of Defense for Energy, Installations, and Environment to provide a briefing to the House Committee on Armed Services not later than March 1, 2019, on the progress made towards development and fielding of a fluorine-free AFFF that meets military requirements. At minimum, the briefing should summarize research and development initiatives on fluorine-free AFFF that have been funded by the Department of Defense to date, a summary of the current status and findings of such initiatives, and what additional research and development may be required prior to fielding a fluorine-free AFFF.

### Improving Water Security and Efficiency on Installations

Efficient facilities are critical for the support, redeployment, and operation of military forces. While some installations have done great work to improve water efficiency, the Committee is concerned that the military may not be maximizing strategic use of water resources at all installations, and that this could be adding unnecessary costs that could be more effectively used elsewhere. Furthermore, water security is a vital component of installation readiness.

Therefore, the committee directs the Secretary of Defense to provide a report on innovative ways to reduce water use across installations in order to strengthen base readiness through improved water security, and to identify opportunities to replicate across installations some of the successful water-saving tactics already being deployed at some bases, such as planting more native species and increasing use of gray water systems. The report shall be submitted to the House Committee on Armed Services, not later than March 1, 2019.

### Joint Navy-Coast Guard Arctic Strategy

The Navy and the Coast Guard currently produce their own Arctic strategies. The Committee believes the absence of a joint strategy stands in contradiction to the Secretary of Defense's National Defense Strategy, calling for greater integration of a joint force and renewed attention on more traditional peer competitors, namely Russia and China. Therefore, the committee directs the Chief of Naval Operations and the Commandant of the Coast Guard to provide a briefing to the House Committee on Armed Services and the House Committee on Transportation and Infrastructure by September 30, 2018 that provides a framework for a joint strategy integrating all components of the Navy and Coast Guard Arctic mission sets and providing adequate vessel and aircraft resource allocation allowing for the United States to effectively advance security and commercial interests in the region. The briefing should take into consideration the Arctic's relevance in the Navy's configuration of a 355 vessel fleet and identify proper Navy and Coast Guard resource allocation to that effect.

### Meeting Readiness Requirements Efficiently

The House Armed Services Committee is concerned that the number of mandatory training and administrative requirements for Service members of the Department of Defense, and the burden that they maintain a multitude of different accounts on different systems to accomplish an array of administrative and training mandatory requirements especially for Reserve Component Service members, impedes their ability to efficiently achieve worldwide deployment readiness. The Committee is aware that, for example, the U.S. Navy Reserve maintains no fewer than ten different computer systems that service members must regularly use.

The Director of Cost Assessment and Program Evaluation is directed to submit to the congressional defense committees a report by April 1, 2019, detailing the costs incurred by each military service to maintain each training and

administrative personnel system, particularly computerized systems, and options to consolidate these systems to save taxpayer money, reduce the burden on military members, and promote readiness.

### Motorcycle Safety Training

The committee is aware that each of the armed services conducts motorcycle safety training before allowing service members to operate a motorcycle on base. The committee applauds this training and encourages the Department of Defense to continue. The committee has learned that nine States, including several with large military installations, have imposed unique training requirements that go beyond those contained in the National Highway Traffic Safety Administration compliant curriculum. The committee has also learned that the Air Force and Coast Guard adjust their training to meet unique State requirements, while the Departments of the Army and Navy do not, forcing soldiers, sailors, and marines to seek and pay for the added required training individually. The committee encourages the Secretaries of the Army and Navy to review the adequacy of motorcycle safety training in their respective military departments to ease the burden on soldiers, sailors, and marines.

### Open-Air Disposal of Munitions and Munition Constituents

The committee remains concerned about the Department of Defense's continued reliance on open burning and open detonation for the demilitarization of excess, obsolete, or unserviceable munitions by its industrial depots rather than using alternative contained technologies. While the committee recognizes the Department may have a need to retain some open burning and open detonation capability for explosive safety reasons, the committee is aware of the Department's efforts to reduce its use of open burning and open detonation. Section 1421 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) directed the Secretary of the Army to enter into an arrangement with the Board on Army Science and Technology of the National Academies of Sciences, Engineering, and Medicine to conduct a study of the conventional munitions demilitarization program of the Department of Defense. The intent of this study was to better understand the Department's current procedures, its rationale for using open burning and open detonation, and the status and suitability of alternative technologies in use or under development to reduce the Department's reliance on open burning and open detonation.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services, not later than 90 days after the date on which the National Academy of Science releases its report, on the actions the Army intends to take in response to the National Academy of Science committee's recommendations.

### Physical Security at U.S. Shipyards

The committee believes it is important to ensure the safety and security of personnel and Navy vessels undergoing maintenance in public and private shipyard facilities. While the security of the public shipyards is the responsibility of the Navy, the committee understands that private shipyards must meet specific requirements for physical security barriers, perimeter and waterfront access control, security forces, patrol craft, and other security measures while performing work on Navy vessels. The committee notes there are certain locations where private shipyards are near or adjacent to a Navy installation or to another shipyard performing work on Navy vessels. In such cases, each shipyard is required to individually meet the security requirements associated with a repair contract. The costs associated with these security requirements are ultimately passed back to the government through the cost of the repair contract. Therefore, the committee encourages the Secretary of the Navy to examine this issue and work with private shipyards to find opportunities to meet security requirements in a more collaborative and cost-effective way at shipyards that are near or adjacent to a Navy installation or another shipyard performing work on Navy vessels.

#### Quality of Life at Remote Sites

The committee notes that the Army and other military services operate several installations at isolated locations in the western United States. Some Army examples include Dugway Proving Ground, Utah; Hawthorne Army Depot, Nevada; and White Sands Missile Range, New Mexico. These remote locations are usually staffed with small populations, presenting financial solvency challenges for morale, welfare, and recreation (MWR) business activities of the Department of the Army. As a result, there are few MWR activities, shopping venues, or dining options on or near the installation to support the daily working population of military personnel, Federal civilian personnel, contract employees, and family members. The committee encourages the Secretary of the Army to review the quality of life support options for all those who work at such installations and develop a plan for improvement.

#### Regional Biosecurity Plan

The Secretary of Defense is directed to submit to the Committees on Armed Services of the Senate and the House of Representatives, at the same time as the President submits the budget for a fiscal year under section 1105(a) of title 31, United States Code, a report describing the activities of the Department of Defense during the preceding fiscal year to implement the Regional Biosecurity Plan for Micronesia and Hawaii, which is a strategic plan led by the Department of Defense in collaboration with other Federal and non-Federal entities to prevent and control the introduction of invasive species in the United States Pacific region. The Department of Defense's report shall also include next steps and planned activities of the Department for further implementation of the plan, including estimates of additional funding to be used or needed for such next steps and planned activities.

## Review of Household Good Weight Allowances

The committee believes that service members should pursue intellectual development by reading thoughtful books related to the military profession. Indeed, the Chairman of the Joint Chiefs of Staff and each Service Chief maintains active professional reading lists to encourage military members to read as part of professional development. The committee further recognizes that a growing number of military families opt for home schooling as a means to provide stability to children's education. The committee notes that the current household good movement weight allowance for military professional gear is 2,000 pounds for military members and 500 pounds for dependent spouses. Professional gear includes a range of items including books, uniforms, and technical equipment. The committee understands that Joint Travel Regulation 051304 modified the allowable weight credit computation for professional gear and definition of professional gear. The committee is concerned that the household good professional gear weight allowance and allowable weight credit computation is insufficient to support increasingly educated workforce and military families who homeschool; therefore, the committee directs the Commander of U.S. Transportation Command in coordination with the military departments and the Defense Travel Management Office to provide an briefing to the House Committee on Armed Services, not later than August 31, 2018, on the household goods weight allowances. This briefing shall include, at a minimum:

- (1) A summary of the most recent assessment of weight allowance requirements
- (2) Any changes to the household weight allowance for professional gear for the previous ten years
- (3) A review of complaints from service members on professional gear weight allowances and actions taken to address these concerns
- (4) Any recommended policy changes and actions.

## Review of Mandatory Training Required by Law

The committee is encouraged by recent initiatives across the military services to review and reduce mandatory administrative training requirements. Such mandates consume time and resources of operational unit leaders and troops and should only be required when necessary to improve the readiness of the force. This issue is especially acute in the Reserve Components, with limited training days. The committee recognizes that such requirements are generated from within the Department of Defense as well as through legislative mandates and statutes. The committee intends to review current military training mandates that arise from statute for possible repeal and would welcome the views of the Secretary of Defense. To that end, the committee encourages the Secretary of Defense to provide a list of any legal mandates to conduct training to the House Committee on Armed Services, accompanied by his recommendation of any that should be repealed.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—AUTHORIZATION OF APPROPRIATIONS

#### Section 301—Authorization of Appropriations

This section would authorize appropriations for operation and maintenance activities at the levels identified in section 4301 of division D of this Act.

### SUBTITLE B—ENERGY AND ENVIRONMENT

#### Section 311—Inclusion of Consideration of Energy and Climate Resiliency Efforts in Master Plans for Major Military Installations

This section would amend section 2864 of title 10, United States Code, to require energy and climate resiliency efforts to be considered in installation master plans to ensure the ability to sustain mission-critical operations.

#### Section 312—Use of Proceeds from Sales of Electrical Energy Derived from Geothermal Resources for Projects at Military Installations Where Resources Are Located

This section would amend section 2916 of title 10, United States Code, to enable certain proceeds from the sale of electrical energy generated from a geothermal energy resource to be used for installation energy or water security projects at the military installation in which the geothermal energy resource is located.

#### Section 313—Extension of Authorized Periods of Permitted Incidental Takings of Marine Mammals in the Course of Specified Activities by Department of Defense

This section would amend section 1371 of title 16, United States Code, to extend the period the Secretary of Interior may authorize the incidental taking of marine mammals by the Department of Defense from 5 years to 10 years if the Secretary finds that such takings will have a negligible impact on any marine mammal species.

#### Section 314—State Management and Conservation of Species

This section would prohibit listing of the Greater Sage-Grouse and the Lesser Prairie-Chicken under the Endangered Species Act for a 10-year period. This section would also provide that the previous such listing of the American Burying Beetle may not be enforced or reinstated.

### SUBTITLE C—LOGISTICS AND SUSTAINMENT



### Section 321—Examination of Naval Vessels

This section would amend section 7304 of title 10, United States Code, to provide that examinations of naval vessels performed under the authority of that section after October 1, 2019, shall be conducted on a no notice basis. This section would also provide that reports detailing the results of such inspections be unclassified and available to the public.

### Section 322—Overhaul and Repair of Naval Vessels in Foreign Shipyards

This section would amend section 7310 of title 10, United States Code, to require naval vessels that do not have a homeport be treated as being homeported in the United States or Guam with regard to repair and maintenance of those vessels. Additionally, this section would define the term voyage repair.

### Section 323—Limitation on Length of Overseas Forward Deployment of Naval Vessels

This section would add a new section to chapter 633 of title 10, United States Code, that would require the Secretary of the Navy to limit the time a naval vessel is forward deployed overseas to 10 years. This section would permit the Secretary to waive the 10-year requirement for individual naval vessels with notification to the congressional defense committees. This section would further provide that all currently forward deployed naval ships which have exceeded 10 years of service overseas shall have 3 years to return to a U.S. homeport. Finally, this section would require the Secretary to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives on his rotation plan for forward deployed naval ships.

### Section 324—Temporary Modification of Workload Carryover Formula

This section would require the Secretary of Defense to modify the workload carryover calculation formula for each military department depot or arsenal through September 30, 2021. These modifications would reflect the timing of enacted appropriations and the varying repair cycle times of the workload supported, and apply in addition to current Department of Defense carryover exemptions.

### Section 325—Limitation on Use of Funds for Implementation of Elements of Master Plan for Redevelopment of Former Ship Repair Facility in Guam

This section would provide that none of the funds authorized to be appropriated by this Act, or otherwise made available for fiscal year 2019 for the Navy, may be obligated or expended for any construction, alteration, repair, or development of the real property consisting of the Former Ship Repair Facility in

Guam unless such project directly supports depot-level ship maintenance capabilities, to include the mooring of a floating dry dock.

#### Section 326—Business Case Analysis for Proposed Relocation of J85 Engine Regional Repair Center

This section would require the Secretary of the Air Force to prepare a business case analysis for the proposed relocation of the J85 Engine Regional Repair Center. This section would also withhold funding for the proposed relocation until 150 days after the Secretary of the Air Force has provided the Committees on Armed Services of the Senate and the House of Representatives a briefing on the business case analysis.

#### Section 327—Army Advanced and Additive Manufacturing Center of Excellence

This section would require the Secretary of the Army to establish a Center of Excellence on Advanced and Additive Manufacturing at an arsenal and authorize use of public-private partnerships and other transactional activity to facilitate the development of advanced and additive manufacturing techniques in support of Army industrial facilities.

### SUBTITLE D—REPORTS

#### Section 331—Matters for Inclusion in Quarterly Reports on Personnel and Unit Readiness

This section would amend section 482 of title 10, United States Code, to require the Secretary of Defense and each military service to report appropriate readiness metrics for cyber and space operations in the existing periodic reporting requirement. This section would further amend section 482 to require combatant commanders to assess their readiness to conduct operations in a multidomain battle, integrating ground, air, sea, space, and cyber forces.

#### Section 332—Annual Comptroller General Reviews of Readiness of Armed Forces to Conduct Full Spectrum Operations

This section would require the Comptroller General of the United States to assess the readiness of the Armed Forces in the warfighting domains of ground, sea, air, space, and cyber annually through 2022. The assessment would be based on metrics established by the Secretary of Defense and validated by the Comptroller General, to allow the committee to assess readiness status over time. While the Comptroller General may submit classified reports, unclassified versions of the reports should also be provided.

The committee understands that military readiness is a result of a commander's skillful integration of available military personnel, equipment,

supplies, and individual and collective training opportunities. The committee recognizes that readiness has suffered in all military services in recent years, driven by the erosive effects of the Budget Control Act and the unceasing demand for forces in various theaters of operation. The committee believes that the military services should demonstrate measurable readiness recovery with the additional appropriations made in fiscal year 2017, the additional appropriations made available in fiscal year 2018, as well as funding authorized for fiscal year 2019 in this Act.

#### Section 333—Surface Warfare Training Improvement

This section would express the sense of Congress that the Secretary of the Navy should establish an assessment process for surface warfare officers prior to operational tour assignments and that the Secretary should expand the International Convention on Standards of Training, Certification and Watchkeeping (STCW) qualification process for surface warfare officers and enlisted navigation watch team personnel to improve seamanship and navigation aboard Navy vessels. Further, this section would require the Secretary of the Navy to provide a report on surface warfare officer credentialing, training, and assessment to the congressional defense committees not later than March 1, 2019.

#### Section 334—Report on Optimizing Surface Navy Vessel Inspections and Crew Certifications

This section would require the Secretary of the Navy to provide a report on optimizing surface navy vessel inspections and crew certifications to reduce redundancies and the burden of inspection type visits that ships undergo. Further, this section would require the Secretary of the Navy to provide an interim briefing to the Committees on Armed Services of the Senate and the House of Representatives not later than January 31, 2019, on matters to be included in the required report.

The committee notes that following the collisions involving U.S. Navy ships in the western Pacific, the Navy conducted a comprehensive review of recent surface force incidents. The committee also notes that the Navy's "Comprehensive Review of Recent Surface Force Incidents" identified an overabundance of inspections, certifications, and that "ships can be subjected to as many as 238 separate inspection, certification, and assist visits in a 36 month period." The Navy's "Strategic Readiness Review" of these incidents further identified that there "has been a dramatic increase in the operating tempo of individual ships, and accompanying reductions in the time available to perform maintenance, training, and readiness certification." The "Strategic Readiness Review" went on to note that "sufficient time for training crews and maintaining ships is critical for restoring and monitoring readiness."

Given the continued operational demand on the fleet, the committee believes that the Navy should reduce the burden of inspection type visits that ships undergo.

#### SUBTITLE E—OTHER MATTERS

##### Section 341—Coast Guard Representation on Explosive Safety Board

This section would amend section 172 of title 10, United States Code, to provide that an officer of the Coast Guard serve as a voting member of the explosive safety board.

##### Section 342—Shiloh National Military Park Boundary Adjustment and Parker's Crossroads Battlefield Designation

This section would modify the boundary of the Shiloh National Military Park located in Tennessee and Mississippi, to establish Parker's Crossroads Battlefield as an affiliated area of the National Park System.

##### Section 343—Sense of Congress Regarding Critical Minerals

This section would express the sense of Congress that aggregates, copper, molybdenum, gold, zinc, nickel, lead, silver, and certain fertilizer compounds should be added to the "critical minerals list" ordered by Executive Order 13817.

### TITLE IV—MILITARY PERSONNEL AUTHORIZATIONS

#### LEGISLATIVE PROVISIONS

##### SUBTITLE A—ACTIVE FORCES

##### Section 401—End Strengths for Active Forces

This section would authorize the following end strengths for Active Duty personnel of the Armed Forces as of September 30, 2019:

Sec. 401.

Service	FY 2018 Authorized	FY 2019		Change from	
		Request	Committee Recom- mendation	FY 2019 Request	FY 2018 Authorized
Army .....	483,500	487,500	487,500	0	4,000
Navy .....	327,900	335,400	335,400	0	7,500
USMC .....	186,000	186,100	186,100	0	100
Air Force .....	325,100	329,100	329,100	0	4,000
<b>DOD Total .....</b>	<b>1,322,500</b>	<b>1,338,100</b>	<b>1,338,100</b>	<b>0</b>	<b>15,600</b>

## Section 402—Revisions in Permanent Active Duty End Strength Minimum Levels

This section would establish new minimum Active Duty end strengths for the Army, Navy, Marine Corps, and Air Force as of September 30, 2019. The committee recommends 487,500 as the minimum Active Duty end strength for the Army, 335,400 as the minimum Active Duty end strength for the Navy, 186,100 as the minimum Active Duty end strength for the Marine Corps, and 329,100 as the minimum Active Duty end strength for the Air Force.

### SUBTITLE B—RESERVE FORCES

#### Section 411—End Strengths for Selected Reserve

This section would authorize the following end strengths for Selected Reserve personnel, including the end strength for Reserves on Active Duty in support of the Reserves, as of September 30, 2019:

Sec. 411.

Service	FY 2018 Authorized	FY 2019		Change from	
		Request	Committee Recom- mendation	FY 2019 Request	FY 2018 Authorized
Army National Guard .....	343,500	343,500	343,500	0	0
Army Reserve .....	199,500	199,500	199,500	0	0
Navy Reserve .....	59,000	59,100	59,100	0	100
Marine Corps Reserve .....	38,500	38,500	38,500	0	0
Air National Guard .....	106,600	107,100	107,100	0	500
Air Force Reserve .....	69,800	70,000	70,000	0	200
 DOD Total .....	 816,900	 817,700	 817,700	 0	 800
Coast Guard Reserve .....	7,000	7,000	7,000	0	0

Section 412—End Strengths for Reserves on Active Duty in Support of the Reserves

This section would authorize the following end strengths for Reserves on Active Duty in support of the Reserves as of September 30, 2019:



Sec. 412.

Service	FY 2018 Authorized	FY 2019		Change from	
		Request	Committee Recom- mendation	FY 2019 Request	FY 2018 Authorized
Army National Guard .....	30,155	30,595	30,595	0	440
Army Reserve .....	16,261	16,386	16,386	0	125
Navy Reserve .....	10,101	10,110	10,110	0	9
Marine Corps Reserve .....	2,261	2,261	2,261	0	0
Air National Guard .....	16,260	19,861	19,861	0	3,601
Air Force Reserve .....	3,588	3,849	3,849	0	261
<b>DOD Total .....</b>	<b>78,626</b>	<b>83,062</b>	<b>83,062</b>	<b>0</b>	<b>4,436</b>

Section 413—End Strengths for Military Technicians (Dual Status)

This section would authorize the following end strengths for military technicians (dual status) as of September 30, 2019:

Sec. 413.

Service	FY 2018 Authorized	FY 2019		Change from	
		Request	Committee Recom- mendation	FY 2019 Request	FY 2018 Authorized
Army National Guard .....	22,294	22,294	22,294	0	0
Army Reserve .....	6,492	7,495	6,492	-1,003	0
Air National Guard .....	19,135	18,969	18,969	0	-166
Air Force Reserve .....	8,880	9,908	8,880	-1,028	0
<b>DOD Total .....</b>	<b>56,801</b>	<b>58,666</b>	<b>56,635</b>	<b>-2,031</b>	<b>-166</b>

Section 414—Maximum Number of Reserve Personnel Authorized To Be on Active Duty for Operational Support

This section would authorize, as required by section 115(b) of title 10, United States Code, the maximum number of Reserve Component personnel who may be on Active Duty or full-time National Guard duty during fiscal year 2019 to provide operational support. The personnel authorized here do not count against the end strengths authorized by section 401 or section 412 of this Act unless the duration on Active Duty exceeds the limitations in section 115(b)(2) of title 10, United States Code.

Sec. 414.

Service	FY 2018 Authorized	FY 2019		Change from	
		Request	Committee Recom- mendation	FY 2019 Request	FY 2018 Authorized
Army National Guard .....	17,000	17,000	17,000	0	0
Army Reserve .....	13,000	13,000	13,000	0	0
Navy Reserve .....	6,200	6,200	6,200	0	0
Marine Corps Reserve .....	3,000	3,000	3,000	0	0
Air National Guard .....	16,000	16,000	16,000	0	0
Air Force Reserve .....	14,000	14,000	14,000	0	0
<b>DOD Total .....</b>	<b>69,200</b>	<b>69,200</b>	<b>69,200</b>	<b>0</b>	<b>0</b>

## SUBTITLE C—AUTHORIZATION OF APPROPRIATIONS

### Section 421—Military Personnel

This section would authorize appropriations for military personnel at the levels identified in the funding table in section 4401 of division D of this Act.

## TITLE V—MILITARY PERSONNEL POLICY

### ITEMS OF SPECIAL INTEREST

#### Active Military Service of the Korean Constabulary

The Committee acknowledges the service and sacrifice of the officers and men of the Korean Constabulary formed under the operational command of the United States Military Government in Korea following the end of the Second World War. Organized, trained, equipped, and led by the United States Army, the Korean Constabulary performed vital security missions on behalf of the United States in the interwar period and played a crucial role in the formation and defense of the Republic of Korea. Repeatedly called to defend their homeland against attacks and insurrection by Communist forces allied with the Korean People's Army and supported by the Soviet Union, the men of the Korean Constabulary fought with distinction in some of the earliest battles of the Cold War.

The Committee therefore requests the Secretary of Defense to review the eligibility of the officers and men of the Korean Constabulary for active military service from November 1945 to January 1949 under the provisions of Section 401 of Public Law 95-202, and report his findings to the House Armed Services Committee by March 1, 2019.

#### Best Practices for Prevention and Response to Sexual Assault

The committee commends the Department for its efforts to continuously improve methods to prevent and respond to sexual assault. The committee further commends the Air Force's efforts to utilize evidenced based bystander intervention training previously shown to prevent and reduce power-based personal violence based on the premise that sexual violence can be measurably and systematically reduced within a community. The Air Force was additionally able to consolidate some of the required and annual briefings and shorten the amount of time they spent on training by focusing on quality over quantity. The committee directs the Department to report to the House Armed Services Committee no later than December 1, 2018 on current use of best practices for prevention and response to sexual assault; update on current research informed evaluation outcome criteria, and the feasibility of developing, and offering high quality, standardized, research

informed best practices for training and response that are shown to prevent sexual assaults across the services.

#### Briefing on Commissioning Production of Senior Reserve Officer Training Corps

The committee is concerned about the number of Senior Reserve Officer Training Corps (ROTC) units that are not meeting established commissioning production requirements for each of the services. Therefore, the committee directs the Secretary of Defense, in coordination with the Secretaries of the military services, to provide a briefing to the House Committee on Armed Services not later than April 1, 2019, on the performance of the Senior Reserve Officer Training Corps. Such briefing shall describe each of the following:

- (1) annual production requirement and production attainment for each ROTC host unit, to include a breakdown of demographics;
- (2) listing of units that have not met the standards set forth in Department of Defense Instruction 1215.08, for the past 5 years;
- (3) listing of the units that did not meet the standard in the past 5 years that are now compliant; and
- (4) list of units each service intends to disestablish or reduce in scope, but is not authorized to do so.

#### Briefing on Credentialing Programs

The Committee is supportive of policies which allow servicemembers to attain civilian credentials while on active duty. These programs ensure that servicemembers possess the necessary knowledge, skills, and abilities to perform their duties, and offer servicemembers the chance of better civilian employment upon separation from the military.

However, not all credentialing programs are created equal, and the Department has acknowledged that few oversight mechanisms exist to protect servicemembers from aggressive marketing of credentialing programs of dubious rigor. The committee encourages the Department to work with partners in academia and industry to develop a tool that servicemembers could use to evaluate the quality of a credential based on its desirability in the civilian workforce.

In addition, the Committee is also aware that the Department does not have conclusive evidence that possessing civilian credentials help servicemembers find post-separation employment. Therefore, the Committee directs the Department to brief the House Committee on Armed Services no later than February 1, 2019 on collaborative efforts to develop quality standards for credentialing and licensure programs and a review of academic literature on the impact on employability of attaining a credential.

#### Briefing on Department of Defense Inspector General Processing Times

The committee is concerned about the steady increase in processing times for Department of Defense Inspector General investigations into whistleblower reprisal and senior leader misconduct complaints. While the Department has conducted past studies into how best to reduce these processing times, and implemented efficiency measures, the problem persists.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than July 1, 2019, regarding steps the Department will take to reduce whistleblower reprisal and senior leader misconduct investigation processing times. The briefing shall include:

(1) a general timeline for a typical whistleblower reprisal and senior leader misconduct investigation, including identification of phases of the investigation that often require substantial time;

(2) whether changes to law or policy would improve the efficiency of these investigations; and

(3) whether additional funding, manning, or other resources would improve processing times.

#### Comptroller General Report on Active Duty Female Retention

The committee commends the Secretary of Defense for the briefing on Female Propensity to serve in the Armed Forces as requested in the House Report 115-200. Inclusive and growth-oriented recruiting must also ensure that the best and brightest females are not only recruited but that they are retained in the Armed Forces once presented with career options. Building on Female Propensity to serve in the Armed Forces, the committee recommends the Department expand their examination of female recruitment to include retention. An analysis conducted for the Defense Advisory Committee on Women in the Services finds that more women than men leave the military at various career points. Concerns persist that this attrition will result in a disproportionate impact to mission readiness if left unresolved. From an economic standpoint, when female employees leave, organizations must deal with higher recruiting costs, longer training times, and lower productivity. Therefore, not later December 1, 2018 the committee directs Comptroller General to submit a report containing the following components: (1) updated rates of promotion and attrition rates for women compared to other groups; (2) the reason for any differences in promotion and attrition; (3) recommendations to improve promotion and retention; (4) data and analysis to assist the committee in determining whether there are disparities in promotion and attrition rates; and (5) any other matters the commission believes are relevant to this issue.

#### Deconflicting Reserve Component and Expeditionary Civilian Deployments to Provide Adequate Dwell Time

The committee notes that according to DoDI 1235.12, Accessing the Reserve Components, issued June 7, 2016, "The RC provides an operational capability and strategic depth in support of the national defense strategy," and further that if the



mobilization-to-dwell ratio for a unit or a member of the RC is less than 1 to 4, Secretary of Defense approval is required. In addition, the Department of Defense has an expeditionary workforce that includes defense civilian personnel who also deploy in support of contingency operations and may also be members of the Reserve Components. The committee is concerned that if the Reserve Components order a member to active duty who is employed as a defense civilian, the defense agency or military department may not count the member's previous recent deployment as an RC member when calculating the mobilization-to-dwell ratio. This lack of awareness by the Reserve Components of a civilian employee's deployment, or alternatively by the military departments or defense agencies about a Reserve Component member's expeditionary civilian deployment may lead to a lack of sufficient dwell time, with an impact on civilian personnel or RC retention.

Therefore, in order to determine the scope of the problem of deconflicting Reserve Component and expeditionary civilian deployments for the purpose of providing adequate dwell time, the Secretary of Defense is directed to provide a report to the congressional defense committees by Feb. 15, 2019, as to whether the Reserve Components or the defense agencies and military departments have mechanisms in place to track and account for deployments of defense civilians who are also Reservists; to establish to scale of this problem; and to make recommendations to the committee for procedures to make it possible for the Reserve Components, and the defense agencies and military departments, to fully account for the service of civilian employees in contingency operations, whether in the RC or as expeditionary civilians.

#### Federal Wildland Firefighting Education in the Transition Assistance Program (TAP)

The Committee continues to look for ways to strengthen the Transition Assistance Program (TAP) program to match opportunities in the federal workforce with the unique skillset of transitioning service members. The Committee acknowledges that skills honed during military service including logistics, risk mitigation, emergency medicine and response, team communications, equipment maintenance, resource accountability, and leadership in support of mission are directly transferrable to wildland firefighting. While the committee is aware that the Department of Defense, DHS, and DOL collaborate with other agencies to include information and education about civil service opportunities in the federal workforce, the committee believes transitioning service members would benefit from bolstered TAP program education on wildland firefighting careers at agencies including the Bureau of Land Management and the U.S. Forest Service. In addition, the Committee encourages DOD to pursue strategic partnerships and collaborations with non-profit organizations that connect veterans with volunteer disaster relief opportunities as part of TAP. The Committee notes precedent for collaboration with agencies including USDA that provide education on career pathways in agriculture

and seeks to build on similar successful models of interagency partnerships to meet the nation's workforce needs.

Therefore, the Committee directs the Secretary of Defense to brief the House Committee on Armed Services no later than December 31, 2018 on current and potential interagency efforts in the TAP program related to wildland firefighting career pathways and opportunities in the federal government.

#### Foreign Area Officer Personnel Training and Career Management

The committee notes that the Department of Defense and the military services have developed a corps of foreign area officers and regional affairs strategists and implemented personnel policies to improve their education and training requirements. The National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) required the Secretary to oversee the development and management of a professional workforce supporting security cooperation programs and activities of the Department. The committee is concerned with the implementation of this requirement as well as the services' career management of these officers.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by December 15, 2018, on the implementation of the Security Cooperation Workforce Development Program (SCWDP) required by section 384 of title 10, United States Code, and the service career management plan for foreign area officers. Elements of the briefing shall include:

- (1) how the Department of Defense SCWDP relates to the foreign area officer programs of the services;
- (2) how the foreign area officer programs of the services will benefit from the Department of Defense SCWDP;
- (3) how the Secretary of each military department is adapting their foreign area officer program to the National Security Strategy and National Defense Strategy;
- (4) what developmental opportunities the Secretary concerned provides for foreign area officers at each grade to prepare them for positions of greater responsibility;
- (5) how the Secretary concerned provides promotion opportunities for foreign area officers to serve through General/Flag Officer ranks, and how these compare to other promotion opportunities and rates across the services;
- (6) ways that the Secretary has coordinated efforts throughout the joint force to achieve the synergies of best practices across the security cooperation enterprise;
- (7) the steps each service is taking to incorporate the elements required under the scope of the final guidance of the SCWDP, as required under section 384(e)(3) of title 10, United States Code, into the career management of foreign area officers, and the relevant challenges; and

(8) the steps the Department is taking to evaluate disparate training provided by services and Defense Intelligence Agency, and whether elements of such training should be provided to all Department of Defense personnel posted to embassies overseas.

### Foster and Adoptive Military Families

The committee is aware that military families face unique challenges as adoptive and foster families, including, but not limited to, varying jurisdictional standards and support services between states and countries. The committee also notes that it is critical to the well-being of the child that all adoptions are permanent, and that additional information is needed to promote successful adoptions for military families.

Therefore, the committee directs the Secretary of Defense to provide a report to the House Armed Services Committee not later than 1 March 2019, describing the barriers and challenges faced by military families to fostering or adopting. The report should include, if applicable, jurisdictional differences between states and between countries; access to information; pre-placement training; and post-placement support services; and causes and/or risks for disruptions or dissolutions of military family adoptions. The report should also include what pre- and post-placement support services are currently available for military families fostering and adopting; the feasibility of establishing additional necessary support services; and recommendations for implementing additional pre- and post-placement services. The report should also include any recommendations from the Secretary to address any barriers and challenges faced by military families to fostering and adopting.

### Implicit Bias Training

The Committee commends the Marine Corps for recognizing the importance of implicit bias and incorporating unconscious bias training when preparing for women joining combat units. Unconscious biases, sometimes called implicit biases, are a set of automatic preferences so ingrained in people's brains that they often do not realize they have them. Implicit or unconscious bias disproportionately impacts racial/ethnic minorities and women. Comprehensive bias training is research informed and addresses implicit/unconscious biases. The Marine Corps, civilian educational institutions, and the technology and business private sectors have addressed this by including both implicit and explicit bias training. Therefore, the committee encourages the Secretary of Defense to study the feasibility of expanding its current training to include research-informed training addressing implicit bias.

### Incorporating Consideration of Advanced Technologies into Professional Military Education

The Committee understands that a return to great power competition represents a key security challenge for the United States in the evolving global threat environment. The rapid development of new technologies in fields including anti-access and area denial weapons, cyber-warfare and electronic warfare, information systems, and other asymmetric fields threatens the U.S. military's historical overwhelming advantage in conventional warfare. Furthermore, the Committee is aware that these technologies are increasingly commercial and therefore available to both state and non-state actors.

The Committee notes that, with this threat in mind, the Department of Defense is investing heavily in technology to enable continued American military supremacy in an environment characterized by "rapid technological advancements and the changing character of war," per the National Defense Strategy (NDS). The Committee is also aware that these areas for investment include advanced computing, "big data" analytics, artificial intelligence, autonomy, robotics, directed energy, hypersonics, and biotechnology.

The Committee notes that effective implementation of the NDS require not just research, development and fielding of these advanced technologies, but also the integration of these technologies into tactical, operational and strategic thought, planning, and training. The Committee is also aware that experimentation and exploration of these technologies is currently occurring in proof of concept programs, exercises, and in operational deployments.

The Committee believes, however, that fully integrating advanced technologies into military strategy, operations, and tactics requires a comprehensive approach to considering the impact of these technologies at all levels of decision-making. The Committee is aware of the key role professional military education (PME) programs play in educating military leadership and providing them the conceptual framework for decision-making. The Committee commends the efforts of the Department of Defense to align functions to support the goals of the NDS and look for ways to improve lethality. However, it is unclear how decision making under this new strategy is being included in PME education materials.

The Committee therefore directs the Secretary of Defense to brief the House Committee on Armed Services on potential ways in which the Department of Defense can appropriately integrate consideration of next generation technologies into professional military education programs for military officers and enlisted personnel. This brief should include consideration of the appropriate PME schools, institutions or levels; address the feasibility of expanding civilian enrollment at PME institutions in order to expose military leaders to relevant commercial technology leaders; determine the extent to which these technological developments may require changes to existing warfighting doctrine or operational plans; and identify any relevant opportunities for improvement to the service-level or joint PME programs, as well as any other topics the Secretary deems appropriate, and should be delivered to the Committee by December 1, 2018.

#### Interagency Recruitment Cooperation Efforts

The committee notes that the current and future recruiting environment for military service is and will continue to be difficult with a population that has a lower propensity to serve, a recruit pool that is less qualified, and an economy that is robust. In this environment, the competition for this small pool of recruits will be fierce within the Department of Defense between the services, as well as with other Government agencies. Cooperation between Government agencies with regard to recruits will be critical going forward, especially those recruits with a propensity to serve but who might not be physically qualified for one service or the other.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by February 1, 2019, on interagency cooperation with regard to recruiting for military and other Government agency service. Elements of the briefing shall include the following:

- (1) an assessment by the Secretary of the value of cross-Government agency recruitment and how that would affect Department of Defense recruitment efforts;
- (2) what policies the Secretary could put in place in cooperation with other agencies to assist with future recruitment needs;
- (3) what current coordination is being conducted with other agencies to assist when recruiting for the Department of Defense or other agencies; and
- (4) what recommendations the Secretary would make on interagency recruiting cooperation.

#### Joint Professional Military Education and Professional Military Education Curricula

The committee believes that quality Professional Military Education (PME) and Joint Professional Military Education (JPME) are integral to developing tomorrow's strategic leaders. The military services provide PME at their respective staff and war colleges in order to educate service members in their core competencies according to service needs. The JPME program places emphasis on preparing leaders to conduct operations as a joint force in complex operating environments. Currently, JPME is provided at multiple sites across the country, including the services' staff and war colleges and the National Defense University.

The committee remains concerned that the quality and effectiveness of the faculty and curricula at JPME and PME institutions, particularly senior-service colleges, can vary based on service tradition, school location, and faculty. In addition, the committee is concerned that certain important subject areas may be excluded from the curricula because of time constraints.

The committee supports the ongoing efforts of the Chairman of the Joint Chiefs of Staff and the Secretaries of the Military Departments to evaluate and improve the quality of the education provided at JPME and PME institutions. As a part of this evaluation, the committee encourages the Chairman of the Joint Chiefs of Staff and the Secretaries of the Military Departments to consider whether JPME and PME curricula include exposure to whole-of-government education, including enrolling students from other Federal departments and agencies, hiring faculty

from other Federal departments and agencies, and providing courses and programs designed to reinforce the importance of whole of government.

### Military Academy Preparatory School Class Enrollment

The committee notes that the mission of the military academies' preparatory schools is to motivate, prepare, and evaluate selected candidates in an academic, military, moral, and physical environment in order to perform successfully at the military academy. The preparatory school achieves this mission by qualifying cadet candidates for academy appointments, and developing in those students a sense of accomplishment and self-confidence that enables them to succeed in a military academy's demanding environment. Admission to a preparatory school is competitive, with selections made by selection boards. The boards select both enlisted Active Duty and civilian applicants who have applied for admission to an academy, but were not selected for direct entry.

The committee is concerned that the average military academy preparatory school class consists of only approximately 25 percent prior-enlisted service members. The committee believes that this percentage is extremely low, and that the services should focus their outreach efforts for attendance to the preparatory schools on the qualified enlisted force who has already exhibited propensity to serve.

Therefore, the committee directs the Secretaries of the Air Force, the Army and the Navy to develop individual service plans with the goal of increasing the enrollment of enlisted service members at each of the Service Academy Preparatory Schools. The Secretaries concerned shall also provide briefings to the Committee on Armed Services of the House of Representatives by February 1, 2019, on the new outreach plan and their recommendations for increased enlisted member enrollment.

### Report on Certain Victims' Rights in Connection with Prosecution of Sex-Related Offenses

The committee is concerned about the implementation of section 534 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291), which enhances victims' rights in connection with the prosecution of certain sex-related offenses. Specifically, the committee is interested in how the Department of Defense has implemented the requirement that victims be consulted in order to solicit their preference whether the covered offenses should be prosecuted by court-martial or in a civilian court with jurisdiction over the offense. The committee notes that the annual Department of Defense Sexual Assault Prevention and Response Office report contains statistics on the number of cases prosecuted in civilian courts, but it is not evident from this data whether these civilian prosecutions were in accordance with the wishes of the victim or simply the only option for prosecution of the offenses.

Therefore, the committee directs the Department of Defense Inspector General to submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than April 1, 2019, on the results of a review of the Department of Defense and military departments' processes for consulting victims in cases in which section 534 applies. The report shall include a description of who is responsible for consulting with the victim to determine the preference for prosecution; an analysis of whether the military services are complying with the notification requirement; the method used to record the victim's preference and convey the information to the relevant authorities; and an analysis of whether the policy is applied consistently across the military services.

#### Report on Legal Training for Commanders

The committee understands that U.S. military commanders are entrusted with a wide range of responsibilities that are necessary to carry out their designated missions. Many of these responsibilities involve interpretation of and compliance with legal requirements. While the committee understands that judge advocates and other legal professionals advise the commanders on many of these subjects, the committee is interested in the full extent and substance of the legal training that commanders receive on the legal authorities with which they have been entrusted.

Therefore, the committee directs the Comptroller General of the United States to submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than September 1, 2019, on the following questions:

(1) What legal training do officers receive throughout their careers? Who is responsible for this training, and who certifies satisfactory completion?

(2) What legal and ethics training do commanders receive prior to taking command? At what level of command are officers required to attend this training? What issues are covered during this training, and is the training tailored to the type of command the officer is assigned to?

(3) To what extent and what type of training do commanders receive regarding the following topics: military justice; contract and fiscal law; administrative law; and international and operational law?

(4) To what extent are the military services complying with their legal training requirements for new commanders?

(5) What resources are available to commanders to assist them in carrying out their legal responsibilities?

(6) What procedures are in place to receive feedback on the quality and relevance of the legal training provided to commanders? Is that feedback incorporated into periodic curriculum reviews?

#### Report on Processes for Federal Recognition of Promotion of Commissioned National Guard Officers

The committee is concerned that delays in federal recognition of National Guard promotions may be increasing and that these lengthy delays result in National Guard officers being deployed and doing the work of the rank to which they are being promoted while receiving the pay of their current rank. The committee notes that such delays deprive National Guard members of the pay to which they are entitled, reduce their time in rank, and may pose retention problems by giving National Guard members an incentive to leave military service.

Therefore the committee directs the Secretary of the Army and the Secretary of the Air Force to each undertake a comprehensive review of the policies and procedures of the Department of the Army and the Department Air Force, as applicable, for the Federal recognition of promotions of commissioned officers of the Army National Guard and the Air National Guard, as the case may be, and to report the results of this review to the congressional defense committees by December 1, 2018. The report shall:

(1) describe the average time between receipt by the military department concerned of scrolls (as defined in Department of Defense Instruction 1310.02) indicating the promotion of commissioned officers in the National Guard and their publication during the five-year period ending on the date of the House passage of the National Defense Authorization Act for Fiscal Year 2019;

(2) describe and assess various approaches for streamlining the process by which the military department concerned approves Federal recognition scrolls, including through—

(A) additional automation;

(B) reduction in required steps; or

(C) delegation of authority to conduct required reviews; and

(3) make recommendations for legislative or administration action to implement an approach under paragraph (2) if the Secretary concerned considers such approach feasible, advisable, and appropriate.

#### U.S. Air Force Pilot Staff Requirements Validation

The committee remains concerned that the Air Force is having difficulty addressing a persistent pilot shortage. Pilots are vital to the readiness of the Air Force and these shortages may hamper its ability to carry out the 2018 National Defense Strategy, especially as it relates to retention and recruitment within the fighter pilot community. The committee notes that the Air Force provided written testimony to the committee on March 21, 2018, stating that the Air Force has a shortage of 1,812 pilots across all mission areas, with the most acute shortage being fighter pilots. The Air Force admits it is taking risk by under-filling its required pilot and rated staff officer billets. However, the committee is concerned about the current requirement for pilots in staff billets and the fact that the requirements for pilot skills in these positions have not been validated, nor the requirements reviewed, in many years. An assessment of this sort could result in a change in the overall number of required pilots on the staff.



Therefore, the committee directs the Secretary of the Air Force to evaluate and validate every pilot or rated officer required staff billet across the Air Force and joint community enterprise, and to address the recommendations of the Comptroller General "Report on Military Personnel: DOD Needs to Reevaluate Fighter Pilot Workforce Requirements," (GAO-18-113), and to provide a report to the Committee on Armed Services of the House of Representatives not later than December 7, 2018, on the methodology and the results of the evaluation and validation as well as the implementation of the recommendations of the GAO Report.

#### U.S. Special Operations Command Preservation of the Force and Families Program Contract Support

The committee recognizes that U.S. special operations forces (SOF) and their families are under unique and continued stresses, including psychological, social, spiritual, and human performance strains. The committee commends the success of the Preservation of the Force and Family (POTFF) program. It has helped to alleviate the magnitude of these stresses and break the stigma of seeking necessary help. It has also decreased rehabilitation time following physical injuries.

The committee understands U.S. Special Operations Command (SOCOM) and component commands have engaged in dialogue with the military services on scaling portions of the program to the broader force. The committee supports this dialogue and encourages the transition by SOCOM of resources and management for aspects of POTFF that are scaled to the military services, as well as a continual assessment of what remain as SOF-specific needs.

However, with POTFF's contract due to expire this fiscal year, the committee is concerned by the request for proposal submitted by SOCOM. It once again indicates a domineering focus on human performance, to the detriment of a distinct emphasis on mental, emotional, and behavioral health. The committee notes that of the \$88.0 million for POTFF in the budget request for fiscal year 2019, only \$13.0 million was to support the Psychological Performance Program to promote, maintain, and restore the psychological and behavioral health of SOF.

With these concerns in mind, the committee directs the Commander of Special Operations Command, in coordination with the Secretary of Defense, to provide a briefing to the House Committee on Armed Services by September 14, 2018, on the future of POTFF. The briefing shall include:

- (1) how the command plans to balance the emphasis put on the four pillars of the program;
- (2) an analysis of mental and behavioral health program gaps, to include an in-depth look into POTFF's suicide-prevention programming; and
- (3) how SOCOM will work with services to identify successful elements that can be transitioned to assist conventional forces and families.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—REGULAR COMPONENT MANAGEMENT

Section 501—Expansion of Authority to Award Constructive Service Credit for Advanced Education, Experience, or Training, upon Original Appointment as a Commissioned Officer

This section would amend sections 533 and 12207 of title 10, United States Code, to permit the Secretaries of the military departments additional discretion to determine the grade of certain individuals receiving an original appointment as a regular or reserve commissioned officer.

Section 502—Surface Warfare Officers Career Paths

This section would amend chapter 602 of title 10, United States Code, by adding a new section that would require the Secretary of the Navy to establish two career paths for surface warfare officers. The Secretary would be required to establish one career path in ship engineering systems and another in ship operations and combat systems, not later than January 1, 2021.

Section 503—Authority of Selection Boards to Recommend Officers of Particular Merit Be Placed at the Top of the Promotion List

This section would amend sections 616, 618, and 624 of title 10, United States Code, to allow officer promotion boards to recommend officers of particular merit be placed at the top of the promotion list, and to allow the Secretary of the military department concerned to re-order the promotion list accordingly.

Section 504—Deferred Deployment for Members Who Give Birth

This section would standardize new mother deployment deferral policy across the military services, to include the Coast Guard.

Section 505—Codification of Lowered Grade for Retired Officers or Persons Who Committed Misconduct in a Lower Grade

This section would amend section 1370 of title 10, United States Code, to clarify that the Secretary concerned has the authority to find that an officer who committed misconduct in a lower grade has not served satisfactorily in any grade equal to or higher than that lower grade.

Section 506—Retention of Military Technicians Who Lose Dual Status under Certain Circumstances

This section would amend section 10216 of title 10, United States Code, to prevent dual-status military technicians who reach their time-in-service end date from losing their jobs due to separation from military service.

## SUBTITLE B—RESERVE COMPONENT MANAGEMENT

### Section 511—Placement of National Guard Military Technicians (Dual Status) in the Competitive Service

This section would amend section 10508 of title 10, United States Code, to designate dual-status military technician positions that were converted to title 5 civilian employees in the fiscal year 2017 and 2018 National Defense Authorization Acts as competitive, not excepted, service positions.

### Section 512—Authorized Strength and Distribution in Grade

This section would amend section 12011(a) and section 12012(a) of title 10, United States Code, to increase the total number of available control grade positions, which includes O-4, O-5, O-6, E-8, and E-9, authorized for the Air National Guard.

### Section 513—National Guard Promotion Accountability

This section would amend section 14308(f) of title 10, United States Code, to allow a National Guard officer's date of rank to be backdated, after Federal recognition is granted, and would require the Secretaries concerned to report to the Congress when a promotion scroll exceeds 200 days between date received and its date of publication.

### Section 514—Extension of Authority for Pilot Program on Use of Retired Senior Enlisted Members of the Army National Guard as Army National Guard Recruiters

This section would extend the authority of the pilot program on use of retired senior enlisted members of the Army National Guard as Army National Guard recruiters until 2021.

## SUBTITLE C—GENERAL SERVICE AUTHORITIES AND CORRECTION OF MILITARY RECORDS

### Section 521—Enlistments Vital to the National Interest

This section would modify section 504(b) of title 10, United States Code, to establish additional requirements for enlistments vital to the national interest.

### Section 522—Statement of Benefits

This section would require the Secretary of Defense to provide Active Duty and Reserve service members an authoritative assessment of their earned GI Bill

benefits prior to separation, retirement, or release from Active Duty or demobilization.

#### Section 523—Modification to Forms of Support That May Be Accepted in Support of the Mission of the Defense POW/MIA Accounting Agency

This section would modify the forms of support that may be accepted by the Defense POW/MIA Accounting Agency (DPAA) to include public-private partnerships and the acceptance of gifts that facilitate the accounting of missing persons within the purview of the DPAA mission.

#### Section 524—Correction of Military Records Website

This section would amend section 1552(a)(5) of title 10, United States Code, to require the Secretary concerned to publish summaries, indexed by subject matter, of all decisions published on the board for correction of military records website of each military department.

#### Section 525—Modification of DD Form 214 to Include Email Addresses

This section would require the Secretary of Defense to modify the Certificate of Release or Discharge from Active Duty (DD Form 214) to include a specific block explicitly identified as the location in which a member of the Armed Forces may provide one or more email addresses by which the member may be contacted.

#### Section 526—Public Availability of Reports Related to Senior Leader Misconduct

This section would require the Secretary of Defense and the Secretaries of the military departments to publish, on a public website, redacted reports of substantiated investigations of misconduct in which the subject of the investigation was an officer in the grade of O-7 and above, including officers who have been selected for promotion to O-7, or a civilian member of the Senior Executive Service.

#### Section 527—Appointment and Training of Personnel to Staff the Board of Corrections for Military and Naval Records

This section would require the Secretary of Defense, in consultation with the service secretaries and the joint chiefs, to provide for the appointment and training of qualified personnel to join the staff of the Boards of Correction for Military and Naval Records, and would authorize \$3.0 million to carry out the training, to be taken from the Military Personnel Appropriations line.

### SUBTITLE D—MILITARY JUSTICE

Section 531—Minimum Confinement Period Required for Conviction of Certain Sex-Related Offenses Committed by Members of the Armed Forces

This section would amend section 856(b)(1) of title 10, United States Code (article 56(b)(1) of the Uniform Code of Military Justice), to require a minimum confinement period of 2 years for individuals convicted of certain sex-related offenses.

Section 532—Punitive Article in the Uniform Code of Military Justice on Domestic Violence

This section would amend subchapter X of chapter 47 of title 10, United States Code (the Uniform Code of Military Justice), to add a new section 928a regarding domestic violence.

Section 533—Defense Advisory Committee on Investigation, Prosecution, and Defense of Sexual Assault in the Armed Forces

This section would amend section 546 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291) to require the Department of Defense to provide information to the Defense Advisory Committee on Investigation, Prosecution, and Defense of Sexual Assault in the Armed Forces that the panel (by majority vote) deems necessary to carry out its duties.

Section 534—Modification of Military Rules of Evidence to Exclude Admissibility of General Military Character toward Probability of Innocence in Any Offense Not Strictly Related to Performance of Military Duties

This section would amend Rule 404(a) of the Military Rules of Evidence contained in the Manual for Courts-Martial to provide that the general military character of an accused is not admissible for the purpose of showing the probability of innocence of the accused unless the offense the individual is charged with is strictly and solely related to the performance of military duties.

Section 535—Improved Crime Reporting

This section would require the Secretary of Defense to establish a consolidated tracking process that provides the Department of Defense increased visibility on the military departments' required crime report submissions to the Federal Bureau of Investigation.

Section 536—Oversight of Registered Sex Offender Management Program

This section would require the Secretary of Defense to designate a single official or entity within the Office of the Secretary of Defense to serve as the official or entity with principal responsibility for providing oversight of the registered sex offender management program of the Department.

#### SUBTITLE E—OTHER LEGAL MATTERS

##### Section 541—Security Clearance Reinvestigation of Certain Personnel Who Commit Certain Offenses

This section would amend section 1564 of title 10, United States Code, to require the Secretary of Defense to conduct a security clearance background reinvestigation under expedited procedures for flag officers and Senior Executive Service personnel employed by the Department of Defense convicted of sexual assault, sexual harassment, fraud against the United States, or other serious crimes.

##### Section 542—Consideration of Application for Transfer for a Student of a Military Service Academy Who Is the Victim of a Sexual Assault or Related Offense

This section would require the Secretary concerned to expedite the consideration and approval of an application for an inter-academy transfer submitted by a cadet of a military academy who has been the victim of sexual assault.

##### Section 543—Standardization of Policies Related to Expedited Transfer in Cases of Sexual Assault

This section would require the Secretary of Defense to standardize the expedited transfer procedures for service members who are the victim of sexual assault, regardless of whether their cases are handled by the Sexual Assault Prevention and Response Program or the Family Advocacy Program, and would require the Secretary to establish a transfer policy for service members whose dependent is the victim of sexual assault perpetrated by an unrelated service member.

##### Section 544—Development of Oversight Plan for Implementation of Department of Defense Harassment Prevention and Response Policy

This section would require the Department of Defense to develop an oversight plan and provide a report to the Committees on Armed Services of the Senate and the House of Representatives for implementation of the Department of Defense Harassment Prevention and Response policy.

## Section 545—Development of Resource Guides Regarding Sexual Assault for the Military Service Academies

This section would require each Superintendent of a military service academy to develop and maintain a resource guide on sexual assault, and distribute the guide to all cadets and midshipmen at the academies.

## Section 546—Report on Victims in MCIO Reports

This section would require the Secretary of Defense, through the Defense Advisory Committee on Investigations, Prosecutions, and Defense of Sexual Assault in the Armed Forces, to provide a report every 2 years on the frequency with which victims of sexual offenses identified in military criminal investigative organization cases are accused of or punished for misconduct considered collateral to the investigation of sexual assault.

## SUBTITLE F—MEMBER EDUCATION, TRAINING, RESILIENCE, AND TRANSITION

### Section 551—Permanent Career Intermission Program

This section would amend chapter 40 of title 10, United States Code, by adding section 710 and removing all references to the program as a pilot program, making the Career Intermission Program a permanent authority.

### Section 552—Improvements to Transition Assistance Program

This section would amend section 1142 of title 10, United States Code, to establish counseling pathways, require transmission of the Joint Service transcript, and allow transitioning service members to select a portion of the content covered during the transition assistance period of instruction.

### Section 553—Employment and Compensation of Civilian Faculty Members at the Joint Special Operations University

This section would amend section 1595(c) of title 10, United States Code, to add the Joint Special Operations University to the list of covered institutions with authority to hire civilian faculty under title 10.

### Section 554—Program to Assist Members of the Armed Forces in Obtaining Professional Credentials

This section would amend section 2015 of title 10, United States Code, to further assist members of the Armed Forces in obtaining professional credentials.

### Section 555—Extension of Pilot Program to Assist Members in Obtaining Post-Service Employment

This section would amend section 555 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291) to extend the authority for the pilot program under this section to September 30, 2023.

### Section 556—Direct Employment Pilot Program for Members of the Reserve Components and Veterans

This section would allow the Secretary of Defense to carry out a pilot program that provides enhanced job placement and employment assistance for members of the National Guard and Reserve.

### Section 557—Extended Duration of Availability of Military OneSource Program Services for Members of the Armed Forces upon their Separation or Retirement

This section would extend the duration of availability of Military OneSource program services for members of the military departments and their immediate family members from 180 days following their separation or retirement to at least 1 year after their separation or retirement.

### Section 558—Comptroller General Briefing and Report on Permanent Employment Assistance Centers

This section would require the Comptroller General of the United States to provide a briefing to the Armed Services Committees of the Senate and House of Representatives, with a report to follow, on employment assistance required under law and related information regarding civilian employment certification.

### Section 559—Activities to Increase Awareness of Apprenticeship Programs

This section would require the Secretary of Defense to include, as part of service members' transition counseling, information on apprenticeship programs and the use of veterans' benefits to pay for these programs.

## SUBTITLE G—DEFENSE DEPENDENTS' EDUCATION AND MILITARY FAMILY READINESS MATTERS

### Section 561—Enhancement and Clarification of Family Support Services for Family Members of Members of Special Operations Forces

This section would amend section 1788a of title 10, United States Code, to provide greater flexibility to support the family requirements to tactical units by



increasing funds available for Major Force Program 11 from \$5.0 million to \$10.0 million. This section would also define the term "family support services" to provide clarity and authorize proper expenditures of appropriated funds.

Section 562—Additional Matters for Assessment and Report on Childcare Services of the Department of Defense

This section would add additional issues for assessment related to military family childcare under section 575 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

Section 563—Continued Assistance to Schools with Significant Numbers of Military Dependent Students

This section would authorize \$40.0 million for the purpose of providing assistance to local educational agencies with military dependent students and \$10.0 million for local educational agencies eligible to receive a payment for children with severe disabilities.

Section 564—Department of Defense Education Activity Misconduct Database

This section would require the Secretary of Defense to establish a comprehensive policy and database regarding juvenile misconduct occurring in Department of Defense Education Activity schools.

Section 565—Report on Assessment of Frequency of Permanent Changes of Station of Members of the Armed Forces on Employment among Military Spouses

This section would require the Secretary of Defense to provide a report on the impact that frequent permanent changes of station of service members have on military spouses.

SUBTITLE H—DECORATIONS AND AWARDS

Section 571—Limitations on Authority to Revoke Certain Military Decorations Awarded to Members of the Armed Forces

This section would amend title 10, United States Code, to add a new section that restricts the President and service secretaries from revoking a military decoration after the actual award of the military decoration to the service member except under limited circumstances.

Section 572—Authorization for Award of Expeditionary Medal to Certain Marines for Actions on June 8, 1995

This section would authorize the Secretary of Defense to award the Armed Forces Expeditionary Medal to a member or former member of the 24th Marine Expeditionary Unit for the mission to rescue Captain Scott O'Grady.

#### SUBTITLE I—MISCELLANEOUS REPORTS AND OTHER MATTERS

##### Section 581—Public Availability of Top-Line Numbers of Deployed Members of the Armed Forces

This section would require the Secretary of Defense to publicly make available the top-line numbers of members of the Armed Forces deployed for each country.

The Secretary would be able to waive the requirement in the case of a sensitive military operation if he determines the public disclosure of such numbers could reasonably be expected to provide an operational military advantage to an adversary, or the members of the Armed Forces are deployed for less than 30 days.

##### Section 582—Criteria for Interment at Arlington National Cemetery

This section would require the Secretary of the Army to establish revised interment criteria for Arlington National Cemetery that preserve Arlington National Cemetery as an active burial ground well into the future.

##### Section 583—Report on General and Flag Officer Costs

This section would require the Secretary of Defense to submit a report to the congressional defense committees on the costs of supporting general and flag officers.

##### Section 584—Report on Outside Employment of Senior Personnel

This section would require the Secretary of Defense to report on senior leader outside employment requests and activities.

##### Section 585—Limitation on Use of Funds Pending Submittal of Report on Army Marketing and Advertising Program

This section would limit the use of funds to not more than 60 percent of the amounts authorized to be appropriated by this Act for the Army Marketing and Research Group for fiscal year 2019, used for advertising and marketing activities to be obligated or expended until the Secretary of the Army submits a report to the Committees on Armed Services of the Senate and the House of Representatives on recommendations of the Army Audit Agency's audit of the Army's Marketing and Advertising Program concerning contract oversight and return on investment.

## TITLE VI—COMPENSATION AND OTHER PERSONNEL BENEFITS

### ITEMS OF SPECIAL INTEREST

#### Availability of Alcohol at Military Commissary Stores

The Committee notes the recent announcement made by the Department of Defense on the availability of beer and wine at military commissary stores in order to provide a similar shopping experience to commercial grocery stores.

In light of these measures, the Committee directs the Secretary of Defense to conduct a study on the feasibility of expanding commissary alcohol sales to include the sale of distilled spirits. The study shall include a comparison of state and local laws that could impact the expansion of the sale of distilled spirits. The study shall also include an estimate on revenue and sales that could result from such an expansion. The Secretary shall provide a briefing to the Committee on Armed Services of the House of Representatives on the detailed findings of the study no later than September 28, 2018.

#### Examination of Flexible/Noncontinuous Maternity Leave

The Committee commends the Department for granting up to 84 days for service members following child birth. Although current maternity and parental leave policies are a strong step in the right direction, more can be done to tailor leave to families' unique situations. Continuing its work from 2015 and 2016, Defense Advisory Committee on Women in the Services (DACOWITS) examined issues and concerns surrounding pregnancy, the postpartum period, and parenthood. There is evidence to suggest that Service members' ability to maintain work-life balance is one of the military's top retention challenges, with service members expressing concern that a military career is incompatible with having a family. In its most recent report, DACOWITS recommends the Secretary of Defense consider allowing the Military Services to permit flexible (noncontinuous) use of maternity and parental leave if requested by the military parent(s). Allowing flexible (noncontinuous) use of maternity and parental leave is a strategy mentioned by DACOWITS and modeled by leading companies in the private sector. This is one potential way to support a servicemember after a child joins the member's family. Noncontinuous leave, when requested, could help servicemembers better balance their unique family needs during critical junctures of their lives and, in turn, help support retention efforts. Therefore, not later than December 1, 2018 the committee directs the Secretary of Defense to submit a report assessing the feasibility of permitting flexible (noncontinuous) use of maternity leave.

#### Imminent Danger Pay Adjudication Process

The committee acknowledges that servicemembers continue to serve in locations at daily risk of harm from hostile fire, explosions, or other hostile actions, and are thus entitled to Imminent Danger Pay. The committee understands that, regarding the locations and time periods for Imminent Danger Pay eligibility, the final adjudicating authority for the Department of Defense is the Under Secretary of Defense for Personnel and Readiness, who assesses requests submitted by geographic Combatant Commanders. The committee has received recent testimony that this request, adjudication, and approval process can span many months, during which servicemembers in harm's way are not receiving Imminent Danger Pay. So that Congress may improve its oversight of the timeliness of Imminent Danger Pay review and approval, the committee directs the Under Secretary of Defense for Personnel and Readiness to submit a report to the Committee on Armed Services of the House of Representatives, not later than August 31, 2018, listing, for the period 2008-2018:

- (1) each request for Imminent Danger Pay made by a geographic Combatant Commander, including details on the underlying justification for Imminent Danger Pay;
  - (2) the date of submission for each request;
  - (3) the adjudication status and/or ultimate determination for each request;
- and,
- (4) date of ultimate determination, where applicable.

#### Small Business Purchasing Contracts for Fresh Fruits and Vegetables for the Defense Commissary Agency ("DeCA")

The Committee commends DeCA for its efforts to achieve cost savings and provide patrons with an improved shopping experience. DeCA strives to maintain a good record of including small businesses in its acquisition practices including the acquisition of fresh fruits and vegetables through utilizing small businesses. These small businesses are best positioned to provide quality and fresh produce because of their proximity to commissaries and have traditionally provided these products at competitive prices. As the transformation proceeds the Committee encourages DeCA to continue to utilize small businesses for the acquisition of quality fresh fruits and vegetables. Therefore, the Committee directs the Secretary of Defense to submit a report to the House Committee on Armed Services by December 1, 2018 on the efforts to continue to utilize small businesses for fresh fruits and vegetables.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—PAY AND ALLOWANCES

#### Section 601—Prompt Review of Request for Imminent Danger Pay

This section would amend section 310 of title 37, United States Code, to require the Secretary of Defense to issue a determination, within 90 days, when a

geographic combatant commander submits a request to add a location to the Imminent Danger Pay eligibility list.

#### Section 602—Application of Basic Allowance for Housing to Members of the Uniformed Services in the Virgin Islands

This section would amend section 403 of title 37, United States Code, to apply Basic Allowance for Housing to service members in the Virgin Islands.

#### Section 603—Mandatory Increase in Insurance Coverage under Servicemembers' Group Life Insurance for Members Deployed to Combat Theaters of Operation

This section would amend section 1967(a)(3) of title 38, United States Code, to mandate, in the case of a member who elects to not be insured under a Servicemembers' Group Life Insurance plan at the full \$400,000 available, the member's insurance will automatically increase to \$400,000 if they are deployed to a combat zone.

#### Section 604—Military Housing Privatization Initiative

This section would assure that the Basic Allowance for Housing reduction directed by section 403 of title 10, United States Code, would not take effect in fiscal year 2019, ensuring that the Military Housing Privatization Initiative (MHPI) housing recapitalization efforts are not reduced. The committee remains concerned about the reduction in BAH and its effect on the recapitalization of these housing units. The committee believes that military families must be provided with on-base housing that is safe and periodically modernized. Additionally, this section would require the Secretary of Defense to present a plan to the Committees on Armed Services of the Senate and the House of Representatives by December 1, 2018, to provide for a permanent financial solution to the long term MHPI recapitalization problem.

#### Section 605—Per Diem Allowance Policies

This section would halt implementation of the 2014 Department of Defense per diem policy, direct the Secretary of Defense to issue a report on options to reduce travel costs, and require notification of any subsequent changes to the per diem policies following the report.

### SUBTITLE B—BONUSES AND SPECIAL INCENTIVE PAYS

#### Section 611—One-Year Extension of Certain Expiring Bonus and Special Pay Authorities

This section would extend, through December 31, 2019, income replacement payments for Reserve Component members experiencing extended and frequent mobilization for Active Duty service; would extend two critical recruitment and retention incentive programs for Reserve Component health care professionals; would extend accession and retention incentives for nuclear-qualified officers; and would extend the consolidated special and incentive pay authorities added to subchapter II of chapter 5 of title 37, United States Code, by the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181). Additionally, this section would extend the authority of the Secretary of Defense to prescribe a temporary increase in the rates of basic allowance for housing otherwise prescribed for a military housing area or a portion of a military housing area if the military housing area or portion thereof is located in an area covered by a declaration by the President that a major disaster exists.

#### SUBTITLE C—OTHER MATTERS

##### Section 621—Expansions of Installation Benefits to Surviving Spouses, Dependent Children, and Other Next of Kin

This section would amend section 1126 of title 10, United States Code, to require the Secretary of Defense to provide lifetime installation access to Gold Star spouses and their dependent children for the purposes of attending memorial services, visiting gravesites, and accessing survivor services to which they are already entitled. Additionally, this section would provide the Secretary discretion to provide similar access to other surviving family members and require access reciprocity between the military services, and would extend access to base commissaries, exchanges, and other recreation facilities for all remarried surviving military spouses for as long as they have surviving dependent children under their guardianship.

##### Section 622—Transportation on Military Aircraft on a Space-Available Basis for Disabled Veterans with a Service-Connected, Permanent Disability Rated as Total

This section would amend section 2641b of title 10, United States Code, to authorize space-available travel for disabled veterans with a service-connected, permanent disability rated as total.

##### Section 623—Extension of Parking Expenses Allowance to Civilian Employees at Recruiting Facilities

This section would amend section 481i of title 37, United States Code, to allow the Secretary of Defense to reimburse military and civilian employees of the Department of Defense for parking expenses at recruiting facilities.

##### Section 624—Advisory Boards Regarding Military Commissaries and Exchanges

This section would require the Secretary of Defense to direct installation commanders to establish an advisory board to advise commanders regarding the interests of patrons and beneficiaries of military commissaries and exchanges.

#### Section 625—Study and Report on Development of a Single Defense Resale System

This section would direct the Secretary of Defense to conduct a study to determine the feasibility of consolidating the military resale entities into a single defense resale system and would prohibit the use of funds in fiscal year 2019 for any action on consolidation by the Secretary of Defense.

## TITLE VII—HEALTH CARE PROVISIONS

### ITEMS OF SPECIAL INTEREST

#### Advanced Pain Management Fellows Program

The committee is aware of the importance of pain management health care providers across the Military Health System. More specifically, Certified Registered Nurse Anesthetists (CRNAs) are qualified pain practitioners who work in various practice settings to treat patients suffering from a wide range of acute and chronic pain conditions. CRNA chronic pain management practitioners are able to minimize the use of opioids to address chronic pain through the use of a multimodal approach that includes pharmacologic and non-pharmacologic pain mitigation strategies. Furthermore, the holistic approach that CRNA pain management practitioners employ when treating their chronic pain patients may reduce the reliance on opioids as a primary pain management modality, thus aiding in the reduction of potential adverse drug events related to opioids. The committee believes advanced pain management fellowship programs for CRNAs may enhance comprehensive pain management. The committee encourages the Secretary of Defense and the Secretaries of the military departments to consider advanced pain management fellowship programs for CRNAs as part of their respective long-term health education and training programs.

#### Athletic Trainers

The Committee understands that athletic trainers provide invaluable services to many people and organizations. However, the Committee notes that athletic trainers are not included on the TRICARE authorized provider list. Therefore the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by 1 February 2019, that examines the potential uses of civilian athletic trainers within the TRICARE program, the reimbursement structure for athletic trainers for Medicare or other commensurate

federal health programs, and an assessment of credentialing organizations that may help facilitate a standardized accreditation process for athletic trainers.

### Chronic Traumatic Encephalopathy (CTE)

The Committee commends the Department of Defense for focusing a significant amount of research on studying military relevant injuries related to traumatic brain injury (TBI). The Committee acknowledges the importance of this research but would also like to better understand the potential link between TBI and chronic traumatic encephalopathy (CTE). CTE is a neurodegenerative disorder that involves the progressive accumulation of the protein tau in nerve cells within certain regions of the brain. As the tau protein accumulates, it disturbs function and appears to lead to symptoms seen in affected patients with multiple head trauma. In 2013, a senior Department of Defense official stated, “we are learning through the process of discovery the effects of repetitive mild traumatic brain injury and also how to prevent this issue of chronic traumatic encephalopathy”. Research on CTE has made significant advancements, but there are still gaps in research between TBI and CTE and understanding the status and progress of CTE efforts within the military is of critical importance. Therefore, the Committee directs the Secretary of Defense, in consultation with Secretaries of the military departments, to provide a report on CTE research in the military to the Committees on Armed Services of the House of Representatives and the Senate not later than 1 April 2019. This report shall include an assessment of the gaps between CTE and TBI research, current funding levels, ongoing research studies, CTE related initiatives to track and monitor service-members, and ongoing research efforts with the National Institutes of Health, executive agencies and civilian academic and research organizations.

### Comprehensive Women’s Health for Active Duty

The committee recognizes that as the population of women in the military increases and more women seek additional opportunities in direct combat units and throughout the joint force, it is critical that women’s health is addressed comprehensively to optimize health and readiness. The committee notes the efforts of Navy Medicine with the establishment of the Women’s Health Clinical Community and the piloting of a comprehensive clinic at Naval Medical Center, San Diego, to address the complex needs of the Active Duty female population. Guided by feedback from clinical and non-clinical stakeholders and evidence-based research, the comprehensive women’s health clinic addresses women’s health in a patient-centered manner integrating perinatal, women’s health, mental health, and force readiness. As the Military Health System transitions military treatment facilities from the services to the Defense Health Agency, the committee encourages the inclusion of similar health clinics where appropriate to improve the readiness of women in the force.



## Department of Defense Action Plan for Countering Infectious Diseases

The committee acknowledges the important work across the Department of Defense in the areas of preventive medicine and infectious disease. The 2014 Ebola outbreak demonstrated the need for a prompt and efficient response to a highly infectious disease outbreak. It also demonstrated that in the future, the U.S. military may be expected to assume a primary role in responding to such crises. The likelihood of a future regional and global infectious disease crisis is high, and the lessons learned from the 2014 Ebola crisis are directly applicable to the next potential infectious disease outbreak. It is therefore critical that the Department of Defense consider lessons learned from previous outbreaks. In addition, the Department must take action to promote force health protection from emerging infectious diseases while preparing to support missions in areas of increased risk or military operations supporting international response within a future public health emergency.

The committee therefore directs the Secretary of Defense, in coordination with the Assistant Secretary for Preparedness and Response at the Department of Health and Human Services, to provide a briefing to the House Committee on Armed Services not later than June 1, 2019, on the development of an action plan focused on efforts to counter emerging infectious disease threats. This briefing should identify capability gaps; actions taken to improve point-of-care diagnostics linked to disease surveillance and information-sharing networks; examine infectious disease emergency response teams; capabilities for medical evacuation of patients with high consequence infections; gaps in infection prevention and control standards; and research efforts focused on medical countermeasures.

### Diabetes Prevention Program

The committee notes there are an estimated 30 million Americans with diabetes but only approximately 50,000 military members or their family members have the disease. However, the committee understands that the number of military beneficiaries with diabetes increases to more than 200,000 for retirees and their family members who are under the age of 65 and doubles to over 400,000 for those beneficiaries in the TRICARE for Life, Medicare-eligible population. If not treated, those with diabetes face higher risks of heart disease, kidney failure, limb amputations, and blindness. The committee is aware that Medicare expanded its diabetes prevention pilot program to provide coverage for all eligible at-risk beneficiaries with prediabetes who are aged 65 years or older, which has led to substantial health care savings as well as reducing the risk of patients developing type 2 diabetes. Given the detrimental health impact of diabetes as well as the increased costs incurred for direct treatment and comorbid medical complications of this disease, prevention programs addressing the vulnerability of at-risk TRICARE beneficiaries should be closely examined.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the Committee on Armed Services of the House of Representatives not

later than March 1, 2019, that examines the feasibility of using a similar program for TRICARE beneficiaries to prevent diabetes, improve health, and reduce health care costs.

#### Direct Report Language on National Guard Mental Health

The Committee remains concerned about the high rate of suicides in the reserve component and specifically, within the Army National Guard. The Committee is aware of numerous efforts by the Chief of the National Guard Bureau to increase access and resources for Guardsmen to receive behavioral health treatment and support. The Committee also supports the establishment of a more integrated and holistic approach to resilience and fitness across the National Guard to better assess and improve the operational readiness of Guardsmen by carrying out pilot programs as required. Therefore, the Committee directs the Chief of the National Guard Bureau to provide a report to the House Committee on Armed Services not later than 1 March 2019, on the effectiveness of National Guard Bureau behavioral health programs like resiliency, suicide prevention, and other mental health outreach efforts.

#### Exceptional Family Member Program

The committee notes the purpose of the Exceptional Family Member Program (EFMP) is to provide comprehensive and coordinated community support, housing, educational, medical, and personnel services worldwide to military families with children with special needs. The committee is concerned that with over 100,000 families participating in the EFMP and inconsistent application of the Department of Defense policy across the services, there are families who are inadvertently disadvantaged by not having an individualized service plan. The committee is also concerned that the Department of Defense and military services lack the common performance measures and outcome metrics to assess assignment coordination and family support.

Therefore, the committee directs the Secretary of Defense to develop a plan consisting of common performance metrics for assignment coordination and family support, including best practices for performance measurement; a systematic process for evaluating the results of monitoring activities conducted by each of the military services program; and a review to determine the feasibility of creating interstate compacts as a requirement for schools supporting EFMP students.

The committee further directs the Secretary of Defense to provide a briefing to the Committee on Armed Services of the House of Representatives not later than March 1, 2019, on this plan.

#### GAO Audit of TRICARE

The committee notes that during the 2018 transition of TRICARE managed care support contractors, many issues related to network adequacy arose, which

affected beneficiary access to care, specifically access to mental health services. There is evidence that mental health providers from the East and West regions received new contracts that include a proposed 30% discount off Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) rates. With the limited options and resources that TRICARE beneficiaries currently have, these discounts will further jeopardize the mental health of military members, veterans, and their families who rely on TRICARE for their basic needs.

Therefore, the committee directs the Comptroller General of the U.S. Government Accountability Office (GAO) to conduct a study of the Defense Health Agency's (DHA) oversight of the transition of TRICARE managed care support contractors for its TRICARE regions. The Comptroller General shall provide a report to the Committee on Armed Services of the House of Representatives by September 30, 2019 detailing the extent to which (i) DHA provided guidance and oversight to the outgoing and incoming managed care support contractors; (ii) there were any issues with health care delivery, and if so, the effect, if at all, DHA's guidance and oversight during the transition period had on these issues as well as DHA's resolutions for remediating any managed care support contractors' deficiencies; and (iii) DHA has reviewed any lessons learned from prior transitions and incorporated them into the current transition.

#### Global Health Engagement Organization Consolidation

The committee recognizes the Department of Defense's efforts to develop global health engagement (GHE) capabilities that have become an integral part of combatant command security cooperation initiatives. These activities are used to improve military health professional readiness and interoperability by providing important training opportunities and experiences in operational settings with partner nations. However, the committee is concerned that there is duplication of effort with the Defense Institute for Medical Operations. The Defense Institute for Medical Operations supports overseas train-the-trainer programs on topics such as disaster management, force health protection, health surveillance, and other areas of health practice.

As part of the Uniformed Services University of Health Science (USUHS) mission to support military readiness, the Center for Global Health Engagement was established by the Department of Defense to provide an enterprise-wide hub for GHE to support the combatant commands with leadership and scholarship; strategic and operational support to the joint force; training and professional development; management of GHE-related research; and assessment, monitoring, and evaluation activities. The committee believes USUHS provides a vital nexus of education and training for the Military Health System and may serve as an important support platform that provides economies of scale related to training, education, campus locations, and infrastructure support.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than April 1, 2019, on

the feasibility of consolidating and integrating the capabilities of the Center for Global Health Engagement and the Defense Institute of Medical Operations into one organization.

### Improving Delivery of Mental Health Services

The committee acknowledges the efforts of the Department of Defense and the military services to diagnose and treat military members suffering from mental health disorders. The committee commends the Department for systems it has in place to ensure service members receive standard of care for disorders where clinical evidence has informed best practices for treatment. However, there is room for improvement: the MHS lacks an enterprise wide system to accurately and consistently track care, cost, and implementation of evidence based quality medical and behavioral health therapeutic services for mental health disorders. The committee directs the Secretary of Defense to provide a briefing to the Committee on Armed Services of the House of Representatives not later than December 1, 2018 on the following: (1) feasibility study for creating a formalized methodology for tracking, measuring, and reporting across the MHS to ensure delivery of cost effective, evidence based quality treatments; (2) data and analysis to assist the committee in determining whether there are challenges to implementing evidence based mental health treatments for military personnel; (3) recommendations for addressing the current translation of innovative biomarker and neuroimaging diagnostics and research findings into practice; (4) any other matters the Secretary of Defense believes are relevant to this issue.

### Improving Health Care Choices for Severely Injured Service Members

The committee seeks to better serve severely disabled veterans who are entitled to hospital insurance benefits under part A of title XVIII of the Social Security Act. The committee directs the Secretary of Defense, in coordination with the Secretary of Human Health Services and the Commissioner of Social Security, to report on the total number of individuals who are retired from the Armed Services under chapter 61 of title 10, United States Code; entitled to hospital insurance benefits under part A of title XVIII of the Social Security Act pursuant to receiving benefits for 24 months as described in subparagraph (A) or (C) of section 226(b)(2) of such Act (42 U.S.C. 426(b)(2)); and because of such entitlement, are no longer enrolled in TRICARE Prime or TRICARE Select (as those terms are defined in section 1072 of title 10, United States Code) under chapter 55 of title 10, United States Code. The committee further directs the Secretary to submit the results of the report to the House Committee on Armed Services by December 1, 2018.

### Joint Advanced Orthopedic Surgical Training

The committee is aware of the importance of limiting musculoskeletal injuries (MSKI), which on average result in 21,000 shoulder and knee arthroscopies

affecting service members per year. The committee also recognizes that military orthopedic surgeons may be challenged to participate in civilian training partnerships to maintain or learn specialized techniques needed to care for military beneficiaries due to operational missions. These training challenges may have a significant impact on both the readiness of military personnel and the costs associated with MSKI for the Department of Defense. The committee encourages the Secretary of Defense and the Secretaries of the military departments to consider joint advanced orthopedic surgical training partnerships as an integral component of their respective long-term health education and training programs.

### Mental Health Care in the Military Health System

The committee commends the Department of Defense and military services' significant efforts over the past decade to aggressively improve treatment of traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), chronic traumatic encephalopathy (CTE), and other mental health issues. The committee also recognizes the importance of research and innovation being made in the treatment of brain disease and the need to improve collaboration between the Department of Defense, the National Institutes of Health, the Department of Veterans Affairs, and medical research translation offices at major universities. As the Military Health System transitions the operations of the military treatment facilities (MTF) from the military services to the Defense Health Agency, the committee notes this area of research and treatment needs aggressive oversight.

Therefore, the committee directs the Secretary of Defense, in coordination with the Secretaries of the military departments, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than April 1, 2019, on the plan for the Military Health System to provide mental health care services as part of the transition of the MTFs. This report shall include an assessment of how mental health care providers will be arranged within the command structure of the Defense Health Agency, how mental health care policy and processes will be managed within the Defense Health Agency to deliver mental health care services to members of the Armed Forces and covered beneficiaries; the ability of each service Surgeon General to maintain the readiness of the military health workforce to deliver mental health care services operationally in support of deployed forces. In addition, this report shall include a plan to accelerate innovation and delivery of treatments for TBI, CTE and PTSD to members of the Armed Forces and covered beneficiaries through improved coordination of behavioral health research and development efforts across the federal government, academic institutions, and industry; inclusion of evidence-based suicide prevention programs; promotion of acquisition strategies that utilize other transaction authorities to accelerate development and delivery of promising breakthrough therapies for TBI, CTE and PTSD; facilitation of public-private investment partnerships to pursue psychiatric and brain disease treatments; and plans to expeditiously field Food and Drug Administration--cleared pharmaceuticals

and medical devices that provide clinicians with therapeutics and tools for rapid, accurate assessments of traumatic brain injury and PTSD.

### Military Entrance Processing Command Physical Examination Model

The committee acknowledges the critical mission U.S. Military Entrance Processing Command (MEPCOM) performs throughout the United States. An important component of the MEPCOM mission is ensuring prospective service members are provided a physical examination as part of the military accession process. However, the committee is concerned that MEPCOM is unable to ensure these physical examinations are provided in a timely manner. The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than January 15, 2019, that evaluates the commercially distributed physical examination model being used by the Department of Defense Medical Examination Board and explores the feasibility of the MEPCOM contracting for physical examination services.

### Military Nurse Work Experience

The committee is aware that military nurses provide critical support across the Military Health System. However, national nursing shortages and vigorous salary and bonus competition for journey-level nurses has impacted the ability of the military to attract more experienced nurses to civil service. The inability to compete for nurses, coupled with restrictive Federal guidelines that dictate the hiring of new graduate nurses at considerably lower salaries than civilian counterparts, has in some instances created significant compensation disparity between military treatment facilities and hospitals in the local community. Additionally, a recent change to the Office of Personnel Management policy may limit applicant pools and adversely impact the ability of military treatment facilities to foster growth and development of current employees who have completed additional education and obtained further licensure. The committee encourages the Secretary of Defense to work with the Office of Personnel Management to consider new qualification and classification standards for military nurses.

### Military Nutrition and Diet Planning

The committee understands that a significant number of Active Duty military can currently be considered obese. This likely leads to additional health care costs and loss of military readiness, with too many Active Duty soldiers, sailors, marines, and airmen unable to deploy due to illness or injury. To ensure that our military is ready to fight today and in the future, on February 14, 2018, the Under Secretary of Defense for Personnel and Readiness issued policy guidance to the military services that states: “Service members who have been non-deployable for more than 12 consecutive months, for any reason, will be processed for administrative separation....” With this renewed emphasis on military personnel

policies necessary to provide a more ready and lethal force, the committee is concerned that the Department of Defense lacks a cohesive, science-based approach to diet and nutrition that supports that goal. It is incumbent upon the Department to ensure our service members are trained and resourced in ways that will allow them to perform duties necessary to remain in a full-duty and deployable status. Healthy food options are a key component of this effort.

The committee is aware that the Department has funded research on optimal nutritional approaches that promote performance and reduce illness, injury, and other health problems in order to ensure that deployable personnel are prepared for worldwide assignments.

Therefore, the committee directs the Secretary of Defense provide a briefing to the House Committee on Armed Services by January 15, 2019, detailing this research and its conclusions. The briefing should include, among other aspects, an overview of studies that focused on the usage of low carbohydrate diets, which show promising outcomes for physiological and performance factors key to warfighter readiness and effectiveness. Additionally, the briefing should discuss the use of standard dietary guidelines as defined by the U.S. Dietary Guidelines for Americans, as well as any other available comparisons. The briefing should also include systemic factors that inhibit the delivery of food options other than those defined by the U.S. Dietary Guidelines for Americans to service members at Department of Defense dining facilities and other venues. Finally, this briefing should include the plan for a Department-wide approach to diet and nutrition that incorporates performance-based outcomes in support of warfighter readiness.

#### Mitigating Work Place Violence in Military Treatment Facilities

The committee notes that the Department of Defense incorporated many of the recommendations into policy to address workplace violence following the 2009 Ft. Hood shooting review. The committee is concerned that there are still gaps in the implementation of the policies with respect to establishing Threat Assessment Teams in Military Treatment Facilities. This is evident by the 2016 incident at Ft. Leavenworth hospital when an employee set his supervisor on fire. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Armed Service Committee no later than 1 March 2019 on the establishment of the Threat Assessment Teams at Military Treatment Facilities and the training provided to the members of the team.

#### Orthotics for New Recruits

Custom orthotics are offered to servicemembers in some circumstances with a referral from their primary care provider, however it is the understanding of the committee that there is currently not a uniform method for providing orthotics to servicemembers across the joint force. With over 70% of muscular-skeletal injuries affecting the lower extremities, higher priority must be placed on injury prevention, which will likely reduce the cost of treatment and increase force readiness. The

committee therefore directs the Secretaries of each service to seek advice from the orthopedic and podiatric consultants residing within each branch of the Armed Forces regarding the benefits of prescribing and dispensing custom orthotics to each new recruit upon entering the military, and follow up with a briefing to Congress no later than April 1, 2019.

### Periodic Health Assessment Analysis

The committee notes the continued progress in reforming the Department of Defense Periodic Health Assessment (PHA). The Department implemented the new electronic PHA in February 2018. The new PHA is designed to accomplish multiple requirements and provide standardized health assessment data that can be analyzed and compared across all military services, as well as to national standards. The PHA includes a comprehensive health risk assessment using evidence-based diagnostic tools validated and recommended by the Centers for Disease Control and Prevention and clinical specialty leaders. This is a systematic collection and analysis of health-related information for use by service members, health care providers, and health care teams to identify and support beneficial health behaviors and mutually work to direct changes in potentially harmful health behaviors. The committee encourages the Secretary of Defense and the Secretaries of the military departments to continue to reform the PHA and use predictive analytics to examine population health factors and trend analysis to better understand comprehensive health risk assessment and improve the readiness of the force.

### Podiatric Surgeons in the Military

The committee is concerned that surgically advanced military podiatrists are not presented with the same administrative opportunities as surgeons and doctors of other medical disciplines, and have historically had few opportunities for positions of leadership across the military medical enterprise. Podiatric surgery, as a medical discipline in the Armed Forces, has evolved over the last several decades, including an additional 3-year surgical residency requirement for all military podiatric surgeons. Podiatrists have increasingly deployed to combat zones overseas, serving in a variety of ways to meet the surgical needs of our warfighters. Moreover, podiatric surgeons remain in the Medical Service Corps in the Army and Navy, and the Biomedical Science Corps in the Air Force. This alignment does not administratively suit the profession, and podiatric surgeons may serve more effectively when aligned with surgeons of other medical disciplines. Lastly, while Army Reserve surgeons receive a 90-day rotation exemption limiting their tour of duty in combat, Reserve podiatric surgeons are not eligible for this exemption. This creates challenges to recruiting the best podiatrists for military service, and is especially difficult for podiatrists serving in the Reserve component who are faced with the possibility of a long deployment with potentially adverse effects on their civilian practice. The committee therefore directs the Secretary of Defense, in



coordination with the Secretaries of the military departments, to submit a report to the House Committee on Armed Services not later than April 1, 2019, on improvements that can be made to podiatry as a medical discipline within the Armed Services; how podiatry is aligned within each military branch; and what efforts are being made to provide additional clinical, command, training, and leadership opportunities to podiatrists across the joint force.

### Podiatry in the Military

The committee is concerned that surgically advanced military podiatrists are not presented with the same advancement opportunities as surgeons and doctors of other medical disciplines, and have historically had few opportunities for positions of command across the military medical enterprise. Podiatry, as a medical discipline in the Armed Forces, has evolved over the last several decades, including an additional 3-year surgical residency requirement for all military podiatrists. Podiatrists have increasingly deployed to combat zones overseas, serving in a variety of ways to meet the surgical needs of our warfighters. Moreover, podiatrists remain in the Medical Service Corps in the Army and Navy, and the Biomedical Science Corps in the Air Force. This alignment often limits advancement and leadership opportunities in the civilian sector, and may put them at a disadvantage when compared to officers in the Medical Corps. Lastly, while surgeons of other disciplines receive a 90-day rotation exemption limiting their tour of duty in combat, podiatrists are not eligible for this exemption. This creates challenges to recruiting the best podiatrists for military service, and is especially difficult for podiatrists serving in the Reserve component who are faced with the possibility of a long deployment with potentially adverse effects on their civilian practice.

The committee therefore directs the Secretary of Defense, in coordination with the Secretaries of the military departments, to submit a report to the House Committee on Armed Services not later than April 1, 2019, on improvements that can be made to podiatry as a medical discipline within the Armed Services; how podiatry is aligned within each military branch; and what efforts are being made to provide additional clinical, command, training, and advancement opportunities to podiatrists across the joint force.

### Study on CT Angiography and Fractional Flow Reserve Computed Tomography in the Military Health System

The Committee is aware of the significant health and cost savings advantages of new technology for non-invasive diagnosis of cardiac artery disease through cardiac CT angiography (CTA) and fractional flow reserve computed tomography (FFRct). This FDA approved diagnostic device coupled with use of CTA as an initial testing strategy is recognized as part of a preferred pathway of care by the Blue Cross Blue Shield Association, the American College of Cardiology, the American Heart Association, and the National Health Service in the United Kingdom. The committee directs the Director of the Defense Health Agency to

provide a report to the House Committee on Armed Services no later than March 1, 2019, that reviews and assesses the clinical efficacy of this technology and how it may be incorporated throughout the Military Health System.

#### Support for Global Health Security Agenda and Briefing on Joint Staff Recommendations

The Committee is supportive of the Department of Defense contributions to biosecurity and the Global Health Security Agenda (GHSA). The DoD possesses unique capabilities that contribute to interagency efforts to prevent, detect, and respond to outbreaks of infectious disease worldwide, as demonstrated by the response to Ebola in West Africa.

As the Ebola response required in excess of \$600 million in DoD funding, the Committee is supportive of ensuring that the DoD learns lessons that can be applied to future pandemic prevention and response efforts. Therefore, the committee directs the Director of the Defense Threat Reduction Agency to provide a briefing to the House Committee on Armed Services not later than October 31, 2018 on implementation of recommendations made by the Joint Staff in its 2016 analysis of Operation United Assistance. The briefing shall include, but not be limited to, the status of implementation of the following recommendations:

(A) Participate in or facilitate interagency meetings to synchronize the GHSA plans and activities. Support GHSA initiatives in partner countries.

(B) Conduct a capability based assessment to identify gaps in DoD's ability to respond to infectious disease outbreaks, both domestically and internationally.

(C) Sustain, and expand if possible public health-related capacity building for the full range of infectious diseases with partner countries as conditions allow.

(D) Work with CDC and other stakeholders to develop a strategic plan for a global laboratory network and improved information sharing.

(E) Identify and leverage opportunities to expand sampling programs to enhance OCONUS disease surveillance and gain an improved understanding of disease prevalence in different geographic areas.

(F) Support the continued development of USG strategic plans that increase the public health and bio-surveillance capacities of partner nations.

#### Therapeutic Service Dog Training Program for Service Members

The committee is aware that service dog training therapy can provide important therapeutic benefits to service members recovering from post-traumatic stress disorder, traumatic brain injury, and other post-deployment mental health conditions. The committee notes the important role played by non-governmental organizations that have established robust programs in the training and handling of therapeutic service dogs, and further notes that the right mix of personnel with the appropriate backgrounds and certifications facilitates positive therapeutic experiences. The committee believes these programs, whenever possible, should use data and research to continue to improve their effectiveness in assisting service

members. The committee encourages the Secretary of Defense to continue administering a therapeutic service dog-training program that delivers effective and positive therapeutic and emotional benefits to service members recovering from post-traumatic stress disorder and other post-deployment mental health conditions.

### TRICARE Managed Care Support Contractor Reporting

The committee notes the TRICARE benefit underwent considerable reform beginning January 1, 2018. The Department of Defense consolidated the TRICARE regions from three to two as part of the updated TRICARE management contract, and Congress directed that the TRICARE benefit be consolidated into two plans: a Healthcare Maintenance Plan and a Preferred Provider Plan. Both reforms took effect on January 1, 2018. The committee is aware of challenges for beneficiaries regarding timely appointments, referrals, provider network development, and other administrative processing functions. The committee is concerned these challenges may be impacting beneficiary access to health care services. Therefore, the committee directs the Secretary of Defense to provide a briefing to the Committee on Armed Services of the House of Representatives not later than March 1, 2019, on managed care support contractor compliance with performance metrics and standards relating to appointments, referral processing, network development (to include the requirement to cover 85 percent of the beneficiaries with standard select coverage in Prime Service Areas with special emphasis on remote locations), and other administrative processing functions.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—TRICARE AND OTHER HEALTH CARE BENEFITS

#### Section 701—TRICARE Medicare Advantage Demonstration Program

This section would authorize the Department of Defense to develop a Medicare Advantage demonstration program for TRICARE-eligible beneficiaries.

#### Section 702—Pilot Program on Treatment of Members of the Armed Forces for Post-Traumatic Stress Disorder Related to Military Sexual Trauma

This section would authorize the Secretary of Defense to assess the feasibility of a pilot program that uses intensive outpatient programs to treat members of the Armed Forces suffering from post-traumatic stress disorder resulting from military sexual trauma.

#### Section 703—Pilot Program on Cryopreservation and Storage

This section would require the Secretary of Defense to establish a pilot program for not more than 1,000 Active Duty service members that provides the

opportunity to cryopreserve and store their gametes prior to deployment to a combat zone.

#### SUBTITLE B—HEALTH CARE ADMINISTRATION

##### Section 711—Transition of Administration by Defense Health Agency of Military Medical Treatment Facilities

This section would amend section 1073 of title 10, United States Code, by requiring the Department of Defense to transition the administration of military treatment facilities from the respective Secretary of the military departments to the Director of the Defense Health Agency not later than September 30, 2020. This section would also prohibit the Secretary of Defense from closing or limiting services in any military medical treatment facility until a transition certification process is completed.

##### Section 712—Sharing Information with State Prescription Drug Monitoring Programs

This section would amend section 1074g of title 10, United States Code, by requiring the Department of Defense to establish a prescription drug monitoring program and share information with State prescription drug monitoring programs.

##### Section 713—Improvement to Notification to Congress of Hospitalization of Combat-Wounded Members of the Armed Forces

This section would amend section 1074l(a) of title 10, United States Code, by including notification to Congress of hospitalization of combat-wounded members of the Armed Forces to every military medical treatment facility.

##### Section 714—Improvements to Trauma Center Partnerships

This section would amend section 708 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), by authorizing the use of civilian trauma centers in the training of military health professionals in trauma-related specialties.

##### Section 715—Wounded Warrior Policy Review

This section would require the Secretary of Defense to update and review policy and procedures related to wounded warrior care and include a report on the review not later than 1 year after the date of the enactment of this Act.

##### Section 716—Joint Force Medical Capabilities Development and Standardization

This section would require the Secretary of Defense to develop a process to establish joint medical capabilities that meet operational planning requirements and provide a report on this process to the Committees on Armed Services of the Senate and the House of Representatives not later than March 1, 2019.

#### SUBTITLE C—REPORTS AND OTHER MATTERS

##### Section 721—Establishment of Triservice Dental Research Program

This section would authorize the Secretary of Defense to establish the Triservice Dental Research Program at the Uniformed Services University of the Health Sciences.

##### Section 722—Increasing the Number of Appointed Directors of the Henry M. Jackson Foundation for the Advancement of Military Medicine

This section would increase the number of appointed directors of the Henry M. Jackson Foundation for the Advancement of Military Medicine.

##### Section 723—Extension of Authority for Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund

This section would authorize the extension of the Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund established by section 1704 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84) and most recently amended by section 719 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

##### Section 724—Inclusion of Gambling Disorder in Health Assessments and Related Research Efforts of the Department of Defense

This section would require the Department of Defense to include questions concerning gambling disorders in annual periodic health assessments and the Health-Related Behaviors Survey of Active Duty Military Personnel.

##### Section 725—Medical Simulation Technology and Live Tissue Training within the Department of Defense

This section would require the Department of Defense to use medical simulation technology before the use of live tissue training to train medical professionals and combat medics except for when the use of live tissue training is determined necessary by the medical chain of command. This section would also require a briefing on the use and benefit of medical simulation technology and live tissue training within the Department of Defense.

## Section 726—Limitation on Changes to Federal Emergency Services Certification Levels of the Air Force

This section limits any changes to Federal Emergency Services certification levels in the Air Force.

## Section 727—Strategic Medical Research Plan

This section would require the Secretary of Defense, in consultation with the Secretaries of the military departments, to submit to the congressional defense committees a comprehensive strategic medical research plan that is inclusive of the Congressional Directed Medical Research Plan and the Defense Health Program.

## Section 728—Independent Evaluation of Mental Health Care

This section would require an independent assessment of mental health care services in the Military Health System by an independent federally funded research and development center.

## Section 729—Study on Reimbursement Rates for Mental Health Care Providers under TRICARE Prime and TRICARE Select in the East and West Regions of the TRICARE Program

This section would direct the Secretary of Defense to conduct a study assessing the impacts of using established reimbursement rates to reimburse covered mental health care providers on the availability of such providers.

# TITLE VIII—ACQUISITION POLICY, ACQUISITION MANAGEMENT, AND RELATED MATTERS

## ITEMS OF SPECIAL INTEREST

### Assessment of Acquisition Workforce

The committee directs the Secretary of Defense to provide the House Armed Services Committees no later than December 1, 2018 a report to assess the current effectiveness of Defense Acquisition University's mission to adequately train the Department of Defense's acquisition workforce and other personnel involved in the acquisition process. This report shall include an assessment of Defense Acquisition University's ability to adequately train students to write acquisition requirements (including scope of work) so that requirements are developed in such a way as to meet the needs of the Department, as well as its ability to adequately train students on the appropriate use of transactions other than contracts, cooperative

agreements, and grants, also known as other transaction authority, and additional items at the Secretary's discretion.

### Briefing on Athletic Footwear for New Recruits

The committee notes the health and safety of newly recruited servicemembers is of utmost importance. The committee notes athletic footwear furnished to new recruits upon entering the military should be consistently issued in a manner that accounts for each recruit's individual physiological requirement in order to prevent lower extremity musculoskeletal injuries. The committee directs the Department of Defense to provide a briefing to the House Committee on Armed Services, not later than November 1, 2018, on the Department's effort to examine, measure, and fit new recruits with athletic shoes in an effort to reduce and prevent injury. The briefing will present the information separately by individual service as well as in aggregate.

### Comptroller General Report on the Issuance of Regulations in the Defense Federal Acquisition Regulation Supplement

The committee notes that despite recent legislative reform to the acquisition system there has been a significant delay between statutory enactment and issuance of regulations in the Defense Federal Acquisition Regulation Supplement (DFARS). For example, a final rule on procurement of commercial items (issued in January 2018) amended the DFARS based upon requirements from as long ago as the National Defense Authorization Act for Fiscal Year 2013 (Public Law 112-239). As a result, the acquisition and contracting communities within and outside the Federal Government are unable to take full advantage of recent reforms and improvements to acquisition and contracting procedures. The committee is concerned that the momentum generated by congressional acquisition reform initiatives has been lost as a result of delayed, and potentially incomplete, revision of regulations, and seeks to identify and remedy the causes of such delays. According to the Department of Defense's operating guidance for the DFARS, the standard timeline for issuance of a final rule is one year, including multiple layers of review within and outside the Department as well as time for public comment. The committee seeks recommendations on how to reduce that timeline and ensure that previously enacted statutory provisions are not disregarded in regulation. The committee also encourages exploration of other ways to quickly implement enacted reforms such as through interim policy memoranda or other guidance, without the need for formal regulatory action.

Therefore, the committee directs the Comptroller General of the United States to submit a report to the congressional defense committees by March 1, 2019, on the issuance of regulations in the Defense Federal Acquisition Regulation Supplement as required under statutory provisions enacted in past National Defense Authorization Acts. The report should describe the existing revision process and assess the status of statutory provisions enacted since fiscal year 2010. The

report should assess the factors delaying revision to the DFARS and provide recommendations for any changes that might accelerate such revisions. The committee intends for the Comptroller General to focus on acquisition policy-related statutory provisions enacted in past National Defense Authorization Acts.

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services by December 1, 2018, on preliminary findings.

### Contract Incentives for Superior Supplier Performance

The committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services not later than December 1, 2018, on the Department of Defense's Superior Supplier Incentive Program. This program is designed to recognize and reward contractors who demonstrate superior performance by focusing on cost, schedule, performance, quality, and responsiveness. The briefing should include discussion of the feasibility of providing contract incentives, such as more favorable contract terms and conditions, which had been considered in relation to the Department of the Navy's Superior Supplier Incentive Program that preceded the Department of Defense's program.

### Core Logistics Capability

The committee notes that section 2464 of title 10, United States Code, requires the Department of Defense to maintain a core logistics capability that is Government-owned and Government-operated (including Government personnel and Government-owned and Government-operated equipment and facilities) to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements. The committee further notes that recent National Defense Authorization Acts have made important changes to commercial item statutes, and that elsewhere in this Act the committee recommends further changes to the statutes governing commercial items. In all cases, the committee expects the Department to implement any statutory changes in a manner consistent with the mandate in section 2464 of title 10, United States Code, to maintain core logistics capabilities.

The committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a report to the House Committee on Armed Services, not later than February 1, 2019, on the Department's implementation of changes to commercial item statutes enacted in National Defense Authorization Acts for fiscal years 2016 through 2019, and how such changes may affect core logistics capability in the future.

### Data Rights Impact to Sustainment



The committee is concerned about access to appropriate data rights with regard to long-term sustainment of weapon systems, especially for weapon systems transitioning to organic depot sustainment.

The committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services by September 30, 2018, on the process and status of obtaining appropriate data rights for long-term sustainment of weapon systems transitioning to organic depots.

### Domestic Samarium Cobalt Magnet Manufacturing

The committee is aware of the Department of Defense's continued need for a reliable rare earth magnet manufacturing industrial base to provide key components in many weapon systems. The committee is concerned that a recent memorandum of understanding (MOU) with Japan may result in the outsourcing of all remaining rare earth magnet manufacturing capability in the United States to foreign manufacturers. There is currently one U.S.-owned and -operated rare earth magnet manufacturing facility in the United States, which produces samarium cobalt magnets. The committee urges the Secretary of Defense to take the appropriate steps to ensure that the United States is not completely without a commercial-scale rare earth magnet manufacturing facility.

The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by September 30, 2018, on the risks to the current domestic rare earth supply chain, including domestic samarium cobalt magnet makers, as a result of the MOU with Japan. The briefing should also describe the Department's strategy for preserving the long-term viability of the U.S. rare earth magnet industrial base.

### Ensuring Availability of Beryllium

The committee notes that beryllium is the only material designated by the Department of Defense's Strategic Materials Protection Board as a critical material. The committee notes there is a complete, vertically integrated supply chain in the United States for beryllium metal and other beryllium products that are used in major defense systems including the F-35 Joint Strike Fighter and nuclear weapon systems. This supply chain has historically been supported by the Department of Defense through the Defense Production Act and other authorities as required in order to maintain access to this critical, strategic material.

The committee is interested in the Department's efforts to help the U.S. defense industrial base sustain a secure, viable, and affordable domestic supply of beryllium.

The committee therefore directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than September 30, 2018, on the Department's efforts to maintain the availability of beryllium for defense needs. The briefing should address the following:

(1) what steps the Department is taking to ensure a stable and affordable domestic supply chain for beryllium;

(2) whether the Department intends to provide any guidance regarding individual programs using beryllium feedstock from the Russian Federation and metal production from the Republic of Kazakhstan;

(3) the Department's coordination with the National Nuclear Security Administration to maintain the availability of beryllium for nuclear modernization requirements;

(4) the Department's efforts to work with the Occupational Safety and Health Administration to ensure that regulatory burdens do not jeopardize the domestic beryllium supply chain; and

(5) the potential opportunities for the Department's guidance to its component agencies and military services to ensure a whole-of-Department approach to beryllium supply.

#### Final Activities of and Archiving of Records for Advisory Panel on Streamlining and Codifying Acquisition Regulations

The committee notes that the Advisory Panel on Streamlining and Codifying Acquisition Regulations has continued to provide analysis to the relevant congressional committees and the Department of Defense to support statutory and regulatory implementation of recommendations contained in volume 1 of its final report. The committee expects the Advisory Panel to provide additional recommendations to Congress and the Executive Branch in volumes 2 and 3 of the final report. The Advisory Panel, pursuant to section 883 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), which amended section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), will remain in existence for 180 days following delivery of volume 3 of the final report in January 2019. During this final 6-month period, the Advisory Panel should continue to provide any necessary analysis and clarification of recommendations contained in the final report to Congress and the Executive Branch to support and facilitate statutory and regulatory implementation of such recommendations.

The committee expects that the Department of Defense's acquisition reform efforts will not cease upon the termination of the Advisory Panel on Streamlining and Codifying Acquisition Regulations. In addition, the Department of Defense's implementation of recent legislative reforms as well as the Advisory Panel's recommendations on regulations will require continued research and analysis by the Department. The committee notes that section 809 of Public Law 114-92 established the National Defense University as one of the sponsors of the Advisory Panel.

The committee directs the Secretary of Defense that upon termination of the Advisory Panel, the Advisory Panel's records shall be maintained by the

Eisenhower School at the National Defense University by no later than August 1, 2019.

### Installation of Command, Control, Communication and Computer Systems

The committee remains concerned that the Navy is using lowest price technically acceptable (LPTA) contracting procedures inappropriately, particularly when acquiring complex systems, including command and control systems or services for the installation of command and control systems on ships. The committee notes that the Navy faces a significant backlog of maintenance and repair on ships and this backlog includes upgrades of command and control systems. The capacity of the Navy to reduce the backlog of needed repairs remains of concern to the committee. Consequently, the committee directs the Secretary of the Navy to provide a briefing to the House Armed Services Committee not later than March 1, 2019, on the Navy's acquisition plan for command and control systems and the installation of these systems aboard Navy vessels. The briefing shall include an overview on how the Navy plans to reduce the backlog of needed command and control system upgrades, as well as the physical installation of these systems on Navy vessels. The briefing shall include the Navy's plan for acquiring adequate contracting capacity for the performance of the required work, the plan to incentivize contractors to perform the work quickly, and the total amount of work programmed for the next five years by class of ship.

### Mandatory Arbitration Briefing

The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than March 1, 2019, on steps the Department has taken to ensure compliance with the provisions of Subpart 222.74 of the Defense Federal Acquisition Regulation Supplement concerning restrictions on the use of mandatory arbitration agreements. The briefing shall include steps taken to ensure that the Department does not fund contracts in excess of \$1 million with contractors that require as a condition of employment that employees enter an agreement to resolve certain claims and torts through arbitration. The briefing shall also include steps taken to ensure that contractors have certified that covered subcontractors, as defined in the clause at 252.222-7006 of the Defense Federal Acquisition Regulation Supplement, have been required to agree not to enter into such agreements. The briefing shall also include the extent to which the Secretary of Defense has waived the requirements of this subpart. The briefing shall also include potential ways for Department of Defense to determine the prevalence of mandatory arbitration by Department of Defense contractors compared to contractors that do not do business with Department of Defense.

### Manufacturing Extension Partnership Program

The committee supports and recognizes the importance of the National Institute of Standards and Technology Manufacturing Extension Partnership program. The committee understands that the Manufacturing Extension Partnership program provides assistance to small- and medium-sized manufacturing companies to reduce costs, increase productivity, improve management, enhance supply chains, and adapt to new market and supply chain opportunities. In addition, the committee believes that additional resourcing and support for the program would likely provide these services to a larger number of manufacturers involved in Department of Defense programs.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services not later than March 1, 2019, on the Department of Defense plans for future cooperation with the Manufacturing Extension Partnership program, including collaborative efforts between the Department and the Manufacturing Extension Partnership program. The briefing should also include a review of potential opportunities for expanding Department support for the Manufacturing Extension Partnership program in an effort to provide assistance to manufacturing elements of the defense industrial base.

#### National Defense Stockpile

The committee notes the importance of the National Defense Stockpile and of the preservation of strategic and critical materials for national defense. The committee is concerned about the current risks and long-term sustainability of the National Defense Stockpile. According to the Department of Defense, there are significant unsatisfied stockpile requirements, and, under the current program-financing model, the Transaction Fund will be unsustainable by 2024.

The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by September 30, 2018, on the National Defense Stockpile. The briefing should address the following:

- (1) the Department's plan to address the current unmitigated risks;
- (2) how the Department will make the Transaction Fund sustainable;
- (3) an overview of the Department's stockpile management to include acquisition of materials, storage, security, and maintenance;
- (4) the Department's ability to upgrade, refine, and process the material for storage, disposition, or use; and
- (5) any vulnerabilities to the National Defense Stockpile supply chain and the Department's risk mitigation efforts.

#### Navy Build-to-Print Cost Savings

The committee supports expanding competition in Navy acquisition, including appropriate use of "build-to-print" competitions where the Navy holds sufficient rights to the design of military equipment components to compete the production of them with multiple sources. The committee is aware of Navy efforts to

use such competitions to dramatically reduce the time and cost of contracting for selected items. The committee encourages the Navy to expand these efforts if they can be pursued in a way that works collaboratively with industry on obtaining the necessary technical data rights and intellectual property through early negotiations.

### One Hundred Percent Employee-Owned Contractors

The committee is interested in understanding the merits of 100 percent employee-owned contractors and the potential benefits they bring to strengthening the defense industrial base. The committee seeks to further understand the benefits and cost implications of awarding contracts to employee-owned contractors for the Department of Defense; the retention rates of employee-owned contractors; and any other benefits of this type of contractor.

The committee will work with the Comptroller General of the United States to further study these types of contractors.

### Report on REE-Bearing Waste Recycling

The committee continues to be concerned with our dependence on foreign sources for materials critical to our national defense. To help mitigate this supply chain risk, the FY 2017 National Defense Authorization Act strongly encouraged the Department to recycle discarded items, such as spent fluorescent lamps, in order to extract, reclaim and reuse critical materials and rare earth elements contained in such waste. This section also provided the Department broad authority to recover, acquire, recycle and manage the disposal and recyclable strategic and critical materials containing REE from other federal agencies.

The committee is aware of recent advances in domestic recycling technology, providing clean and efficient means for reclaiming rare earth elements from a variety of domestic waste streams. At current recycling levels of fluorescent lamps alone, recoverable quantities of target rare earth elements such as Yttrium, deemed by the Department to be critical to the national defense, can wholly offset the total amount of imported Yttrium originating in China on an annual basis, and sold at or below current market price.

Where feasible, such waste streams should not be destroyed or landfilled, but managed in accordance with our national defense needs. The committee therefore directs the Secretary of Defense to submit a report to the House Committee on Armed Services by February 1, 2019, on the Department's past and planned future use of new authorities granted to them to both recycle the Department's applicable REE-bearing waste, and recover and exploit the REE-bearing waste of other federal agencies.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—STREAMLINING OF DEFENSE ACQUISITION STATUTES AND REGULATIONS

## Section 800—Effective Dates; Coordination of Amendments

This section would set the effective dates for the establishment of a new part V of subtitle A of title 10, United States Code, and the redesignation of the chapter and section numbers for title 10 subtitles B, C, and D in order to create numerical space for a new part V at the end of subtitle A. This restructuring would also enable additional growth and potential future reorganization of title 10 statutes in other subject areas outside of the acquisition code.

The committee expects that this restructuring effort would be sustained. The second phase of reorganization would be enacted by follow-on legislation that would direct the more detailed chapter by chapter transfer into the final revised, rationalized structure of title 10 not later than February 1, 2020.

### PART I—CONSOLIDATION OF DEFENSE ACQUISITION STATUTES IN NEW PART V OF SUBTITLE A OF TITLE 10, UNITED STATES CODE

#### Section 801—Framework for New Part V of Subtitle A

This section would establish the initial step in the first phase of a comprehensive reorganization and optimization of acquisition-related statutes in title 10, United States Code. The committee recognizes that the structure for acquisition-related statutes in title 10 has become unwieldy and inadequate.

This section would create a new part V at the end of subtitle A of title 10, thus logically organizing all acquisition-related statutes in one part in the Code. The committee expects that the actual shift of statutory language for the new part V would be established in a subsequent second phase of legislation, but not later than February 1, 2020.

The committee notes that reorganizing defense acquisition statutes into a restructured, rationalized form would reflect more clearly the underlying organization of these statutes and provide a structure that is more intuitive and easier to navigate, as well as facilitate future growth within the Code's structure. In addition, the proposed reorganization would provide an opportunity to restore parallelism between the acquisition-related provisions of title 10 and the corresponding provisions of title 41, United States Code, that are applicable to procurement by non-defense agencies, which would benefit the entirety of the Federal contracting community.

The committee expects that this restructuring effort will be sustained, and the second phase of reorganization will be enacted by follow-on legislation that will direct the more detailed chapter by chapter transfer into the final revised, rationalized structure of title 10 (to include the new part V of subtitle A) not later than February 1, 2020.

### PART II—REDESIGNATION OF SECTIONS AND CHAPTERS OF SUBTITLES B, C, AND D TO PROVIDE ROOM FOR NEW PART V OF SUBTITLE A

Section 806—Redesignation of Sections and Chapters of Subtitle D of Title 10,  
United States Code—Air Force

This section would redesignate the chapter and section numbers for subtitle D of title 10, United States Code, in order to create numerical space for a new part V at the end of subtitle A. This restructuring would also enable additional growth and potential future reorganization of title 10 statutes in other subject areas outside of the acquisition code.

The committee expects that this restructuring effort would be sustained. The second phase of reorganization would be enacted by follow-on legislation that would direct a more detailed chapter by chapter transfer into a final revised, rationalized structure of title 10 not later than February 1, 2020.

Section 807—Redesignation of Sections and Chapters of Subtitle C of Title 10,  
United States Code—Navy and Marine Corps

This section would redesignate the chapter and section numbers for subtitle C of title 10, United States Code, in order to create numerical space for a new part V at the end of subtitle A. This restructuring would also enable additional growth and potential future reorganization of title 10 statutes in other subject areas outside of the acquisition code.

The committee expects that this restructuring effort would be sustained. The second phase of reorganization would be enacted by follow-on legislation that would direct a more detailed chapter by chapter transfer into a final revised, rationalized structure of title 10 not later than February 1, 2020.

Section 808—Redesignation of Sections and Chapters of Subtitle B of Title 10,  
United States Code—Army

This section would redesignate the chapter and section numbers for subtitle B of title 10, United States Code, in order to create numerical space for a new part V at the end of subtitle A. This restructuring would also enable additional growth and potential future reorganization of title 10 statutes in other subject areas outside of the acquisition code.

The committee expects that this restructuring effort would be sustained. The second phase of reorganization would be enacted by follow-on legislation that would direct a more detailed chapter by chapter transfer into a final revised, rationalized structure of title 10 not later than February 1, 2020.

Section 809—Cross References to Redesignated Sections and Chapters

This section would establish the cross-references guidance for new redesignated sections and chapters of title 10, United States Code.

The committee expects that this restructuring effort would be sustained. The second phase of reorganization would be enacted by follow-on legislation that

would direct a more detailed chapter by chapter transfer into a final revised, rationalized structure of title 10 not later than February 1, 2020.

### PART III—REPEALS OF CERTAIN PROVISIONS OF DEFENSE ACQUISITION LAW

#### Section 811—Amendment to and Repeal of Statutory Requirements for Certain Positions or Offices in the Department of Defense

This section would amend or repeal a number of statutory requirements for certain Department of Defense positions or offices established or required by law, and would establish a sunset for one statutory designation.

The committee notes that these repeals do not constitute an assessment of the offices' or positions' respective missions or roles in the acquisition process, but rather are an effort to remove needlessly prescriptive and obsolete requirements from the United States Code. Codifying the existence and structure of certain offices may unnecessarily restrict the Secretary of Defense's ability to modify the Department's organizational structure to improve efficiency and effectiveness in a way that is consistent with the reforms to the organization of the Office of the Secretary of Defense as required by section 901 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). Repeal of these statutory requirements would not directly abolish the affected positions, but would allow the Secretary to restructure those positions should such action be warranted. Removing statutory mandates would enhance the Secretary's authority and ability to craft an agile acquisition organization.

#### Section 812—Repeal of Certain Defense Acquisition Laws

This section would repeal a number of outdated provisions of law related to defense acquisition, including sections of title 10, United States Code, and provisions that appear in the United States Code as legislative "note" sections under various provisions of title 10. These out-of-date provisions either required the Department of Defense to issue regulations, have now expired by their own terms, or are otherwise obsolete.

The committee notes that, with respect to repeal of a statutory requirement for issuance of a regulation, it is not expressing a view on the merits of the policies covered by the regulation. Rather, in repealing the statutory requirement for a regulation, this section would allow the Secretary of Defense to revise the regulation as circumstances warrant. Repealing the statutory requirement would allow the Secretary to revise or rescind the regulation, but would not prescribe it. The decision to retain, or not retain, the regulation would remain with the Secretary.

#### Section 813—Repeal of Certain Department of Defense Reporting Requirements



This section would repeal certain Department of Defense recurring reporting requirements. The committee notes that excessive reporting requirements can impose costs on the Department of Defense that outweigh the intended benefits of each individual report, and can potentially impede the Department's ability to effectively direct resources to core objectives. In the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), Congress initially directed a large group of recurring reporting requirements to sunset on December 31, 2021. This section continues to advance this streamlining effort.

#### SUBTITLE B—AMENDMENTS TO GENERAL CONTRACTING AUTHORITIES, PROCEDURES, AND LIMITATIONS

##### Section 821—Contract Goal for the AbilityOne Program

This section would amend section 2323a of title 10, United States Code, to create a contract goal for the AbilityOne program of 1.5 percent. This section would also require the Secretary of Defense to submit an annual report to the U.S. AbilityOne Commission on progress made toward achieving said contract goal.

The committee intends to establish greater transparency for this program's execution.

##### Section 822—Increased Micro-Purchase Threshold Applicable to Department of Defense Procurements

This section would amend section 2338 of title 10, United States Code, by raising the micro-purchase threshold for the Department of Defense from \$5,000 to \$10,000.

##### Section 823—Preference for Offerors Employing Veterans

This section would amend chapter 137 of title 10, United States Code, by adding a new section that would authorize the head of an agency, in awarding a contract for the procurement of goods and services for the Department of Defense, to establish a preference for offerors that employ veterans on a full-time basis, with criteria for use of such preference determined by the Secretary of Defense. Prior to establishing such preference, the Secretary of Defense would be required to provide a briefing to the House Committee on Armed Services on the process for assessing and verifying offeror compliance with regulations relating to equal opportunity for veteran's requirements, and an implementation plan that includes penalties for an offeror that willfully and intentionally misrepresents the veteran status of employees.

The committee notes the importance of ensuring and expanding economic opportunity for veterans, and the role of the Department in this endeavor. The committee further notes that the Department uses existing programs that maximize contracting opportunities for veteran-owned businesses and believes

procurement policy should also encourage the employment of veterans through development of a preference that rewards the employment of veterans by companies. The committee also notes the importance of establishing effective compliance mechanisms as part of any such preference to ensure that the service of veterans is not abused as a result of willful misrepresentation of their status by offerors.

#### Section 824—Revision of Requirement to Submit Information on Services Contracts to Congress

This section would amend section 2329(b) of title 10, United States Code, to change from October 1, 2022, to October 1, 2020, the effective date for the Secretary of Defense's submission to Congress of information on services contracts that clearly and separately identifies the amount requested for each category of services to be procured for each Defense Agency, Department of Defense Field Activity, command, or military installation. This section would also add the requirement that such information should be included in the Future Years Defense Program submitted to Congress under section 221 of this title.

The committee notes the Department of Defense's recent decision to proceed with an initiative to budget services acquisitions over the course of the full Future Years Defense Program and to develop an implementation plan that leverages existing tools that can be employed to improve planning for acquisition of services. The committee notes that the Department's approach harmonizes well with the committee's reform efforts enacted in the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) concerning enterprise data standardization and transparency. The committee further notes that the Department's decision obviates the need for, and expenditure on, the independent analysis on this matter performed by a federally funded research and development center or other organization that was included in the conference report (H. Rept. 115-404) accompanying the National Defense Authorization Act for Fiscal Year 2018.

The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by December 1, 2018, on the development of this implementation plan and milestones leading to implementation of this initiative not later than October 1, 2020.

#### Section 825—Data Collection and Inventory for Services Contracts

This section would amend section 2330a of title 10, United States Code, by changing the dollar threshold for data to be collected on each purchase of services by a military department or Defense Agency from \$3.0 million to the simplified acquisition threshold. This section would also remove the specification of the four service acquisition portfolio groups to be included in such data collection. This section would also change the activities contained in an annual inventory prepared by the Secretary of Defense from those pursuant to staff augmentation contracts, to

those pursuant to services contracts, and replace references to the Under Secretary of Defense for Acquisition, Technology, and Logistics with the Under Secretary of Defense for Acquisition and Sustainment.

#### Section 826—Competition Requirements for Purchases from Federal Prison Industries

This section would amend section 2410n of title 10, United States Code, by removing "for which Federal Prison Industries does not have a significant market share".

This section would create a requirement for conducting market research before purchasing a product listed in the Federal Prison Industries (FPI) catalog. This section would require the Department of Defense to:

(1) conduct market research to determine if the product is comparable to products in the private sector and meets the Department's needs (price, quality, or time of delivery) prior to purchasing a product from FPI.

(2) use competitive procedures or purchase under a multiple award contract if the product is not comparable and does not meet the Department's needs.

#### Section 827—Requirement for a Fair and Reasonable Price for Technical Data Before Development or Production of Major Weapon Systems

This section would provide the Department of Defense with additional flexibility on negotiations for appropriate technical data.

#### Section 828—Revisions in Authority Relating to Program Cost Targets and Fielding Targets for Major Defense Acquisition Programs

This section would amend sections 2448a, 2366a, and 2366b of title 10, United States Code, to allow the Secretaries of the military departments, or, in instances where an alternate milestone decision authority for a program has been designated under section 2430(d)(2) of title 10, United States Code, the Secretary of Defense, to establish program cost, fielding, and performance goals in planning major defense acquisition programs. This section would also allow for the delegation of these responsibilities beyond the Deputy Secretary of Defense.

The committee notes that while section 825 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) amended section 2430 of title 10, United States Code, by changing the designation of the milestone decision authority for major defense acquisition programs to be, with some exceptions, the service acquisition executive of the military department that is managing the program, this change has not been reflected elsewhere in this title. As a result, certain statutory responsibilities remain with the Secretary of Defense when they should more appropriately be performed by the Secretaries of the military departments. This section addresses this discrepancy as it pertains to establishing program cost, fielding, and performance goals in planning major defense acquisition

programs, as well as associated reporting to Congress that coincides with the granting of Milestone A and Milestone B approval.

#### Section 829—Revision of Timeline for Use of the Rapid Fielding Pathway for Acquisition Programs

This section would amend section 804(b)(2) of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) to change part of the objective of an acquisition program under the rapid fielding pathway from completing fielding within 5 years, to completing low-rate initial production within 5 years.

The committee notes that requiring completion of fielding within 5 years may unnecessarily limit the applicability of this pathway for incremental upgrade programs.

#### Section 830—Clarification of Services Contracting Definitions

This section would direct the Secretary of Defense, not later than 180 days after the date of the enactment of this Act, to revise the Defense Federal Acquisition Regulation Supplement to clarify the definitions of and relationships between terms related to services contracts, including the appropriate use of personal and nonpersonal services contracts, and the responsibilities of individuals in the acquisition workforce with respect to such contracts.

The committee notes that definitions for terms related to contracted services are found in statute, regulation, and elsewhere in the Department of Defense's contracted services lexicon. The committee expects the Department to clearly delineate in one place the definitions of and relationships between terms related to contracted services, including associated supervisory responsibilities.

### SUBTITLE C—PROVISIONS RELATING TO COMMERCIAL ITEMS

#### Section 831—Revision of Definition of Commercial Item for Purposes of Federal Acquisition Statutes

This section would clarify the definition of commercial items. Specifically, it would clarify commercial items as commercial products or commercial services.

The committee notes the current definition of commercial items throughout the United States Code is inconsistent, with 40 disparate definitions of commercial items. Additionally, commercial item definitions do not appropriately take into account the differences between products and services. The separation of the definition of commercial items into commercial products and commercial services would simplify and streamline procurement. Consistency in application of definitions would assist the acquisition workforce as well as businesses seeking to participate in the defense sector.

## Section 832—Definition of Subcontract

This section would create a precise definition for "subcontract" in title 41, United States Code, and incorporates this revised definition in title 10, United States Code.

The committee notes there are multiple definitions of subcontract and establishing a single definition for a subcontract would provide clarification, simplicity, and consistency for defense procurement actions.

## Section 833—Limitation on Applicability to Department of Defense Commercial Contracts of Certain Provisions of Law and Certain Executive Orders and Regulations

This section would update section 2375, section 2533a, and section 2533b of title 10, United States Code, with the clarified definition of commercial products and commercial services. This section would also establish a new section 2375a to limit applicability of certain Executive orders and regulations.

The committee expects that these revisions would remove current obstacles from commercial transactions between the Department of Defense and commercial suppliers, and improve access to the best commercial goods and services.

## Section 834—Modifications to Procurement through Commercial E-Commerce Portals

This section would amend section 846 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to allow the Administrator of the General Services Administration to develop procedures for procurement through a commercial e-commerce portal. The procedures must satisfy the requirements for competitive procedures outlined in title 41, United States Code. Additionally, this section would require these procedures to be submitted to the congressional defense committees 30 days prior to implementation.

This section would also amend titles 10 and 41, United States Code, by increasing the micro-purchase threshold for procurement through a commercial e-commerce portal from \$10,000 to \$25,000.

The committee notes that Public Law 115-91 authorized the Office of Management and Budget to develop a program managed by the General Services Administration to procure commercial products through e-commerce portals. The committee expects the commercial e-commerce portals would simplify and streamline the defense acquisition process as well as provide better transparency.

## SUBTITLE D—INDUSTRIAL BASE MATTERS

### Section 841—Requirement That Certain Ship Components Be Manufactured in the National Technology and Industrial Base

This section would amend section 2534 of title 10, United States Code, and would require certain auxiliary ship components to be procured from a manufacturer in the national technology and industrial base.

#### Section 842—Report on Domestic Sourcing of Specific Components for All Naval Vessels

This section would require the Secretary of the Navy to submit a report to the congressional defense committees by March 1, 2019, that provides a market survey and cost assessment associated with limiting competition to domestic sources for certain naval components.

#### Section 843—Removal of National Interest Determination Requirements for Certain Entities

This section would streamline the National Industrial Security Program by removing the regulatory requirements relating to National Interest Determinations (NIDs). It would build on section 1712 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), which required a review of whether certain companies “should be exempted from one or more of the foreign ownership, control, or influence [FOCI] requirements of the National Industrial Security Program.” This section would address NIDs as a particularly urgent problem within that set of FOCI requirements authorized for exemption. It would also authorize the Secretary of Defense to accelerate implementation of this policy for contracting entities that have already demonstrated a longstanding commitment to industrial security and have previously been approved for access to proscribed information.

The committee is concerned that, especially with regard to entities from allied countries (United States, the United Kingdom of Great Britain and Northern Ireland, the Commonwealth of Australia, and Canada) that comprise the national technology and industrial base (NTIB), the NID process creates substantial burdens without meaningfully enhancing the government’s national security interests. It also causes the misallocation of scarce industrial security oversight resources. Under current practice, but not pursuant to any statutory mandate, NIDs are required for entities operating under a "special security agreement" (SSA) to access proscribed categories of classified information. The committee is aware that certain agencies can take between 6 and 10 months to process NID requests, even for SSA-mitigated companies from NTIB countries that have a longstanding history of industrial security performance in the United States and are critical players in our nation’s defense industrial base. These delays and associated burdens have restricted competition and innovation by excluding qualified and responsible U.S.-based companies that operate under SSAs.

#### Section 844—Pilot Program to Test Machine-Vision Technologies to Determine the Authenticity and Security of Microelectronic Parts in Weapon Systems

This section would require the Under Secretary of Defense for Research and Engineering, in coordination with the Defense Microelectronics Activity, to establish a pilot program to test the feasibility and reliability of using machine-vision technologies to determine the authenticity and security of microelectronics parts in weapon systems.

The committee supports the Department of Defense's comprehensive counterfeit material prevention strategy, which is a risk-based approach that includes collaboration with industry to reduce counterfeit parts in the supply chain. The committee notes that since it first highlighted this issue in 2012, the Department has made significant improvements and standardized the processes for assuring acquisition of authentic and conforming material. However, remaining ahead of emerging security threats in this area remains a challenge.

The committee believes that utilization of innovative software applications may provide opportunities to cost-effectively add capabilities and improve operations by addressing gaps from third-party providers, including receiving and inspection requirements for non-franchised parts.

Specifically, the committee is aware of new technologies based on personalization and anti-counterfeiting software that, combined with optical and digital authentication methods, are effectively being used to meet high-security inventory demands in commercial industry. Such technologies include machine-vision technologies that have the ability to identify and authenticate objects without adding additional hardware to the object such as radio frequency identification chips, bar codes, quick response codes, or serial numbers. These technologies provide identification of counterfeit goods by using authentication methods that are strongly resistant to replication and tampering; can be applied to a variety of substrates such as plastic and metal; can be encoded and/or embedded onto substrates; and can be easily authenticated optically and digitally using decoder devices and applications on mobile devices. The committee understands that such technologies may provide data analytics capability as well. As a result, the committee believes a pilot program of the appropriate scope is the best way for the Department to evaluate and understand the potential of this new technology.

## SUBTITLE E—SMALL BUSINESS MATTERS

### Section 851—Department of Defense Small Business Strategy

This section would require the Department of Defense to develop and implement a small business strategy to better leverage small businesses as a means to enhance or support mission execution. This section specifies that such a strategy should include plans to integrate small businesses into a holistic view of industry; to realign the Department's small business programs with agency mission under a unified management structure; and to clarify points of entry into the defense market.

The committee expects that this unified strategy would create expanded small business engagement in the defense sector by increasing entry points for non-traditional and innovative companies.

#### Section 852—Prompt Payments of Small Business Contractors

This section would direct Federal agencies to establish a prompt payment goal of 15 days for small business prime contractors. It would also extend the accelerated payment objective to other-than small prime contractors that subcontract with small businesses, and encourage these prime contractors to also accelerate payments to their small business subcontractors.

#### Section 853—Increased Participation in the Small Business Administration Microloan Program

This section would amend section 636(m)(3)(C) of title 15, United States Code, by increasing the total limit on outstanding loans from \$5.0 million to \$6.0 million.

This section would also amend section 636(m)(4)(E), which establishes the "25/75 Rule." Currently, the 25/75 Rule prohibits a microloan intermediary from using more than 25 percent of the technical assistance grants they receive from the Small Business Administration (SBA) to provide pre-loan assistance to small business borrowers and third-party contracts. This section would amend the ratio from 25/75 to 50/50.

This section would also require the Administrator of SBA to submit a report to the Committee on Small Business of the House of Representatives and the Committee on Small Business and Entrepreneurship of the Senate, not later than 1 year after the date of the enactment of this Act, on why the program often has low participation rates among microlenders. The report shall gather a representative sample of eligible entities that participate in the program and those that do not, along with the reasons why entities do not partake, and offer recommendations on modifications that would increase participation.

Finally, this section would require the Comptroller General of the United States to submit a report to the Committee on Small Business of the House of Representatives and the Committee on Small Business and Entrepreneurship of the Senate, not later than 1 year after the date of the enactment of this Act, evaluating SBA oversight of the microloan program and the specific processes SBA uses to ensure compliance and track performance.

#### Section 854—Amendments to Small Business Innovation Research Program and Small Business Technology Transfer Program

This section would authorize the use of Small Business Innovation Research or Small Business Technology Transfer program funding for



administrative costs and expand phase flexibility during fiscal years 2018 through 2022.

#### Section 855—Construction Contract Administration

This section would amend section 644 of title 15, United States Code, to require Federal agencies to provide prospective construction contractors with information about an agency's policies and performance on the administration of change orders.

#### Section 856—Broadband and Emerging Information Technology Coordinator

This section would direct the Associate Administrator for the Office of Investment and Innovation of the Small Business Administration to designate a senior employee as the "Broadband and Emerging Information Technology Coordinator." The Coordinator would be responsible for connecting small businesses with financing programs, and advising these businesses on how to acquire broadband and new information technology.

This section would also direct a biennial report on activities beginning 2 years after the first designation of a Coordinator to the Committee on Small Business and Entrepreneurship of the Senate and the Committee on Small Business of the House of Representatives.

#### Section 857—Amendments to the Small Business Investment Act of 1958

This section would amend the Small Business Investment Act of 1958 (15 U.S.C. 682(b)) by increasing the Individual Leverage Limit from \$150.0 million to \$175.0 million and by increasing the total amount of capital and surplus that a financial institution and Federal savings association can invest in a small business investment company from 5 percent to 15 percent.

#### Section 858—Consolidated Budget Justification for the Department of Defense Small Business Innovation Research Program and Small Business Technology Transfer Program

This section would direct the Secretary of Defense to submit to Congress a budget justification for all activities conducted under the Small Business Innovation Research Program or Small Business Technology Transfer Program during the previous fiscal year.

#### Section 859—Funding for Procurement Technical Assistance Program

This section would amend section 2413(b) of title 10, United States Code, to provide Procurement Technical Assistance Centers (PTACs) the resources necessary to conduct greater outreach and provide expanded support to small businesses.

Division D of this Act would increase the topline budget for the Procurement Technical Assistance Program to \$50.0 million.

This section would increase the funding caps for PTACs operating on statewide, less than statewide, and eligible tribal locations. This section would also adjust the percentage of Federal funding for PTACs to 75 percent from 65 percent, and would adjust the community contribution to 25 percent from 35 percent.

#### Section 860—Exemption of Certain Contracts from the Periodic Inflation Adjustments to the Acquisition-Related Dollar Threshold

This section would amend subparagraph (B) of section 1908(b)(2) of title 41, United States Code, to exempt certain contracts from the periodic inflation adjustments to the acquisition-related dollar threshold.

### SUBTITLE F—OTHER MATTERS

#### Section 871—Additional Requirements for Negotiations for Noncommercial Computer Software

This section would amend section 2322a of title 10, United States Code, and codify existing Defense Federal Acquisition Regulations on noncommercial software rights as well as mandate, to the maximum extent practicable, that specially negotiated licenses be used for weapon systems noncommercial software.

#### Section 872—Removal of Requirement for Risk and Sensitivity Analysis of Baseline Estimates in Selected Acquisition Reports

This section would amend section 2432(c)(1)(B) of title 10, United States Code, by removing the requirement for risk and sensitivity analysis to be included with baseline estimates in selected acquisition reports.

The committee notes that risk and sensitivity analyses help in understanding the effects of changing variables on cost estimates. However, this language has been interpreted as requiring analysis of the sensitivity of the information in selected acquisition reports, resulting in unwarranted barriers to dissemination.

#### Section 873—Prohibition on Acquisition of Sensitive Materials from Non-Allied Foreign Nations

This section would amend section 2533b of title 10, United States Code, by prohibiting acquisition of certain sensitive materials from non-allied foreign nations.

#### Section 874—Transfer or Possession of Defense Items for National Defense Purposes

This section would amend sections 922 and 925 of title 18, United States Code, to allow joint production, integration, and calibration of military-grade hardware by licensed contractors, transfers of defense items to government customers, and export of authorized weapons to foreign governments.

#### Section 875—Expedited Hiring Authority for Shortage Category Positions in the Acquisition Workforce

This section would expand and extend direct-hire authority for acquisition professionals, which permits an agency to appoint candidates to positions for which there is either a severe shortage of candidates or a critical hiring need. Section 1413 of the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136) authorized agency heads to determine, under regulations prescribed by the Office of Personnel Management (OPM), that certain Federal acquisition positions are shortage category positions in order to use direct-hire authorities. This section would extend the expiration date on those direct-hire authorities from September 30, 2017, to September 30, 2021. Additionally, this section would add the General Schedule Realty series (GS-1170) to the description of acquisition workforce found in section 1703 of title 41, United States Code, thereby including GS-1170 positions under the direct-hire authority extension established in this section.

The committee notes that the government depends on skilled acquisition and program personnel to understand complex market dynamics, develop clear requirements, negotiate in the best interest of the taxpayer, and hold contractors to high performance standards. The expediency that direct-hire authority allows can be helpful to an agency both in meeting critical initiatives that may require particular expertise, such as to support information technology modernization, cybersecurity efforts, and real property acquisition and disposal, as well as supporting the Federal Government as it plans and executes on its agency and regulatory reform activities.

#### Section 876—Extension of Prohibition on Providing Funds to the Enemy

This section would amend section 841(n) of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291) to change from December 31, 2019, to December 31, 2021, the sunset date for the provisions of the prohibition on providing funds to the enemy.

#### Section 877—Repeal of Certain Determinations Required for Grants of Exceptions to Cost or Pricing Data Certification Requirements and Waivers of Cost Accounting Standards

This section would repeal section 817(b)(1) of the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (Public Law 107-314) regarding certain determinations required for grants of exceptions to cost or pricing data certification requirements and waivers of cost accounting standards.

The committee notes that section 817(b) of Public Law 107-314 provides that a grant of an exception or waiver is appropriate only upon a determination that the property or services cannot reasonably be obtained under the contract, subcontract, or modification, as the case may be, without the grant of the exception or waiver, in addition to two other determinations. The committee believes that this requirement could unnecessarily limit the granting of exceptions or waivers in those instances in which, while cost and pricing data could be obtained, it would add little value and delay contract negotiations. For example, on a long-running production program, determination of a fair and reasonable price may be both possible and more efficiently performed without submission of certified cost and pricing data, and therefore meet two of the three conditions for grant of an exception or waiver. However, because the contractor is willing and able to provide such data, the condition at section 817(b)(1) would not be met and the exception or waiver could not be granted.

The committee believes that increasing the flexibility with which exceptions or waivers can be granted will help streamline the acquisition process. The committee expects the Secretary of Defense to promptly revise the Defense Federal Acquisition Regulation Supplement to reflect this repeal.

#### Section 878—Reporting on Projects Performed through Transactions Other Than Contracts, Cooperative Agreements, and Grants

This section would direct the Secretary of Defense to submit to the congressional defense committees, not later than December 31 of each year through 2021, a report on the Department of Defense's use of transactions other than contracts, cooperative agreements, and grants, known as other transaction authority, to perform projects. The report would include, for transactions that provide for payments in a total amount in excess of \$5.0 million, information including the entities entering into the transaction, the amount of payment provided for, project goals and status, and key dates. The report would also address mechanisms established to regulate use of this authority, including policies, guidance, and reporting requirements.

The committee remains committed to providing the Department of Defense the needed flexibility to acquire advanced capabilities through streamlined and expedited processes. The committee recognizes that other transaction authority has been an effective tool for research and development, particularly for execution of science, technology, and prototyping programs. It provides needed flexibility in terms of adherence to select Federal acquisition regulations. While the benefits of this flexibility are clear, the committee believes that it is still necessary to exercise effective oversight both to understand the ways in which the Department is properly leveraging the use of this authority and to prevent its abuse or misuse. The committee does not intend for this reporting requirement to cause the Department to seek additional approval for use of other transaction authority, beyond the congressional notification requirement already established in statute. Rather, it is

designed to facilitate regular and consistent updates on use of this authority across the Department in order to facilitate proper assessment of effectiveness and success. The \$5.0 million threshold for reporting is consistent with the amount established in statute for inclusion of a clause that provides for the Comptroller General of the United States to examine the records of any party to an agreement entered into using other transaction authority.

#### Section 879—Standardization of Formatting and Public Accessibility of Department of Defense Reports to Congress

This section would direct the Secretary of Defense to provide a briefing not later than March 1, 2019, to the House Committee on Armed Services on a plan for implementing, not later than March 1, 2020, standardization of the formatting and public accessibility of unclassified Department of Defense reports required by Congress. The briefing shall address how the Department plans to ensure that reports are created in an open format that can be retrieved, downloaded, indexed, and searched by commonly used web search applications. An open format is one that is platform independent, machine readable, and made available to the public without restrictions that would impede reuse of that information. The briefing shall also address how the Department plans to provide a publicly accessible online repository of its unclassified reports to Congress required by provisions of law, including protocols for inclusion of reports which, although unclassified, may not be appropriate for public release in their entirety. The briefing shall address how the Department plans to include in the repository unclassified reports to Congress required by provisions of law issued since January 1, 2010.

#### Section 880—Defending United States Government Communications

This section would provide that, not later than January 1, 2021, no government agency may procure or obtain, nor extend or renew a contract to procure or obtain, nor enter into a contract with an entity that uses covered telecommunications equipment or services with any covered entity. This section would define covered telecommunications equipment or services as that:

- (1) produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of either company);
- (2) telecommunications services provided by an entity using such equipment; or
- (3) telecommunications equipment or services produced or provided by an entity that the head of an agency believes to be owned or controlled by, or otherwise connected to, the Government of the People's Republic of China.

This section would require the head of an agency to submit to the specified committees a plan to phase in the prohibition in this section, including with respect to the "white label" problem.

This section would also permit the head of an agency to provide an additional 2-year waiver if he determines it is appropriate to allow an entity to

terminate its use of covered telecommunications equipment and he can demonstrate certain other conditions have been met. Additionally, the head of an agency would be permitted, subject to the receipt of a written assurance concerning any future use of Huawei or ZTE Corporation components, to permit an entity to continue to use components through the end of their reasonable life-cycle, if the component cannot be used to route or direct data traffic or provide visibility into any data or packets transmitted or manipulated by such components.

This section would further require the Director of National Intelligence (DNI), in coordination with the Director of the Federal Bureau of Investigation and the Secretaries of State, Homeland Security and Defense, to produce a report on the national security risks posed by use of technology produced by Huawei and ZTE technology, especially pertaining to evidence of malicious software or hardware that enables unauthorized network access. The DNI would further be required to develop a plan to share such report with U.S. allies, partners, and U.S. cleared defense contractors and telecommunications service providers. The Director would also be required to ensure an unclassified version of the report is available for U.S. allies and partners, and well as telecommunications companies, that do not have access to classified information.

In an April 12, 2018, House Committee on Armed Services hearing, the Secretary of Defense stated with respect to information and communications technology produced by companies linked to the People's Republic of China, namely Huawei and ZTE, that he does “not think that’s wise” for the Department to allow equipment manufactured and maintained by those companies to be a part of its supply chain.

The committee is also aware that the Federal Communications Commission in an April 17, 2018, meeting voted unanimously to approve a proposed rule that would deny Universal Service Fund support to purchase equipment or services from companies posing a national security threat to the integrity of communications networks or the communications supply chain. The commission specifically cited the risks posed by Huawei and ZTE in the notice of proposed rulemaking.

## TITLE IX—DEPARTMENT OF DEFENSE ORGANIZATION AND MANAGEMENT

### LEGISLATIVE PROVISIONS

#### SUBTITLE A—ORGANIZATION AND MANAGEMENT OF THE DEPARTMENT OF DEFENSE GENERALLY

##### Section 901—Authority of Secretary of Defense to Determine Command and Control Relationships

This section would amend section 113 of title 10, United States Code, to specify that the Secretary of Defense may define command and control relationships

within the Department of Defense as necessary to support the Department's objectives and missions.

#### Section 902—Civilian Personnel Management

This section would amend section 129 of title 10, United States Code, to require the Secretary of Defense to consider the cost of the Department of Defense military and contract workforces, along with the cost of the civilian workforce, when managing the civilian personnel workforce of the Department.

#### Section 903—Performance of Civilian Functions by Military Personnel

This section would amend section 129a of title 10, United States Code, to require that when the Secretaries of the military departments determine that the performance of civilian functions by military personnel is cost effective, that they further consider whether the functions performed are consistent with the military occupational specialty for which the military personnel have been trained.

#### Section 904—Roles of Under Secretary of Defense for Policy and Under Secretary of Defense for Intelligence

This section would amend section 134 of title 10, United States Code, with respect to the authorities of the Under Secretary of Defense for Policy. It would amend the Under Secretary's responsibility for supervising and directing the activities of the Department with respect to export controls, to focus on policy making within the Department as it pertains to export controls.

This section would add a new authority to those of the Under Secretary of Defense for Policy, subject to the Secretary of Defense, with respect to the development, implementation, and integration across the Department of Defense of the National Defense Strategy and other strategic policy guidance for the activities of the Department across all geographic regions and military functions and domains. It would also provide the Under Secretary with the authority, subject to the Secretary of Defense, of integrating the activities of the Department of Defense within the interagency process with respect to the National Security Strategy of the United States.

The committee notes that the Summary to the 2018 National Defense Strategy stated that "the central challenge to U.S. prosperity and security is the reemergence of long-term strategic competition by what the National Security Strategy classifies as revisionist powers." The committee asserts that it is essential that a senior civilian official be responsible for, subject to the Secretary of Defense, the Department's efforts with respect to strategic competition.

This section would also amend section 137 of title 10, United States Code, with respect to the authorities of the Under Secretary of Defense for Intelligence. The Under Secretary of Defense for Intelligence would assume the authority for supervising and directing the activities of the Department of Defense with respect

to technology protection in the export controls process, other than the policy making activities that are the responsibility of the Under Secretary of Defense for Policy.

Numerous senior Department of Defense civilian and military officials have testified to the risk to U.S. military technological superiority and the committee believes that the Under Secretary of Defense for Policy and the Under Secretary of Defense for Intelligence, respectively, have specific roles in, and expertise with, protecting sensitive technologies.

#### Section 905—Designation of Navy Commanders

This section would amend section 5013 of title 10, United States Code, to require the Secretary of the Navy to designate a single commander within the Department of the Navy responsible for ensuring Navy forces are available for tasking and deployment, including those Navy forces that may be operating from a forward deployed location. This section would also require the Secretary to designate a single commander for all Navy shipyards, including any located overseas.

The committee notes that the Secretary of the Navy's Strategic Readiness Review cited unclear command relationships as a contributing factor to the surface force accidents suffered by 7th Fleet ships in 2017. The committee encourages the Secretary to consider designating the Commander, Fleet Forces Command, as the responsible commander for tasking and deployment, as that official performs that function now for all naval forces excepting the Pacific Fleet.

The committee notes that the Commander, Naval Sea Systems Command, has the overall responsibility within the Department of the Navy for scheduling and maintaining Navy vessels in public and private shipyards, with the exception of the U.S. Naval Ship Repair Facility and Japan Regional Maintenance Center. The committee encourages the Secretary to consider designating the Commander, Naval Sea Systems Command, as the single commander of naval shipyards, including the facility located in Japan.

#### SUBTITLE B—COMPREHENSIVE PENTAGON BUREAUCRACY REFORM AND REDUCTION

#### Section 911—Authorities and Responsibilities of the Chief Management Officer of the Department of Defense

This section would authorize the Chief Management Officer (CMO) of the Department of Defense to carry out the elimination of agencies and activities (other than those established by statute and other than the Department of Defense Education Activity), and to maximize efficiency across the Department with respect to civilian resource management, logistics, services contracting, and real estate management (other than with respect to the military departments). Section 132a of title 10, United States Code, would be further amended by requiring each Defense Agency and Department of Defense Field Activity to transmit their budgets to the CMO for review before submission to the Under Secretary of Defense (Comptroller).



The CMO would submit a report concerning all proposed budgets to the Secretary of Defense not later than January 31 of the year preceding the budgets' fiscal year. The Secretary would submit a report by March 31 with a plan of action and proposed legislation for each budget the CMO did not certify. No Defense Agency or Department of Defense Field Activity funds, with respect to civilian resource, logistics, services contracting, and real estate management shall be obligated or expended until the CMO approves the plan; such process shall be conducted without impact to the processes carried out by the Director of National Intelligence.

The Department's Chief Management Officer would reduce or eliminate duplicative cross-enterprise functions across all Defense Agencies and Field Activities related to civilian resource, services contracting, logistics, or real estate management. Not later than March 1, 2020, the CMO would submit a plan to the congressional defense committees. The CMO would certify that the Department has achieved at least 25 percent savings of these functions within these Defense Agencies and Field Activities by January 1, 2021; the Government Accountability Office would verify and validate the CMO's certification. This would be a recurring requirement, each 5 years (beginning January 1, 2021), with the second iteration expanding the scope of the review to include the military departments.

#### Section 912—Authorities and Responsibilities of the Inspector General of the Department of Defense

This section would require the Department of Defense Inspector General (IG) to maximize efficiency among Department IGs with respect to any cross-enterprise IG activities. This section would require each organization or element IG to submit a budget to the Department of Defense IG for review before submission to the Under Secretary of Defense (Comptroller). The Department IG would submit a report about the budgets to the Secretary not later than January 31 of the year preceding the budget's fiscal year. The Secretary would submit a report to Congress about budgets the Department IG did not certify by March 31 each year, including a plan of action and recommended legislation. No IG funds may be obligated or expended until the Department IG certifies the IG's budget. The Department IG would submit a plan for compliance with the above not later than March 1, 2020.

The committee understands there are almost 30 different inspectors general (IGs) in the Department of Defense, including: the Department of Defense IG, the four military service IGs, the Special Inspector General for Afghanistan Reconstruction, the nine combatant commands, the Defense Media Activity, the Defense Contract Audit Agency, the Defense Contract Management Agency, Defense Information Systems Agency, Defense Logistics Agency, Defense Security Service, and Defense Threat Reduction Agency. The committee believes this proliferation of IG offices merits oversight from a lead IG to determine if there are opportunities for elimination of waste, redundancy, and duplication.

#### Section 913—Transition of Certain Defense Agencies and Department of Defense Field Activities

This section would require the Secretary of Defense, acting through the Chief Management Officer (CMO), to submit a plan to the congressional defense committees not later than March 1, 2020, concerning the transfer and migration of all Defense Information Systems Agency information technology contracting and acquisition services, and senior leader communications functions, to other Department elements.

This section would require the CMO to eliminate the Washington Headquarters Service not later than January 1, 2021. The CMO would transfer any essential functions to other appropriate elements of the Office of the Secretary of Defense (OSD) and eliminate the others. The CMO would be required to submit a plan to the congressional defense committees to accomplish the above by March 1, 2020.

This section would also require the CMO to review the efficiency and effectiveness of each Defense Agency and Department of Defense Field Activity and to examine potential duplication among the agencies and activities. The CMO would be required to submit a report to the congressional defense committees on his findings not later than March 1, 2020, including any recommendations to eliminate an agency or activity or transfer some or all of its functions to another Department entity.

This section would also clarify the Secretary's authority to establish or terminate any Defense Agency or Department of Defense Field Activity, other than entities that are specifically established or terminated by act of Congress.

#### Section 914—Actions to Increase the Efficiency and Transparency of the Defense Logistics Agency

This section would require that the Director of the Defense Logistics Agency (DLA) and the Chief Management Officer (CMO) jointly implement a comprehensive system not later than January 1, 2021, that enables customers to view items and materials available to customers, the delivery status of items and materials in transit, and predictive analytics designed to improve the system's efficiency.

This section would also require the Director of DLA and the CMO to jointly reduce charged rates by at least 10 percent, eliminate duplication of services, and establish specific goals and metrics to ensure the agency is fulfilling its mission by January 1, 2021.

This section would also require the Director of DLA and the CMO to jointly submit a plan to accomplish the above to the congressional defense committees by March 1, 2020.

#### Section 915—Review of Functions of Defense Contract Audit Agency and Defense Contract Management Agency

This section would direct the Under Secretary of Defense for Acquisition and Sustainment and the Under Secretary of Defense (Comptroller) to conduct a

joint review of the Defense Contract Auditing Agency and Defense Contract Management Agency to validate their missions and functions and determine if any of their functions could be more appropriately performed by the other Agency, any other organization within the Department of Defense, or commercial providers. This review would also validate the continued need for two separate Agencies with oversight for defense contracting. The Secretary of Defense shall submit, not later than March 1, 2020, a report to the congressional defense committees that includes the results of this review.

#### Section 916—Streamlining of Defense Finance and Accounting Services

This section would require that, not later than January 1, 2021, the Chief Management Officer (CMO) and the Under Secretary of Defense (Comptroller) shall jointly carry out activities to make the Defense Finance and Accounting Services more efficient and effective.

This section would further require that, not later than March 1, 2020, the CMO and Comptroller shall jointly submit a plan for carrying out such activities to the congressional defense committees.

#### Section 917—Reduction in Number of Chief Information Officers in the Senior Executive Service

This section would require that, starting in calendar year 2021, there may not be more than five "Chief Information Officers" in the Department of Defense.

The committee understands that there are at least 60 Senior Executive Service grade positions in the Department of Defense with the position of "Chief Information Officer".

The committee is concerned that this number of senior personnel with this same responsibility injects duplication, redundancy, and slows the Department's ability to swiftly react to the requirements of the Department in terms of information technology and responding to the cyber domain of warfare.

#### Section 918—General Provisions

This section would provide authority for the Secretary of Defense and the Chief Management Officer of the Department of Defense to consolidate certain reporting requirements established in this Act.

This section would also define certain terms used in this Act and make certain conforming changes in title 10, United States Code.

### SUBTITLE C—OTHER MATTERS

#### Section 921—Artificial Intelligence and Machine Learning Policy and Oversight Council

This section would direct the Under Secretary of Research and Engineering to establish an Artificial Intelligence and Machine Learning Policy and Oversight Council to continuously improve research, innovation, policy, joint processes, and procedures that facilitate the development, acquisition, integration, advancement, and sustainment of artificial intelligence and machine learning throughout the Department of Defense.

#### Section 922—Limitation on Transfer of the Chemical, Biological, and Radiological Defense Division of the Navy

This section would require the Secretary of the Navy to provide a report to the congressional defense committees on the timeline, costs, risks, and benefits of transferring the Chemical, Biological, and Radiological Defense Division, Dahlgren, Virginia, to another location. The report would be required not later than 90 days after the date of the enactment of this Act. This section would further prohibit the Secretary of the Navy from transferring or preparing to transfer the Chemical, Biological, and Radiological Defense Division to another location until 45 days after submission of the report.

## TITLE X—GENERAL PROVISIONS

### ITEMS OF SPECIAL INTEREST

#### COUNTER-DRUG ACTIVITIES

##### Colombian Security and the U.S.-Colombian Partnership

The peace accords between the Government of Colombia and the Revolutionary Armed Forces of Colombia (FARC) in August 2016 was a landmark event that ended over 50 years of armed conflict in Colombia. As a result of the agreement, the Colombian legislature passed, and the Government of Colombia implemented, several portions of the peace accords, which included demobilization and reintegration processes for FARC members. The committee is encouraged by the progress of the Colombian people and its Government in implementing the peace accord legislation.

Colombian leadership has made great strides in bringing stability to the country, developing integration pathways for the FARC political party, disarming over 11,000 FARC members, implementing rural development, establishing rule of law, and reintegrating FARC members into society. The committee notes that complete implementation of other pieces of the peace accords, including land reform and combating FARC dissidents who have chosen not to disarm, will likely take decades.

The committee commends the Government of Colombia for its continued leadership in working to end decades of violence and instability with the FARC and other armed groups in Colombia. The committee is also aware that security issues remain a problem in Colombia, including transnational criminal organizations seizing territorial control post peace accords, FARC dissidents choosing not to disarm and continuing criminal behavior, and increasing coca production over the past 2 years.

Further, the committee commends the Colombian military on its professionalization, successes in bringing security to Colombia and being the exporters of security to global organizations such as the North Atlantic Treaty Organization, and regional neighbors including the Republic of Honduras, the Republic of Guatemala, and the United Mexican States.

Over the past 17 years, the U.S. has assisted Colombia in the fight for its security and stability. The committee has supported these efforts and acknowledges the continuing vital importance of the U.S.-Colombian relationship for bringing strength and stability to the hemisphere.

#### DOD Support to Combating the Opioid Epidemic

The committee is deeply concerned about the rising numbers of opioid-related deaths in the United States. This nationwide health epidemic affects millions of people and their families. The abuse of opioids, both prescription and illicit opioids, is a public health emergency as categorized by the President in January 2018. This crisis highlights national security concerns including illicit trafficking of opioids, synthetic opioids, to include Fentanyl, and precursors for the production of opioids by transnational criminal organizations (TCOs), and their networks which have supply chains that extend into south and east Asia. The committee believes that the Department of Defense can play a vital role in support of lead U.S. agencies to address this crisis.

Therefore, the committee directs the Secretary of Defense, no later than September 30, 2018, to submit a report to the House Committee on Armed Services with an assessment of the assistance the Department is providing to lead U.S. government agencies to combat the opioid crisis. This report should include an assessment of resources available to assist other U.S. government partners in their strategy to combat the opioid epidemic to include the United States Postal Service, and an analysis of potential opportunities for the Department to provide assistance in the future.

#### United States-Mexico Security Cooperation

The committee recognizes the importance of the relationship between the United States and the United Mexican States. The United States continues to face a nationwide epidemic of opioid addiction. Mexico continues to face violence, corruption, and instability as a result of transnational criminal organizations (TCOs) producing opioids and other illicit substances for distribution in the United

States. The unlawful activity of the TCOs creates instability, violence, and insecurity in both the United States and Mexico.

The committee believes these shared security challenges can only be countered cooperatively as each nation addresses illicit trafficking, violence, and production and distribution of illicit narcotics. The strength of the military-to-military relationship between the United States and Mexico is vital in combating these challenges. The committee encourages efforts to continue the development of the strong relationship and partnership between the U.S. Armed Forces and the Mexican Armed Forces.

#### OTHER MATTERS

##### Assessment of Air National Guard and Air Force Reserve Involuntary Mobilization Plans to Support Special Operations Activities

During review of the fiscal year 2019 President's budget request and related activities in support of Air Force Special Operations Command (AFSOC), the committee determined that a small number of Air National Guard units and all Air Force Reserve Command units that support AFSOC missions and force presentation requirements do not possess a current, validated involuntary mobilization plan that complies with various Department of Defense, Department of the Air Force, and Special Operations Command instructions or policies. The committee is concerned that without sufficient and validated involuntary mobilization plans that detail how the Air National Guard and the Air Force Reserve Command intend to support AFSOC as operational reserve units, should the need arise for Special Operations Command to fully mobilize forces in support of global special operations activities, the Air National Guard and Air Force Reserve Command may lack the capability and capacity to support the mission.

Therefore, the committee directs the Comptroller General of the United States to provide a briefing to the House Committee on Armed Services not later than March 1, 2019, that assesses involuntary mobilization plans for Air National Guard and Air Force Reserve Command units that support Air Force Special Operations missions and activities. The Comptroller General should assess, at a minimum:

- (1) the existence and recency of an involuntary mobilization plan;
- (2) the sufficiency and validity of the plan as compared to a unit's Designed Operational Capability statement, authorized and assigned manpower levels, authorized and assigned equipment, facilities, and support functions necessary to execute the plan;
- (3) comparison with existing Department of Defense policy and regulations governing mobilization-to-dwell and deployment-to-dwell goals and objectives;
- (4) any discrepancies, shortfalls, or gaps associated with the aforementioned areas of assessment; and
- (5) any additional information the Comptroller General would find useful to support the briefing.

## Briefing on Ukrainian Special Operations Forces Training

The committee recognizes the critical role played by U.S. and partner assistance in training, advising, and equipping Ukrainian military and security forces over the last several years, especially at the International Peacekeeping and Security Center in Yavoriv, Ukraine. This training facility has facilitated the successful completion of numerous joint, combined exercises up to the battalion level and has better enabled multi-domain readiness of Ukrainian forces. By employing the instrumented training capability at this center, United States Army Europe has led the Joint Multinational Training Group-Ukraine in greatly enhancing the operational capability, performance, and professionalism of Ukrainian forces.

The committee further understands that such joint, combined training is scheduled to conclude in 2020 and that the Ukrainian General Staff is aware of acute needs, identified in October 2016 and restated in December 2017, to modernize the International Peacekeeping and Security Center before such training ends. These requirements include refurbishing and adding multiple integrated laser engagement systems, enhancing range and battlefield effects, and developing an urban operations training system.

Finally, the committee understands that since their establishment in 2016, Ukrainian special operations forces have grown in both numbers and capabilities with a focus on unconventional missions such as counterterrorism and drug interdiction operations. In addition, Ukrainian land forces have grown, requiring additional training to support skills development in support of combined exercises with NATO and U.S. forces. Therefore, the committee directs the Secretary of Defense to provide the congressional defense committees, not later than September 30, 2018, with a briefing on current and planned U.S. support to Ukrainian special operations and land forces training, including but not limited to: detailed assessments of both the training center at Berdychiv, Ukraine and a land forces training complex in the Mykolaiv District near Odessa, Ukraine; analysis of training requirements; and a plan for potential U.S. funding assistance to new or modernized training facilities.

## Civil Support Team Information Management System

The committee is aware that the National Guard Bureau Weapons of Mass Destruction Civil Support Teams (CST) currently field the CST Information Management System (CIMS). CIMS provides a common operation picture and promotes information sharing and real-time collaboration. CIMS also supports the CST mission of assisting and advising first responders and facilitating communications with other Federal resources in an emergency.

The committee encourages the expansion of CIMS to establish an enterprise-wide capable tool, commonly referred to as the National Guard Chemical, Biological, Radiological, and Nuclear Response Enterprise Information Management System 2018+ (NG CIMS 2018+). The committee believes that

expansion will increase the capabilities of the CIMS to support other National Guard Bureau forces, such as the Chemical, Biological, Radiological, Nuclear, and High-Explosive Enhanced Response Force Package and Homeland Defense Response Force units.

The committee notes that the timeline the Department of Defense previously presented to the committee in their September 8, 2015, report “Civil Support Team Information Management System” has been delayed. The committee, therefore, directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by October 1, 2018, on the plan for the development of NG CIMS 2018+, including a description of timelines, milestones, fielding, and completion dates.

### Close Combat Lethality Task Force

The Committee understands that military operations still require our units to close with and destroy the enemy. The Committee also notes that, despite comprising a tiny fraction of total Department of Defense personnel, the ground close combat formations primarily tasked to close with and destroy the enemy bear a unique burden, reflected in them historically accounting for almost 90% of casualties.

The Committee is aware that the Secretary of Defense established the Close Combat Lethality Task Force (CCLTF) on February 8, 2018 in order to implement select initiatives identified by the 2017 Cost Assessment and Program Evaluation’s Close Combat Strategic Portfolio Review. The Committee also notes that the CCLTF further aims to improve the personnel policies, training methods, and equipment to update the training of ground close combat formations to reflect available technology, human factors science, and talent management best practices.

The Committee notes that, relative to the overall size of the Department budget, the cost of supporting modernization to equipment and training for ground close combat formations is relatively small. The Committee believes that increased investments in these units’ personnel, equipment, readiness, and training offer outsize returns for our military’s combat capabilities.

The Committee notes that greater tactical integration of existing unmanned aircraft—specifically medium-altitude, long-endurance aircraft—offers a unique opportunity to address deficiencies in close combat units organic sensing, load-bearing, communications extension, and lethality capabilities.

In addition, the Committee notes that, since 2001, special operations forces (SOF) have taken on an increasing share of global missions, driven by the responsiveness of their capabilities to combatant commander requirements. The Committee believes that the CCLTF’s efforts to bring SOF capabilities and training methodologies to line close combat formations is an important element of the overall CCLTF effort.

In order to allow the Committee to fully support the efforts of the CCLTF, the Committee directs the Secretary of Defense to brief the House Committee on



Armed Services not later than December 1, 2018 on the CCLTF's findings, including key focus areas for improvements in ground close combat equipment, training and readiness; proposals for rationalizing personnel management for ground close combat formations; the feasibility of establishing a Joint Close Combat Leader Center as a center of excellence for small-unit infantry leadership; the feasibility of making existing unmanned aircraft organic to ground close combat units; and the impact of improving line close combat formation capabilities and interoperability with SOF, as well as any other topics the Secretary deems appropriate.

#### Counter-Unmanned Aircraft System Authority for United States Facilities and Assets

The committee notes that the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) provided the Department of Defense a modest expansion of existing counter-unmanned aircraft system (C-UAS) authority in section 130i of title 10, United States Code, to address additional mission areas that the Department determined are critical, high-priority U.S. facilities and assets essential to the Department carrying out its mission. The committee appreciates the Department's deliberate and thoughtful implementation of the C-UAS authority to ensure the safety and security of Department assets and facilities, in addition to ensuring the safety of operations within the U.S. National Airspace System. The committee also notes that the Department, in conjunction with the Administrator, Federal Aviation Administration, is required to provide to relevant congressional committees a semiannual briefing on how the current C-UAS is being utilized and implemented, and various other items of information pertaining to the authority.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than September 1, 2018, the date of the next scheduled semiannual C-UAS briefing requirement to Congress. The briefing should include a list of capability gaps and shortfalls for C-UAS systems or mission areas of the Department that are not currently included in the existing C-UAS authority, but deemed to be high-priority or critical facilities or assets contributing to the success of the Department in executing its mission. The briefing should also include a list of existing Department research and development, or test and evaluation locations within the military services, that currently participate and specialize in C-UAS capabilities in the areas of detection and tracking, hard-kill defeat prediction, or improvised explosive/improvised explosive device performance assessment capability. The committee also encourages the Secretary of Defense to leverage existing deployment, operations, and test and evaluation activities and operational capabilities for C-UAS that are occurring at various U.S. overseas basing locations in order to determine what existing C-UAS technologies and capabilities could feasibly and viably be deployed to protect U.S. facility and asset locations requiring C-UAS capability.

#### Counterterrorism Effectiveness Research

The committee recognizes that basic research into the effectiveness of current counterterrorism policies and strategy is critical to informing and shaping future efforts. The committee understands that there is currently a wide range of social science research in these areas that should be leveraged, including better use of and integration with existing research by organizations maintaining databases of terrorism incidents globally.

For example, the National Consortium for the Study of Terrorism and Responses to Terrorism (START) is a university-based research and education center. The center is comprised of an international network of scholars committed to the scientific study of the causes and human consequences of terrorism in the United States and around the world. START supports the research efforts of leading social scientists at more than 50 academic and research institutions across the country and the globe.

The committee is aware the START program supports more than 14 terrorism and counterterrorism related datasets that are used across civilian and defense agencies, including the Department of Homeland Security and the Department of Defense, in order to directly inform international, Federal, State, and local training and educational programs.

However, the budget request for fiscal year 2019 did not include funding for this effort. The committee believes that it is within the purview of the Department of Defense, and specifically U.S. Special Operations Command (SOCOM) as the Coordinating Authority for Countering Violent Extremist Organizations, to foster academically rigorous studies of terrorism, like the START initiative, to provide a foundational understanding for how to assess the effectiveness of specific counterterrorism activities and programs, and best practices to inform counterterrorism policies. Further, the committee believes that as the Coordinating Authority for Countering Weapons of Mass Destruction (CWMD), SOCOM may also derive similar benefits for the Department of Defense from research pertaining to CWMD strategies, policies, and programs, by leveraging and enhancing programs like START.

Therefore, the committee directs the Commander, U.S. Special Operations Command to provide a briefing to the House Committee on Armed Services by October 30, 2018, on the feasibility and advisability of funding programs like START.

#### Development and Procurement of Combat Equipment and Clothing for Female Servicemembers in Combat Occupations

The Committee notes that in June 2015 the Under Secretary of Defense for Acquisition, Logistics, and Technology provided guidance to the services to take immediate steps to ensure that combat equipment is properly designed and fitted for female servicemembers. In 2016, the Committee recognized that the Services had been conducting anthropometric studies on male and female servicemembers in order to properly outfit and equip their respective servicemembers. However,

although more than 600 women have competed for and joined newly opened ground combat units in the Army and Marine Corps, the Committee is concerned that properly designed and fitted combat equipment, gear, and clothing is not consistently available to women warfighters. That concern also encompasses other women from all the services who continue to deploy to areas where they too need properly fitting combat and organizational gear. The Committee believes that female servicemembers in physically demanding occupations like infantry and armor are not positioned for success and their lethality and safety is compromised if they are required to train and perform in equipment not designed for their body type. Properly designed and fitted equipment for women should be available beginning with initial entry training through any and all deployments.

Therefore, the Committee directs the Secretary of Defense, in coordination with the service chiefs, to submit a report to the Committees on Armed Services no later than 180 days after the enactment of this Act. The report shall include:

(1) Information about the status of procuring and issuing the following to all females serving in or training for, infantry and armor occupations and to those from other units and occupations deploying to areas where they will require such equipment (from the beginning of training through any deployments): (1) personal protective equipment (2) organizational clothing and individual equipment (including for example tanker apparel, mechanics coveralls, tanker headsets, and ruck frames); and (3) the female urinary diverter;

(2) Information about timing, including the date on which such equipment will be available;

(3) What additional legislative and funding authorities are required to expedite procurement;

(4) The results of any surveys and studies that have addressed the availability, serviceability, and effectiveness of personal protective equipment, organizational clothing and individual equipment, and the female urinary diverter device.

### Foreign Currency Fluctuation Account

In the committee reports accompanying the National Defense Authorization Act for Fiscal Year 2015 through 2017 (H. Rept. 113-446, H. Rept. 114-102, H. Rept. 114-537), the committee encouraged the Department of Defense to take into consideration the current balance within the Foreign Currency Fluctuation, Defense (FCF,D) account when determining foreign currency rates in future budget submissions.

When the FCF,D account has a balance close to or at the statutory cap of \$970.0 million, the committee believes the budgeted rates should be adjusted to generate losses within the account, thereby drawing down the FCF,D account balance. This would reduce the operation and maintenance (O&M) budget requirement for foreign goods and services, allowing excess funds to be allocated to other readiness programs without changing the budget topline. However, as the

FCF,D account realizes a net gain, these gains remain in O&M and are used for purposes not originally requested in the annual budget submission to Congress. Without visibility of these transactions through a reprogramming request, the committee cannot determine whether funds remaining in the FCF,D account are being used to reduce current readiness shortfalls.

The committee observes that the Department continues to not take the current balance into account when determining foreign currency rates. Due to lack of the use of current balances to structure foreign currency rates, the committee recommends a reduction in the O&M budget for fiscal year 2019 as shown in section 4301 of this Act, a reduction in the Military Personnel budget for fiscal year 2019 as shown in section 4401 of this Act, and a reduction in the Defense Health Program budget for fiscal year 2019 as shown in section 4501 of this Act, and realigns those funds to support higher priority defense requirements throughout the Department.

### Friendly Force Identification in Close Air Support

The committee is aware that tactical aircraft controllers use a multitude of commercial-off-the-shelf infrared (IR) strobes for friendly force identification in close combat operations, and that U.S. Special Operations Command (SOCOM) has validated and approved a Thermal-Identification, Friend or Foe (T-IFF) Capability Production Document (CPD) to improve existing capability. The committee notes the T-IFF program would provide for an “out of band” beacon which should align with current advanced targeting pods used on tactical aircraft. The committee also notes that SOCOM is planning two user evaluations in 2018 to assess potential commercial off-the-shelf solutions that could also potentially meet the requirements in the T-IFF CPD.

While the committee is supportive of these efforts and encourages their acceleration, it is concerned that current infrared marking strobes currently fielded to U.S. ground forces, to include U.S. Special Operation Forces, are not easily detectable to tactical aircraft performing close air support, and could result in fratricide. Additionally, the committee is aware of multiple programs in progress across the military services to address this requirement. These efforts and requirements must be coordinated and communicated across the military services and SOCOM to expeditiously provide upgraded IR strobes that can be detected by advanced targeting pods.

The committee directs the Commander, U.S. Special Operations Command, in coordination with the Chief of Staff of the Army and the Chief of Staff of the Air Force, to provide a briefing to the House Committee on Armed Services by December 14, 2018, on their efforts to synchronize a friendly force identification mechanism, such as IR strobes, for use during combat close air support operations. The briefing should also include efforts to ensure that these mechanisms are detectable by advanced targeting pods used on current tactical aircraft.

### Genetic and Medical Information Security

Recent advancements in information and computational capabilities, along with advancements in synthetic biology and genomics, have resulted in the convergence of data and life sciences. The committee is troubled by the potential risks posed by the proliferation of personal biological information, including DNA sequences, electronic medical records, medical claims processing data, pharmacy records, health information exchanges, and activity trackers. The committee recognizes this information is essential for the development of precision medicine, but is concerned about the potential lack of appropriate security control over the data of service members due to the growing efforts by adversaries to acquire this information. The committee believes acquisition of this information by adversaries may lead to the development of new biological threats.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by March 1, 2019, on the Department of Defense's effort to secure service members' genetic, medical, and lifestyle information. The briefing shall include information on the location, access control, and security protocols of all databases with this information; and offer policy recommendations for protecting this information.

The committee further directs the Director of the Defense Intelligence Agency to provide a briefing to the House Committee on Armed Services by March 1, 2019, on foreign intelligence services attempts to collect this information on Department of Defense personnel, including:

(1) attempts by foreign intelligence services to collect genetic data, medical records, and any other personal health or biological information;

(2) use of non-traditional intelligence collection techniques, to include foreign investment in commercial entities that offer genetic data analysis, medical record administration, and other health information services; and

(3) use of this data lost through data breaches, unauthorized disclosures, or non-traditional collection techniques to enable targeting of U.S. persons.

#### MQ-9 Enterprise Supporting Air Combat Command and Air Force Special Operations Command Activities

After a detailed review, the committee has determined that a system to manage and develop MQ-9 specific remotely piloted aircraft (RPA) aircrews does not exist between Air Force Special Operations Command (AFSOC), Air Combat Command (ACC), and the Air Force Personnel Center. The committee is concerned that ACC is the Air Force's primary entity responsible for managing, assigning, and transitioning MQ-9 aircrews for AFSOC and that AFSOC may not have the visibility it needs into ACC "talent management" processes to sufficiently support AFSOC future planning and normalization of operations tempo. Moreover, the role of the Air Force Personnel Center's in managing and career-shaping MQ-9 aircrews is unclear.

Therefore, the committee directs the Commander of ACC, in coordination with the Commander of AFSOC and the Commander of the Air Force Personnel

Center, to provide a briefing to the House Committee on Armed Services not later than October 19, 2018, on how MQ-9 aircrews are assigned, managed, and developed among ACC and AFSOC. The briefing should also include an update regarding the Air Force's MQ-9 Culture and Process Improvement Program activities for each command, and each command's progress for acquiring the necessary manpower authorizations, and actual assigned manpower, to achieve deployment to dwell operations tempo to comply with Department of Defense policies.

#### National Guard Access to Department of Defense Owned Unmanned Aircraft Systems

The committee notes that section 1084 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) required that not later than 1 year after the date of the enactment of Public Law 115-91, the Secretary of Defense, in coordination with the Chief of the National Guard Bureau, the Commander, U.S. Northern Command, and the Commander, U.S. Pacific Command, complete an efficiency and effectiveness review of the governance structure, coordination processes, documentation, and timing requirements stipulated in Department of Defense policy memorandum 15-002, "Guidance for the Domestic Use of Unmanned Aircraft Systems (UAS)." In addition, not later than 30 days after the policy review is completed, the Secretary of Defense is required to submit the results of the review to the congressional defense committees. The committee expects that during the policy review, Department of Defense officials will implement a processing timeline for reviewing National Guard UAS utilization requests that appropriately balances reviewing the request for compliance with established policy and reviewing the request in a timely manner that coincides with the responsiveness, urgency, and operational planning factors dictated by the specific mission the UAS capability is being requested to support.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than 30 days after the policy review required by section 1084 of Public Law 115-91 is completed. The briefing should include information related to the processing timeline that the Secretary established during the policy review and how the timeline will be implemented.

#### Preparedness of U.S. Forces to Counter North Korean Chemical and Biological Weapons

The committee is aware of reports of the Democratic People's Republic of Korea's pursuit of the essential laboratories, equipment, and skills for an advanced biological weapons program, in addition to reports of existing stockpiles of chemical weapons. The 2017 National Security Strategy states that North Korea is pursuing chemical and biological weapons, which could be delivered by missile. The strategy also states that the Department of Defense will ensure U.S. military forces can

operate effectively in the face of biological weapons attacks, and that our troops and critical domestic and overseas installations are effectively protected against such threats.

To assist the committee in conducting its oversight of the preparedness of U.S. forces to respond to these threats, the committee directs the Comptroller General of the United States to review the extent to which Department of Defense military units deployed to the Republic of Korea and the Department's chemical and biological defense support units on the Korean peninsula, in the U.S. Pacific Command area of responsibility, and in the United States, are prepared to counter chemical and biological weapons, including:

- (1) detection and identification;
- (2) individual and collective protection;
- (3) medical countermeasures;
- (4) decontamination;
- (5) training and exercises; and
- (6) any other matters the Comptroller General deems relevant.

The committee also directs the Comptroller General to provide a briefing to the House Committee on Armed Services by March 1, 2019, on the preliminary results of the review, and submit a subsequent report by a date agreed to at the time of the briefing.

#### Report on NORTHCOM Response to Hurricane Maria

In 2017, the United States witnessed Hurricane Maria, which had a devastating impact on Puerto Rico and required a Federal Government response. Therefore, the committee directs the Secretary of Defense, in collaboration with the Secretary of Homeland Security and the Federal Emergency Management Agency Administrator, to submit a report by December 1, 2018 on the ongoing U.S. Government recovery effort of Hurricane Maria. The report shall include the following elements: (a) statistics on ongoing power outages; (b) the number of deaths in each U.S. state or territory affected; (c) measures to improve hurricane emergency response plans for insular areas and/or territories of the United States.

#### Review of National Guard Capabilities in Support of Incident Awareness and Assessment Mission Operations

The committee notes there is inconsistency among National Guard and Department of the Air Force officials in expressing what type of capabilities and which platforms are required to support the Incident Awareness and Assessment (IAA) mission of the National Guard. The committee requires clarification regarding the National Guard's current and future capability and capacity requirements to execute the IAA mission in support of Domestic Operations (DOMOPS) when National Guard personnel are on duty or mobilized under title 32, United States Code, authority, and in support of Defense Support to Civil Authorities (DSCA) when National Guard personnel are on duty or mobilized under

title 10, United States Code, authority. The committee believes it is critical for the Department of Defense to maintain a sufficient capability, capacity, and responsiveness among the Active and Reserve components of the Department when supporting missions related to homeland defense and responding to natural disasters or declared emergencies.

Therefore, the committee directs the Chief, National Guard Bureau, in coordination with the Commander, U.S. Northern Command, the Director, Air National Guard, and the Director, Army National Guard, to provide a report to the congressional defense committees by October 1, 2018, that provides an Incident Awareness and Assessment capability and capacity roadmap for the National Guard covering the 2019 to 2023 Future Years Defense Program (FYDP). The report should describe, at a minimum:

(1) the validated capability and capacity requirements defining the IAA mission in support of U.S. Northern Command, State Governors, and other Government agencies;

(2) the specific platforms and quantities of platforms the National Guard will leverage, maintain, or procure to support IAA capability and capacity requirements;

(3) a schedule depicting specific platforms that will be procured, maintained, or divested in support of IAA capabilities and capacity over the covered time period;

(4) a schedule depicting specific platforms and associated modernization and upgrades that will be accomplished over the covered time period;

(5) the required funding needed and currently programmed in the FYDP to support individual platforms within the IAA portfolio of capabilities; and

(6) any capability or capacity gaps or shortfalls that are identified over the covered time period.

#### Senior Civilian or Military Leaders in Charge of Audit and Financial Management

The committee has long maintained that a central factor of the department's audit progress has been clear leadership and accountability across the department. The committee is concerned that there are mid-level departments within the services and agencies that lack designated audit and financial management accountability of senior leaders by requiring this in official position duties. Therefore, the committee directs the department to provide a report no later than September 30, 2018, to the congressional armed services committees on the senior civilian or military leadership responsible for audit and financial management compliance of each respective department.

#### Soo Locks

The committee understands that the Soo Locks on the St. Marys River at Sault Ste. Marie, Michigan, are the only waterway connection from Lake Superior to the rest of the Lower Great Lakes and the St. Lawrence Seaway. The committee



is concerned that of the 2 current operational locks, only the Poe Lock is large enough to accommodate the 1,000-foot carriers necessary to transport a majority of the iron ore used in domestic steel production. The committee notes that this lock is near the end of its 50-year useful lifespan and that the U.S. Army Corps of Engineers is reevaluating a past economic evaluation report to update the Soo Locks' benefit to cost ratio.

The committee believes that a failure at the Soo Locks would have drastic impacts on national security, in that the U.S. iron mining-integrated steel production-manufacturing supply chain is dependent on the Soo Locks, and there is no redundancy. Indeed, such a failure would cripple steel production that is used for national defense priorities. Therefore, the committee urges the Chief of the Corps of Engineers and all involved executive branch agencies to expedite necessary reviews, analysis, and approvals in order to speed the required upgrades at the Soo Locks.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—FINANCIAL MATTERS

#### Section 1001—General Transfer Authority

This section would allow the Secretary of Defense, with certain limitations, to make transfers between amounts authorized for fiscal year 2019 in division A of this Act. This section would limit the total amount transferred under this authority to \$5.0 billion. This section would also require prompt notification to Congress of each transfer made.

#### Section 1002—Expertise in Audit Remediation

This section would amend section 252(b)(2) of chapter 9A of title 10, United States Code, directing the Secretary of Defense to report the number of professionals performing auditing and audit remediation services who hold certain qualifications.

#### Section 1003—Authority to transfer funds to Director of National Intelligence for CAPNET

This section would authorize the Secretary of Defense, consistent with the authority provided in section 1001 of this Act, to transfer an amount that does not exceed \$2.0 million to the Director of National Intelligence (DNI) to provide support for the operation of the CAPNET network.

The committee notes its belief that, per established procedures, the Department of Defense currently has the authority to provide support to the DNI for the operation of CAPNET.

Section 1004—Independent Public Accountant Audit of Financial Systems of the  
Department of Defense

This section would direct the Secretary of Defense to ensure new or altered financial systems meet applicable Federal requirements through a review performed by an independent public accountant.

SUBTITLE B—COUNTERDRUG ACTIVITIES

Section 1011—Department of Defense Support for Combating Opioid Trafficking  
and Abuse

This section would express the sense of Congress regarding the nationwide opioid epidemic affecting millions of U.S. citizens. The section would also increase, by \$20.0 million, Department of Defense National Guard counterdrug programs to support the Federal Government's efforts to combat the opioid crisis.

SUBTITLE C—NAVAL VESSELS AND SHIPYARDS

Section 1021—Inclusion of Operation and Sustainment Costs in Annual Naval  
Vessel Construction Plans

This section would incorporate operations and sustainment costs into the 30-year shipbuilding plan required by section 231 of title 10, United States Code.

Section 1022—Purchase of Vessels Using Funds in National Defense Sealift Fund

This section expands section 2218 of title 10, United States Code, and authorizes the Secretary of the Navy to procure up to 10 foreign-constructed ships if the Secretary certifies that the U.S. Navy has initiated an acquisition strategy for the construction of 10 new sealift vessels. Additionally, this section would limit 25 percent of the U.S. Navy Military Sealift Command's fiscal year 2019 expenditures until the Secretary of the Navy enters into a contract for the procurement of two used National Defense Reserve Fleet vessels, and completes the capability development document for the common hull multi-mission platform.

Section 1023—Purchase of Vessels Built in Foreign Shipyards with Funds in  
National Defense Sealift Fund

This section would modify section 2218 of title 10, United States Code, and require a 30-day notice to the congressional defense committees before entering into a contract for a used vessel authorized for procurement by section 2218 of title 10, United States Code.

Section 1024—Technical Corrections and Clarifications to Chapter 633 of Title 10, United States Code, and Other Provisions of Law Regarding Naval Vessels

This section updates chapter 633 of title 10, United States Code.

Section 1025—Retention of Navy Hospital Ship Capability

This section would require the Secretary of the Navy to retain two Mercy-class hospital ships until the Secretary has certified to the congressional defense committees that a replacement capability has been fielded.

SUBTITLE D—COUNTERTERRORISM

Section 1031—Definition of Sensitive Military Operation

This section would modify section 130f of title 10, United States Code, regarding notification requirements for sensitive military operations.

Section 1032—Prohibition on Use of Funds for Transfer or Release of Individuals Detained at United States Naval Station, Guantanamo Bay, Cuba, to the United States

This section would prohibit the use of any amounts authorized to be appropriated or otherwise made available for the Department of Defense during the period beginning on the date of the enactment of this Act and ending on December 31, 2019, to transfer or release detainees at U.S. Naval Station, Guantanamo Bay, Cuba, to or within the United States, its territories, or possessions.

Section 1033—Prohibition on Use of Funds to Construct or Modify Facilities in the United States to House Detainees Transferred from United States Naval Station, Guantanamo Bay, Cuba

This section would prohibit the use of any amounts authorized to be appropriated or otherwise made available for the Department of Defense during the period beginning on the date of the enactment of this Act and ending on December 31, 2019, to construct or modify any facility in the United States, its territories, or possessions to house any detainee transferred from U.S. Naval Station, Guantanamo Bay, Cuba, for the purposes of detention or imprisonment in the custody or under the effective control of the Department of Defense.

Section 1034—Prohibition on Use of Funds for Transfer or Release of Individuals Detained at United States Naval Station, Guantanamo Bay, Cuba, to Certain Countries

This section would prohibit the use of any amounts authorized to be appropriated or otherwise made available for the Department of Defense during the period beginning on the date of the enactment of this Act and ending on December 31, 2019, to transfer, release, or assist in the transfer or release of any individual detained at U.S. Naval Station, Guantanamo Bay, Cuba, to Libya, the Federal Republic of Somalia, the Syrian Arab Republic, or the Republic of Yemen.

#### SUBTITLE E—MISCELLANEOUS AUTHORITIES AND LIMITATIONS

##### Section 1041—Notification on the Provision of Defense Sensitive Support

This section would modify the current Defense Sensitive Support congressional notification procedures, to include a Secretary of Defense determination that the requesting Federal department has reasonably attempted to satisfy the requirement using internal resources, and that the Department of Defense is the most appropriate Federal agency or department to satisfy the request for support. This section would also add a congressional notification requirement for Department of Defense requests for Reverse Defense Sensitive Support from other Federal departments or agencies.

##### Section 1042—Coordinating United States Response to Malign Foreign Influence Operations and Campaigns

This section would amend section 101 of the National Security Act of 1947 (50 U.S.C. 3021) to explicitly task the National Security Council (NSC) to coordinate the full U.S. Government response to malign foreign influence operations and campaigns, particularly those that are cyber-enabled. This section would define "malign foreign influence operations and campaigns," and would request the President to task an NSC official with combating it, and further requires the President to submit a report to the designated congressional committees not later than 9 months after the date of the enactment of this Act on the whole-of-government strategy for combating malign foreign influence operations.

##### Section 1043—Workforce Issues for Military Realignments in the Pacific

This section would amend section 1806 of title 48, United States Code, to allow the continued employment of temporary workers on Guam engaged in the military realignment to Guam or to perform service as a health care worker. This section would also exempt returning workers from the cap on such workers in the event of a single departure and return to Guam.

##### Section 1044—Mitigation of Operational Risks Posed to Certain Military Aircraft by Automatic Dependent Surveillance-Broadcast Equipment

This section would enable the Secretary of Defense to mitigate the operational risk posed to certain military aircraft by the Federal Aviation Administration (FAA) next-generation airspace control mandate that takes effect on January, 1 2020, by accommodating certain fighter, bomber, and other sensitive mission aircraft until the Department of Defense and FAA agree on one or more solutions to address Automatic Dependent Surveillance-Broadcast Out security risks or incorporate mitigation for security risks into a memorandum of agreement.

The committee notes that the Department is working to meet the FAA mandate for its aircraft and supports its efforts to procure equipment and carry out modifications for its accommodated fighter, bomber, and special mission aircraft.

#### Section 1045—Limitation on Availability of Funds for Unmanned Surface Vehicles

This section would limit the availability of funds authorized to be appropriated by this Act, or otherwise made available for fiscal year 2019, until the Under Secretary of Defense for Research and Engineering certifies the Strategic Capabilities Office Ghost Fleet Overlord Unmanned Surface Vehicle program to the congressional defense committees.

#### Section 1046—Program for Department of Defense Controlled Unclassified Information in the Hands of Industry

This section would require the Secretary of Defense to establish and implement a foreign ownership, control, or influence program for Department of Defense controlled unclassified information in the hands of industry.

The Secretary would be required to act to ensure that prior to any company receiving controlled unclassified information or classified information, or becoming a cleared defense contractor, the company would have to report to the Secretary any foreign direction or controlling interest in the company or any access to intellectual property relating to classified information or controlled unclassified information.

The Secretary would be required to make a determination on the basis of such a company's report whether the company should receive such information due to a risk to national security and whether such risk can be mitigated.

#### Section 1047—Protection of Emerging and Foundational Technologies

This section would require the Secretary of Defense to establish and maintain a list of emerging and foundational technologies that are necessary for maintaining the national security technical advantage of the United States.

This section would require the Secretary to use that list to inform the activities carried out by the Secretary relating to technology protection, including under interagency processes.

### SUBTITLE F—STUDIES AND REPORTS

Section 1051—Additional Matter for Inclusion in Annual Report on Civilian Casualties in Connection with United States Military Operations

This section would amend section 1057(b)(2) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to include an annual reporting requirement on civilian casualties in connection with U.S. military operations.

Section 1052—Department of Defense Review and Assessment on Advances in Artificial Intelligence and Machine Learning

This section would direct the Secretary of Defense, acting through the Defense Innovation Board and the Under Secretary of Defense for Research and Engineering, to carry out a review and assessment of the advances in artificial intelligence, related machine learning developments, and associated technologies for military applications. This section would also require the Secretary of Defense to submit an initial report to the congressional defense committees not later than 180 days after the date of the enactment of this Act, and a comprehensive report not later than 1 year after the date of the enactment of this Act.

Section 1053—Report on Joint Enterprise Defense Infrastructure

This section would prohibit certain funds authorized to be appropriated by this Act from being obligated or expended for the Joint Enterprise Defense Infrastructure until the Secretary of Defense provides a report to the congressional defense committees on the Joint Enterprise Defense Infrastructure.

Section 1054—Report on Proposed Consolidation of Department of Defense Global Messaging and Counter Messaging Capabilities

This section would limit the availability of funds authorized to be appropriated by this Act, or otherwise made available for fiscal year 2019, until the Secretary of Defense provides a report to the congressional defense committees on the Department of Defense Global Messaging and Counter Messaging program.

Section 1055—Comprehensive Review of Professionalism and Ethics Programs for Special Operations Forces

This section would direct the Secretary of Defense, in coordination with the Secretaries of the military departments, to conduct a comprehensive review of the ethics and professionalism programs of the U.S. Special Operations Command and the military departments for officers and other military personnel serving in special operations forces. This section would require the Secretary of Defense to submit the review to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2019.

## Section 1056—Munitions Assessments and Future-Years Defense Program Requirements

This section would require the Under Secretary of Defense for Acquisition and Sustainment to provide all relevant documents related to the Department of Defense's munitions requirements process, as well as provide the planned funding and munitions requirements required for fiscal year 2020 and across the Future Years Defense Program for munitions across all military services and the Missile Defense Agency. This section would also require the Under Secretary to evaluate and identify supply chain risks, including qualified supplier shortages or single source supplier vulnerabilities for munitions production. The committee notes that munitions are defined as a complete device charged with explosives; propellants; pyrotechnics; initiating composition; or chemical, biological, radiological, or nuclear material for use in operations including demolitions, to include conventional ammunition.

## Section 1057—Report on Establishment of Army Futures Command

This section would require the Secretary of the Army to provide a report to the congressional defense committees on the Army's plan for the establishment of Army Futures Command, to include a description of the authorities, mission, and organizational structure. This section does not prohibit the Secretary of the Army from proceeding forward with any current internal organizational changes in accordance with existing authorities related to the establishment of the Army Futures Command.

## Section 1058—Assessment of Department of Defense Electromagnetic Spectrum Warfare Enterprise

This section would require the Secretary of Defense, in consultation with the Chairman of the Joint Chiefs of Staff (CJCS), to develop an implementation plan to conduct joint campaign modeling and wargaming for joint electromagnetic spectrum operations (JEMSO) of the Department of Defense, and to submit that plan in the form of a report by February 18, 2019, to the congressional defense committees. This section would also require the Secretary and CJCS to provide various briefing presentations to the House Committee on Armed Services, not later than February 25, 2019, on essential topics and functions of the Department's JEMSO enterprise.

The committee is concerned that since the electronic warfare (EW) strategy document was released by the Department's Electronic Warfare Executive Committee in June 2017, subsequent efforts to strengthen, modernize, and create synergy of effort across the Department related to the JEMSO enterprise may have stagnated within the military services, the Office of the Secretary of Defense, and the Office of the Chairman of the Joint Chiefs of Staff. The committee seeks to gain a greater understanding of current JEMSO efforts since release of the EW strategy

document, and the committee encourages those officials overseeing the JEMSO enterprise to reinvigorate efforts towards achieving the goals and objectives described in the EW strategy.

#### Section 1059—Report on Support for Non-Contiguous States and Territories in the Event of Threats and Incidents

This section would direct the Department of Defense to provide a report on its preparedness to provide contiguous States with temporary relief and emergency work in the aftermath of an emergency incident.

#### Section 1060—Report on Low-Boom Flight Demonstration

This section would require the Administrator of the National Aeronautics and Space Administration to submit a report, not later than 90 days after the date of the enactment of this Act, to the Committee on Science, Space, and Technology of the House of Representatives describing the progress in development of the Low-Boom Flight Demonstration.

#### Section 1061—Report on Cyber-Enabled Information Operations

This section would require the President to provide the Committees on Armed Services and Foreign Affairs of the House of Representatives and the Committees on Armed Services and Foreign Relations of the Senate a report not later than 180 days after the date of the enactment of this Act on the effects of cyber-enabled information operations on the national security of the United States.

### SUBTITLE G—OTHER MATTERS

#### Section 1071—Technical, Conforming, and Clerical Amendments

This section would make a number of technical, conforming, and clerical amendments of a non-substantive nature to existing law.

#### Section 1072—Principal Advisor on Countering Weapons of Mass Destruction

This section would direct the Secretary of Defense to designate, from among the personnel of the Office of the Secretary of Defense, a Principal Advisor on Countering Weapons of Mass Destruction (CWMD). Such individual shall act as the Principal Advisor to the Secretary on the activities of the Department of Defense relating to countering weapons of mass destruction. Further, this section would require a plan for realigning, restructuring, or reducing the current CWMD oversight framework of the Office of the Secretary of Defense.

#### Section 1073—Receipt of Firearm or Ammunition



This section would require for the purposes of Federal firearms laws that the residency of members of the Armed Forces and their spouses be determined in the same manner.

#### Section 1074—Federal Charter for Spirit of America

This section would designate Spirit of America, a nonprofit organization, as a federally chartered corporation.

#### Section 1075—Transfer of Aircraft to Other Departments

This section would amend section 1098 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66) to relieve the United States Air Force (USAF) from the mandate to modify United States Coast Guard (USCG) HC-130H aircraft with designated capabilities for use by the United States Forest Service (USFS).

The committee notes that officials from the USFS, USCG, and USAF notified the committee, and relevant other House of Representatives and Senate committees of jurisdiction, that a recently completed USFS cost-benefit analysis demonstrated it is more cost-effective, and provides greater firefighting capacity and responsiveness, to utilize contract service provided capability instead of owning and operating year-round a small, organic fleet of modified HC-130H aircraft.

#### Section 1076—Reauthorization of National Aviation Heritage Area

This section would amend title V of division J of the Consolidated Appropriations Act of 2005 (Public Law 108-447) to establish Dayton History as the entity responsible for managing the National Aviation Heritage Area.

#### Section 1077—Recognition of America's Veterans

This section would honor America's veterans, including those who have not yet been appropriately recognized for their service to the Nation, by authorizing the Secretary of Defense to carry out a parade in their honor. The Secretary would be authorized to expend funds authorized to be appropriated under this Act for the display of small arms and munitions appropriate for customary ceremonial honors and for the participation of military units that perform customary ceremonial duties.

The committee believes that, as America approaches the 100th anniversary of the 1918 Armistice ending World War I, it is appropriate to honor a century of military service by the men and women who have sacrificed to secure America's freedom. The committee further believes that the world they made through their sacrifices is increasingly under threat from competitors like the Russian Federation and the People's Republic of China. The committee is concerned that far too many veterans, including veterans of the conflicts in Korea, Vietnam, Iraq, and

Afghanistan, have been denied the public display of gratitude their service deserves and therefore the committee believes now is the right time to celebrate a century of patriotic sacrifice and service.

#### Section 1078—National Commission on Military Aviation Safety

This section would establish a National Commission on Military Aviation Safety. The commission would undertake a comprehensive study and deliver a report not later than June 1, 2019, on military aviation mishaps occurring between fiscal years 2013-18.

#### Section 1079—Target Practice and Marksmanship Training Support

This section would amend sections 669a, 669g, and 669h of title 16, United States Code, to expand opportunities for construction and sustainment of target practice and marksmanship training facilities at public target ranges on Federal and non-Federal land.

#### Section 1080—Sense of Congress on Adversary Air Capabilities

This section would express the sense of Congress that each Department of Defense facility housing an F-22 aircraft squadron should have adversary air capabilities to improve training of F-22 aircrews.

#### Section 1081—Sense of Congress Regarding Organic Attack Aviator Training Capability

This section would express the sense of Congress that the Army National Guard should retain rotary wing attack aviation units as well as organic training capacity such as the Western and Eastern Army Aviation Training Sites.

#### Section 1082—Sense of Congress on the Legacy, Contributions, and Sacrifices of American Indian and Alaska Natives in the Armed Forces

This section would express the sense of Congress on the legacy, contributions, and sacrifices of American Indian and Alaska Natives in the Armed Forces, and commits to ensuring progress for these groups with regard to representation in senior leadership positions, improved access to resources, and support for families and tribal communities.

#### Section 1083—Amateur Radio Parity

This section would require the Federal Communications Commission to amend section 97.15 of title 47, Code of Federal Regulations, to prohibit the application of

any private land use restriction to amateur radio stations in a manner that would preclude communications in an amateur radio service.

#### Section 1084—Sense of Congress Regarding the International Borders of the United States

This section would express the sense of Congress that operational control of the international borders of the U.S. is critical to national security, the U.S. must devote adequate resources to securing the border, and the Department of Defense must have adequate resources to support the mission to secure the international borders of the U.S. while maintaining combat readiness.

#### Section 1085—Program to Commemorate 75th Anniversary of World War II

This section would require the Secretary of Defense to conduct a program to commemorate the 75th anniversary of World War II; such program would be authorized to include the provision of support to other Federal Government agencies, and to State and local governments.

The Secretary would be authorized to spend not more than \$2.0 million for fiscal year 2019 for the activities of the Department of Defense World War II Commemoration Fund.

## TITLE XI—CIVILIAN PERSONNEL MATTERS

### ITEMS OF SPECIAL INTEREST

#### Civilian Talent Recruitment

The committee recognizes that the Department of Defense and the military departments encounter difficulty recruiting highly specialized civilians in science, technology, engineering, and mathematics (STEM) fields due to pay and other compensation limitations imposed by the Office of Personnel Management general schedule pay scales.

Therefore, the committee directs the Secretary of Defense, in coordination with the Director of the Office of Management and Budget, to provide a briefing to the House Committee on Armed Services not later than January 31, 2019, on the challenges associated with the Department's efforts to hire organic civilians in the STEM fields.

The briefing must include the following elements:

(1) recommendations on how the Department can use professional pay incentives, such as special or incentive pay, like those provided to uniformed career fields such as pilots or medical professionals;

(2) impacts any delays in hiring have on the Department and the services' medium- and long-term technical capabilities; and

(3) an assessment of the average time it takes for the Department of Defense and the military services to hire STEM civilians and recommendations for how this process can be improved.

### Direct Hiring Authority

The committee notes that section 1106 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) provides direct-hire authority to the Secretary of Defense for post-secondary students and recent graduates. Under this authority, the Secretary may recruit and appoint qualified recent graduates and current post-secondary students to competitive service positions in professional and administrative occupations within the Department of Defense. These appointments cannot exceed 15 percent of the number of hires made into professional and administrative occupations. Further, section 1110 of Public Law 114-328 allows for direct-hire authority for the Department for Financial Management Experts not exceeding 10 percent of the number of hires.

The committee recognizes that additional hiring challenges exist throughout the Department and at many installations, and notes that additional direct-hiring authority may allow for more efficient and effective hiring of talented personnel in the fields of cybersecurity, engineering, science, and cost analysis positions. Therefore, the committee directs the Secretary of Defense, in consultation with the military departments, to provide a briefing to the House Committee on Armed Services not later than January 31, 2019, on the effectiveness of existing direct-hire authority and recommendations for any necessary expansion of or changes to the existing authority to improve the Department's ability to hire technically skilled personnel in a timely manner.

### Presidential Management Fellows Program

The committee recognizes that the Presidential Management Fellows (PMF) program has been one of the most successful means of recruiting the nation's top graduate students into U.S. government service. Consistent with the 2018 National Defense Strategy, the committee recognizes the PMF program's role in recruiting highly-qualified, talented, and innovative graduate students in order to create the "motivated, diverse, and highly skilled civilian workforce." In the committee's view, during the four decades since the program's founding, the Department of Defense has benefited greatly from the program. Despite this, the centrally managed process for hiring PMFs into the Office of the Secretary of Defense (OSD) has been suspended since 2015. While Department of Defense components are permitted to hire PMFs, unfortunately, they are unable to replicate the well-rounded experience created by the rotating assignments of the OSD program that is so crucial to leadership at the highest levels.

Therefore, the committee directs the Secretary of Defense to submit a report by January 31, 2019, on the PMF program. The report shall include the following elements: (a) a description of the PMF program historically and as it

currently exists within the Department; (b) statistics on federal civilian employees who entered the Department from the PMF program since its inception, including the overall number, their average length of tenure, the component by which they were hired, their entering and departing career civilian ranks, and an accounting for any notable subsequent leadership positions in the national security field; (c) an explanation for why the centrally managed process for hiring PMFs into the Office of the Secretary of Defense has been suspended and recommendations for any changes to policy, authorities, and resources required to resume it; (d) an assessment of the benefits and costs of resuming the use of and expanding the size of the PMF program across the Department; (e) recommendations for any changes to policy, authorities, and resources required to improve the program and expedite the on-boarding process for PMFs.

### Recruitment and Hiring of Navy Astronomers

The Committee recognizes the critical missions of the U.S. Naval Observatory (USNO) and the Naval Observatory Flagstaff Station (NOFS) to the Department. The Committee is aware of challenges in recent years to recruitment and timely hiring of astronomers at NOFS, which risks key astronomical observation shifts going missed. The Committee directs the Secretary of the Navy to provide a briefing to the Committee on Armed Services of the House no later than December 31, 2018, outlining: the hiring process and timeline for astronomy positions at USNO and NOFS; identifying reasons for delays in approving positions and hiring for such positions; what the Navy is doing to shorten timelines; barriers and challenges to recruitment of individuals with relevant expertise; identifying impediments to hiring such individuals in a timely basis; and identifying impediments to recruiting and relocating individuals to NOFS.

### Workplace Flexibility for Federal Civilians

The committee recognizes efforts taken by the military services to increase workplace flexibility to attract and retain talented personnel. The committee remains concerned, however, that a lack of professional flexibility in the civilian work force limits the ability of the Department of Defense and the military services to attract and retain highly trained mid-level career professionals. Family planning and an individual's desire to further their education are two frequently cited reasons why professionals seek more flexible work schedules.

The committee notes numerous private sector organizations started providing increased work flexibility to their employees, providing incentives that lure the skilled workforce away from the DoD and the services. Therefore, in order to preserve and enhance the DoD's civilian workforce the committee directs the Secretary of Defense, in coordination with the Secretaries of the military departments, to provide a briefing by January 31st, 2019 that identifies current policies that allow work-share, job-share, part-time, tele-work, and other flexibilities currently offered by the Department for civilian employees. The briefing

should identify the frequency with which these policies are used by each pay-band and career-field, whether certain career-fields have been exempted from certain flexibility programs and the justification for exemption, the number of employees who have been denied opportunities to do work-share, job-share, part-time work, or tele-work, and how many of these employees, as a result, have left the federal government.

## LEGISLATIVE PROVISIONS

### Section 1101—Direct Hire Authority for the Department of Defense for Certain Competitive Service Positions

This section would amend chapter 99 of title 5, United States Code, by adding a new section that would provide the Secretary of Defense authority to expedite hiring of civilian personnel into positions involving maintenance, depot maintenance, cybersecurity, acquisition, and science, technology, and engineering. This authority would expire on September 30, 2025.

### Section 1102—Modification of Direct Hire Authority for the Department of Defense for Post-Secondary Students and Recent Graduates

This section would amend chapter 99 of title 5, United States Code, by adding a new section that would authorize the Secretary of Defense to recruit and hire recent graduates into competitive positions in the Department of Defense through September 30, 2025. This section would also repeal the more limited authority provided by section 1106 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328).

### Section 1103—Extension of Overtime Rate Authority for Department of the Navy Employees Performing Work Aboard or Dockside in Support of the Nuclear-Powered Aircraft Carrier Forward Deployed in Japan

This section would amend section 5542 of title 5, United States Code, to extend until September 30, 2021, the authority of the Secretary of the Navy to pay overtime rates to civilian employees performing temporary duty in Japan in support of the forward deployed nuclear aircraft carrier.

### Section 1104—One-Year Extension and Expansion of Authority to Waive Annual Limitation on Premium Pay and Aggregate Limitation on Pay for Federal Civilian Employees Working Overseas

This section would amend section 1101 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (Public Law 110-417) to extend the authority to waive the annual limitation on premium pay and aggregate limitation on pay for Federal civilian employees working overseas until September 30, 2019.

This section would also restrict the waiver limitation to the pay periods applicable, rather than the entire calendar year.

#### Section 1105—Appointment of Retired Members of the Armed Forces to Positions in or under the Department of Defense

This section would provide the Secretary of Defense temporary authority to appoint retired members of the Armed Forces to Federal civilian positions within the Department of Defense immediately upon retirement for certain categories of positions. This section would provide this authority to the Secretary for 5 years.

#### Section 1106—Extension of Authority to Conduct Telework Travel Expenses Test Programs

This section would amend section 5711 of title 5, United States Code, to extend the authority of the Administrator of the General Services Administration to conduct a test telework program until December 31, 2020.

#### Section 1107—Personnel Demonstration Projects

This section would amend section 4703 of title 5, United States Code, to deem that demonstration projects conducted under this authority lasting more than 10 years shall not count against the limit of 10 such projects ongoing at any time.

#### Section 1108—Expanded Flexibility in Selecting Candidates from Referral Lists

This section would amend subchapter I of chapter 33 of title 5, United States Code, to provide Federal agencies flexibility in setting the minimum number of candidates who must be considered on a referral list for each vacancy by amending sections 3317, 3318, and 3319 of such title.

#### Section 1109—Temporary and Term Appointments in the Competitive Service

This section would amend subchapter I of chapter 31 of title 5, United States Code, by adding a new section that would authorize the heads of Federal agencies to hire civilian personnel through temporary and term appointments. This section would also permit an agency head to make noncompetitive hires for up to 18 months to meet a critical need.

## TITLE XII—MATTERS RELATING TO FOREIGN NATIONS

### ITEMS OF SPECIAL INTEREST

#### Carrier Presence in the Middle East

The committee recognizes the importance of maintaining an aircraft carrier strike group in the U.S. Central Command (CENTCOM) area of operations to deter the Islamic Republic of Iran, support ongoing missions in the Republic of Iraq, the Syrian Arab Republic, and the Islamic Republic of Afghanistan, provide assurance to regional partners, and maintain the capacity to flexibly respond to a variety of crises across the volatile region. The Navy currently struggles to meet combatant commander presence requirements in CENTCOM and a recent gap in carrier presence there temporarily limited CENTCOM's capacity to address these security challenges. In an effort to more quickly reach the requirement for 12 aircraft carriers identified in the most recent Force Structure Assessment and to achieve greater cost savings, the committee authorized an acceleration of the next Ford-class aircraft carrier designated CVN-81 in fiscal year 2019. The committee also recommends that the Navy assess options to extend the service life of USS Nimitz (CVN 68) to mitigate potential gaps, which could affect CENTCOM's regional force presence.

#### Casualty Evacuation in U.S. Africa Command Area of Operations

Given the vast distances and austere conditions affecting mobility on the African continent, the committee recognizes that personnel recovery and casualty evacuation are critical enablers to U.S. Africa Command's (AFRICOM's) conduct of operations. The committee is concerned, however, that current funding for contractor-owned, contractor-operated casualty evacuation capabilities is currently insufficient to support requirements. Therefore, the funding table in division D would authorize an additional \$15.0 million for contractor-owned, contractor-operated casualty evacuation capability in AFRICOM's area of operations.

#### Combined Joint Task Force-Horn of Africa

The committee has long been concerned about U.S. Africa Command (AFRICOM) Combined Joint Task Force-Horn of Africa's (CJTF-HOA) ability to execute assigned missions and taskings, as evidenced by section 1241 of the National Defense Authorization Act for Fiscal Year 2011 (Public Law 111-383), which required the Secretary of Defense, in consultation with the Secretary of State, to monitor and evaluate the impact of CJTF-HOA's activities to counter violent extremism in Africa and provide a report to Congress.

The committee continues to be concerned that CJTF-HOA's organizational structure, resourcing, command relationships, and lack of clearly defined role, responsibility, and authority have led to suboptimal performance in executing its assigned missions as an operational headquarters and ensuring unified action in the region. The committee acknowledges that as the only major element of AFRICOM located on the continent, there may be value in maintaining and better enabling CJTF-HOA to synchronize, facilitate, and oversee its assigned missions. The committee notes, however, that options other than a joint task force may be more effective in accomplishing these missions.



Therefore, the committee directs the Secretary of Defense to evaluate the missions of CJTF-HOA and the operational environment to determine whether a joint task force provides the most effective headquarters option for command and control of operations. Further, the committee directs the Secretary to provide a briefing to the House Committee on Armed Services not later than October 31, 2018, on the results of the evaluation. The briefing shall include:

- (1) an evaluation of the costs and benefits of maintaining a permanent U.S. military presence in East Africa, and the potential locations for such presence;
- (2) an evaluation of the advantages and disadvantages of maintaining a combined joint task force structure to fulfill assigned missions and taskings;
- (3) the range of headquarters options available for command and control of operations in East Africa and the advantages and disadvantages of each option;
- (4) recommendations for the most effective headquarters structure, command relationships, and assignment of missions to improve the command and control of operations and to ensure unified action in East Africa; and
- (5) any other matter the Secretary determines to be appropriate.

#### Coordinating Efforts to Counter the Malign Activities of the People's Republic of China and the Russian Federation Across Combatant Commands

The committee is concerned about the People's Republic of China and the Russian Federation's malign influence and activities that extend across all geographical regions and supports the Department's efforts to increase coordination across combatant commands in countering those activities. The committee believes that China and Russia's influence campaigns, economic investment and infrastructure, and security presence throughout the Indo-Pacific, Central Asia, Africa, Europe, and South America, have national security implications for the United States and its allies and partners. Therefore, the committee encourages all combatant commands to coordinate their respective efforts and use all appropriate authorities to include security cooperation activities, foreign military sales, and other equipment transfers to counter China and Russia's activities and to develop the capabilities of United States allies and partners. The committee notes that the combatant commands should align their efforts in accordance with section 1637 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), as appropriate.

The committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by December 3, 2018, on the actions the combatant commands are taking to increase coordination and counter the activities posed by China and Russia.

#### Department of Defense Inspector General Audit of Foreign Military Sales

An efficient, thorough, and effective Foreign Military Sales (FMS) process is vital to U.S. foreign policy and national security, and contributes to the health of the U.S. defense industrial base. The committee is aware, however, of concerns

raised by U.S. military leaders, the defense industry, and foreign partners that the FMS process is slow, cumbersome, and overly complicated.

Therefore, the committee directs the Inspector General of the Department of Defense to conduct an audit regarding Department of Defense implementation of FMS programs and, upon completion of the audit, to submit a final report to the Committees on Armed Services of the Senate and the House of Representatives, the Committee on Foreign Relations of the Senate, and the Committee on Foreign Affairs of the House of Representatives. The committee further directs the Inspector General to meet with the House Committee on Armed Services and the House Committee on Foreign Affairs not later than June 30, 2018, to scope the audit fully. Additionally, the committee directs the Inspector General to provide an interim briefing to the House Committee on Armed Services and the House Committee on Foreign Affairs not later than November 30, 2018, on the manner that it intends to conduct such audit.

### Foreign Military Sales

A key element of the 2018 National Defense Strategy is to “strengthen alliances and attract new partners.” The committee is aware that the Department of Defense is making progress instituting the security cooperation reforms contained in the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). The committee remains concerned, however, that the execution of foreign military sales (FMS) is not coordinated holistically across the Department to prioritize resources and effort in support of U.S. national security objectives and the defense industrial base. Consequently, acquisition decisions continue to be made in a stovepiped manner and without sufficient regard for the role of FMS. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services and the House Committee on Foreign Affairs by October 31, 2018, on the procedures instituted by the Department to integrate FMS and other security cooperation activities into the planning process for defense acquisition.

Additionally, the committee notes that there are separate and disparate efforts across the Department that develop, negotiate, and implement foreign military sales for missile defense capability. This often leads to foreign partners not being provided price and availability for all potential systems that could meet their requirements, and the best solution to benefit both the partner nation and overall Department interests. Therefore, the committee directs the Under Secretary of Defense for Policy, in coordination with the Director of the Missile Defense Agency, Secretary of the Navy, and Secretary of the Army, to provide a briefing to the House Committee on Armed Services by November 30, 2018, on options to improve, consolidate, and streamline missile defense foreign military sales across the Department.

Further, the committee believes that production of additional foreign military sales variants may help mitigate risk to the supplier base and overall

production capacity for precision guided munitions. Elsewhere in this report the committee encourages the Secretary of Defense to ensure that the AIM-120 advanced medium-range air-to-air missiles production line is kept at or near full capacity whenever possible, either by increasing production to fill U.S. military requirements or by supplementing production for the U.S. military with higher FMS production.

#### Improved Coordination of Activities in Africa with International Partners

The committee is aware that international partners such as the United Kingdom of Great Britain and Northern Ireland, the French Republic, Japan, and the United Arab Emirates, plus multinational organizations such as the European Union and African Union, and many others, conduct programs to build partner capacity in Africa. The committee is concerned that U.S. programs may be duplicative or in conflict with international partners' activities, or that gaps in capabilities are unaddressed.

The committee directs the Secretary of Defense, in consultation with the Secretary of State, to provide a briefing to the House Committee on Armed Services and the House Committee on Foreign Affairs by October 31, 2018, on the steps being taken to coordinate security cooperation activities in Africa with international partners.

#### International Armaments Cooperation

The committee appreciates that international armaments cooperation (IAC) involves cooperative research, development, test, and evaluation of defense technologies, systems, or equipment; joint production and follow-on support of defense articles or equipment; and procurement of foreign technology, equipment, systems or logistics support. The committee further appreciates that the Office of the Director of International Cooperation and the IAC Directorate are charged with performing managerial roles with respect to these important functions. However, the committee questions whether IAC is sufficiently utilized for strategic purposes and questions whether the Office of the Director of International Cooperation and the IAC Directorate are optimally situated to contribute to long-term policy making and strategic oversight regarding Department of Defense security cooperation programs.

Therefore, the committee encourages the Secretary of Defense to evaluate the status of IAC within the Department of Defense and to consider the merits of realigning the Office of the Director of International Cooperation and the IAC Directorate from the Office of the Under Secretary of Defense for Acquisition and Sustainment to the Office of the Under Secretary of Defense for Policy. The committee also directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by October 31, 2018, on IAC, the Office of the Director of International Cooperation, and the IAC Directorate. At a minimum, the briefing shall include the following:

(1) a description of the dispositions, missions, roles, and responsibilities of all departmental offices with a role in IAC (to include the Office of the Director of International Cooperation, the IAC Directorate, and the Defense Security Cooperation Agency);

(2) an assessment of the advantages and disadvantages of the current organizational and operational structures related to IAC (to include the placement of the Office of the Director of International Cooperation and the IAC Directorate);

(3) an assessment of the merits of realigning the Office of the Director of International Cooperation or the IAC Directorate to the Office of the Under Secretary of Defense for Policy; and

(4) a discussion of the steps that have been, or may be, taken by the Department of Defense to improve IAC to achieve strategic objectives.

### Multilateral Cooperation on the Korean Peninsula

The committee supports efforts between United States Forces Korea and the United Nations Command Sending States and certain countries to augment U.S. forces and forces of the Republic of Korea on the Korean peninsula.

The committee is pleased to see cooperation and participation among the United States, South Korea, United Nations Command Sending States, and certain countries in combined defense exercises. The committee further believes that these allies and partners can continue to play a vital role in contributing military assets for contingencies and capabilities in the naval and maritime domain as well as participating in training and exercises.

Therefore, the committee directs the Secretary of Defense, in coordination with the component commands, to provide a briefing to the Committee on Armed Services of the House of Representatives not later than December 1, 2018, on recommendations to strengthen coordination with liaison components and to broaden such cooperation, including information sharing, training and exercise opportunities, and integration and planning of multi-national forces into existing arrangements between the United States and South Korea.

### Naval Mine Countermeasure Capability in the U.S. Central Command's Area of Operations

The committee recognizes the importance of the U.S. Navy's mine countermeasures (MCM) capability in protecting the free flow of commerce through the Suez Canal, the Strait of Hormuz, and the Bab al Mandeb Strait.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than September 30, 2018, on the MCM platforms that are capable of being readily deployed to U.S. Central Command's area of operations. This briefing should describe available MCM platforms, the time that would be required to clear relevant sea lanes of the mine threats posed by regional state and non-state actors including the Islamic Republic of Iran, the extent to which MCM training and exercises focus on potential

mining contingencies in Middle Eastern waterways, and, if applicable, the extent to which U.S. MCM shortfalls could be covered by partner-country capabilities.

### Non-Standard Acquisition in Foreign Military Sales

The committee is aware that foreign partners are increasingly considering U.S.-made capabilities through Foreign Military Sales (FMS) that are not currently a Department of Defense program of record. For FMS purposes, a non-standard article is one that the Department of Defense does not manage, either because an applicable end item has been retired or because it was never purchased for Department components; a non-standard service is one that the Department of Defense does not routinely provide for itself or for purchase. Likewise, the Department's building partner capacity (BPC) programs include acquisition of non-standard articles and services under defense security cooperation train and equip authorities. Consequently, there is an increasing need for the Department of Defense to provide adequate program-level support so that these systems can be sold to international partners and supported over the life-cycle of the program.

The committee is also aware that the military departments have, on a case-by-case basis, established program offices to support the foreign sale of certain non-standard articles. The committee is concerned, however, that these ad hoc efforts do not provide the support necessary to manage foreign partners' acquisition of non-standard articles and services across the Department of Defense in a holistic manner.

Therefore, the committee directs the Secretary of Defense to conduct a review of the acquisition of non-standard articles and services for FMS and BPC programs, and to provide a briefing to the House Committee on Armed Services and the House Committee on Foreign Affairs by October 31, 2018, on the results of the review. The briefing shall include the following with respect to foreign partners' acquisition of non-standard articles and services through FMS or BPC programs:

- (1) a description of current processes and procedures;
- (2) an overview of previous programs, and an assessment of future opportunities for such programs;
- (3) the various options the Department of Defense could use to address this issue, including the advantages and disadvantages of each and funding requirements;
- (4) statutory, regulatory, policy, or funding constraints related to the options in (3); and
- (5) any other matter the Secretary considers appropriate.

### Report on New START Treaty

The committee notes that the New START Treaty entered into force in 2011 and is set to expire in 2021 but may be extended for a period of an additional five years. U.S. Strategic Command Commander General Hyten stated in March 2017 before the House Armed Services Committee that "I've stated for the record in the

past, and I'll state again, that I'm a big supporter of the New START Agreement. In addition, the committee notes that Air Force deputy chief of staff for strategic deterrence General Weinstein also stated in March 2017 that "The reason you do a treaty is not to cut forces but to maintain strategic stability among world powers. And the New START Treaty allowed us to maintain [that stability]. I think there is a huge value with what the New START Treaty has provided ... So I think the New START Treaty has been good, been good for us."

Therefore, the committee directs the Secretary of Defense, in coordination with the Chairman of Joint Chiefs of Staff, to provide a report to the congressional defense committees no later than November 15, 2018, on whether, and if so, the reasons that, the New START Treaty, and the extension of the treaty as of the date of the report, is in the national security interests of the United States.

#### Report on U.S. Casualty Estimates for Armed Conflict with North Korea

The committee directs the Secretary of Defense to provide a report to the House Committee on Armed Services, not later than September 30, 2018, and again 180 days thereafter, on the U.S. casualty estimates for likely scenarios of an armed conflict with North Korea. The reports should be unclassified, but each may contain a classified annex.

#### Security and Stability in Venezuela

The committee is concerned about the degradation of democratic institutions, security and stability, and human rights violations in the Bolivarian Republic of Venezuela during the authoritarian rule of President Nicolás Maduro. President Maduro's leadership tenure has produced economic, political, and security instability in Venezuela.

The severe humanitarian crisis unfolding in Venezuela includes inflation exceeding 1,100 percent, massive shortages in food and medical supplies, and a near complete collapse of social services. The committee notes this crisis is directly impacting the Republic of Colombia with an estimated 500,000 Venezuelans seeking refuge there.

The committee recognizes that hundreds of thousands more vulnerable members of the Venezuelan population could potentially migrate to Colombia and other neighboring countries to seek safety and opportunity. This migration could have impacts on stability throughout South America.

Therefore, the committee urges the Department of Defense, in close conjunction with other U.S. agencies, to monitor the economic, security, and political situation in Venezuela closely and to continue working with the government of Colombia and other regional partners to assist the Venezuelan refugee population and resolve the crisis.

#### Support to Syrian Women

The committee notes the efforts of nongovernmental organizations that have successfully increased the inclusion of Syrian women in local and provincial governance. The committee further notes that women have been instrumental to humanitarian aid efforts at the local level in Syria, and have helped keep schools, hospitals, and basic services running in their communities. Women serve on local councils, advise local police departments, and are being trained to hold forums and town halls in their communities.

The committee directs the Secretary of Defense in coordination with the Secretary of State to provide the House Armed Services Committees no later than December 1, 2018 a briefing on any efforts to support appropriately vetted Syrian opposition forces as defined in section 1209 of the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113–291; 128 Stat. 3541) in their efforts to increase the inclusion of women in security and governance processes. Additionally, the briefing shall include any plans to initiate or expand such efforts in the future.

#### Tactical Wheeled Vehicle Support to the Afghan National Defense and Security Forces

The committee notes that the Department of Defense works closely with the Afghan National Defense and Security Forces (ANDSF) to provide protected mobility as well as a wide-range of other capabilities based on military requirements, including ANDSF priorities as well as the ANDSF’s capability to maintain and sustain such equipment. The committee understands the Combined Security Transition Command-Afghanistan (CSTC-A) conducted a tactical wheeled vehicle (TWV) optimization study in 2016 in support of the ANDSF with a focus on creating a sustainable, affordable, and effective fleet that would increase combat capability and force protection for occupants. It is unclear to the committee whether this study considered providing excess defense article mine resistant ambush protected (MRAP) vehicles to the ANDSF. The committee notes there are several thousand MRAP vehicles categorized as Excess Defense Articles (EDA) in the Department’s inventory that could potentially be used to address protected mobility requirements for the ANDSF. The committee is aware the ANDSF are using MRAP vehicles and notes these vehicles provide for increased survivability and offensive power in combat operations. Further, the committee is aware of a recent letter of request by the Islamic Republic of Afghanistan for 738 MRAP vehicles.

Therefore, the committee directs the Under Secretary of Defense for Policy, in consultation with the Director, Defense Security Cooperation Agency, to provide a briefing to the House Committee on Armed Services by October 30, 2018, on the cost, operational survivability, and sustainability of EDA MRAP vehicles for the ANDSF, the status of the most recent letter of request for 738 MRAP vehicles for the ANDSF, and whether MRAP vehicles were considered as part of the most recent TWV optimization study conducted by CSTC-A. The briefing should also take into

account cost, blast protection level, catastrophic losses to date of vehicles and numbers of Afghan soldiers killed in vehicles damaged by improvised explosive devices.

### Trans-Saharan Counterterrorism Partnership (TSCTP)

The committee recognizes the threat posed by terrorist groups such as al-Qaeda in the Islamic Maghreb (AQIM), Boko Haram, and ISIS West Africa, and that such threat poses risks to the stabilization of countries in West Africa and the Sahel.

The committee emphasizes that countering terrorism throughout Western Africa and the Sahel requires enhancing regional border security, tracking illicit financial flows, building law enforcement capacity, and strengthening the rule of law. In order to promote stable and strong institutions throughout Western Africa and the Sahel, a whole of government approach is called for, leveraging State Department-led diplomatic efforts, military-to-military relationships developed and led by U.S. Africa Command (AFRICOM), and development projects carried out by the U.S. Agency for International Development (USAID).

The Trans-Saharan Counterterrorism Partnership (TSCTP) developed in 2005 by the Department of Defense (AFRICOM), Department of State, and USAID was created to support national and regional institutions in the region working with regional governments and European partners bordering the Mediterranean.

The committee encourages the Trans-Saharan Counterterrorism Partnership to continue with regular interagency coordination and engagement with regional partners and allies.

The Committee directs the Office of the Secretary of Defense, in coordination with the Secretary of State, to provide a briefing to the House Committees on Armed Services and Foreign Affairs by March 1, 2019 on the Trans-Saharan Counterterrorism Partnership including any activities or partner engagement related to military, counter-terrorism, and law-enforcement capacity-building, as well as public diplomacy and information operations.

### U.S. Military Education and Training Locations

The committee recognizes the importance of U.S. military leadership in advancing the North Atlantic Treaty Organization's mission to guarantee freedom and security in the alliance and around the world. As the 75th anniversary of D-Day and the allied invasion of Normandy, France, approaches, the committee notes the significance of this event in history. As such, the committee believes the Cotentin Peninsula could serve as a potential location for Department of Defense activities to grow global partnerships and alliances.

Therefore, the committee directs the Secretary of Defense to submit a report to the House Committee on Armed Services and the Senate Committee on Armed Services not later than December 1, 2018, on the feasibility (including cost and availability of any suitable locations for potential activities) of activities to grow



global partnerships and alliances on the Cotentin Peninsula prior to the 75th anniversary of the D-Day invasion in June 2019.

### Western Hemisphere Region Report on Strategy to Increase Engagement with Region

It is the sense of Congress that the security, stability, and prosperity of the Western Hemisphere region are vital to the national interests of the United States. The United States has a military capability in the Western Hemisphere region that builds goodwill and is able to project power, build partner capacity, deter acts of aggression, and respond, if necessary, to natural disasters, regional threats or to threats to the national security of the United States by the activities of actors, such as Iran, China, Russia, North Korea, transnational criminal organizations, or terrorist organizations in the region. The Committee believes continuing efforts by the Department of Defense to increase investments in the Western Hemisphere are necessary to build and maintain a robust United States commitment to the region.

Therefore, the Committee directs the Secretary of Defense, in coordination with the Secretary of State, to submit a report to the congressional defense committees, the Committee on Foreign Relations of the Senate, and the Committee on Foreign Affairs of the House of Representatives by April 1, 2019, that contains a strategy on effective U.S. defense engagement with the Western Hemisphere region, a plan to implement that strategy, and any additional funding requirements to implement such strategy. The strategy shall address each of the following:

- (1) The security challenges, including threats, emanating from the Western Hemisphere region, including from natural disasters, and any capability gaps in United States defense posture to the region;
- (2) The security threats to the United States or to its interests in the Western Hemisphere region from the engagement of Iran, China, Russia, and North Korea in the region, with a specific focus on Iran's engagement in the Tri-Border region of South America, Bolivia, and Venezuela and Russian engagement in Nicaragua, Cuba, and Venezuela;
- (3) The counterintelligence threats to the United States from Cuba and the role of Cuba in supporting the Venezuelan government;
- (4) The threats to the United States from transregional and transnational threat networks, including in drug trafficking, illegal mining, deforestation, human trafficking, and other illicit activities;
- (5) The threats to the United States from the links of the Venezuelan government with drug trafficking and transnational criminal organizations and corrupt government actors in the region;
- (6) Department of Defense plans, force posture, capabilities, and resources to address any gaps in intelligence, surveillance, reconnaissance, or counter-intelligence capabilities in the region; and

(7) The allies, partners, and other countries in the region that the Defense Department has prioritized for increased cooperation and a description of the areas of proposed increased cooperation.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—ASSISTANCE AND TRAINING

#### Section 1201—Report on the Use of Security Cooperation Authorities

This section would express the sense of Congress that the Secretary of Defense should use appropriate security cooperation authorities to counter the malign influence campaigns that are directed at allies and partners and that pose a significant threat to the United States. This section would also require the Secretary of Defense to include a report on funding for this purpose with the consolidated budget materials for security cooperation required by section 381 of title 10, United States Code, in fiscal year 2020 through fiscal year 2025.

The committee recognizes that Department of Defense programs aimed at building partner capacity, such as those authorized under section 333(a) of title 10, United States Code, have largely focused on building counterterrorism capabilities in allies and partners. However, with the security cooperation reforms contained in the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) and the evolving security environment, the committee urges the Department to develop capabilities with key allies and partners that will enable them to counter and mitigate the impact of malign influence campaigns by competitors or adversaries.

#### Section 1202—Clarification of Authority to Waive Certain Expenses for Activities of the Regional Centers for Security Studies

This section would amend section 342 of title 10, United States Code, to clarify that travel, transportation, and subsistence expenses are included among the costs of activities of the Regional Centers eligible for waiver of reimbursement.

#### Section 1203—NATO Strategic Communications Center of Excellence

This section would authorize the Secretary of Defense to provide funds for fiscal year 2019 for the purposes of supporting the NATO Strategic Communications Center of Excellence, and would direct the Secretary of Defense to assign executive agent responsibilities to an appropriate organization within the Department of Defense.

#### Section 1204—NATO Cooperative Cyber Defense Center of Excellence

This section would authorize the Secretary of Defense to provide funds for fiscal year 2019 for the purposes of supporting the NATO Cooperative Cyber Defense Center of Excellence, and would direct the Secretary of Defense to assign executive agent responsibilities to an appropriate organization within the Department of Defense.

#### Section 1205—Participation in and Support of the Inter-American Defense College

This section would make permanent the authority for U.S. participation in and support of the Inter-American Defense College and would transfer such authority to chapter 16 of title 10, United States Code. This section would further require that Department of Defense participation in, and host nation support of, the Inter-American Defense College shall be in accordance with a memorandum of understanding between the Department and the Inter-American Defense Board, with Secretary of State concurrence, and that such memorandum of understanding shall provide details of any cost-sharing or funding arrangements, a curriculum, and a plan for academic program development.

#### Section 1206—Increase in Cost Limitation for Small Scale Construction Related to Security Cooperation

This section would increase the limitation on small scale construction related to security cooperation from \$0.75 million to \$2.0 million.

#### Section 1207—Report on Security Cooperation with Haiti

This section would require the Secretary of Defense, with the concurrence of the Secretary of State, to submit a report on cooperation between the Department of Defense and the Government of the Republic of Haiti.

#### Section 1208—Review and Report on Processes and Procedures Used to Carry Out Section 362 of Title 10, United States Code

This section would require the Secretary of Defense, with the concurrence of the Secretary of State, to conduct a review of the processes and procedures used to carry out section 362 of title 10, United States Code, and submit a report to the appropriate congressional committees on such review. This section would also make conforming amendments to section 362 and to section 1206 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291).

### SUBTITLE B—MATTERS RELATING TO AFGHANISTAN AND PAKISTAN

#### Section 1211—Extension of Authority to Transfer Defense Articles and Provide Defense Services to the Military and Security Forces of Afghanistan

This section would extend the authority to transfer defense articles being drawn down in the Islamic Republic of Afghanistan and the authority to provide defense services regarding such transfers to the military and security forces of Afghanistan.

#### Section 1212—Extension of Authority for Reimbursement of Certain Coalition Nations for Support Provided to United States Military Operations

This section would extend through December 31, 2019, the authority to make Coalition Support Fund (CSF) payments under section 1233 of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181).

This section would also maintain the limitations enacted in section 1233 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), which provided that of the funds authorized for CSF, not more than \$700.0 million may be provided to the Islamic Republic of Pakistan, and of that amount, not more than \$350.0 million may be provided until the Secretary of Defense certified that Pakistan is taking demonstrable steps against the Haqqani Network.

The committee notes that elsewhere in this Act, it has fully authorized the President's budget request of \$900.0 million for fiscal year 2019 for CSF payments.

#### Section 1213—Extension and Modification of Commanders' Emergency Response Program

This section would extend the Commanders' Emergency Response Program through 2020 and would modify the eligibility to include Somalia, Yemen, and Libya.

#### Section 1214—Report on Assistance to Pakistan

This section would require the Secretary of Defense to submit a report to the congressional defense committees not later than 90 days after the date of the enactment of this Act describing the manner in which the Department provides assistance to the Government of Pakistan.

### SUBTITLE C—MATTERS RELATING TO SYRIA, IRAQ, AND IRAN

#### Section 1221—Extension and Modification of Authority to Provide Assistance to Counter the Islamic State of Iraq and Syria

This section would extend the authority to provide assistance to counter the Islamic State of Iraq and Syria. This section would also authorize a funding level of \$850.0 million for such support in Iraq.

The committee notes that some U.S.-provided equipment has inadvertently fallen into the hands of groups that operate outside of the control of the central Government of the Republic of Iraq and the Kurdish Regional Government. The

committee urges the Department of Defense to evaluate its current safeguards to ensure that equipment is properly stored and maintained.

#### Section 1222—Extension of Authority to Provide Assistance to the Vetted Syrian Opposition

This section would extend and modify section 1209 of the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113–291) by extending the "Syria train and equip" program and the reprogramming requirement through December 31, 2019.

Further, this section would require the President to submit to the congressional defense committees a plan at least 30 days prior to an initial reprogramming request in fiscal year 2019. The plan would describe the efforts the United States will take to train and build an appropriately vetted force; the nature of the force; the current effectiveness of the force; the conditions to be met for a determination that the Islamic State in Iraq and Syria has been adequately neutralized; the roles and contributions of partner countries; the concept of operations, timelines and types of training, equipment, stipends, sustainment, supplies to be provided by the United States (including measures for accountability); and a description of force posture.

#### Section 1223—Extension and Modification of Authority to Support Operations and Activities of the Office of Security Cooperation in Iraq

This section would extend the authority for the Office of Security Cooperation in Iraq (OSC-I) through December 31, 2019. The committee recognizes that OSC-I will manage U.S. security cooperation with the Republic of Iraq over the long term and expects the Department of Defense to ensure, to the extent practicable, that the Government of Iraq is able to sustain and maintain U.S.-provided equipment throughout the lifespan of such equipment.

#### Section 1224—Sense of Congress on Ballistic Missile Cooperation to Counter Iran

This section would express the sense of Congress that the Gulf Cooperation Council member countries should take meaningful steps to build an interoperable ballistic missile defense architecture with emphasis on information sharing, including early warning and tracking data, to defend against the Islamic Republic of Iran missile threat.

#### Section 1225—Strategy to Counter Destabilizing Activities of Iran

This section would authorize the Secretary of Defense, with concurrence of the Secretary of State, to develop and implement a strategy with foreign partners to counter the destabilizing activities of Iran. Under such a strategy, partners and allies would commit to collaborating with the United States on a variety of efforts,

including but not limited to investing in intelligence, surveillance, and reconnaissance platforms, mine countermeasures resources, integrated air and missile defense, and cybersecurity; engaging in combined planning, defense education, and institution building; and sharing information.

Further, this section would require the Secretary of Defense, in consultation with the Secretary of State, to submit a report to the congressional defense committees and the Committee on Foreign Relations of the Senate and the Committee on Foreign Affairs of the House of Representatives, on the strategy and the actions taken by partners and allies.

#### Section 1226—Report on Compliance of Iran under the Chemical Weapons Convention

This section would require the Secretary of Defense, in consultation with the Secretary of State, to submit a report to the House Committee on Armed Services and the House Committee on Foreign Affairs by February 1, 2019, assessing the extent to which Iran is complying with its obligations under the Chemical Weapons Convention.

#### Section 1227—Report on Potential Release of Chemical Weapons or Chemical Weapons Precursors from Barzeh Research and Development Center and Him Shinshar Chemical Weapons Storage and Bunker Facilities in Homs Province of Syria

This section would require the Secretary of Defense to provide a report to the congressional defense committees within 30 days after the date of the enactment of this Act on the analysis for potential release of chemical weapons or chemical weapon precursors, conducted prior to U.S. and partner forces strikes on the Barzeh Research and Development Center and the Him Shinshar chemical weapons storage and bunker facilities in Homs province of Syria in April 2018.

#### Section 1228—Report on Cooperation between Iran and the Russian Federation

This provision would require a report each year for the next 5 years on military and security cooperation between the Islamic Republic of Iran and the Russian Federation, particularly in respect to Syria. The report would further cover Russian and Iranian intelligence-sharing, joint naval exercises, joint cooperation on Iran's space and nuclear programs, Russian cooperation with Hezbollah, and the potential that Iran will adopt Russia's hybrid warfare model.

### SUBTITLE D—MATTERS RELATING TO THE RUSSIAN FEDERATION

#### Section 1231—Prohibition on Availability of Funds Relating to Sovereignty of the Russian Federation over Crimea

This section would extend by 1 year the prohibition imposed by section 1245 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), as amended by section 1232 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91). This section would prohibit the use of fiscal year 2019 funds to implement any activity that recognizes the sovereignty of the Russian Federation over Crimea. This section would also allow the Secretary of Defense, in concurrence with the Secretary of State, to waive the prohibition if the Secretary determines that doing so would be in the national security interest of the United States and submits a notification to the Committees on Armed Services of the Senate and the House of Representatives, the Committee on Foreign Relations of the Senate, and the Committee on Foreign Affairs of the House of Representatives.

#### Section 1232—Limitation on Availability of Funds Relating to Implementation of the Open Skies Treaty

The committee is aware that the Department of State's 2018 arms control compliance report, also known as the "Report on Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments", submitted pursuant to section 2593a of title 22, United States Code, continues to find the Russian Federation in violation of numerous provisions of the Treaty on Open Skies. Consistent with prior National Defense Authorization Acts, the committee believes legislation is appropriate and required to oversee the implementation of this treaty.

This section would prohibit the use of funding authorized in this Act for fiscal year 2019 for the purposes of upgrading or modernizing certain Treaty on Open Skies systems until such time as the President (or the Secretary of State) is able to certify that the President has imposed treaty violations responses and legal countermeasures.

This section would also limit the use of funding authorized in this Act or any other Act for fiscal year 2019 for the approval or adoption of any implementing decision in the Open Skies Consultative Commission concerning approval of a request by states parties to certify infra-red or synthetic aperture radar sensors under the treaty. Such funding would be restricted until:

(1) the Secretary of Defense, jointly with the relevant U.S. Government officials, submits a certification that an implementing decision would not be harmful or detrimental to the national security of the United States, as well as a report on certain matters has been submitted to the appropriate congressional committees; and

(2) the President has certified, not later than 90 days prior to a decision taking effect, that Russia is in complete compliance with the treaty, is allowing observation flights over certain specified regions, and it has agreed to certain conditions (including the extradition of Russian citizens involved in undertaking unlawful activities against the United States incident to the 2016 Presidential election, it has withdrawn from Crimea and ceased support to Russian proxies in

Eastern Ukraine, and has ceased all military and financial support for any state that uses or has used against its civilian population any agent or substance banned by the Chemical Weapons Convention).

The President would be permitted to waive the limitation subject to certain conditions.

The section would also permit the Secretary to cease operation of treaty aircraft for safety of flight.

#### Section 1233—Comprehensive Response to the Russian Federation's Material Breach of the INF Treaty

This section would state a series of findings concerning Russian Federation violations of the INF Treaty. This section would also state that it is the policy of the United States that Russia has defeated the object and purpose of the treaty, is in material breach of the treaty, and as a result the U.S. is legally entitled to suspend the operation of the treaty in whole or in part for so long as the Russian Federation continues to be in material breach of the treaty.

This section would additionally withhold 25 percent of the funding authorized to be appropriated by this Act for Department support to the Executive Office of the President, other than funding required for senior leader communications, until the President certifies that each requirement of section 1290 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) has been met; that the President has notified the appropriate congressional committees of the imposition of sanctions pursuant to section 1290 of that Act; and, that the President has submitted the report required by section 1244(c) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

The committee notes that because the requirements of section 1244(b)(2) of Public Law 115-91 have not been satisfied as of this report, the restriction on \$50.0 million in fiscal year 2018 authorized funding for the Special Mission Area of the Defense Information Systems Agency remains in place.

The committee is aware that the State Department's 2018 arms control compliance report, also known as the Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, submitted pursuant to section 2593a of title 22, United States Code, continues to find Russia in violation of the Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty), specifically the obligations not to possess, produce, or flight-test a ground-launched missile with a range capability of 500 kilometers to 5,500 kilometers. Each National Defense Authorization Act since fiscal year 2014 has included measures to pressure Russia to return to compliance with the treaty and to ensure Russia cannot obtain a military advantage by its violations of the treaty. The committee believes time is running out for Russia to take actions that will allow for the preservation of the treaty.

#### Section 1234—Modification and Extension of Ukraine Security Assistance Initiative



This section would extend by 2 years section 1250 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), most recently amended by section 1234 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), to authorize the Secretary of Defense to provide security assistance and intelligence support to the Government of Ukraine. This section would also authorize \$250.0 million to carry out this authority in fiscal year 2019.

The committee recognizes the essential role played by U.S. and partner assistance in training, advising, and equipping Ukrainian military and security forces, including the invaluable contributions of the National Guard through the State Partnership Program, and urges the Defense Department to fully resource those efforts. As part of these efforts, the committee recognizes the contributions of training activities conducted at the International Peacekeeping and Security Center in Yavoriv, Ukraine, and similar locations.

The committee commends the administration for providing defensive lethal assistance through Foreign Military Financing in the past year to the Government of Ukraine to support its efforts to protect and defend its territorial integrity. The committee urges the Department to continue to use the Ukraine Security Assistance Initiative (USAI) for assistance to the Government of Ukraine and encourages the Department to consider USAI as a source of funds for future defensive lethal assistance.

#### Section 1235—Statement of Policy on United States Military Investment in Europe

This section would state that it is the policy of the United States to sustain credible deterrence against aggression by the Government of the Russian Federation.

The committee notes section 1273 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) required the Secretary of Defense to submit a report to the congressional defense committees detailing a Future Years Defense Program plan for resourcing and planning for the European Deterrence Initiative. Section 1273 also prohibited any further action with respect to sites identified for divestiture, but not yet divested, as part of the European Infrastructure Consolidation (EIC) initiative until the report was submitted to the congressional defense committees.

As the section 1273 report has not been submitted in compliance with the statutory requirement, the committee believes the limitation of the divestiture of sites under the EIC is still in place.

#### Section 1236—Imposition of Sanctions with Respect to Certain Persons Providing Sophisticated Goods, Services, or Technologies for Use in the Production of Major Defense Equipment or Advanced Conventional Weapons

This section would require the President to submit a report to the specified congressional committees within 120 days after the date of enactment of the Act;

the report would list such persons as are described in section 1290 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328).

This section would also require the President to submit a report to the specified congressional committees within 120 days after the date of enactment of the Act; the report would provide information related to the supply chains for Russian arms sales programs.

The section would require the imposition of sanctions with respect to persons providing specified support to Russian industry, with a focus on targeting Russia's defense industry supply chain, involved with developing or producing major defense equipment or advanced conventional weapons. The sanctions available to the President would include, denial of sales or defense articles and services; licenses for export of an item on the United States Munitions List; or, exports controlled for national security under the Export Administration Regulations. It would also contain an enhanced sanction for governments of state-sponsors of terrorism that obtain such equipment from Russia. The President would be authorized to waive the imposition of sanctions with respect to the new sanctions provided in this section in certain specified circumstances.

This section would also amend section 231 of the Countering America's Adversaries Through Sanctions Act (Public Law 115-44), by providing an authority to suspend the imposition of sanctions under that Act for 180-day periods in the event a person demonstrates that they are directly supporting U.S. national security objectives and have taken specified steps, including terminating defense relationships with Russia, or reducing reliance upon the Russian defense or intelligence sectors.

Finally, all provisions or amendments made by this section would expire in 5 years.

#### Section 1237—Extension of Limitation on Military Cooperation between the United States and the Russian Federation

This section would extend for 1-year section 1232(a) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), as most recently amended by section 1231 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91). This section would limit the use of fiscal year 2019 funds for bilateral military-to-military cooperation between the Government of the United States and the Russian Federation until the Secretary of Defense, in coordination with the Secretary of State, provides a certification to appropriate congressional committees relating to certain actions by Russia. This section would also allow the Secretary of Defense to waive the limitation under certain conditions.

#### Section 1238—Sense of Congress regarding Russia's Violations of the Chemical Weapons Convention

This section would express the sense of Congress that the Russian Federation is in violation of the Chemical Weapons Convention.

### Section 1239—United States Actions regarding Material Breach of INF Treaty by the Russian Federation

This section would provide that, unless the President certifies to the specified congressional committees that the Russian Federation has returned to full and verifiable compliance with the INF Treaty within 1 year of the date of the enactment of this Act, the prohibitions set forth in Article VI of the Intermediate-range Nuclear Forces Treaty would no longer be binding upon the United States as a matter of U.S. law.

### Section 1240—Limitation on Availability of Funds to Extend the Implementation of the New START Treaty

This section would limit the expenditure of funds for the Department of Defense to extend the implementation of the New START Treaty unless and until the President certifies that the President has raised the issue of certain new Russian nuclear weapons systems under Article V of the New START Treaty and that the Russian Federation has responded in writing to the United States as to whether they will agree to declare such nuclear weapons systems pursuant to the Treaty. The President would be required to notify the specified congressional committees on whether the Russian position threatens the viability of the New START Treaty or requires political, economic, or military response by the United States.

## SUBTITLE E—MATTERS RELATING TO THE INDO-PACIFIC REGION

### Section 1251—Support for Indo-Pacific Stability Initiative

This section would express the sense of Congress in support of the Indo-Pacific Stability Initiative to increase and enhance U.S. force posture; improve military and defense infrastructure, basing, and logistics; and increase bilateral and multilateral training and exercises with allies and partner nations.

This section would require the Secretary of Defense to submit a requirement and resource plan to the congressional defense committees by March 1, 2019, that includes an analysis of the challenges faced by the United States to meet the objectives and activities outlined in the Indo-Pacific Stability Initiative and the resource requirements needed through fiscal year 2024 to address such challenges. This section also would require the Secretary to submit budget materials in support of the budget of the President for fiscal year 2020.

### Section 1252—United States Strategy on China

This section would require the President to issue a strategy on the United States' whole-of-government approach to safeguard U.S. interests against Chinese industrial acquisitions, political influence, and regional and global military

capabilities and presence that have defense and security implications for the United States and its allies and partners. The strategy and recommendations for implementation would be required to be submitted to the appropriate congressional committees as a written report not later than March 1, 2019.

#### Section 1253—Strengthening Taiwan's Force Readiness

This section would direct the Secretary of Defense to conduct a comprehensive assessment, in consultation with appropriate counterparts of Taiwan, on ways to enhance and reform Taiwan's military forces, particularly Taiwan's reserve forces. The assessment would also require the development of recommendations to strengthen bilateral cooperation and improve Taiwan's self-defense capabilities. The Secretary of Defense, in consultation with the Secretary of State, would be required to submit a report on the assessment and a list of recommendations and planned actions to the appropriate congressional committees not later than 1 year after the date of the enactment of this Act.

#### Section 1254—Modification, Redesignation, and Extension of Southeast Asia Maritime Security Initiative

This section would modify the Southeast Asia Maritime Security Initiative by amending the name to the Indo-Pacific Maritime Security Initiative. It would include India as a covered country and allow for the inclusion of additional countries in the Indo-Pacific region if the Secretary of Defense, in concurrence with the Secretary of State, determines and certifies to the appropriate committees of Congress that it is important for increasing maritime security and maritime domain awareness. This section would also extend the authority by 3 years from September 30, 2020, to September 30, 2023.

#### Section 1255—Missile Defense Exercises in the Indo-Pacific Region with United States Regional Allies and Partners

This section would express the sense of Congress that the United States should continue to develop and deploy robust missile defense in the Indo-Pacific region. This section would also express that the United States should increase coordination, conduct bilateral and multilateral missile defense exercises, and increase the capacity and integration of missile defense systems with allies and partners to move toward a more interoperable and integrated missile defense architecture.

This section would also state that the Secretary of Defense may conduct missile defense exercises in the Indo-Pacific region with U.S. regional allies and partners to improve interoperability.

Finally, this section would require the Secretary of Defense to provide a briefing to the congressional defense committees, the Committee on Foreign Relations of the Senate, and the Committee on Foreign Affairs of the House of

Representatives on the matters contained in subsection (c) not later than 120 days after the date of the enactment of this Act.

#### Section 1256—Quadrilateral Cooperation and Exercise

This section would express the sense of Congress on supporting quadrilateral cooperation among the United States, Japan, the Commonwealth of Australia, and the Republic of India, and others as appropriate.

This section would also state that the Secretary of Defense may conduct a quadrilateral naval military exercise and it would require the Secretary to provide a briefing to the congressional defense committees, the Committee on Foreign Relations of the Senate, and the Committee on Foreign Affairs of the House of Representatives on matters contained in this section not later than 120 days after the date of the enactment of this Act.

#### Section 1257—Name of United States Indo-Pacific Command

This section would change the name of "United States Pacific Command" to "United States Indo-Pacific Command" beginning in January 1, 2020. This section also would make several conforming amendments pursuant to the name change.

The committee notes that changing the name from "United States Pacific Command" to "United States Indo-Pacific Command" may involve some necessary administrative expenditures. The committee believes the Department of Defense should be prudent and minimize such costs to the extent practicable.

#### Section 1258—Requirement for Critical Languages and Expertise in Chinese, Korean, and Russian

This section would require the Secretary of Defense to provide a plan to address shortfalls in Chinese, Korean, and Russian language and expertise across the Department of Defense. Specifically, the plan shall provide a near-term and long-term plan for how the Department is building competency in these critical areas and the Secretary of Defense shall submit that plan to the congressional defense committees not later than 180 days after the date of the enactment of this Act.

#### Section 1259—Modification of Report Required under Enhancing Defense and Security Cooperation with India

This section would amend subsection (a)(2) of section 1292 of the National Defense Authorization Act for Fiscal Year 2017 (114-328) by adding an additional reporting requirement. The new reporting requirement would include a description of the progress on enabling agreements between the United States and the Republic of India, any limitations that hinder or slow progress, measures to improve interoperability, and actions India is taking, or the Secretary of Defense or the

Secretary of State believe India should take, to advance the relationship with the United States.

#### Section 1260—Statement of Policy on Naval Vessel Transfers to Japan

This section would express that it shall be the policy of the United States to support maritime defense cooperation with Japan.

#### Section 1261—Report and Public Notification on China's Military, Maritime, and Air Activities in the Indo-Pacific Region

This section would state the sense of Congress that greater transparency of the People's Republic of China provocative military, maritime, and air activities in the Indo-Pacific region would aid in raising awareness of these activities, enable regional security partners to more effectively protect their sovereignty and defend their rights under international law, and maintain stability within the region to enable constructive relations with China.

This section would also require Secretary of Defense, in consultation with the Director of National Intelligence and the Secretary of State, to submit a report to the appropriate congressional committees on a quarterly basis describing China's activities in the Indo-Pacific region, and disseminate the report to regional allies and partners and provide public notification, as appropriate. The dissemination and availability of the report and public notification shall be made in a manner consistent with national security and the protection of classified national security information.

#### Section 1262—Senior Defense Engagement with Taiwan

This section would express the sense of Congress that, pursuant to the Taiwan Travel Act, a service secretary or member of the joint chiefs should visit Taiwan for a senior-level defense engagement. This section would require a briefing to the congressional defense committees, the Committee on Foreign Relations of the Senate, and the Committee on Foreign Affairs of the House of Representatives on any plans of the Department to carry out senior-level defense engagement.

#### Section 1263—Limitation on Use of Funds to Reduce the Total Number of Members of the Armed Forces on Active Duty Who Are Deployed to the Republic of Korea

This section would limit the use of funds authorized to be appropriated by this Act to reduce the number of members of the Armed Forces serving on Active Duty in the Republic of Korea below 22,000 unless the Secretary of Defense first provides certification to the congressional defense committees that such a reduction is in the national security interest of the United States and will not significantly undermine the security of the United States allies in the region.

## Section 1264—Enhancing Missile Defense Cooperation with Partners

This section would state the sense of Congress that the Secretary of Defense should seek to increase missile defense coordination and cooperation with U.S. partners.

This section would amend section 1292 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) as amended by section 1258 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) by including missile defense cooperation as a priority of Department of Defense defense cooperation efforts with the Republic of India.

## SUBTITLE F—OTHER MATTERS

### Section 1271—Report on Status of the United States Relationship with the Republic of Turkey

This section would require the Secretary of Defense, in consultation with the Secretary of State, to submit a report on the U.S.-Turkish relationship to the congressional defense committees, the Committee on Foreign Relations of the Senate and the Committee on Foreign Affairs of the House of Representatives, not later than 60 days after the date of the enactment of this Act.

This section would also prohibit any action to execute delivery of a foreign military sale for major defense equipment under section 36 of the Arms Export Control Act (22 U.S.C. 2761) to the Republic of Turkey until the required report is delivered to the specified congressional committees.

### Section 1272—Sense of Congress on Unity of Gulf Cooperation Council Member Countries

This section would describe the sense of Congress that the member countries of the Gulf Cooperation Council (GCC) are important security cooperation partners of the United States, that GCC unity and cohesion is critical to facing the growing threats from the Islamic Republic of Iran, and that the timely normalization of diplomatic, security, and economic relationships is in the best interest of the United States.

### Section 1273—Report on United States Government Police Training and Equipping Programs for Mexico

This section would require the President to submit a report to the congressional defense committees, the Committee on Foreign Relations of the Senate, the Committee on Homeland Security and Governmental Affairs of the Senate, and the Committee on the Judiciary of the Senate, and the Committee on Foreign Affairs of the House of Representatives, the Committee on Homeland Security of the House of Representatives, and the Committee on the Judiciary of the

House of Representatives by July 1, 2019, on U.S. police training and equipping programs with the United States of Mexico.

#### Section 1274—Authority to Increase Engagement and Military-to-Military Cooperation with Western Balkans Countries

This section would authorize the Secretary of Defense to increase engagement and military-to-military cooperation utilizing authorized programs and activities under chapter 16 of title 10, United States Code, for the Western Balkans region including the Republic of Serbia, Bosnia and Herzegovina, the Republic of Kosovo, and the Republic of Macedonia.

The committee is concerned about long-term stability and security in the Western Balkans region. Ethnic tensions, economic challenges, and malign outside influences are contributing to the instability of the region. The committee remains concerned about the upcoming elections in Bosnia and Herzegovina. Since the signing of the Dayton Accords in 1995, Bosnia and Herzegovina has maintained growth in developing democratic institutions and elections. The committee encourages the Government of Bosnia and Herzegovina to promptly and effectively address their constitutional challenges and hold fair and free elections in October 2018.

The committee remains deeply concerned over the Russian Federation's intensifying efforts to assert its influence in the Western Balkans. The committee condemns Russia's involvement in the attempted coup against the Government of the newest member of the North Atlantic Treaty Organization (NATO), Montenegro, in October 2016. The committee is also concerned about Russian information operations in the Balkans including propaganda and efforts to highlight lingering ethnic tensions.

The committee is encouraged by the strong partnerships that continue to develop in the Western Balkans with the United States. These partnerships are vital to increase security, stability, and prosperity in the region. The committee also encourages European partners and allies to strengthen relationships in the region as well. The committee is hopeful about, and supportive of, the continued work of many in the region toward goals of integrating into the Euro-Atlantic community, including NATO and the European Union (EU). The continued forward progress by these nations toward accession into NATO and the EU provides a stable framework from which to achieve greater stability and security throughout Central Europe. The committee notes that the Department of Defense should continue to increase military-to-military cooperation and engagements in the region.

#### Section 1275—Technical Corrections Relating to Defense Security Cooperation Statutory Reorganization

This section would make technical corrections relating to defense security cooperation statutory reorganization.



## Section 1276—United States-Israel Countering Unmanned Aerial Systems Cooperation

This section would modify section 1279 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114–92) to authorize establishment of a cooperative research and development program with the State of Israel to develop capabilities for countering unmanned aerial systems through modification of the existing memorandum of agreement between the United States and Israel for anti-tunneling defense capabilities or through a new memorandum of agreement.

## Section 1277—Three-Year Extension of Authorization of Non-Conventional Assisted Recovery Capabilities

This section would modify section 943(g) of the National Defense Authorization Act for Fiscal Year 2009 (Public Law 110–417), as most recently amended by section 1051(n) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), authorization of non-conventional assisted recovery capabilities, by striking “2021” and inserting “2024”.

## Section 1278—Revision of Statutory References to Former NATO Support Organizations and Related NATO Agreements

This section would amend section 2350d of title 10, United States Code, to update the statutory reference to reflect a reorganization of the North Atlantic Treaty Organization (NATO) with respect to the elimination of the NATO Support Organization and the establishment of the NATO Support and Procurement Organization. This section would also amend section 2350d to reflect that NATO supply and logistics support activities may extend to NATO operations outside of Europe.

## Section 1279—Sense of the Congress Concerning Military-to-Military Dialogues

This section would state the sense of Congress regarding the parameters that lead to successful military-to-military dialogues.

## Section 1280—Modifications to Global Engagement Center

This section would modify section 1287 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). Nothing in this section would alter the requirements of section 8119 of the Consolidated Appropriations Act of 2018 (Public Law 115-141) or any successor provision in an Appropriation Act.

## Section 1281—Report on Acquisition and Cross-Servicing Agreements

This section would amend section 2342 of title 10, United States Code, with a requirement to report on cross-servicing agreements with NATO Allies and other countries. Reporting would include the country, date, text, dollar amount, and an assessment as to whether or not it falls within U.S. national security interests.

#### Section 1282—Prohibition on Provision of Weapons and Other Forms of Support to Certain Organizations

This section would prohibit funds authorized to be appropriated by this Act or otherwise made available to the Department of Defense for fiscal year 2019 from being used to provide weapons or any other form of support to certain organizations.

#### Section 1283—Certification and Authority to Terminate Funding for Academic Research Relating to Foreign Talent Programs

This section would require the Secretary of Defense to submit a plan to implement a certification requirement to ensure certain applicants for certain Department of Defense research funding provide the Secretary information concerning whether they have participated, or are currently participating, in foreign talent or expert recruitment programs of certain countries.

The Secretary would be required to implement such certification program not later than one year after the date of the enactment of this Act. The Secretary would have the authority to terminate the award of Department funds if an applicant or recipient of such funds is unable to provide the required certification.

#### Section 1284—Sense of Congress on Support for Georgia

This section would express the sense of Congress regarding the United States support for Georgia's sovereignty and territorial integrity as well as support for continued cooperation between the United States and Georgia.

#### Section 1285—Sense of Congress on Support for Estonia, Latvia, and Lithuania

This section would express the sense of Congress on U.S. support for the Republic of Estonia, the Republic of Latvia, and the Republic of Lithuania, including support for their sovereignty, concern over aggressive military actions of the Russian Federation against these nations, and encouragement for further defense cooperation between the United States and these nations.

#### Section 1286—Report on United States Strategy in Yemen

This section would require the Secretary of Defense to submit a report to the congressional defense committees not later than February 1, 2019, describing the strategy of the United States Armed Forces with respect to Yemen including a description of the U.S. Armed Forces activity in Yemen, costs associated with such

activity, key objectives of such activity, indicators of effectiveness, how current efforts align with such objectives, the estimated annual resources required through fiscal year 2022 to achieve such objectives, the applicable legal authorities, and any other matters the Secretary deems relevant.

### Section 1287—Report on Hizballah

This section would require the President to submit to the Senate Committee on Armed Services, the House Committee on Armed Services, the congressional intelligence committees, the Committee on Foreign Affairs of the House of Representatives, and the Committee on Foreign Relations of the Senate a report on Hizballah no later than 90 days after the enactment of this act. The report would include accounting of Hizballah's known rocket arsenal, an evaluation of the impact of the United Nations Interim Force in Lebanon (UNIFIL), an evaluation of Hizballah's capabilities, a description of routes used by Hizballah to procure weapons illegally, an estimate of entities that support Hizballah's network, an assessment of Hizballah's involvement in regional conflicts, and an assessment of Hizballah's fundraising in territories where UNIFIL operates.

## TITLE XIII—COOPERATIVE THREAT REDUCTION

### ITEMS OF SPECIAL INTEREST

#### Future of the Cooperative Threat Reduction Program

The committee notes the successful history of the Nunn-Lugar Cooperative Threat Reduction (CTR) program, including the pivotal role it played in securing former Soviet Union nuclear material and delivery platforms, the destruction of Russian and Syrian chemical weapons, and the securing of sensitive biological laboratories around the world. In response to an evolving threat landscape, Congress has provided modifications to the original program to address current requirements for threat reduction and the proliferation of weapons of mass destruction (WMD) by state and non-state actors around the globe.

The committee is aware that additional opportunities may exist for enhanced cooperation with allies and partners to address emerging proliferation concerns and WMD threats, such as those on the Korean Peninsula. The committee notes, however, that interagency coordination, expeditious project approval, prioritization, measuring program effectiveness, and policy gaps continue to pose challenges to effective and efficient utilization of CTR by the Department of Defense, despite efforts for improvement.

Therefore, the committee directs the Secretary of Defense to provide a report to the House Committee on Armed Services by December 1, 2018, on how to strengthen the CTR program so that it may be better leveraged for emerging threat reduction and proliferation concerns in an efficient and expeditious manner.

## LEGISLATIVE PROVISIONS

### Section 1301—Funding Allocations

This section would allocate specific funding amounts for each program under the Department of Defense Cooperative Threat Reduction (CTR) Program from within the overall \$335.2 million that the committee would authorize for the CTR Program. The allocation under this section reflects the amount of the budget request for fiscal year 2019.

### Section 1302—Specification of Cooperative Threat Reduction Funds

This section would specify that funds authorized to be appropriated to the Department of Defense for the Cooperative Threat Reduction Program, established under the Department of Defense Cooperative Threat Reduction Act (50 U.S.C. 3711), would be available for obligation in fiscal years 2019, 2020, and 2021.

## TITLE XIV—OTHER AUTHORIZATIONS

### LEGISLATIVE PROVISIONS

#### SUBTITLE A—MILITARY PROGRAMS

### Section 1401—Working Capital Funds

This section would authorize appropriations for Defense Working Capital Funds at the levels identified in section 4501 of division D of this Act.

### Section 1402—Chemical Agents and Munitions Destruction, Defense

This section would authorize appropriations for Chemical Agents and Munitions Destruction, Defense at the levels identified in section 4501 of division D of this Act.

### Section 1403—Drug Interdiction and Counter-Drug Activities, Defense-Wide

This section would authorize appropriations for Drug Interdiction and Counter-Drug Activities, Defense-wide at the levels identified in section 4501 of division D of this Act.

### Section 1404—Defense Inspector General

This section would authorize appropriations for the Office of the Inspector General at the levels identified in section 4501 of division D of this Act.

### Section 1405—Defense Health Program

This section would authorize appropriations for the Defense Health Program at the levels identified in section 4501 of division D of this Act.

### Section 1406—National Defense Sealift Fund

This section would authorize appropriations for the National Defense Sealift Fund at the levels identified in section 4501 of division D of this Act.

## SUBTITLE B—OTHER MATTERS

### Section 1411—Authority for Transfer of Funds to Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund for Captain James A. Lovell Health Care Center, Illinois

This section would authorize the transfer of funds from the Department of Defense to the Joint Department of Defense-Department of Veterans Affairs Medical Facility Demonstration Fund established by section 1704 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84).

### Section 1412—Authorization of Appropriations for Armed Forces Retirement Home

This section authorizes appropriations for fiscal year 2019 from the Armed Forces Retirement Home Trust Fund for the operation of the Armed Forces Retirement Home.

### Section 1413—Quarterly Briefing on Progress of Chemical Demilitarization Program

This section would modify section 1521 of title 50, United States Code, to require the Secretary of Defense to provide quarterly briefings to the congressional defense committees on the progress of the chemical demilitarization program, including contractor cost and schedule performance, destruction progress, and any other relevant information until stockpile destruction is complete. This section would also eliminate the semiannual written reports required in the section referenced above.

## TITLE XV—AUTHORIZATION OF ADDITIONAL APPROPRIATIONS FOR OVERSEAS CONTINGENCY OPERATIONS

### ITEMS OF SPECIAL INTEREST

#### Cargo Inspections to Counter Vehicle Borne IED Threats

The Committee is encouraged that the Department of the Army is testing and planning to deploy new passive cargo inspection technologies to address a joint urgent operational need to counter Vehicle Borne Improvised Explosive Device (VBIED) threats. This disruptive technology, which utilizes naturally occurring cosmic ray muons and electrons, identifies shielded and unshielded nuclear and radioactive materials; detects smuggled contraband, including weapons, bombmaking materials, and illicit goods; and is proven safe for humans, animals, and food products. The Committee encourages the Army to continue with the current testing program and supports efforts to deploy the system at a major US military facility. Further, the Committee requests a briefing 60 days after the enactment of this bill on the potential future deployments of these next generation inspection technologies inside and outside the continental United States. The briefing, which may be provided in a classified setting, shall include an assessment of current cargo inspection protocols and requirement gaps that may exist.

#### National Guard and Reserve Component Equipment Account

The budget request for Overseas Contingency Operations (OCO) contained no funding for a National Guard and Reserve Component equipment account. Elsewhere as reflected in division D of this Act, the committee notes that the base budget request contained \$3.4 billion for procurement of National Guard and Reserve Component equipment and \$219.9 million in the OCO request for Army National Guard and Army Reserve other procurement programs.

The committee remains concerned about the availability of equipment needed to sustain and modernize the National Guard and Reserve Components as an operational reserve and for their domestic support missions. The committee notes that National Guard and Reserve Components are often reliant upon overused and outdated equipment, creating a widening capability gap with the Active Component, and have been unable to maintain pace with rapid technological change. The committee believes additional funds are required to address identified equipment shortfalls and improve compatibility with Active Components. The committee expects these funds to be used for the purposes of, but not limited to, the procurement of rotorcraft; avionics and radar upgrades for legacy strike fighter aircraft to include Navy Reserve F-18 strike fighters; wheeled and tracked combat vehicles; tactical wheeled vehicles; ammunition; small arms; tactical radios (to include single channel ground and airborne radio systems); UH-72A Lakota survivability upgrades; UH-60 disaster response equipment, such as rescue hoists, water buckets, and radios; non-system training devices; vehicle convoy operations trainers; unstabilized gunnery trainers and virtual convoy operations trainers; sense and avoid system upgrades for unmanned air systems; and explosive ordnance disposal man-portable robots & lightweight X-ray systems and other unfunded procurement items for the National Guard and Reserve Components.

The committee recommends additional funding for a National Guard and Reserve Component equipment account within the Overseas Contingency

Operations budget request. The committee also recommends \$3.4 billion, the full amount of the base budget request, for National Guard and Reserve Component equipment and also recommends \$219.9 million in the OCO request for Army National Guard and Army Reserve.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—AUTHORIZATION OF APPROPRIATIONS

#### Section 1501—Purpose of Certain Authorizations of Appropriations

This section would establish the purpose of this title and make authorization of appropriations available upon enactment of this Act for the Department of Defense, in addition to amounts otherwise authorized in this Act, to provide for additional authorization of funds due to overseas contingency operations and other additional funding requirements.

#### Section 1502—Procurement

This section would authorize additional appropriations for procurement at the levels identified in section 4102 of division D of this Act.

#### Section 1503—Research, Development, Test, and Evaluation

This section would authorize additional appropriations for research, development, test, and evaluation at the levels identified in section 4202 of division D of this Act.

#### Section 1504—Operation and Maintenance

This section would authorize additional appropriations for operation and maintenance programs at the levels identified in section 4302 of division D of this Act.

#### Section 1505—Military Personnel

This section would authorize additional appropriations for military personnel at the levels identified in section 4402 of division D of this Act.

#### Section 1506—Working Capital Funds

This section would authorize additional appropriations for Defense Working Capital Funds at the levels identified in section 4502 of division D of this Act.

#### Section 1507—Drug Interdiction and Counter-Drug Activities, Defense-Wide

This section would authorize additional appropriations for Drug Interdiction and Counter-Drug Activities, Defense-Wide, at the levels identified in section 4502 of division D of this Act.

#### Section 1508—Defense Inspector General

This section would authorize additional appropriations for the Office of the Inspector General at the levels identified in section 4502 of division D of this Act.

#### Section 1509—Defense Health Program

This section would authorize additional appropriations for the Defense Health Program at the levels identified in section 4502 of division D of this Act.

### SUBTITLE B—FINANCIAL MATTERS

#### Section 1511—Treatment as Additional Authorizations

This section would state that amounts authorized to be appropriated by this title are in addition to amounts otherwise authorized to be appropriated by this Act.

#### Section 1512—Special Transfer Authority

This section would authorize the transfer of up to \$4.5 billion of additional war-related funding authorizations in this title among the accounts in this title.

### SUBTITLE C—LIMITATIONS, REPORTS, AND OTHER MATTERS

#### Section 1521—Afghanistan Security Forces Fund

This section would extend the Afghanistan Security Forces Fund through December 31, 2019. This section would also set a goal of using \$18.0 million to support, to the extent practicable, the efforts of the Government of the Islamic Republic of Afghanistan to promote the recruitment, training, and integration of Afghan women into the Afghan National Defense and Security Forces and as security personnel for future elections.

This section would also require an assessment of the Government of Afghanistan's ability to manage, employ, and sustain equipment divested under the Afghan Security Forces Fund; if the results of said assessment are unfavorable, the Secretary of Defense, in consultation with the Secretary of State, would be authorized to withhold assistance under the Afghanistan Security Forces Fund.

#### Section 1522—Joint Improvised-Threat Defeat Fund



This section would amend subsections (b) and (c) of section 1514 of the John Warner National Defense Authorization Act for Fiscal Year 2007 (Public Law 109-364) to extend the use and transfer authority for the Joint Improvised-Threat Defeat Fund through fiscal year 2019. This section would also extend the authority for interdiction of improvised explosive device precursor chemicals to December 31, 2019.

This section would also direct the Secretary of Defense to submit to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2019, a plan to transition funding for the Joint Improvised-Threat Defeat Fund from Overseas Contingency Operations to the base budget.

## TITLE XVI—STRATEGIC PROGRAMS, CYBER, AND INTELLIGENCE MATTERS

### ITEMS OF SPECIAL INTEREST

#### SPACE ACTIVITIES

##### Briefing on Deployed Satellite Communications Terminals

The committee notes that currently deployed satellite communications terminals may not meet the performance, the agility, timeliness, and weight requirements needed to provide secure satellite communications to naval and expeditionary forces. The committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by November 1, 2018, on the current validated requirements for the terminals and a plan, including applicability, operational capability and cost, for quickly fielding commercially available, secure, lightweight, satellite communications terminals, equipped with rapidly deployable antennas, in support of warfighter operations.

##### Briefing on Supply Chain for In-Space Propulsion Thrusters

The committee is aware that the Department of Defense and its suppliers rely on U.S., allied, and non-allied manufacturers for procurement of in-space propulsion thrusters. These thrusters are used on critical military satellites and the Committee is concerned that the presence of Russian origin thrusters on these satellites may constitute a security risk, particularly as the Department of Defense shifts towards the use of commercial off the shelf satellites.

Therefore, the Committee directs the Secretary of the Air Force to provide a briefing on the supply chain for in-space propulsion thrusters, whether the presence of allied or non-allied thrusters increases risk, and if so how, options to mitigate any identified risks, and the cost implications of relying solely on U.S. sources to the House Committee on Armed Services by January 31, 2019.

## Commercial Satellite Imagery

The committee continues to support the National Geospatial-Intelligence Agency's (NGA) continued acquisition of commercial satellite imagery in support of global geospatial-intelligence needs. The committee is also aware that NGA, working with the National Reconnaissance Office (NRO), is developing a joint transition plan to transfer commercial imagery pixel acquisition from NGA to NRO in fiscal year 2019, and expects continued focus and leveraging of these commercial capabilities to add to U.S. imagery capacity and capabilities.

As this transition occurs, the committee believes it is essential to maintain continuity of operation, quality of service, cost-effective services, and capability for the warfighter and other user communities.

Acquisition of commercial imagery should contract with several providers to leverage U.S. industry providers of global, high-resolution, and cost-effective services, with high revisit rates, and reliable performance including those that have demonstrated proven capability and those that are rapidly emerging within industry. Commercial synthetic aperture radar imagery can also provide day, night, and all-weather imagery in highly cloud covered regions.

The committee directs the NGA Director and the NRO Director to jointly provide a briefing to the congressional defense committees and the congressional intelligence committees by August 1, 2018, on agency plans for the transition from NGA to NRO, and planned funding beyond fiscal year 2019, and on an open and fair competitive acquisition process to leverage industry capabilities, including but not limited to plans following the EnhancedView contract.

## Commercial Space Situational Awareness Capabilities

The committee continues to be concerned with the direction of the multiple programs seeking to address space situational awareness (SSA) requirements, including Joint Space Operations Center Mission System, the Enterprise Space Battle Management Command and Control System, and the SSA Operations at the National Space Defense Center. The committee expects the Air Force to operationalize existing best of breed commercial capabilities to meet warfighter requirements.

The committee supports the efforts being undertaken by the Air Force Research Laboratory and the Air Force Rapid Capabilities Office to develop common data standards and process commercial data to augment Department of Defense capabilities. The development of common data standards will be important to ensuring the broader multi-domain command and control efforts that are being undertaken within the Air Force.

## Criteria for Launch Service Agreement Down-Select

The committee notes that the Secretary of the Air Force plans to make an initial down-select decision to three potential Expendable Evolved Launch Vehicle

(EELV) launch providers for assured access to space in the summer of 2018, and plans to make a final award for launch service procurement contracts by the end of fiscal year 2019. The committee is aware that full-scale flight tests of new space launch vehicles may not occur until after this award is made.

The committee therefore directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than October 1, 2018, on the criteria and sufficiency of test data that the Air Force will use to make the final launch service agreement awards by the end of fiscal year 2019, potentially ahead of fully integrated flight tests. The briefing should also include criteria and incentives that the Air Force will use to ensure that the contractors selected maintain schedule and fidelity in line with their contract bids.

### GPS Backup Demonstration

The committee continues to support the demonstration of backup and complementary positioning, navigation, and timing capabilities of the Global Positioning System (GPS) as required by section 1606 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91). The committee encourages the Secretary of Defense, Secretary of Transportation, and Secretary of Homeland Security to continue to work together to jointly develop and implement a plan for carrying out this backup GPS capability demonstration in 2019 and 2020. Further, the committee expects the Secretaries to submit the final report next year as required by Public Law 115-91. The committee directs the Secretary of Defense to provide a briefing to the congressional defense committees by December 1, 2018, on the progress being made on this demonstration.

### Launch Support and Infrastructure Modernization

The committee is aware that the Air Force's launch support and modernization program required by section 1609 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) covers the Eastern and Western Ranges, but does not include U.S. spaceports. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives not later than September 14, 2018, on the potential benefits of including in this program U.S. spaceports and ranges that actively support national security missions, including benefits such as increasing resilience and rapid launch capability, and the estimated costs of including them.

### Launch Vehicle Upper Stage Mission Enhancement

The committee is interested in the cost-effective development of advanced launch vehicle upper stages to be used for defense of our space assets. Advanced upper stages could increase the operational flexibility and on-orbit reusability of the holistic launch system while also allowing for greater delivery of mass to orbit.

The committee directs the Secretary of Defense to provide a briefing to the congressional defense committees by December 3, 2018, on the benefits, risks, costs, and operational opportunities for next generation upper stage technology. The briefing should examine as appropriate on-orbit reusability, cryogenic refueling, multiple engine restarts, and power generation to support secondary payloads that can support space resiliency.

#### Next Generation Overhead Persistent Infrared Satellites

The committee supports the Department of Defense's efforts to improve the affordability, resiliency, and agility of Overhead Persistent Infrared Satellite systems that can be rapidly fielded as the battlespace changes. As adversaries challenge this capability, the Department must respond with technology upgrades in a rapid fashion to counter the threat by pursuing affordable systems with lifetimes under 7 years; disaggregated strategic missile warning, missile defense tracking, and battlespace awareness missions; smaller bus sizes; resilient mission architectures that can survive a loss of system nodes/satellites and still provide primary mission capability through complementary mission capabilities and both on-orbit and ground spares with the ability to rapidly reconstitute.

The committee believes these efforts should be supported with robust prototyping to demonstrate the now disaggregated missions of strategic missile warning and battlespace awareness for increased resiliency: operational demonstrations to drive down operational interface risks and technical demonstrations to drive down technical risks so that technology insertion into our operational systems can be done in a low-risk fashion. Prototypes should have residual operational capability that can contribute immediately to the resilience of the mission.

#### Plan for Use of Allied Launch Services in Case of Emergency Need

The committee notes that a plan for the use of allied launch vehicles was mandated by section 1604 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). This plan was to provide assured access to space should the Department of Defense be unable to meet that requirement for a limited period using only U.S. launch vehicles.

In 2017, the Air Force provided to Congress a report that analyzed the initial potential of using an allied nation's launch vehicle and services for U.S. national security space launches. The committee commends the Air Force for providing this analysis. The committee notes the report identified a number of activities that have not been implemented, specifically regarding the pursuit of non-recurring design validation or certification of the allied launch system for specific payloads or reference missions, early integration studies of specific payloads, an environmental impact statement plus one year of standard mission integration and space-flight-worthiness assessment, and the pursuit of a pathfinder mission. The committee further notes that additional capabilities may be needed to use allied

launch capability in the event of an emergency and inability of U.S. launch providers to provide assured access to space.

The committee directs the Secretary of Defense to provide a report to the House Committee on Armed Services by December 3, 2018, on an operational backup plan for assured access into space using allied launch vehicles. This plan shall include:

- (1) an assessment of U.S. satellites that would be appropriate to be launched on an allied launch vehicle;
- (2) relevant laws, regulations, and policies governing the launch of national security satellites;
- (3) whether any legislative, regulatory, or policy actions or changes would be necessary to allow for the launch of a national security satellite on an allied launch vehicle; and
- (4) the certification requirements for using allied launch vehicles pursuant to the plan and the estimated cost, schedule, and measures that would be necessary to certify allied launch vehicles.

When creating this backup plan, the committee expects the Secretary to leverage findings identified by the previous Air Force report.

#### Portable Satellite Data Receiver Status

The committee notes that the United States Air Force Research Laboratory's Small Business Initiative Research has provided funding for the development of a unique satellite communications receive suite for reliable, portable connection by the warfighter to the Global Broadcast System (GBS). The committee is aware that the Department of Defense joint program office now includes these portable receive suites as an approved solution for receive technology with military satellite communications on the existing GBS network. The committee encourages the Department of Defense and the Air Force to ensure that these suites are made available to the warfighter.

The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by November 1, 2018, on a plan, including applicability and cost, for rapidly fielding commercially available, secure, satellite, Suitcase Portable Receive Suites and Rucksack Portable Receive Suites in support of deployed warfighter operations.

#### Rapid Satellite Capability Reconstitution

The committee recognizes the value that rapid reconstitution may contribute to increasing resilience in the space domain. The committee directs the Under Secretary of Defense for Research and Engineering to submit a report to the House Committee on Armed Services by January 15, 2019, on the needs and capabilities of the Department of Defense to rapidly reconstitute disaggregated Earth-orbiting satellite constellations. The report should include options for developing an approach for commercially acquiring, where cost effective, resilient

and rapid launch services to support reconstitution, including but not limited to the feasibility of launching satellites within one week of need.

### Satellite Communications

The committee is aware that the Consolidated Appropriations Act, 2018 (Public Law 115-141) added two more Wideband Global Satellite Communications System (WGS) satellites. The committee also notes the increasing demand for satellite communications (SATCOM) capacity and the potential for increased contribution from commercial SATCOM providers. In addition, recognizing the growing capacity and resilience requirements, the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) required that the pilot program required under section 1605 of the National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291) provide order-of-magnitude improvements in SATCOM capability.

The committee is aware of proven commercial SATCOM technology, including high capacity satellite communications technology, that delivers improvements in capacity and performance capabilities and supports operations in contested environments in a cost-effective manner. The committee supports the Department of Defense's request for multiyear procurement authority for these services.

Therefore, the committee directs the Secretary of Defense to submit a report to the Committee on Armed Services of the House of Representatives by December 1, 2018, including:

(1) the costs associated with the procurement, operations, and sustainment of the additional WGS satellites, including life-cycle costs, and costs related to operations and maintenance, and launch;

(2) an update on the status of the Air Force commercial SATCOM pilot and pathfinder programs, including an update on fulfilling the order-of-magnitude requirement, an explanation of the steps the Department is taking to expedite the integration of commercially available high capacity satellite communications to meet the growing capacity demand and counter accelerating adversary communications denial capabilities, and whether the Air Force plans to use its existing authorities to solicit and award annual services contracts; and

(3) a comprehensive plan to modernize terminals and networking capability needed to access and adopt new multi-domain commercial communications technologies, multi-mode terminals and network.

### Space Flag Exercise and Responsive Launch

The committee is encouraged that the budget request proposed creating a dedicated Air Force Space Procurement funding line to acquire affordable, flexible launch services to deliver spacelift capability for small payloads to low Earth orbit through geostationary transfer orbit. The committee supports the proposed Rocket System Launch Program procurement and encourages sustained investment to

further operationalize integration of new small launch services into the space enterprise.

The National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) also states that the Secretary of Defense should establish “an annual capstone training event” for space professionals to refine doctrine, operations, and training. This “Space Flag” exercise improves training to operate in the event of loss of space capabilities and to deter conflict in space. The U.S. Air Force concluded its second annual Space Flag exercise in August 2017 in Colorado Springs, Colorado.

Demonstrating overt resolve and ability to rapidly replenish diminished capabilities could contribute to increasing resilience in space as it relates to operations, tactics, and procedures for protecting and defending U.S. assets. In addition, integrating responsive launch capabilities into the annual Space Flag event could be an important step in evolving space mission operations, and to test, train, and operationalize these capabilities.

Accordingly, the committee directs the Secretary of the Air Force to provide a briefing to the congressional defense committees by December 1, 2018, on the value, plans, requirements, and benefits of aligning the small launch activities of the Rocket System Launch Program with the annual Space Flag training exercise.

#### Use of Commercial Items in Follow-On Wideband Communications System

The committee supports efforts to conduct an analysis of alternatives for a follow-on wideband communications system to the Wideband Global Satellite Communications System as required by section 1611 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The committee encourages the Department of Defense's efforts to maximize the use of commercial satellite communications capabilities as required by section 2377 of title 10, United States Code.

Section 2377 of title 10, United States Code, requires that Federal agencies maximize the use of commercial items in determining requirements and soliciting for procurements. To prevent critical satellite communications capability gaps and to field a follow-on wideband communications system by 2021, the Department must ensure that its market research is fully investigating the ability of a commercial offeror to meet the requirements of the Air Force's procurement needs on a commercial basis, in part or in full.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by June 30, 2018, on the Department's efforts to comply with section 2377 of title 10, United States Code, and on its analysis of alternatives for a follow-on wideband communications system.

#### MISSILE DEFENSE PROGRAMS

##### Airborne Tracking and Targeting System

The Committee notes that the Missile Defense Agency has been working on technologies to develop and test ballistic missile tracking and surveillance using MQ-9 Reaper unmanned aerial vehicles under an experimental program. The Committee directs the Missile Defense Agency, in coordination with Commander, Pacific Command and Commander, Central Command, to provide a brief to the House Armed Services Committee by December 31, 2018 on the addition of an operational fleet of advanced sensors deployed on MQ-9 Reaper systems to the ballistic missile defense system, to include integration and test efforts, operational value for regional and homeland defense, basing options, Warfighter concepts of operation, and total research, development, test and evaluation and operations and sustainment costs associated with deployment to the Pacific command and Central command areas of responsibility.

### Cruise Missile Threat to Hawaii

The committee notes the cruise missile threat to the United States, including Hawaii, and notes that the ballistic missile defense review, which has been delayed, may address this issue. Therefore, the committee directs the Secretary of Defense, in consultation with the Director of National Intelligence, to provide to the Armed Services Committee of the House of Representatives a briefing no later than 45 days after the Ballistic Missile Defense Review is submitted to Congress, on the cruise missile defense threat to the United States, including Hawaii, including in the event of a conflict with Russia or China, the role of nuclear deterrence plays in the layered defense of the United States, and an assessment of the required architecture, development and deployment timeline, estimated costs and any relevant policy implications related to a potential cruise missile defense system to protect the United States, including specifically Hawaii.

### Cybersecurity of Ballistic Missile Defense System

This committee notes the 2017 report from the Director, Operational Test and Evaluation, of the Department of Defense, on the cybersecurity testing gaps that exist for the Ballistic Missile Defense System (BMDS). The committee further notes that a plan is needed from the Missile Defense Agency and Director, Operational Test and Evaluation to conduct vulnerability assessments, cooperative vulnerability and penetration assessments, and adversarial assessments on all BMDS mission elements. Therefore, the committee directs the Director of the Missile Defense Agency, in coordination with the Director, Operational Test and Evaluation, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by December 31, 2018, on the BMDS cybersecurity testing road map. The briefing must include a comprehensive plan to improve the cybersecurity posture of the mission elements of the BMDS, including addressing the requirement to further enhance such posture through the integration and dissemination of left- and right-of-launch data, and what process



the Director of the Missile Defense Agency will use to incorporate lessons learned from the cybersecurity assessments.

### Hypersonic Defense

The committee directs the Director of the Missile Defense Agency to provide a briefing to the congressional defense committees by December 31, 2018, on the hypersonic defense analysis of alternatives and the integrated plan, including estimated costs to deliver hypersonic defense capabilities in a manner that is global, cost effective, persistent, and provides resilient tracking, in accordance with section 1687 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). This briefing shall include an assessment on the required architecture, deployment timeline, and estimated costs for defense against hypersonic threats as demonstrated and/or pursued by Russia and China.

### Maintenance of Patriot Batteries

The committee notes that an ongoing review by the Comptroller General of the United States of the Army's maintenance of the Patriot missile defense system has found that although the Army believes that the current pace of recapitalizing Patriot equipment incurs long-term risks to sustaining the system, the Army has concluded that it cannot increase the recapitalization pace without affecting current operational demands or without shifting resources from its integrated air and missile defense modernization priorities. In addition, the ongoing review by the Comptroller General has found that the return of reset equipment to Patriot units generally has not met the Army's timeliness goal and that delays in returning reset equipment can affect unit training. Therefore, the committee directs the Secretary of the Army to provide a briefing to the Committee on Armed Services of the House of Representatives not later than December 1, 2018, on a plan to conduct a comparative analysis of factors affecting Patriot reset timeliness and appropriate corrective actions to improve timeliness.

### Options to Supplement Missile Defense of Hawaii

The committee notes that Hawaii is currently defended against missile threats from North Korea by the deployed ground-based interceptors located at Fort Greely, Alaska, and Vandenberg Air Force Base, California. Mindful of potential costs and untested capability of Standard Missile-3 (SM-3) interceptors against long-range missile threats, the committee directs the Secretary of the Navy, in consultation with the Director of the Missile Defense Agency, to provide a briefing to the Committee on Armed Services of the House of Representatives, not later than September 15, 2018, on the potential to supplement this defense by assigning a permanent Aegis ship patrol to increase a layered ballistic missile defense of Hawaii, with the assumption that SM-3 missiles might be effective against long-range threats. The briefing should address the technical capability, feasibility,

benefits, risks, cost, and trade-offs of this option for the purpose of defending Hawaii.

In addition, mindful of the high demand for Terminal High Altitude Area Defense (THAAD) batteries and the untested capability of the THAAD weapon system against long-range threats, the committee also directs the Director of the Missile Defense Agency, in coordination with the Secretary of the Army, to provide a briefing to the Committee on Armed Services of the House of Representatives, not later than September 15, 2018, on the feasibility of stationing a permanent THAAD battery in Hawaii, and the technical capability, costs, benefits, and risks of testing a THAAD interceptor against an intercontinental ballistic missile.

### Patriot Interceptor Inventory

The committee recognizes, given the reality of ever-increasing capabilities and quantities of ballistic missiles and air-breathing threats (such as cruise missiles and unmanned aerial vehicles), the importance of maintaining a full complement of interceptors for the Patriot system. Section 1678 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) directed the Army to submit a plan to maintain an inventory of interceptors necessary to retain the capability provided by Patriot interceptors. The committee notes that the report has not yet been received and will be delayed until July 2018.

Therefore, the committee directs the Secretary of the Army, in coordination with the Chief of Staff of the Army, to submit an amended report to the congressional defense committees by July 31, 2018, that addresses the value of maintaining use of Guidance Enhanced Missile (GEM-T) capabilities alongside Patriot Advanced Capability-3 (PAC-3) and PAC-3 Missile Segment Enhanced (MSE) to provide Patriot with a full complement of capability and capacity against current and evolving threats, including air-breathing and all other types of ballistic missiles. The report should also include the Army's intent to recertify the aging GEM-T inventory and cite a desired date to commence this activity so as to minimize any negative consequences to Patriot munitions capacity.

### Protection of Ballistic Missile Defense System Components

The committee notes an increase to land-based ballistic missile defense system (BMDS) components with the development and delivery of the Long Range Discriminating Radar, Homeland Defense Radar-Hawaii, Pacific Radar, and completion of the Aegis Ashore site in Poland. These new sites are in addition to already deployed terrestrial weapon system sites and radars. Responsibility for protection of these sites against threats such as cruise missiles, unmanned aerial vehicles, and electronic warfare falls under the combatant commander for which they are located.

The committee directs the Secretary of Defense, in coordination with the Commander, U.S. Strategic Command, and appropriate regional combatant commands, to provide a briefing to the congressional defense committees by

November 30, 2018, detailing the current protections of deployed BMDS assets from cruise missile, unmanned aerial vehicle, and electronic warfare threats. The briefing should also include the requirements for protection of the future assets that are in the program of record, as well as any plans to increase protection of current and future assets, including costs and any mitigating measures in the event that a system is degraded or unavailable.

### Standard Missile-3 Testing and Reliability

The committee is aware of the role and importance of the Standard Missile-3 (SM-3) interceptors in providing missile defense capability to the warfighter. The committee notes that failures of the SM-3 IB and SM-3 IIA revealed issues that may have been avoided with additional system engineering focus, and these recent challenges could have impacts on reliability assessments of these interceptors by the Director, Operational Test and Evaluation.

The committee also notes that section 1680 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) included a requirement to test the SM-3 IIA capability against a longer range threat. The committee directs the Director of the Missile Defense Agency to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate, not later than August 1, 2018, on how the recent SM-3 IIA test failure affects the planned test of this missile against an intercontinental ballistic missile-range target. This briefing should include implications such as changes to timeline of planned tests, requirements for additional tests, and changes in funding requirements.

The committee also directs the Director of the Missile Defense Agency, in coordination with the Director of the Office of Test and Evaluation, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives, not later than December 15, 2018, detailing how the Missile Defense Agency will ensure the contractor's systems engineering and ground testing procedures are adequate to support production of SM-3 IB and SM-3 IIA interceptors. The briefing should describe how ground test data from production interceptors supports SM-3 reliability estimates from the Missile Defense Agency and the Office of Test and Evaluation.

### Warfighter Procedures for Responding to and Releasing Information Regarding an Inbound Ballistic Missile Threat

The committee notes that on January 13, 2018, the Hawaii Emergency Management Agency (HI-EMA) issued a false incoming ballistic missile alert that caused widespread panic and confusion in the State of Hawaii. The U.S. Pacific Command (PACOM) notified HI-EMA that no launch had occurred within minutes of the false alert being issued. Nevertheless, it took HI-EMA 38 minutes to retract the alert.

The committee notes the importance of clear and accurate communications and cooperation between PACOM and relevant federal and state entities

responsible for communicating and alerting the public of an incoming threat. Therefore, the committee directs the Secretary of Defense, in coordination with the Chairman of the Joint Chiefs of Staff to provide a briefing to the Committee on Armed Services of the House of Representatives on ballistic missile alert procedure, warfighter coordination, plans, and timelines in the event of a legitimate incoming ballistic missile attack to the Homeland, including coordination, plans and timelines for releasing critical defense information to other Federal agencies, and state entities as appropriate, responsible for informing the general public. The briefing shall also include the DoD's role and process, if any, in retracting a false, misinformed, or unauthorized alert issued by a federal or state agency regarding an inbound ballistic missile threat.

## NUCLEAR FORCES

### Air Force Global Strike Command and Nuclear Deterrence Institute

The committee continues to oversee Air Force Global Strike Command (AFGSC) as it leads and coordinates efforts across the Air Force for both nuclear deterrence operations and the National Leadership Command Capabilities/Nuclear Command, Control, and Communications system. The committee believes strong and sustained attention on these missions will be required as the Air Force carries out its portions of the nuclear modernization program.

The committee understands that the AFGSC's strategy to enhance science, technology, innovation, and collaboration related to its missions has successfully leveraged partnerships with local governments, academia, industry, and non-profits. This strategy also includes an intent to establish an institute dedicated to AFGSC's missions, further leverage these partnerships, and provide AFGSC an analytical foundation and direct access to expertise across its mission set. To better understand how the Air Force intends to proceed with this initiative, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by November 30, 2018, on implementation of the AFGSC's strategy to enhance science, technology, innovation, and collaboration. The briefing should include:

- (1) the Secretary's decision regarding if, and if so, when and how, to establish the institute recommended by the strategy;
- (2) whether and how the institute could uniquely contribute to the nuclear deterrence operations mission of the Air Force without duplication of other capabilities and resources; and
- (3) the benefits and costs associated with the institute.

### B83-1 Nuclear Gravity Bomb

The committee notes that the 2018 Nuclear Posture Review (NPR) proposes to retain the B83-1 nuclear gravity bomb in the U.S. nuclear stockpile, whereas it had previously been slated for retirement in the early 2020s. The NPR stated, "the

B83-1 and B61-11 gravity bombs can hold at risk a variety of protected targets. As a result, both will be retained in the stockpile, at least until there is sufficient confidence in the B61-12 gravity bomb that will be available in 2020." The NPR elaborated, saying it proposes "sustaining the B83-1 past its currently planned retirement date until a suitable replacement is identified."

The committee also notes that in 2012, the National Nuclear Security Administration (NNSA) estimated that retaining the B83 gravity bomb would potentially require it to undergo an alteration in the 2020s and a life extension program in the 2030s, both of which would cost billions of dollars. Additionally, the NNSA may have planned to use certain materials from the B83 for currently planned life extension programs.

The committee believes further explanation for the decision to retain the B83 is warranted, particularly because such decision may require the B83 to undergo significant life extension activities and could impact other planned warhead modernization programs. The committee also expects a fuller understanding of the military requirements associated with the B83-1 and its retention.

The committee therefore directs the Secretary of Defense, in coordination with the Commander of U.S. Strategic Command and the Administrator for Nuclear Security, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by November 15, 2018, on the plan and rationale for, and implications of, retaining the B83-1. The report should address specific military requirements associated with the decision to now retain the B83-1, impacts on current or planned warhead programs including re-use of any materials, and potential risks, benefits, plans and costs associated with continued surveillance and potential life extension activities for the B83-1. The committee directs the report to be provided in unclassified form, with a classified annex as necessary.

#### Comptroller General Review of Plans to Swap B61 Bombs in Europe

The committee notes that the Department of Energy and the Department of Defense are carrying out a life extension program to maintain the safety, security, reliability, and credibility of B61 nuclear gravity bombs, and expect a first production unit of the updated B61-12 weapon to be available in late 2019. To swap legacy B61 bombs currently deployed in Europe in support of the North Atlantic Treaty Organization (NATO) for modern B61-12 bombs, the Air Force will conduct movements of nuclear weapons to and from Europe using certified military cargo aircraft. Initial planning for these movements is underway and the committee understands that such planning requires dialogue and close coordination with host nation governments.

To enable improved oversight of this planning, the committee directs the Comptroller General of the United States to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2019,

containing a review and assessment of the Department of Defense plans to swap B61 nuclear gravity bombs in Europe, including the following:

- (1) readiness of the military forces responsible for conducting and supporting the weapon movements;
- (2) coordination between the United States and allied host nations regarding the movements;
- (3) any potential actions that may be considered or planned to enhance surety and survivability; and
- (4) the Department of Defense's identification and mitigation of any risks to these plans.

### Nuclear Survivability and Hostile Environments Testing

To be a credible and effective deterrent, U.S. nuclear weapons are designed to operate in the most extreme hostile environments. The committee has no doubt that current U.S. nuclear forces and weapons meet these exacting requirements. However, as it has expressed in the past, the committee believes that the Department of Defense and the National Nuclear Security Administration (NNSA) must be mindful of how the threat environment and so-called "stockpile-to-target sequence" may evolve as adversaries continue to advance their defensive capabilities. In particular, the committee believes the United States must ensure it has the capability to experimentally test materials, components, subsystems, and full systems in realistic environments that combine multiple extreme threats.

To better understand Department of Defense and NNSA efforts in this regard, the committee directs the Chairman of the Nuclear Weapons Council, in coordination with the Administrator for Nuclear Security, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 30, 2018, on nuclear weapon survivability requirements and related test capabilities. Such briefing should include:

- (1) current requirements related to survivability and the stockpile-to-target sequence;
- (2) the evolving threat environment and potential changes to such requirements over the next 20 years;
- (3) capabilities to test materials, components, subsystems, and systems in realistic, combined environments;
- (4) any risks or gaps in such experimental capabilities and any plans to address or mitigate such risks or gaps; and
- (5) any changes in concepts of operation that may be applicable.

### Perimeter Security at NATO Nuclear Bases

The committee appreciates the importance of the North Atlantic Treaty Organization's (NATO) deterrence and defense mission, and the role that U.S. forward-deployed nuclear weapons play in the NATO Alliance. The committee notes its continuing interest in ensuring robust and consistent security for these weapons

and that NATO, the United States, and individual host nations have engaged in a series of security enhancement and modernization projects in recent years. The committee applauds these steps and supports ongoing efforts to standardize requirements and security measures across NATO's nuclear bases but also recognizes that each base and host nation presents different challenges for implementation and standardization of upgrades. The committee believes that continued enhancements and progress towards standardization is an important endeavor, and that an area particularly ripe for further action is perimeter security.

The committee therefore directs the Secretary of Defense, in coordination with the Secretary of the Air Force, to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate by December 1, 2018, assessing and comparing perimeter security at all NATO nuclear bases. Such briefing should also contain the following:

- (1) a comparison of perimeter security at NATO nuclear bases versus each other and versus nuclear bases in the United States;
- (2) details on requirements and standards for perimeter security at NATO nuclear bases and nuclear bases in the United States; and
- (3) a plan for actions that the United States could propose and undertake to standardize and enhance perimeter security at NATO nuclear bases, including through bilateral engagements with host nations and multilateral engagement through NATO.

### Plutonium Pit Production and Reuse

In 2008, the Secretary of Defense and the Secretary of Energy stated in a joint report, “at present the United States does not have the ability to produce new nuclear weapons,” particularly the ability to produce plutonium pits. In 2010, the Secretaries signed a Memorandum of Agreement that said the National Nuclear Security Administration (NNSA) would “plan and program to ramp up to a minimum of 50-80 pits/year.” In 2014, the Secretary of Defense said in a letter to the congressional defense committees that “the Department of Defense (DOD) has revalidated its requirement for 50–80 pits per year based on the demands of stockpile modernization, the commitments to a modern physical infrastructure, and the ability to hedge against technical or geopolitical risk.”

Section 3112 of the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291), put this requirement, and associated timeframes for production, into statute and included a Sense of Congress that “the requirement to create a modern, responsive nuclear infrastructure that includes the capability and capacity to produce, at minimum, 50 to 80 pits per year, is a national security priority.”

The 2018 Nuclear Posture Review (NPR) also discusses the need for a plutonium pit production capacity, saying “the United States does not have a sustained plutonium pit manufacturing capability needed to avoid stockpile age-out, support life extension programs (LEP), and prepare for future uncertainty...To

avoid age-related risks, DOD requires NNSA to produce at least 80 plutonium pits per year by 2030, and to sustain the capacity for future LEPs and follow-on programs.”

The committee continues to believe a pit production capability is a national security priority, but seeks clarification on whether and why the 2018 NPR has modified the pit production requirement. Therefore, the committee directs the Secretary of Defense, in coordination with the Secretary of Energy and the Commander of U.S. Strategic Command, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by November 30, 2018, on the annual pit production requirement, including any associated timelines. Such report should include a detailed rationale and justification for any changes to the requirement, the drivers behind the requirement, and associated costs. Such report should also include a detailed assessment of the potential to reuse plutonium pits that are currently in the inventory of the United States.

### Tonopah Test Range Land Use Agreement

The committee understands that the Air Force and the National Nuclear Security Administration (NNSA) are currently negotiating an extension to a land use agreement at the Tonopah Test Range (TTR) which enables NNSA's Sandia National Laboratories to utilize a portion of TTR for drop testing of inert nuclear gravity bombs. Sandia Labs has been operating at TTR since 1956, when it originally used 580 square miles of the range, and since the most recent update to the agreement in 2002 has been using 280 square miles. The current land use agreement expires in 2019 and is likely to make further reductions to make additional land available to the Air Force. The committee supports efforts to provide additional land for the Air Force mission at TTR and nearby ranges, which are operating over capacity, but is mindful that Sandia and NNSA must be able to carry out their testing mission. The committee encourages and looks forward to a cooperative, mutually beneficial update to this agreement that enables both partners to carry out their important missions.

### CYBER-RELATED MATTERS

#### Addressing Readiness Deficiencies through the Hacking for Defense Innovation Education Program

The committee notes that the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) authorized the Secretary of Defense to support national security innovation and entrepreneurial education, including but not limited to, Hacking for Defense.

The committee notes that expansion of Hacking for Defense innovation and entrepreneurial education at U.S. and North Atlantic Treaty Organization (NATO) universities may optimize and enhance the Department's innovation efforts outlined in the 2018 National Defense Strategy. Developing a culture of rapid and



meaningful innovation, and deploying advanced warfighter solutions, may remedy existing readiness deficiencies. The committee also notes that Hacking for Defense innovation education programs may benefit overall Department of Defense professional education such as at the National Defense University, the Defense Acquisition University, the Naval Postgraduate School, and other professional education programs.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services not later than September 28, 2018 on how the Department may expand Hacking for Defense to support the Department's innovation and entrepreneurial education efforts, including a description of how the Hacking for Defense program is currently being employed within the Department of Defense and how it may be further leveraged to provide advanced warfighter solutions, address readiness deficiencies, and reinvigorate, modernize, and enhance the Department's innovation education with U.S. and NATO universities and professional education programs.

#### Comptroller General Review of Current Military Cyber Operations

The committee notes that in the last several years, the Department of Defense has employed cyber capabilities to achieve objectives in or through cyberspace. Unlike military operations that occur in the air and land domains, cyberspace operations and the effects of those operations are not always visible to Congress and the American people. The committee believes that as the Department continues to conduct cyberspace operations, it will be critical that operations are fully aligned with the appropriate authorities, policies and doctrine, rules of engagement, plans, oversight mechanisms, and lessons learned processes. It will also be important that the Department manages the number of organizations that are conducting these operations, to ensure there are clearly defined roles and responsibilities, and that there are deconfliction mechanisms in place.

Therefore, the committee directs the Comptroller General of the United States to assess the Department of Defense's current military cyberspace operations. The assessment should identify:

- (1) the types of cyberspace operations the Department has undertaken, activities undertaken to prepare for cyberspace operations, and the organizations conducting these operations;
- (2) authorities, policies, doctrine, and rules of engagement for these operations;
- (3) internal oversight and congressional reporting mechanisms;
- (4) efforts to develop and synchronize cyberspace operations within combatant commanders' plans; and
- (5) processes used to deconflict cyberspace operations or mitigate the impact of cyberspace operations on other military operations.

The committee directs the Comptroller General to provide a briefing to the House Committee on Armed Services by March 1, 2019, on preliminary findings, and submit a final report to the congressional defense committees at a date agreed to at the time of the briefing.

### Comptroller General Review of Information Operations Strategy

The committee notes that information operations are a means for the United States to promote economic and political freedom, as well as countering all forms of extremism and adversarial influence. In June 2016, in response to a congressional requirement, the Department of Defense issued an information operations strategy to align departmental actions and ensure effective integration of Department of Defense efforts. These efforts contribute to the mission that the Department of State's Global Engagement Center was directed to lead, organize, and synchronize.

Section 1637 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) directed the Department of Defense to establish processes and procedures to integrate strategic information operations and cyber-enabled information operations across the relevant elements of the Department of Defense, including those responsible for military deception, public affairs, electronic warfare, and cyber operations. This section also directed the Department of Defense to coordinate regional information strategies and interagency coordination plans of the combatant commands with the appropriate Department of State officials and the Global Engagement Center, and to develop an implementation plan to support the Department of Defense Strategy for Operations in the Information Environment. However, the committee remains concerned about the lack of progress in developing the strategy, tools, and coordination mechanisms to counter adversarial influence.

Therefore, the committee directs the Comptroller General of the United States to assess the Department's information operations strategy and implementation efforts. The assessment shall:

(1) identify the Department of Defense's implementation of the 2016 strategy, integration of cyber and intelligence capabilities, and other activities, for information operations;

(2) identify roles, responsibilities, and coordination of activities within the Department of Defense, and between the Department and interagency partners;

(3) identify previous and planned investments by the Department to support and implement information operations; and

(4) any other matters the Comptroller General determines relevant.

The committee directs the Comptroller General to provide a briefing to the House Committee on Armed Services by March 1, 2019, on preliminary findings, with a report to follow at a time agreed to at the time of the briefing.

### Cyber Scholarship Program

The budget request contained \$7.9 million in PE 33140D8Z, for the defense-wide Information Security Systems Program.

Section 1649 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) amended chapter 112 of title 10, United States Code, to establish the Department of Defense Cyber Scholarship Program. The committee believes the Cyber Scholarship program may alleviate the challenges the Department of Defense is experiencing in recruiting and retaining cybersecurity personnel. Additionally, the committee believes that providing additional opportunities under the program will be beneficial in addressing Department requirements for a qualified cyber workforce, especially if the Department focuses on educating the public and relevant academic institutions about this program. The committee also believes that Reserve Officer Training Corps (ROTC) programs at universities that offer degrees in cyber studies and related fields provide an opportunity to leverage and expand partnerships to assist in closing the gap of trained cyber warriors in the military.

Therefore, the committee recommends \$17.9 million, an increase of \$10.0 million, in PE 33140D8Z.

Further, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by February 1, 2019, on the implementation and utilization of the Cyber Scholarship Program, to include efforts to educate the public and focus on institutions with high-quality computer science, engineering, and cybersecurity programs, including historically black colleges and universities, and minority-serving institutions. The briefing should also include implementation and utilization of efforts to leverage ROTC at institutions with cyber studies as a way to expand the pool of talented technical applicants.

#### Information Security Continuous Monitoring and Comply-to-Connect Implementation

While the Committee understands that pursuant to the requirements established in Section 1653 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), the Department of Defense included language relating to a Department-wide automated information security continuous monitoring capability and a comply-to-connect policy in its Fiscal Year 2019 budget request, the Committee is concerned that this language failed to adequately explain the Department's implementation strategy and the resources it will require. The Committee therefore directs the Director of Cost Assessment and Program Evaluation to provide the Committee on Armed Services of the House of Representatives, no later than December 1, 2018, a briefing specifically outlining the resources and any recommendations that will be required to fully address the requirements contained within Section 1653 of the National Defense Authorization Act for Fiscal Year 2017.

#### Joint Enterprise Defense Infrastructure

On September 13, 2017, the Deputy Secretary of Defense signed a memorandum establishing the Cloud Executive Steering Group to accelerate the adoption of enterprise-wide cloud architecture and services, known as the Joint Enterprise Defense Infrastructure, or JEDI.

A report provided to Congress by the Department of Defense on October 19, 2017, in response to the committee report (H. Rept. 114-577) accompanying the Department of Defense Appropriations Act, 2017, outlined several challenges impacting the Department's ability to expand commercial cloud service usage. These included accurately projecting costs for security and complex migrations, lack of consistent security requirements, and an inability to identify tangible cost-savings. Although the report outlined efforts to address these challenges, additional information has not been provided to the committee on progress to that end. The report also outlined several ongoing cloud computing activities.

The committee has long championed modernization of information technology to facilitate efficiencies and cost-savings, enhance performance, and provide our warfighters with cutting-edge capabilities on and off the battlefield. The committee is encouraged by the Department's renewed commitment to accelerate the adoption of cloud computing architecture and services.

However, the committee is concerned with the lack of information supporting the planned acquisition of JEDI from a single commercial provider. This includes lack of detail regarding security requirements and associated costs, anticipated cost-savings, migration costs, and how the Department intends to maintain the ability to leverage the latest cloud computing capabilities and preserve the ability to transition workloads and data to other providers.

Additionally, the committee has not been provided with details on customer capability requirements or how JEDI impacts current cloud computing services and other activities, such as those identified in the October 2017 report. The committee expects the Department to provide sufficient information necessary for the conduct of oversight responsibilities.

### Mitigation of Autonomous Systems

The Committee notes the Department's increased reliance on autonomous systems and their associated datalinks and sensors. While the Committee supports increased investments in these systems, the rapid research, development, and deployment of autonomous equipment presents unique challenges to cyber vulnerability. Therefore, the committee directs the Secretary of Defense to provide a briefing by December 1, 2018 outlining the specific steps the Department is taking to protect autonomous systems from cyberattack, including mitigations resulting from the cyber vulnerability evaluations of major weapon systems that were conducted as directed by Section 1647 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The briefing should address layered cyber defense of associated datalinks, sensors, and onboard systems, technologies used to

secure the communication architecture and RF links, and any other approaches used to improve the cyber security in these systems.

### Network Protection

The committee is aware that open, highly scalable network protection platforms that allow for integration of both government and commercial off-the-shelf capabilities, may allow for the Department of Defense to keep pace with evolving threats. The committee believes expeditious detection and mitigation is critical, especially as the Department makes greater use of commercial cloud computing and other commercial capabilities.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than February 5, 2019, on the status and evolution of automated cyber defense capabilities, to include those that automatically detect and mitigate malware and other threats. The briefing should include a description of efforts to acquire an open, scalable platform that can integrate commercial and government off-the-shelf technologies, and an evaluation of the potential effectiveness of a capability that can be deployed within and across network boundaries and endpoints.

### Operational Cyber Testing of Weapons Systems

The committee is aware of the challenges of performing operational cyber testing of weapon systems to understand the potential impacts of a cyber attack to the system's performance. The committee continues to believe in the importance of evaluating the cyber vulnerabilities of major Department of Defense weapons systems, as authorized in the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The committee recognizes that for some systems there are gaps in the capability of the operational test and evaluation infrastructure that prevent it from adequately completing tests and measuring the impacts on a weapon system of a realistic cyber threat. The committee is also aware of efforts within the Department to further develop the capabilities to provide the necessary test, modeling, and simulation capabilities to build a robust infrastructure to be able to perform comprehensive cybersecurity weapon systems testing. The committee encourages the Department to utilize collaboration between academia and the different test ranges and facilities to build a robust infrastructure to execute tactical cyber attack scenarios against weapon systems in an operationally realistic environment.

### Plan to Enhance Coordination with Universities and Industry on Cyber Education

The committee notes that universities and private industry will continue to be critical partners in the education and training of our future cyber force. Traditional academic approaches to cyber training and cyber certifications such as Security + and CISSP are based on preventing vulnerabilities, attacks, and gaps

that have been identified in the past. The committee is concerned that the relevance of the training content of academic institutions could be immaterial depending on when the courseware was updated. Bridging the gap in cyber training between curriculum that has been built on legacy data versus training built on current real world cyberattacks is a meaningful area of cyber training research, curriculum development, and instruction delivery that must be addressed. Therefore, the committee directs the Secretary of Defense to present to the defense committees a plan on how the Department of Defense can leverage and partner with universities and industry on cyber education and training that addresses this gap by November 1, 2018. This plan shall include: current partnerships and ability to expand and leverage those partnerships; existing curriculum and recommended changes needed to ensure relevance to future threats; joint development of curriculum, courseware and research projects; availability and joint use of university facilities; and recommended changes to legislation to improve cyber education and training partnerships.

### Securing Personally Identifiable Information

The committee recognizes that the Department of Defense takes extensive measures to protect the personally identifiable information (PII) of its Servicemembers and civilian employees but that more remains to be done, especially with advances in technological communications and evolving threats. For instance, the use of smartphone devices invites new security threats that could potentially exploit the integrity of PII. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by October 31, 2018 detailing information security technologies that the Department employs to protect the official unclassified email and official unclassified mobile communications of its employees.

### Threat Cyberspace Operations

The committee notes the increasingly contested nature of the cyber domain and the growing reliance of the Department of Defense and the military services on information technology systems. The committee continues to believe in the importance of performing robust cyber security assessments to determine the potential vulnerabilities of a system to a cyber-attack. The committee is aware that these assessments are based on realistic adversarial threats, including intelligence-based cyber tactics, techniques, and procedures that are representative of the continually emerging adversary capabilities. The Army Threat Cyberspace Operations program maintains a threat intelligence-based test capability that is important in meeting these mission needs. Therefore, the committee urges the Department of the Army to ensure that this program is adequately funded in future years to maintain cyber threat capabilities in an environment where the threat is rapidly evolving.

## INTELLIGENCE MATTERS

### Foundational Intelligence Analysis Modernization

The committee believes the Department of Defense must ensure that the defense intelligence enterprise has modern tools that can quickly integrate new technologies to assist analysts providing intelligence to support operations and acquisition activities. The committee is aware of the Department's efforts to modernize intelligence capabilities; however, the committee is concerned by a lack of urgency in modernizing the defense intelligence enterprise's capabilities to provide foundational intelligence to the combatant commands and the military services. Therefore, the committee directs the Joint Staff Director for Intelligence, in coordination with the Under Secretary of Defense for Intelligence and the Director of the Defense Intelligence Agency (DIA), to develop a plan by October 1, 2018, to modernize systems used to provide foundational intelligence. Further, the committee directs the Joint Staff Director for Intelligence, in coordination with the DIA Director, to provide a briefing to the House Committee on Armed Services by November 1, 2018, on such plan to modernize foundational intelligence systems. If a determination is made that a new system is required, the committee expects the Battlespace Awareness Functional Capabilities Board to validate the requirements for any new system, and that the acquisition plan will follow best practices for the rapid acquisition and improvement of technology dependent systems.

### Insider Threat Detection and User Activity Monitoring

The committee is aware that in June 2015, the Government Accountability Office recommended that the Department of Defense issue risk-assessment guidance and evaluate the ability of its insider threat programs to address capability gaps (GAO-15-544). The committee is also aware of the Department's efforts to rapidly detect and remedy cyber vulnerabilities through programs such as the Air Force's Automated Remediation and Asset Discovery Program. The committee believes that continuous network monitoring and greater network visibility can significantly improve security of the Department's classified information and systems. Therefore, the committee encourages the Department to perform cost and technical analyses of available commercial off-the-shelf and government off-the-shelf solutions for user activity monitoring and for rapid detection and remediation of cyber attacks, for the purposes of obtaining best value and performance to decrease risks.

Further, the committee directs the Chief Management Officer to provide a briefing to the House Committee on Armed Services by November 1, 2018, on the outcomes of its cost and technical analyses required by this report, and the Department's efforts to implement enterprise-wide programs and policies for insider threat detection, user activity monitoring, and cyber attack detection and remediation.

## Insider Threat Risk Model Validation

The committee supports the Department of Defense continued efforts to improve vetting and screening of its workforce for potential threats. The committee commends the efforts to develop risk-rating tools and to migrate department programs to a risk in person model in order to prioritize risk so that the Department can efficiently allocate resources against the riskiest populations inside the workforce. The committee encourages the Department to continue to evolve and mature insider threat and continuous vetting risk models and rating tools, especially those efforts to use artificial intelligence and machine learning to help identify potential sources of human investigative biases in current tools and algorithms. The committee believes artificial intelligence and machine learning have tremendous potential to assist in the identification of potential issues in time for commanders and other leaders to mitigate potential issues before they escalate into security vulnerabilities.

## Intelligence Combat Support Agencies

The committee commends the work of the Under Secretary of Defense for Intelligence to answer a request in the Intelligence Authorization Act for Fiscal Year 2017 (division N of Public Law 115-31) to review the roles and missions of the Defense Intelligence Agency. The committee agrees with the Under Secretary's finding identifying a gap in Department of Defense coordination of the functions of the Combat Support Agencies (CSA) that also are members of the intelligence community. The directors of these agencies report to both the Secretary of Defense and the Director of National Intelligence, but these agencies lack a framework to balance the resourcing and mission conflicts this bifurcated chain of command can occasionally cause. Therefore, not later than October 1, 2018, the committee directs the Secretary of Defense, in consultation with the Director of National Intelligence, to develop policies that outline the process to balance the missions under the Combat Support Agency role with the missions and functions assigned by the intelligence community. These policies must address a process for assigning and integrating any new missions assigned by the Department of Defense or the intelligence community. The committee further directs the Secretary of Defense, in consultation with the Director of National Intelligence, to provide a briefing to the House Committee on Armed Services and the Permanent Select Committee on Intelligence of the House of Representatives not later than October 15, 2018, on the plan to develop these policies.

## Intelligence Support to Cyber Operations

The committee is concerned about the Defense Intelligence Enterprise's ability to provide the cyber community with all-source intelligence support, consistent with the support provided to operations in other domains. Therefore, the committee directs the Under Secretary of Defense for Intelligence, in coordination



with the Defense Intelligence Agency and the military services, to provide a briefing to the House Committee on Armed Services and the House Permanent Select Committee on Intelligence by December 1, 2018, on intelligence support to cyber operations. The briefing should include efforts to standardize a common military intelligence lexicon and doctrine for intelligence preparation of the battlefield for cyber operations, efforts to develop all-source intelligence analysts with the capability to support cyber operations, and efforts to fully resource intelligence analysis support elements at U.S. Cyber Command and the service cyber components.

#### Science, Technology, Engineering, and Math Careers in Defense Intelligence

The committee is concerned about the Defense Intelligence Agency's (DIA) ability to attract and maintain adequate science, technology, engineering, and math (STEM) professionals. Specifically, the committee is concerned about career progression in the science and technology intelligence (S&TI) field at the Service Intelligence Centers and the Missile and Space Intelligence Center. Therefore, the committee directs the Director of DIA to provide a briefing to the House Committee on Armed Services not later than December 1, 2018, on a plan to develop a STEM career program that attracts and maintains the defense intelligence cadre of S&TI analysts to meet tomorrow's threats.

#### Security and Intelligence Role in Export Control

The committee is concerned about the coordination of security and technology protection issues involved in the export control process managed for the Department of Defense by the Under Secretary of Defense for Policy. The committee understands export controls support the Department's broad policy objectives to build relationships with partner nations, but the committee believes the risks of technology transfer deserve close scrutiny by the intelligence and security communities. Therefore, the committee directs the Under Secretary of Defense for Policy, in coordination with the Under Secretary of Defense for Intelligence, to provide a briefing to the House Committee on Armed Services not later than October 1, 2018, on security support to export control.

#### Security Clearance Background Investigation Reciprocity

The committee remains interested in improving the efficiency, effectiveness and timeliness of background investigations for security clearances. The committee believes that the federal government must do more to address conditions that have caused the investigation backlog, including reciprocity issues across agencies and departments. The committee notes that the Intelligence Reform and Terrorism Prevention Act (IRTPA) (Public Law 108-458) mandated that investigations initiated by an authorized investigative agency shall be transferable to any other authorized investigative agency, but a December 2017 Government Accountability

Office report found full implementation of investigative transferability has yet to occur. The committee strongly believes that ample time has passed since the passage of IRTPA for full implementation of investigative reciprocity between agencies, and the failure to implement transferability requirements is unacceptable. Not later than October 1, 2018, the committee directs the Secretary of Defense, in coordination with the Director of National Intelligence and the Director of the Office of Personnel Management to brief the committee on efforts to ensure seamless transition of investigations between authorized investigative agencies, as required by law.

The committee has received numerous briefings on the Department's plan to reassume the background investigation mission for Department of Defense personnel from the National Background Investigations Bureau, and is encouraged by the efforts to move towards continuous evaluation and continuous vetting as a replacement for periodic reinvestigations to reduce the investigative backlog. The committee notes the lead role the Department is taking for continuous monitoring and continuous vetting across the federal government. The committee believes any solution to improve the efficiency, effectiveness and timeliness of background investigations must be applied across the federal government uniformly. Therefore, not later than November 1, 2018, the committee directs the Secretary of Defense, in coordination with the Director of National Intelligence and the Director of the Office of Personnel Management to brief the committee on efforts to ensure reciprocity is a consideration for implementation of continuous evaluation and continuous vetting across the federal government.

### Strengthening Oversight of the Military Intelligence Program Budget

The committee is aware of a recent draft Government Accountability Office report on the Military Intelligence Program (MIP) that identifies a lack of clear and definitive guidance about which programs, projects, and activities should be assigned to the MIP. As a result, there may be intelligence and intelligence-related capabilities resourced outside of the MIP. Conversely, the committee believes there are MIP resources allocated to programs, projects, and activities that do not primarily support the Secretary of Defense's intelligence, counterintelligence, and related intelligence responsibilities and requirements. Thus, the Department of Defense's ability to make informed decisions to balance appropriate resources against programs, projects, or activities is limited.

The committee believes the Under Secretary of Defense for Intelligence (USDI) should take measures to more clearly define guidance about which programs, projects, or activities should be assigned to the MIP using the Joint Publication's definition of intelligence. Therefore, the committee directs USDI to review all of the Department's intelligence, counterintelligence, and related intelligence programs, projects, and activities supporting the Secretary's responsibilities and requirements. The review shall also include programs, projects, and activities potentially funded outside of the MIP. In conducting the review, the

committee expects USDI to note that the committee believes resources for sensors integral to the function of weapon systems, sensors and systems developed for space and missile defense, and resources for activities and programs associated with Operational Preparation of the Environment and Nonconventional Assisted Recovery are in support of operational requirements, and should be excluded from designation to the MIP.

Further, the committee directs USDI to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by March 1, 2019, on the results of the review, including how the review will result in clear guidance on designation of programs, projects, and activities to the MIP.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—SPACE ACTIVITIES

#### Section 1601—Improvements to Acquisition System, Personnel, and Organization of Space Forces

This section would direct the Deputy Secretary of Defense to develop a plan to establish a separate alternative acquisition system for defense space acquisitions, including with respect to space vehicles, ground segments, and terminals. The Deputy Secretary would be required to submit a report to the congressional defense committees by December 31, 2019, on such plan.

This section would also task the Secretary of the Air Force to develop and implement a plan to increase the number and improve the quality of the civilian and military space cadre within the Air Force. The Secretary would also be required to submit a report to the congressional defense committees by March 1, 2019, on such plan.

This section would also require the Secretary of the Air Force to establish a new numbered Air Force responsible for space warfighting operations. The Secretary would be required to submit a plan for doing so to the congressional defense committees by December 31, 2019.

Lastly, this section would amend chapter 6 of title 10, United States Code, by adding a new section that would establish a subordinate unified command for space under U.S. Strategic Command that would be responsible for joint space warfighting operations.

#### Section 1602—Rapid, Responsive, and Reliable Space Launch

This section would amend section 2273b of title 10, United States Code, regarding assured access to space to include consideration of rapid, responsive, and reliable space launches for national security space programs. It would also require the Secretary of Defense to provide for consideration of both reusable and expendable launch vehicles with respect to any solicitations occurring on or after March 1, 2019. Lastly, it would require the Secretary of Defense to conduct a risk

and cost impact analysis with respect to reusable launch vehicles for national security payloads. The Secretary would be required to submit such analysis to the congressional defense committees within 180 days after the date of the enactment of this Act.

#### Section 1603—Provision of Space Situational Awareness Services and Information

This section would amend section 2274 of title 10, United States Code, by terminating the authority of the Department of Defense to provide space situational awareness (SSA) data to commercial and foreign entities on January 1, 2024. This section would further require the Secretary of Defense to enter into a contract with a federally funded research and development center to assess which department or departments should assume the authorities of section 2274 of title 10. This section would also direct the Secretary of Defense to develop a plan to ensure that one or more departments may provide space situational awareness services to non-United States Government entities. Lastly, this section would direct the Secretary to submit a report to the appropriate congressional committees, as defined by this section, on such plan.

#### Section 1604—Budget Assessments for National Security Space Programs

This section would amend section 239b of title 10, United States Code, by extending the required budget assessments for national security space programs to fiscal year 2021 and by requiring the Secretary of Defense to submit a report on the budget for space programs to the congressional defense committees within 30 days after the date on which the President submits the budget request to Congress.

#### Section 1605—Enhancement of Positioning, Navigation, and Timing Capacity

This section would require the Secretary of the Air Force to ensure that military Global Positioning System user equipment terminals have the capability to receive Galileo and QZSS signals, starting with increment 2, including with appropriate mitigation efforts. This section would also require the terminals to have the capability to receive non-allied positioning, navigation, and timing signals if the Secretary of Defense, in consultation with the Commander, U.S. Strategic Command, determines that the benefits outweigh the risks or the risks can be appropriately mitigated. This section would also require engagement with relevant U.S. allies.

#### Section 1606—Use of Small- and Medium-Size Buses for Strategic and Tactical Satellite Payloads

This section would require the Secretary of Defense to conduct a study on the risks, benefits, and cost savings with respect to using small- and medium-size buses for strategic and tactical satellite payloads for protected satellite

communications programs and next-generation overhead persistent infrared systems. This section would further require the Secretary to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives, not later than 180 after the date of the enactment of this Act, on such study.

This section would also require the Director of Cost Assessment and Program Evaluation to certify that future analysis of alternatives include materiel solutions for using small- and medium-size buses. Lastly, this section would require the Secretary of Defense, Secretary of the Air Force, and the Chairman of the Joint Chiefs of Staff to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives, not later than 240 days after the date of the enactment of this Act, on alternative space-based architectures using small-, medium-, and large-size buses.

#### Section 1607—Designation of Component of Department of Defense Responsible for Coordination of Modernization Efforts Relating to Military-Code Capable GPS Receiver Cards

This section would require the Secretary of Defense to designate a component of the Office of the Secretary of Defense to be responsible for coordinating common solutions for the Military-code modernization efforts among the military departments, Defense Agencies, and other appropriate elements of the Department of Defense by not later than 30 days after the date of enactment of this Act.

#### Section 1608—Designation of Component of Department of Defense Responsible for Coordination of Hosted Payload Information

This section would require the Secretary of Defense, in coordination with the Secretary of the Air Force, and other Secretaries of the military departments and the heads of Defense Agencies the Secretary determines appropriate, to designate a component of the Department of Defense or a military department to be responsible for coordinating information, processes, and lessons learned relating to using commercially hosted payloads across the military departments, Defense Agencies, and other appropriate elements of the Department of Defense not later than 30 days after the date of the enactment of this Act.

#### Section 1609—Limitation on Availability of Funds for Joint Space Operations Center Mission System

This section would limit obligation or expenditure of funds for the Joint Space Operations Center Mission System and Enterprise Space Battle Management Command and Control program until the Deputy Secretary of Defense provides to the congressional defense committees a certification that the Secretary of the Air Force has entered into a contract to operationalize existing, proven, best-in-breed

commercial space situational awareness processing software to address warfighter requirements and fill gaps in current space situational awareness capabilities.

#### Section 1610—Evaluation and Enhanced Security of Supply Chain for Protected Satellite Communications Programs and Overhead Persistent Infrared Systems

This section would require the Secretary of Defense to develop a plan for and conduct evaluations of the supply chain vulnerabilities for protected satellite communications and next-generation overhead persistent infrared systems. Additionally, it would require the Secretary to develop risk mitigation strategies for the identified vulnerabilities. This section would require the Secretary to establish requirements to carry out the supply chain vulnerability evaluation and submit such requirements to the congressional defense committees not later than 120 days after the date of the enactment of this Act. Lastly, this section would require the Secretary to provide a briefing to the Committees on Armed Services of the Senate and House of Representatives not later than 180 days after the date of the enactment of this Act on the plan developed for carrying out such an evaluation.

#### Section 1611—Report on Protected Satellite Communications

This section would require the Secretary of Defense to submit a report to the congressional defense committees by December 31, 2018, on how specific protected satellite communications programs meet the requirements for resilience, mission assurance, and nuclear command, control, and communication missions of the Department of Defense.

#### Section 1612—Plan on Space Warfighting Readiness

This section would require the Secretary of Defense to develop a plan that identifies joint mission-essential tasks for space as a warfighting domain. This section would further require the Secretary to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate, within 60 days after the date of the enactment of this Act, on any authorities associated with such plan that the Secretary determines require legislative action.

#### Section 1613—Study on Space-Based Radio Frequency Mapping

This section would direct the Secretary of Defense and the Director of National Intelligence to jointly conduct a study on the capabilities of the private sector with respect to radio frequency mapping and services for space-based electromagnetic collections. This section would also require the Secretary, in coordination with the Director, to provide a report on the study to the congressional defense committees and congressional intelligence committees, not later than 90 days after the date of the enactment of this Act.

## Section 1614—Plan to Provide Persistent Weather Imagery for United States Central Command

This section would require the Secretary of the Air Force to develop a plan to provide the U.S. Central Command with persistent weather imagery after 2025. The Secretary would be required to submit such plan to the congressional defense committees by March 1, 2019.

## SUBTITLE B—DEFENSE INTELLIGENCE AND INTELLIGENCE-RELATED ACTIVITIES

### Section 1621—Role of Under Secretary of Defense for Intelligence

This section would amend section 137 of title 10, United States Code, to clarify the responsibilities of the Under Secretary of Defense for Intelligence.

### Section 1622—Security Clearance for Dual Nationals

This section would authorize the Secretary of Defense to apply additional security reviews to dual citizens seeking positions that require access to highly classified information. The committee expects that any additional security reviews will not further exacerbate background investigation backlogs.

### Section 1623—Department of Defense Counterintelligence Polygraph Program

This section would amend section 1564a of title 10, United States Code, by authorizing the Secretary of Defense to add dual citizens to Department of Defense counterintelligence polygraph program, for the purposes of assessing risk.

### Section 1624—Defense Intelligence Business Management Systems

This section would require the Chief Management Officer of the Department of Defense, in coordination with the Under Secretary of Defense (Comptroller) and the Under Secretary of Defense for Intelligence, to provide a report to the congressional defense committees and the congressional intelligence committees, not later than March 1, 2019, outlining a plan to standardize the planning, programming, budgeting, and execution process for the Military Intelligence Program (MIP) across the Department of Defense. This section would also direct the implementation of the plan not later than October 1, 2020. This section would prohibit the use of program elements that contain both MIP and non-MIP resources. The committee is concerned with the Department's ability to provide sufficient oversight of the Military Intelligence Program budget.

### Section 1625—Modification to Annual Briefing on the Intelligence, Surveillance, and Reconnaissance Requirements of the Combatant Commands

This section would require the Department of Defense to incorporate into the existing report required by section 1626 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291) data related to the number of requests for intelligence, surveillance, and reconnaissance capability and capacity submitted to the Chairman of the Joint Chiefs of Staff (CJCS) by the combatant commanders, the number of requests formally validated by the CJCS, the quantity of validated requests tasked to the military services to fulfill, and the amount of validated requests actually fulfilled by the military services.

Section 1626—Prohibition on the Availability of Funds for Department of Defense Assuming Background Investigation Mission for the Federal Government

This section would prohibit the Department of Defense from assuming the background investigation mission for the entire Federal Government before December 31, 2019.

SUBTITLE C—CYBERSPACE-RELATED MATTERS

Section 1631—Amendments to Pilot Program Regarding Cyber Vulnerabilities of Department of Defense Critical Infrastructure

This section would modify subsection (b) of section 1650 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) to incorporate the Defense Digital Service (DDS) into pilot program authorities for identifying new, innovative methodologies or engineering approaches to evaluate cyber vulnerabilities of Department of Defense critical infrastructure. The committee notes the success of the Defense Digital Service's "Hack the Pentagon" program, and encourages the Department to use this or similar DDS activities to more rapidly and effectively improve the cybersecurity of government owned and operated facilities.

Section 1632—Budget Display for Cyber Vulnerability Evaluations and Mitigation Activities for Major Weapon Systems of the Department of Defense

This section would require that the justification materials submitted to Congress by the Secretary of Defense in support of the President's annual budget request for the Department of Defense include a consolidated display for cyber vulnerability evaluations and mitigation activities for each major weapon system beginning in fiscal year 2021. The display for each major weapon system shall include the status of, funding required, and a description of planned activities to continue or complete the cyber vulnerability evaluations in accordance with section 1647 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92), and necessary mitigation activities for the Future Years Defense Program.



### Section 1633—Transfer of Responsibility for the Department of Defense Information Network to United States Cyber Command

This section would mandate that the Secretary of Defense transfer of all roles, missions, and responsibilities of the Commander, Joint Force Headquarters-Department of Defense Information Networks from the Defense Information Support Agency to Commander, United States Cyber Command, by September 30, 2019. It would additionally require the Secretary of Defense to certify in writing to the congressional defense committees that such transfer shall not result in mission degradation.

### Section 1634—Pilot Program Authority to Enhance Cybersecurity and Resiliency of Critical Infrastructure

This section would authorize the Secretary of Defense, in coordination with the Secretary of Homeland Security, to provide technical personnel to the Department of Homeland Security to enhance cooperation, collaboration, and unity of government efforts in support of the protection of critical infrastructure from cyber incidents and significant cyber incidents.

### Section 1635—Pilot Program on Regional Cyber Security Training Center for the Army National Guard

This section would authorize the Secretary of the Army to carry out a pilot program to establish a National Guard cyber security training center for members of the Army National Guard.

### Section 1636—Procedures and Reporting Requirement on Cybersecurity Breaches and Loss of Personally Identifiable Information

This section would require the Secretary of Defense to promptly notify the congressional defense committees in the event of a significant loss of personally identifiable information of civilian or uniformed members of the Armed Forces in classified or unclassified formats.

### Section 1637—Cyber Institutes at the Senior Military Colleges

This section would authorize the Secretary of Defense to establish a Cyber Institute at each of the senior military colleges.

### Section 1638—Study and Report on Reserve Component Cyber Civil Support Teams

This section would require the Secretary of Defense and the Secretary of Homeland Security to conduct a study on the feasibility and advisability of establishing cyber civil support teams comprised of Reserve Component members,

primarily operating under the command and control of the Governor of each State, to prepare for and respond to cyber incidents, cyber emergencies, and cyber attacks. The Secretaries concerned shall provide a report to the congressional defense committees, the Committee on Homeland Security of the House of Representatives, and the Committee on Homeland Security and Governmental Affairs of the Senate not later than 180 days after the date of the enactment of this Act on the results of the study, to include their final determination on the feasibility of, advisability and necessity of establishing Reserve Component cyber civil support teams for each State, and if so, proposed legislation.

#### SUBTITLE D—NUCLEAR FORCES

##### Section 1641—Under Secretary of Defense for Research and Engineering and the Nuclear Weapons Council

This section would amend section 179 of title 10, United States Code, to include the Under Secretary of Defense for Research and Engineering as a member of the Nuclear Weapons Council and make a technical correction to the title of the Under Secretary for Acquisition and Sustainment.

##### Section 1642—Long-Range Standoff Weapon Requirements

This section would amend section 217 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66) to enable the Secretary of the Air Force to retire the conventionally armed AGM-86 cruise missile and require the Secretary to ensure that a conventionally armed follow-on air-launched cruise missile, the long-range standoff weapon, achieves initial operating capability for conventional missions not later than 4 years after it achieves initial operating capability for nuclear missions.

##### Section 1643—Acceleration of Ground-Based Strategic Deterrent Program and Long-Range Standoff Weapon Program

This section would require the Under Secretary of Defense for Acquisition and Sustainment, in consultation with the Secretary of the Air Force, to develop and implement plans to accelerate the development, procurement, and fielding of the Ground Based Strategic Deterrent (GBSD) program and the Long-Range Standoff cruise missile program. For GBSD, the plan would be required to recapitalize the full intercontinental ballistic missile system, without phasing or splitting the program. For both programs, the plans would be required to assess the benefits, risks, feasibility, costs, and cost savings of various options for accelerating the programs. The Under Secretary, in consultation with the Secretary of the Air Force, would be required to submit the plans to the congressional defense committees within 120 days after the date of the enactment of this Act. The Commander of U.S. Strategic Command would be required, within 160 days after

the date of the enactment of this Act, to provide a briefing to the congressional defense committees on the views of the Commander regarding the plans.

#### Section 1644—Procurement Authority for Certain Parts of Intercontinental Ballistic Missile Fuzes

This section would authorize \$9.8 million of the funds made available by this Act for Missile Procurement, Air Force, for the procurement of certain commercially available parts of intercontinental ballistic missile fuzes, notwithstanding section 1502(a) of title 31, United States Code, under contracts entered into under section 1645(a) of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291).

#### Section 1645—Prohibition on Reduction of the Intercontinental Ballistic Missiles of the United States

This section would prohibit the Department of Defense from obligating or expending fiscal year 2019 funds to reduce the responsiveness, alert level, or quantity of deployed U.S. intercontinental ballistic missiles to less than 400. This section would provide an exception to this prohibition for activities related to maintenance and sustainment and activities to ensure safety, security, or reliability.

#### Section 1646—Extension of Prohibition on Availability of Funds for Mobile Variant of Ground-Based Strategic Deterrent Missile

This section would amend section 1664 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) to extend, to fiscal year 2020, a prohibition on the availability of funds to retain the option for, or develop, a mobile variant of the Ground-Based Strategic Deterrent missile.

#### Section 1647—Independent Study on Nuclear Weapons Launch-Under-Attack Option

This section would require the Secretary of Defense, within 30 days of enactment of this Act, to seek to enter into a contract with a federally funded research and development center (FFRDC) to conduct a study on the potential benefits and risks of reducing the role of the launch-under-attack option in U.S. nuclear weapons planning. The Secretary would not be allowed to award such contract to an FFRDC for which the Air Force is the primary sponsor. This section would require the FFRDC to submit the report to the Secretary not later than 270 days after enactment of this Act, and would require the Secretary to submit the report to the congressional defense committees not later than 30 days after receiving it.

Section 1648—Extension of Annual Report on the Plan for the Nuclear Weapons Stockpile, Nuclear Weapons Complex, Nuclear Weapons Delivery Systems, and Nuclear Weapons Command and Control System

This section would amend section 1043 of the National Defense Authorization Act for Fiscal Year 2012 (Public Law 112-81) to extend the expiration of a reporting requirement related to nuclear weapons from 2019 to 2022.

Section 1649—Sense of Congress on Nuclear Posture of the United States

This section would express a sense of Congress regarding the nuclear posture of the United States.

Section 1650—Sense of Congress on Extended Nuclear Deterrence in the Indo-Pacific Region

This section would express the sense of Congress concerning the nuclear weapons program of the Democratic People's Republic of Korea and U.S. extended deterrence commitments to Indo-Pacific region allies and partners.

SUBTITLE E—MISSILE DEFENSE PROGRAMS

Section 1661—Development of Persistent Space-Based Sensor Architecture

This section would direct the Director of the Missile Defense Agency (MDA), in coordination with the Director of National Intelligence, the Commander of Air Force Space Command, and the Commander of U.S. Strategic Command, to complete a plan and initiate development in fiscal year 2019 for a space-based missile defense sensor architecture. This section would limit obligation or expenditure of funds to initiate the space-based missile defense layer program until the plan is submitted to Congress. This section would also amend section 1683 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to require the Director of the MDA to submit a report to the congressional defense committees and congressional intelligence committees by January 31, 2019, on options to use other transactional authorities to accelerate development of this architecture.

Section 1662—Boost Phase Ballistic Missile Defense

This section would require the Director, Missile Defense Agency (MDA) to begin a program in fiscal year 2019 to develop boost phase intercept capabilities that are either air-launched or ship-based, cost effective, and that include a kinetic interceptor. This section would require an independent feasibility study to be conducted for delivering an initial or demonstrated boost phase capability by calendar year 2021 using unmanned aerial vehicles and kinetic interceptors.

This section would also provide support for directed energy efforts that would contribute to intercontinental ballistic missile boost phase intercept applications, and would direct MDA to continue developing this capability in fiscal year 2019 and leverage directed energy work by the Under Secretary of Defense for Research and Engineering. This section would require the Director of MDA to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate, and to any other congressional defense committee upon request, not later than February 28, 2019, on the criteria and parameters used to measure progress of such program.

#### Section 1663—Improvements to Research and Development and Acquisition Processes of Missile Defense Agency

This section would require the Under Secretary of Defense for Research and Engineering to transfer all research and development efforts and programs that have not yet reached milestone B to the Missile Defense Agency (MDA) if they are planned to be incorporated into the ballistic missile defense system or have explicit application for ballistic missile or hypersonic defense. This section would also require the Under Secretary to submit a report to the congressional defense committees by March 31, 2019, on the programs affected.

Further, this section would require the Secretary of Defense to notify the congressional defense committees before any of MDA's unique acquisition authorities are changed, and would prohibit changing the missile defense requirements generation process managed by U.S. Strategic Command.

This section would also require that MDA make the quarter and fiscal year for execution of planned flight tests unclassified. Lastly, this section would require the Deputy Secretary of Defense to update membership of the Missile Defense Executive Board, and would require that the Under Secretary of Defense for Acquisition and Sustainment be a standing member of the board and a co-chairman with respect to all decisions regarding acquisition and production milestone approvals, including other transaction authority contracts or transactions in excess of \$500.0 million.

#### Section 1664—Layered Defense of the United States Homeland

This section would express the sense of Congress in support of the Department of Defense's efforts to provide layered defense of the homeland, and would require the Director of the Missile Defense Agency, in coordination with the Under Secretary of Defense for Policy, Commander of U.S. Northern Command, and Commander of U.S. Pacific Command, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by January 31, 2019, on options to increase layered protection of the U.S. homeland, to include the continental United States, Hawaii, and Alaska, from both the Democratic People's Republic of Korea and the Islamic Republic of Iran.

#### Section 1665—Testing of Redesigned Kill Vehicle Prior to Production

This section would prohibit a lot production decision for the Redesigned Kill Vehicle until after a successful flight intercept test. This section would also provide a waiver for the Secretary of Defense to make such a decision prior to a successful flight test, if the specified conditions are met.

#### Section 1666—Requirements for Ballistic Missile Defense Capable Ships

This section would require the Secretary of the Navy to include ballistic missile defense ship requirements in all future force structure assessments.

#### Section 1667—Multiyear Procurement Authority for Standard Missile-3 Block IB Missiles

This section would authorize the Department of Defense to enter a multiyear procurement for Standard Missile-3 Block IB missiles.

#### Section 1668—Limitation on Availability of Funds for Army Lower Tier Air and Missile Defense Sensor

This section would limit obligation or expenditure of funds for the Lower Tier Air and Missile Defense Sensor until the Secretary of the Army provides a report detailing the rationale for any delay should the acquisition strategy delivered in September 2018 push initial operating capability past 2023. This section would also require the Secretary of the Army to ensure performance specifications of the sensor specify certain requirements.

#### Section 1669—Missile Defense Radar in Hawaii

This section would express the sense of Congress on maintaining or accelerating the schedule for the homeland missile defense in Hawaii. This section would further require alignment of the In-Flight Interceptor Communications System Data Terminal (IDT) with homeland defense radar in Hawaii by requiring the Director of the Missile Defense Agency to provide a certification that the contract for the homeland defense radar in Hawaii is on schedule to award the contract by not later than December 31, 2018, and that the radar and the IDT will reach initial operating capability not later than fiscal year 2023. Should the contract not be awarded by December 31, 2018, this section would direct the Director of the Missile Defense Agency to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate every other week until the date of award. This section would also require the Director of the Missile Defense Agency to provide semiannual briefings to the Committees on Armed Services of the House of Representatives and the Senate on progress of the IDT and

homeland missile defense radar in Hawaii, including updates on the environmental impact study process and acquisition of the radar and terminal.

#### Section 1670—Reports on Unfunded Priorities of the Missile Defense Agency

This section would require the Director of the Missile Defense Agency to submit a report to the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and the congressional defense committees on the unfunded priorities of the Missile Defense Agency for fiscal years 2020 and 2021, within 10 days of the submission of the budget request to Congress for those fiscal years.

#### Section 1671—Report on Ballistic Missile Defense

This section would require the Secretary of Defense to submit a report on ballistic missile defense to the congressional defense committees not later than 30 days after the date of enactment of this Act.

#### Section 1672—Sense of Congress on Missile and Rocket Defense Cooperation between the United States and Israel

This section would express the sense of Congress in support of the administration's 10-year memorandum of understanding starting in fiscal year 2019 between the United States and the State of Israel on missile defense cooperation.

### SUBTITLE F—OTHER MATTERS

#### Section 1681—Extension of Commission to Assess the Threat to the United States from Electromagnetic Pulse Attacks and Similar Events

This section would amend section 1691 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to extend several deadlines associated with the Commission to Assess the Threat to the United States from Electromagnetic Pulse Attacks and Similar Events.

#### Section 1682—Procurement of Ammonium Perchlorate and Other Chemicals for Use in Solid Rocket Motors

This section would require the Secretary of the Army and the Deputy Assistant Secretary of Defense for Manufacturing and Industrial Base Policy to jointly conduct a business case analysis of the Federal Government using a government-owned, contractor-operated model to ensure a robust domestic supply of specialty chemicals, including ammonium perchlorate, for use in solid rocket motors. The Secretary and Deputy Assistant Secretary would be required to submit this business case analysis to the congressional defense committees by March 1, 2019.

This section would also require the Secretary of Defense to use, to the extent practicable, full and open competition in awarding a contract for the sale of ammonium perchlorate from retired solid rocket motors. The Secretary would be required to notify the congressional defense committees 30 days after the date of any such award that does not use full and open competition.

#### Section 1683—Conventional Prompt Global Strike Hypersonic Capabilities

This section would require the Secretary of Defense to submit to the congressional defense committees by November 30, 2018, a validated requirement for ground-, sea-, or air-launched (or a combination thereof) conventional prompt global strike (CPGS) hypersonic capabilities.

This section would further require the Under Secretary of Defense for Acquisition and Sustainment to submit a report to the congressional defense committees by November 30, 2018, on the plan to deliver a CPGS capability in accordance with section 1693 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91). The report would also include options with cost estimates for accelerating delivery for such system, policy decisions needed to employ the capabilities, and details with respect to the assessed level of ambiguity and misinterpretation of risks, and how those risks would be addressed.

#### Section 1684—Report Regarding Industrial Base for Large Solid Rocket Motors

This section would require the Under Secretary of Defense for Acquisition and Sustainment, in consultation with the Secretaries of the military departments that the Under Secretary determines appropriate, to submit a report to the appropriate congressional committees by April 15, 2019, on whether, and if so, how, the Federal Government will sustain more than one supplier for large solid rocket motors. The report would be required to include an assessment of several matters, including risks, costs, and options for sustaining more than one supplier by leveraging various programs of the Department of Defense and the broader Federal Government. Finally, this section would require the Under Secretary to provide a briefing to the appropriate congressional committees by November 30, 2018, on the industrial base for large solid rocket motors.

As it has expressed in the past, the committee continues to support the GBSD program and efforts to recapitalize the nuclear triad. The committee continues to expect the Air Force and the Department of Defense to be mindful of the impacts GBSD and other large upcoming or ongoing programs have on the industrial base for large solid rocket motors in the near, medium, and longer terms. Due to the large volume of rocket motors that will be procured for GBSD, this program may have a particularly large impact on the health and vitality of this key element of the U.S. industrial base. The committee does not expect or encourage the GBSD program alone to be responsible for sustaining this industrial base, but does expect the Department of Defense to carefully consider its impacts, assessing risks, benefits, and costs.



## Section 1685—National Intelligence Estimate with Respect to Russian and Chinese Interference in Democratic Countries

This section would direct the Director of National Intelligence to produce a National Intelligence Estimate on Russian and Chinese interference in democratic countries around the world.

## **DIVISION B—MILITARY CONSTRUCTION AUTHORIZATIONS**

### PURPOSE

Division B provides military construction, family housing, and related authorities in support of the military departments during fiscal year 2019. As recommended by the committee, division B would authorize appropriations in the amount of \$10,332,478,000 for construction in support of the Active Forces, Reserve Components, defense agencies, and the North Atlantic Treaty Organization security infrastructure fund for fiscal year 2019.

### MILITARY CONSTRUCTION AND FAMILY HOUSING OVERVIEW

The Department of Defense requested \$8,612,447,000 for military construction, \$267,538,000 for Base Realignment and Closure activities, and \$1,582,632,000 for family housing for fiscal year 2019. The committee recommends authorization of appropriations of \$8,498,136,000 for military construction, \$322,868,000 for Base Realignment and Closure activities, and \$1,582,632,000 for family housing in fiscal year 2019. In addition, the committee recommends the inclusion of \$71,158,000 in undistributed savings from prior years. The Department of Defense also requested \$921,420,000 for Overseas Contingency Operations military construction for fiscal year 2019. The committee recommends authorization of appropriations of \$921,420,000 for Overseas Contingency Operations military construction within title XXIX.

### Section 2001—Short Title

This section would cite division B of this Act as the "Military Construction Authorization Act for Fiscal Year 2019".

### Section 2002—Expiration of Authorizations and Amounts Required To Be Specified by Law

This section would ensure that the authorizations provided in titles XXI through XXVII and title XXIX of this Act shall expire on October 1, 2023, or the date of the enactment of an Act authorizing funds for military construction for fiscal year 2024, whichever is later.

## Section 2003—Effective Date

This section would provide that titles XXI through XXVII and title XXIX of this Act would take effect on October 1, 2018, or the date of the enactment of this Act, whichever is later.

## TITLE XXI—ARMY MILITARY CONSTRUCTION

### SUMMARY

The budget request contained \$1,011,768,000 for Army military construction and \$707,169,000 for family housing for fiscal year 2019. The committee recommends authorization of appropriations of \$1,095,868,000 for military construction and \$707,169,000 for family housing for the Army in fiscal year 2019.

### ITEMS OF SPECIAL INTEREST

#### Explanation of Funding Adjustments

The committee recommends the inclusion of funding for several projects requested by the Department of the Army but not contained in the budget request for military construction and family housing. These increases include:

- (1) \$18.0 million for a Microgrid and Power Plant at Fort Campbell, Kentucky;
- (2) \$16.5 million for Cantonment Area Roads at Fort Meade, Maryland; and
- (3) \$9.6 million for a Supply Support Activity at Fort Hood, Texas.

The committee also recommends the inclusion of \$50.0 million for the Secretary of the Army, with prior notification to Congress, to carry out projects intended to enhance force protection and safety. The committee recommends the Secretary use this authority to alleviate deficiencies in access control points, air traffic control towers, fire stations, and anti-terrorism and force protection.

Finally, the committee recommends a reduction of funding for a project contained in the budget request submitted by the Department of the Army for military construction and family housing. This reduction is:

- (1) \$10.0 million for Command and Control Facility, Increment 4 at Fort Shafter, Hawaii. While the committee supports the requirement for this incrementally funded project, the committee notes this is the second consecutive year the Army has reported cost increases associated with this project. The committee believes the Department did not provide sufficient justification for the most recent cost increase associated with this project. Therefore, the committee recommends \$95.0 million, a reduction of \$10.0 million, for this project.

### LEGISLATIVE PROVISIONS

## Section 2101—Authorized Army Construction and Land Acquisition Projects

This section would contain the list of authorized Army construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

## Section 2102—Family Housing

This section would authorize new construction and planning and design of family housing units for the Army for fiscal year 2019.

## Section 2103—Authorization of Appropriations, Army

This section would authorize appropriations for Army military construction at the levels identified in section 4601 of division D of this Act.

## Section 2104—Extension of Authorizations of Certain Fiscal Year 2015 Projects

This section would extend the authorization of a certain project originally authorized by section 2101 of the Military Construction Authorization Act for Fiscal Year 2015 (division B of Public Law 113–291) until October 1, 2019, or the date of the enactment of an act authorizing funds for military construction for fiscal year 2020, whichever is later.

# TITLE XXII—NAVY MILITARY CONSTRUCTION

## SUMMARY

The budget request contained \$2,543,189,000 for Navy and Marine Corps military construction and \$419,117,000 for family housing for fiscal year 2019. The committee recommends authorization of appropriations of \$2,538,898,000 for military construction and \$419,117,000 for family housing for the Navy and Marine Corps in fiscal year 2019.

## ITEMS OF SPECIAL INTEREST

### Explanation of Funding Adjustments

The committee recommends the inclusion of funding for several projects requested by the Department of the Navy but not contained in the budget request for military construction and family housing. These increases include:

(1) \$78.8 million for an Aircraft Paint Complex at Naval Base Coronado, California;

- (2) \$75.6 million for X-Ray Wharf Improvements (Berth 2) at Naval Base Guam, Guam;
- (3) \$51.3 million for 2nd Radio Battalion Complex, Phase 2 at Camp Lejeune, North Carolina;
- (4) \$31.9 million for a Welding and Body Repair Shop Facility at Marine Corps Base Albany, Georgia;
- (5) \$22.3 million for Expeditionary Combat Skills Student Berthing at Naval Construction Battalion Center, Gulfport, Mississippi;
- (6) \$21.8 million for Missile Magazines at Naval Weapons Station Seal Beach, California;
- (7) \$19.7 million for a Consolidated Fire Station at Naval Station Guantanamo Bay, Cuba;
- (8) \$19.5 million for LCS Mission Module Readiness Center at Naval Base San Diego, California;
- (9) \$16.6 million for a Supply Warehouse SOI-West at Camp Pendleton, California;
- (10) \$14.9 million for a Communications Line Ops to Admin at Naval Air Station Lemoore, California;
- (11) \$14.8 million for Missile Motor Magazines and U&SI at Camp Navajo, Arizona
- (12) \$13.1 million for Ammunition Supply Point Upgrade, Phase 2 at Marine Corps Base Quantico, Virginia;
- (13) \$10.0 million for Air Traffic Control Tower (North Field) at Naval Air Station Whiting Field, Florida; and
- (14) \$6.3 million for a Cryogenics Facility Marine Corps Air Station Beaufort, South Carolina.

The committee also recommends the inclusion of \$50.0 million for the Secretary of the Navy, with prior notification to Congress, to carry out projects intended to enhance force protection and safety. The committee recommends the Secretary use this authority to alleviate deficiencies in access control points, air traffic control towers, fire stations, and anti-terrorism and force protection.

Finally, the committee recommends a reduction of funding for several projects contained in the budget request submitted by the Department of the Navy for military construction and family housing. These reductions include:

- (1) \$73.97 million for an Aircraft Maintenance Hangar at Marine Corps Air Station Cherry Point, North Carolina. The committee supports the requirement for this project and provides the full project authorization of \$133.97 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that the Department of the Navy cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$60.0 million, a reduction of \$73.97 million, for this project.

(2) \$71.287 million for a Machine Gun Range at Joint Region Marianas, Guam. The committee supports the requirement for this project and provides the full project authorization of \$141.287 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that the Department of the Navy cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$70.0 million, a reduction of \$71.287 million, for this project.

(3) \$59.353 million for Pier 8 Replacement at Naval Base San Diego, California. The committee supports the requirement for this project and provides the full project authorization of \$108.1 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that the Department of the Navy cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$47.747 million, a reduction of \$59.353 million, for this project.

(4) \$55.6 million for the Master Time Clocks & Operations Facility at the Naval Observatory, District of Columbia. The committee supports the requirement for this project and provides the full project authorization of \$115.6 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that the Department of the Navy cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$60.0 million, a reduction of \$55.6 million, for this project.

(5) \$58.321 million for Dry Dock #1 Superflood Basin at the Portsmouth Navy Yard, Maine. The committee supports the requirement for this project and provides the full project authorization of \$109.96 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that the Department of the Navy cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$51.639 million, a reduction of \$58.321 million, for this project.

(6) \$51.86 million for Flightline Utility Modernization at Marine Corps Air Station Cherry Point, North Carolina. The committee supports the requirement for this project and provides the full project authorization of \$106.86 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that the Department of the Navy cannot fully expend the funding in fiscal

year 2019. Therefore, the committee recommends an authorization of appropriation of \$55.0 million, a reduction of \$51.86 million, for this project.

(7) \$50.52 million for a D5 Missile Motor Receipt/Storage Facility at Hill Air Force Base, Utah. The committee supports the requirement for this project and provides the full project authorization of \$105.52 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that Department of the Navy cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$55.0 million, a reduction of \$50.52 million, for this project.

(8) \$21.98 million for a TBS Fire Station at Marine Corps Base Quantico, Virginia. The committee notes this project was authorized in the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) and a subsequent appropriations was included for this project in the Consolidated Appropriations Act, 2018 (Public Law 115-141). The committee does not believe an additional authorization of appropriations for fiscal year 2019 is required for this project and therefore recommends a reduction of \$21.98 million, for this project.

(9) \$8.0 million for Planning and Design. The committee recommends an authorization of appropriation of \$177.542 million, a reduction of \$8.0 million, for planning and design activities.

#### Aegis Ashore Poland Austere Housing

The committee notes that the U.S. Navy has made the decision to maintain austere housing accommodations for the Aegis Ashore site in Redzikowo, Republic of Poland. This decision was made despite the committee's concerns about the impact that these conditions could have on the quality of life for the sailors manning the site.

Aegis Ashore Poland will provide critical missile defense capability to defend our deployed forces, allies, partners, and friends from missile defense threats. The site will be manned 24/7 by sailors on rotating, unaccompanied tours. The Commander of Naval Installations Command determined that the Aegis Ashore site located in Redzikowo, Poland, warranted "austere" housing, and the Chief of Naval Operations approved this determination. Under this determination, the housing accommodation guidelines will place up to 4 persons in each berthing room.

The committee is concerned that the austere housing may have a negative impact on quality of life for the sailors manning the site as they execute a critical missile defense mission. Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by November 30, 2018, on options to improve housing standards for sailors at the Aegis Ashore Poland site, including estimated costs and schedule for completing the possible improvements.

## Infrastructure in Support of Submarine Training and Operational Requirements

The committee supports the Navy's development of the Columbia-class to serve as the Navy's future ballistic missile submarine. While the first submarine delivery is projected outside of the current Future Years Defense Program, the committee believes it is important for infrastructure requirements to be properly identified, programmed, and synchronized to support the training and operational requirements of this new class of submarine. The committee notes that the military departments have struggled in the past to align military construction and infrastructure investments with delivery of new weapon systems. The committee encourages the Secretary of the Navy to review the Navy's current infrastructure plans to ensure proper alignment with the Columbia-class program. Finally, the committee notes the importance of continuing to make appropriate investments in the infrastructure capabilities and capacity necessary to meet the training and certification of crews supporting the current fleet of Ohio-class submarines.

### Public Shipyard Infrastructure

The committee acknowledges that it has received the report related to Naval Shipyard Development Plans required by the committee report (H. Rept. 115-200) accompanying the National Defense Authorization Act for Fiscal Year 2018. The report identified a number of infrastructure-related configuration, age, condition, and capacity issues that adversely impact nuclear submarine and aircraft carrier depot maintenance throughput. The Navy's report identifies approximately \$21.0 billion in infrastructure investments through 2040 that will be needed in the shipyards, to include \$14.0 billion for construction to provide the optimal layout of facilities in order to increase production capacity, \$4.0 billion for improvements of the dry docks to provide needed capability and capacity for future classes of ships, and \$3.0 billion for capital equipment. The committee believes the public shipyards are key elements that support our national defense. As such, the committee encourages the Secretary of the Navy to plan, program, and budget appropriate investments in the public shipyards to ensure those shipyards have the capabilities and capacity necessary to efficiently and effectively support the Navy fleet of today as well as the future.

### Red Hill Bulk Underground Fuel Storage Facility

The committee is aware that the Navy and Defense Logistics Agency (DLA) have entered into an enforceable agreement with the Environmental Protection Agency (EPA) and the Hawaii Department of Health known as an Administrative Order on Consent (AOC). The AOC has opportunities for stakeholder involvement at every milestone. The committee notes that the EPA and Hawaii Department of Health regulate the Red Hill Underground Fuel Storage Facility and must approve work on AOC milestones including tank inspection, repair, and maintenance; tank upgrade alternatives using Best Available Practicable Technology (BAPT); release

detection and tank tightness testing; corrosion and metal fatigue practices; investigation and remediation of releases; groundwater protection and evaluation; and a risk and vulnerability assessment. The committee encourages the Navy and DLA to continue to work with Federal and State regulators to meet all compliance deadlines related to the AOC. Furthermore, the committee encourages the Navy and DLA to consider increasing community outreach efforts, to include holding more public events such as town halls, to keep the community and local stakeholders informed on milestones and compliance with the AOC.

Furthermore, the committee continues to recognize the strategic value of the Red Hill Underground Fuel Storage Facility and the support it provides to U.S. Pacific Command (PACOM) operations in peacetime and for contingencies. This facility is a national strategic asset that supports combatant commander theater security requirements, contingency operations, and routine movements in the Indo-Asia-Pacific region. Moving the fuel to another storage facility in the Indo-Asia-Pacific region would have implications for the U.S. military force structure in the region. If the facility were closed, the ability of the U.S. Armed Forces to support the National Defense Strategy would be significantly undermined. The committee appreciates the ongoing dialogue with the Department of Defense and Department of the Navy on this topic while they continue to comply with the requirements of the AOC. The committee will continue to provide congressional oversight on compliance with the AOC and the planning, programming, budgeting, and execution for the BAPT solutions and overall recapitalization plan for the Red Hill Underground Fuel Storage Facility.

#### Tijuana Sewage Runoff

The committee is aware that discharges of raw sewage into the Tijuana River have required Navy in-water military training in the vicinity of Coronado, California, to be temporarily shifted to another location due to health and safety concerns. In addition, sewage spills and debris such as discarded tires often clog the river channel causing substantial erosion along the perimeter of the Naval Outlying Landing Field Imperial Beach (NOLFIB). The erosion has threatened the installation's perimeter fencing and resulted in the Navy developing a project to reinforce the riverbank and relocate portions of Navy fencing. The committee is aware that such discharges also cause secondary impacts to local Navy operations, such as beach closures at Naval Base Coronado in areas that are prime nesting grounds for the Western Snowy Plover and the California Least Tern. Increased regulatory actions by State and Federal environmental protection agencies may be levied if the quality and safety of these species' nesting areas are affected, which will negatively constrain military activities in these areas.

The committee is concerned that future spills, discharges, and debris from the Tijuana River may have more significant impacts on the military installations and operations in the San Diego region. Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed



Services and other committees of jurisdiction in the House, not later than December 1, 2018, detailing whether such spills, discharges, and debris have any impact on the national security interests of the United States; whether there is a need to avoid future spills to prevent impacts to training, installations, and operations; and what actions might be taken to resolve or mitigate these impacts. As necessary, the Secretary is encouraged to coordinate with the Department of State, the Environmental Protection Agency, the Department of Homeland Security (to include U.S. Customs and Border Patrol and the U.S. Coast Guard), the International Boundary and Water Commission, and the Department of the Interior on this briefing requirement.

## LEGISLATIVE PROVISIONS

### Section 2201—Authorized Navy Construction and Land Acquisition Projects

This section would contain the list of authorized Navy construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

### Section 2202—Family Housing

This section would authorize new construction and planning and design of family housing units for the Department of the Navy for fiscal year 2019.

### Section 2203—Improvements to Military Family Housing Units

This section would authorize the Secretary of the Navy to make improvements to existing units of family housing for fiscal year 2019.

### Section 2204—Authorization of Appropriations, Navy

This section would authorize appropriations for Navy military construction at the levels identified in section 4601 of division D of this Act.

## TITLE XXIII—AIR FORCE MILITARY CONSTRUCTION

### SUMMARY

The budget request contained \$1,725,707,000 for Air Force military construction and \$395,720,000 for family housing for fiscal year 2019. The committee recommends authorization of appropriations of \$1,570,773,000 for military construction and \$395,720,000 for family housing for the Air Force in fiscal year 2019.

## ITEMS OF SPECIAL INTEREST

### Explanation of Funding Adjustments

The committee recommends the inclusion of funding for several projects requested by the Department of the Air Force but not contained in the budget request for military construction and family housing. These increases include:

(1) \$26.0 million for a Dormitory (168 personnel) at Little Rock Air Force Base, Arkansas;

(2) \$26.0 million for a Composite Aircraft Antenna Calibration facility at Hill Air Force Base, Utah;

(3) \$15.0 million for an AGE Facility at Davis-Monthan Air Force Base, Arizona;

(4) \$14.2 million for Anti-Terrorism Perimeter Security/Entry Control Point at Rome Laboratory, New York;

(5) \$14.0 million for Add-Alter Joint Personnel Recovery Agency Command and Control Mission Support Facility at Fairchild Air Force Base–White Bluff, Washington;

(6) \$13.0 million for a Child Development Center at Joint Base Andrews, Maryland;

(7) \$12.25 million for an Entrance Road and Gate Complex at Barksdale Air Force Base, Louisiana;

(8) \$9.0 million for a Main Gate at Patrick Air Force Base, Florida;

(9) \$8.0 million for a Military Working Dog Facility at Joint Base Andrews, Maryland; and

(10) \$7.0 million for Wyoming Gate Upgrade for Anti-Terrorism Compliance at Kirtland Air Force Base, New Mexico.

The committee also recommends the inclusion of \$50.0 million for the Secretary of the Air Force, with prior notification to Congress, to carry out projects intended to enhance force protection and safety. The committee recommends the Secretary use this authority to alleviate deficiencies in access control points, air traffic control towers, fire stations, and anti-terrorism and force protection.

Finally, the committee recommends reduction of funding for several projects contained in the budget request submitted by the Department of the Air Force for military construction and family housing. These reductions include:

(1) \$185.0 million for the MIT-Lincoln Laboratory (West Lab CSL/MIF) at Hanscom Air Force Base, Massachusetts. The committee supports the requirement for this project and provides the full project authorization of \$225.0 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that Department of the Air Force cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$40.0 million, a reduction of \$185.0 million, for this project.

(2) \$55.1 million for the ADAL Intelligence Production Complex (NASIC) at Wright-Patterson Air Force Base, Ohio. The budget request included \$116.1 million to construct the first phase of the construction of additional workspace for intelligence analysis and production to support the National Air and Space Intelligence Center. The committee supports the requirement for this project and is aware that a \$66.0 million second phase is planned in a future program but is needed to support the full mission requirement. The committee believes it is more appropriate to authorize the full scope of a military construction requirement and provide incremental funding as opposed to bifurcating a construction project into separate phases. Therefore, the committee recommends combining the two phases into a single project and provides a total authorization of \$182.0 million for the ADAL Intelligence Production Complex at Wright-Patterson Air Force Base, Ohio. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that Department of the Air Force cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$61.0 million, a reduction of \$55.1 million, for this project.

(3) \$40.0 million for a Personnel Deployment Processing facility at Al Udeid, Qatar. The committee supports this requirement. However, the committee recommends no funds in the base budget, a reduction of \$40.0 million, for this project in order to transfer this project to Title XXIX, Overseas Contingency Operations Military Construction.

(4) \$30.884 million for the Presidential Aircraft Recap Complex, Increment 2 at Andrews Air Force Base, Maryland. The committee supports the requirement for this project, but notes that an additional \$24.884 million was provided in the Consolidated Appropriations Act, 2018 (Public Law 115-141), which was signed into law after the budget request for fiscal year 2019 was submitted. In addition, the committee notes an additional \$6.0 million was included in the project for site preparation work that is no longer required. Therefore, the committee recommends an authorization of appropriation of \$123.116 million, a reduction of \$30.884 million, for this project.

(5) \$30.4 million for Flightline Support facilities at Al Udeid, Qatar. The committee supports this requirement. However, the committee recommends no funds in the base budget, a reduction of \$30.4 million, for this project in order to transfer this project to Title XXIX, Overseas Contingency Operations Military Construction.

(6) \$8.0 million for Planning and Design. The committee recommends an authorization of appropriation of \$187.577 million, a reduction of \$8.0 million, for planning and design activities.

#### Infrastructure Investments in Support of Research and Development Contracts

The committee notes that section 2353 of title 10, United States Code, provides the secretary of a military department the authority to provide for the acquisition or construction of facilities and equipment by either the Government or the contractor that the secretary concerned determines to be necessary for the performance of a contract for research, development, or both. However, the committee notes that the Air Force Instruction (AFI) approval process currently used to approve projects seeking to use this authority may not be appropriate for the circumstances at certain research facilities. Specifically, the committee notes that the current AFI-32 series is used for traditional military construction projects, and does not adequately address construction funded through contracts for research, development, or both. Therefore, the addition of language to AFIs pertinent to acquisition and construction of facilities and equipment authorized by section 2353 of title 10, United States Code, may be more appropriate and necessary for the implementation of this authority. The committee believes the Secretary of the Air Force should closely examine this issue and issue a revised AFI, as appropriate, that better supports the use of section 2353 of title 10, United States Code.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than September 30, 2018, on the results of a review of the authorities that support the acquisition or construction of facilities and equipment for research and development contracts, the supporting AFIs to carry out such projects, and any plans to update the AFI to better utilize the existing authorities.

## LEGISLATIVE PROVISIONS

### Section 2301—Authorized Air Force Construction and Land Acquisition Projects

This section would contain the list of authorized Air Force construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

### Section 2302—Family Housing

This section would authorize new construction and planning and design of family housing units for the Air Force for fiscal year 2019.

### Section 2303—Improvements to Military Family Housing Units

This section would authorize the Secretary of the Air Force to make improvements to existing units of family housing for fiscal year 2019.

### Section 2304—Authorization of Appropriations, Air Force

This section would authorize appropriations for Air Force military construction at the levels identified in section 4601 of division D of this Act.

Section 2305—Modification of Authority to Carry Out Certain Phased Project Authorized in Fiscal Years 2015, 2016, and 2017

This section would modify the authority provided by section 2301(b) of the Military Construction Authorization Act for Fiscal Year 2015 (division B of Public Law 113-291), the authority provided by section 2301(b) of the Military Construction Authorization Act for Fiscal Year 2016 (division B of Public Law 114-92), and the authority provided by section 2301(b) of the Military Construction Authorization Act for Fiscal Year 2017 (division B of Public Law 114-328) to authorize the Secretary of the Air Force to modify the location of three previously authorized construction phases of the project.

Section 2306—Modification of Authority to Carry Out Certain Fiscal Year 2017 Project

This section would modify the authority provided by section 2301 of the Military Construction Authorization Act for Fiscal Year 2017 (division B of Public Law 114-328) and authorize the Secretary of the Air Force to make certain modifications to the scope and authorized cost of a previously authorized construction project.

Section 2307—Modification of Authority to Carry Out Certain Fiscal Year 2018 Project

This section would modify the authority provided by section 2301 of the Military Construction Authorization Act for Fiscal Year 2018 (division B of Public Law 115-91) and authorize the Secretary of the Air Force to make certain modifications to the scope of a previously authorized construction project.

Section 2308—Additional Authority to Carry Out Certain Fiscal Year 2019 Projects

This section would provide the Secretary of the Air Force additional authority to carry out certain fiscal year 2019 projects pursuant to the Defense Laboratory Modernization Pilot Program established by section 2803 of the Military Construction Authorization Act for Fiscal Year 2016 (division B of Public Law 114-92).

Section 2309—Additional Authority to Carry Out Project at Travis Air Force Base, California, in Fiscal Year 2019

This section would provide specific authorization for a construction project at Travis Air Force Base.

# TITLE XXIV—DEFENSE AGENCIES MILITARY CONSTRUCTION

## SUMMARY

The budget request contained \$2,693,324,000 for defense agency military construction and \$58,373,000 for family housing for fiscal year 2019. The committee recommends authorization of appropriations of \$2,473,338,000 for military construction and \$58,373,000 for family housing for defense agencies for fiscal year 2019.

## ITEMS OF SPECIAL INTEREST

### Explanation of Funding Adjustments

The committee notes the budget request submitted by the Department of Defense for military construction and family housing included \$150.0 million for the Energy Resilience and Conservation Investment Program. The committee supports this program and encourages the Department of Defense to continue to emphasize projects that will support increased resiliency of military installations and mission critical functions. Therefore, the committee recommends an authorization of appropriation of \$165.0 million, an increase of \$15.0 million, for this program.

In addition, the committee recommends reduction of funding for several projects contained in the budget request submitted by the Department of Defense for military construction and family housing. These reductions include:

(1) \$130.386 million for Kinnick High School at Yokosuka, Japan. The committee supports the requirement for this project and provides the full project authorization of \$170.386 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that Department of Defense cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$40.0 million, a reduction of \$130.386 million, for this project.

(2) \$44.0 million for Long Range Discrimination Radar System Complex, Phase 2 at Clear Air Force Station, Alaska. The committee supports the requirement for this project and provides the full project authorization of \$174.0 million included in the budget request. However, the committee supports the authorization of appropriations in an amount equivalent to the ability of the Department to execute in the year of the authorization for appropriations. For this project, the committee believes that Department of the Defense cannot fully expend the funding in fiscal year 2019. Therefore, the committee recommends an authorization of appropriation of \$130.0 million, a reduction of \$44.0 million, for this project.

(3) \$32.6 million for Next NGA West (N2W) Complex, Phase 1, Increment 2 in St. Louis, Missouri. The committee supports the requirement for this project, but notes that an additional \$25.0 million was provided in the Consolidated Appropriations Act, 2018 (Public Law 115-141), which was signed into law after the budget request for fiscal year 2019 was submitted. In addition, the committee notes that the Office of Management and Budget has directed the National Geospatial-Intelligence Agency not to award the project until receiving the full appropriation for both increments, resulting in a cost increase of \$7.6 million due to the delay in award. As noted elsewhere in this report, the committee believes such a policy is not in the best interest of the Department of Defense or the taxpayer. Therefore, the committee recommends an authorization of appropriation of \$181.0 million, a reduction of \$32.6 million, for this project.

(4) \$10.0 million for an Ambulatory Care Center Addition/Alteration at RAF Croughton, United Kingdom. The committee notes this facility may be early-to-need based on an ongoing analysis of alternatives related to a separate military construction requirement. Therefore, the committee recommends no funds, a reduction of \$10.0 million, for this project.

(5) \$10.0 million for Contingency Construction at Unspecified Worldwide Locations. The budget request included \$10.0 million to support contingency construction requirements not previously authorized by law. While the committee notes this authority was used for a project in fiscal year 2018, unobligated balances remain available in the military construction account and other authorities exist to construct projects that are in keeping with a national security interest. As such, the committee recommends no funds, a reduction of \$10.0 million, for this program.

(6) \$8.0 million for Missile Field #1 Expansion at Fort Greely, Alaska. The committee notes that the Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017 (Public Law 115-56) provided \$200.0 million for the construction of an additional 20 silos at Missile Field #4. The committee questions why the requirement for the additional expansion of Missile Field #1 was not included in the previous request. In addition, the committee notes that this project could be carried out as a minor military construction project and does not require specific authorization. Therefore, the committee recommends no funds, a reduction of \$8.0 million, for this project.

## LEGISLATIVE PROVISIONS

### Section 2401—Authorized Defense Agencies Construction and Land Acquisition Projects

This section would contain the list of authorized defense agencies' construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The state list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

### Section 2402—Authorized Energy Conservation Projects

This section would authorize the Secretary of Defense to carry out energy resilience and conservation projects.

#### Section 2403—Authorization of Appropriations, Defense Agencies

This section would authorize appropriations for defense agencies' military construction at the levels identified in section 4601 of division D of this Act.

#### Section 2404—Extension of Authorizations of Certain Fiscal Year 2015 Projects

This section would extend the authorization of certain projects originally authorized by section 2401 of the Military Construction Authorization Act for Fiscal Year 2015 (division B of Public Law 113–291) until October 1, 2019, or the date of the enactment of an Act authorizing funds for military construction for fiscal year 2020, whichever is later.

## TITLE XXV—INTERNATIONAL PROGRAMS

### SUMMARY

The budget request contained \$171,064,000 for the North Atlantic Treaty Organization Security Investment Program (NSIP) for fiscal year 2019. The committee recommends authorization of appropriations of \$171,064,000 for NSIP for fiscal year 2019.

### ITEMS OF SPECIAL INTEREST

#### Facilities and Infrastructure for U.S. Military Personnel at North Atlantic Treaty Organization Host Nation Bases

The committee appreciates its ongoing and cooperative dialogue with the Department of Defense regarding efforts to improve infrastructure and facilities for U.S. military personnel stationed at North Atlantic Treaty Organization (NATO) host nation bases. As NATO continues to strengthen and update its posture in response to increasing threats, the committee believes that the United States, NATO, and individual host nations must recapitalize facilities and infrastructure that support the NATO mission.

Based on site visits and direct oversight, the committee is pleased that the Kingdom of Belgium has taken several unilateral steps and applied its own funding to improve the security posture at several bases hosting U.S. personnel. However, the committee is disappointed that longstanding plans to recapitalize certain facilities at Belgian bases have not yet been executed. The committee understands that, over a decade ago, NATO allocated common funding to construct several new, modern facilities in Belgium to replace inadequate, decades-old buildings. But, due to bureaucratic delays outside of the control of NATO and the U.S. Government, the



new facilities have not yet been built and U.S. personnel continue to work and operate in antiquated, substandard, and potentially unsafe facilities. The committee is aware of recent discussions between senior officials from the U.S. and Belgium on this issue, and is pleased that officials from both nations are working together to execute recapitalization plans. The committee encourages Belgium, NATO, and the U.S. Government to find and execute a near-term solution to this serious problem.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—NORTH ATLANTIC TREATY ORGANIZATION SECURITY INVESTMENT PROGRAM

#### Section 2501—Authorized NATO Construction and Land Acquisition Projects

This section would authorize the Secretary of Defense to make contributions to the North Atlantic Treaty Organization Security Investment Program in an amount not to exceed the sum of the amount specifically authorized in section 2502 of this Act and the amount collected from the North Atlantic Treaty Organization as a result of construction previously financed by the United States.

#### Section 2502—Authorization of Appropriations, NATO

This section would authorize appropriations for the North Atlantic Treaty Organization Security Investment Program at the levels identified in section 4601 of division D of this Act.

### SUBTITLE B—HOST COUNTRY IN-KIND CONTRIBUTIONS

#### Section 2511—Republic of Korea Funded Construction Projects

This section would authorize the Secretary of Defense to accept 16 military construction projects totaling \$518.6 million pursuant to agreement with the Republic of Korea for required in-kind contributions.

## TITLE XXVI—GUARD AND RESERVE FORCES FACILITIES

### SUMMARY

The budget request contained \$467,395,000 for military construction of National Guard and Reserve facilities for fiscal year 2019. The committee recommends authorization of appropriations of \$648,195,000 for military construction for fiscal year 2019.

### ITEMS OF SPECIAL INTEREST

## Explanation of Funding Adjustments

The committee recommends the inclusion of funding for several projects requested by the Department of the Army and Department of the Air Force for their reserve components but not contained in the budget request for military construction and family housing. These increases include:

- (1) \$42.6 million for a Regional ISO Maintenance Hangar at Westover Air Reserve Base, Massachusetts;
- (2) \$24.0 million for a NORTHCOM–Construct Alter Facilities at Naval Air Station Joint Reserve Base New Orleans, Louisiana;
- (3) \$24.0 million for an HC-130J Maintenance Hangar at Patrick Air Force Base, Florida;
- (4) \$23.0 million for an ECS Modified TEMF at Yakima Training Center, Washington;
- (5) \$13.0 million for Replace Fire Station at Mansfield Lahm Airport, Ohio;
- (6) \$11.0 million for an Aircraft Vehicle Storage Building at Lexington, Oklahoma;
- (7) \$9.4 million for an Aerial Port Facility at Grissom Air Reserve Base, Indiana;
- (8) \$9.0 million for Construct Aircraft Apron at Great Falls International Airport, Montana;
- (9) \$8.8 million for Relocate Main Gate at Youngstown Air Reserve Station, Ohio;
- (10) \$8.0 million for Construct Small Arms Range at Rickenbacker International Airport, Ohio; and
- (11) \$8.0 million for Construct Small Arms Range at Duluth International Airport, Minnesota.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—PROJECT AUTHORIZATIONS AND AUTHORIZATION OF APPROPRIATIONS

#### Section 2601—Authorized Army National Guard Construction and Land Acquisition Projects

This section would contain the list of authorized Army National Guard construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

#### Section 2602—Authorized Army Reserve Construction and Land Acquisition Projects

This section would contain the list of authorized Army Reserve construction projects for fiscal year 2019. The authorized amounts are listed on an installation-

by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

Section 2603—Authorized Navy Reserve and Marine Corps Reserve Construction and Land Acquisition Projects

This section would contain the list of authorized Navy Reserve and Marine Corps Reserve construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

Section 2604—Authorized Air National Guard Construction and Land Acquisition Projects

This section would contain the list of authorized Air National Guard construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

Section 2605—Authorized Air Force Reserve Construction and Land Acquisition Projects

This section would contain the list of authorized Air Force Reserve construction projects for fiscal year 2019. The authorized amounts are listed on an installation-by-installation basis. The State list contained in this Act is intended to be the binding list of the specific projects authorized at each location.

Section 2606—Authorization of Appropriations, National Guard and Reserve

This section would authorize appropriations for the National Guard and Reserve military construction at the levels identified in section 4601 of division D of this Act.

SUBTITLE B—OTHER MATTERS

Section 2611—Modification of Authority to Carry Out Certain Fiscal Year 2016 Project

This section would modify the authority provided by section 2603 of the Military Construction Authorization Act for Fiscal Year 2016 (division B of Public Law 114-92) to authorize the Secretary of the Navy to modify the location of a previously authorized construction project.

## Section 2612—Modification of Authority to Carry Out Certain Fiscal Year 2018 Project

This section would modify the authority provided by section 2601 of the Military Construction Authorization Act for Fiscal Year 2018 (division B of Public Law 115-91) to authorize the Secretary of the Army to make certain modifications to the scope of a previously authorized construction project.

## Section 2613—Additional Authority to Carry Out Certain Fiscal Year 2019 Project

This section would authorize the Secretary of the Navy to carry out a military construction project and acquire land at Pittsburgh, Pennsylvania, for the construction of a reserve training center. The Secretary may use available, unobligated Navy military construction reserve funds for the project.

## TITLE XXVII—BASE REALIGNMENT AND CLOSURE ACTIVITIES

### SUMMARY

The budget request contained \$267,538,000 for activities related to Base Realignment and Closure (BRAC) activities. The committee recommends authorization of appropriations of \$322,868,000 for BRAC activities.

### ITEMS OF SPECIAL INTEREST

#### Explanation of Funding Adjustments

The committee notes the budget request submitted by the Department of Defense for activities related to Base Realignment and Closure (BRAC) included \$322.868 million for the activities related to recommendations from the previous BRAC rounds. The committee notes that additional resources may allow for the acceleration of certain activities. Therefore, the committee recommends additional authorization of appropriations of \$18.11 million for Base Realignment and Closure—Army, \$19.11 million for Base Realignment and Closure—Navy, and \$18.11 million for Base Realignment and Closure—Air Force.

### LEGISLATIVE PROVISIONS

#### Section 2701—Authorization of Appropriations for Base Realignment and Closure Activities Funded through Department of Defense Base Closure Account

This section would authorize appropriations for ongoing activities that are required to implement the base realignment and closure activities authorized by the Defense Base Closure and Realignment Act of 1990 (part A of title XXIX of Public Law 101-510), at the levels identified in section 4601 of division D of this Act.

## Section 2702—Additional Authority to Realign or Close Certain Military Installations

This section would provide the Secretary of Defense with authority to close or realign a military installation if the Secretary receives notification from the Governor of a State or territory that recommends the realignment or closure of a military installation within the Governor's State or territory.

## Section 2703—Prohibition on Conducting Additional Base Realignment and Closure (BRAC) Round

This section would affirm that nothing in this Act shall be construed to authorize an additional Base Realignment and Closure round.

# TITLE XXVIII—MILITARY CONSTRUCTION GENERAL PROVISIONS

## ITEMS OF SPECIAL INTEREST

### Allied Pilot Training on Advanced Pilot Trainer

The committee understands that as the U.S. Air Force evaluates proposals for the Advanced Pilot Trainer (T-X) to make a final award in 2018, it will also be conducting an analysis of each undergraduate pilot training base to determine when the T-X will replace the T-38C Talon currently in service at those bases. Undergraduate pilot training lays the foundation for all pilots that will fly advanced fighter aircraft, including pilots from allies and partners who will fly American fighter aircraft variants. It is critical that pilots from allies and partners also receive opportunities to adequately prepare to fly these aircraft. Therefore, the committee recommends that the Secretary of the Air Force, when evaluating locations for basing the T-X, consider the importance of locations that also provide training to allies and partners.

### Comptroller General Review of Utilities Privatization

The committee continues to support the utility privatization program and other alternative financing arrangements to achieve greater efficiencies, improve reliability and resiliency of utility systems, and reduce operating costs to the Department of Defense. While the Department has leveraged this authority for approximately 20 years, the committee notes with concern the amount of time it can take to complete a utility privatization project, from initial feasibility review by the military department to award of a contract to a utility provider. The committee is aware of instances where the process took more than 5 years from analysis to award. After two decades of experience with utilities privatization, the committee is

concerned that procedures have not improved. The Department's protracted process for awarding privatization contracts deters potential utility providers from considering such a contract.

Therefore, the committee directs the Comptroller General of the United States to review the Department's utility privatization program and submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than September 30, 2019, on his findings and recommendations. Specifically, the report shall address the following for each military service:

(1) the specific steps of the utility privatization process, the average amount of time to complete each step, and the contributing factors for the time each step takes;

(2) the extent to which best practices have been identified and are shared between the services and the Defense Logistics Agency, and other stakeholders to improve the process; and

(3) any recommendations to help improve the process as determined to be appropriate by the Comptroller General.

#### Core Sampling at Joint Base San Antonio

The Committee notes that Joint Base San Antonio is served by a wastewater pipeline, known as W-6 that is subject to a Consent Decree with the Environmental Protection Agency requiring its replacement. The local utility providing wastewater service is the San Antonio Water System, an agency of the City of San Antonio, Texas. This pipeline is critical to the functional wastewater system of Joint Base San Antonio, the City of San Antonio, and Bexar County. The Committee believes that the timely replacement of the pipeline is in the best interests of both Joint Base San Antonio and the community. The proposed route of the replacement pipeline would traverse a part of the base that contains capped and closed landfills with uncertain contents. The committee understands that the Air Force and the City are currently at an impasse on the liability for any contamination discovered during site investigations of the proposed pipeline route and during construction and subsequent maintenance and operation of a new pipeline. Given the hazards posed by the condition of the existing pipeline to the population on Joint Base San Antonio, and the legal requirements for replacing the pipeline under the Consent Decree, the Committee encourages the Secretary of the Air Force to work with the City of San Antonio toward an amicable and rapid resolution.

To establish an estimate of liability that will allow informed decisions, the Committee encourages the Secretary of the Air Force to conduct core sampling along the proposed route of the new pipe to determine if any regulated or hazardous substances are present in the soil along the proposed route and the concentrations of any such substances. Furthermore, the committee directs the Secretary of the Air Force to provide a briefing to the House Armed Services Committee, not later than

September 30, 2018, on the whether or not the Air Force performed such core sampling and the results of the core sampling performed. If the Air Force did not perform such core sampling, the briefing shall include a detailed explanation for the reasons such sampling was not performed. At the time of the briefing, the Secretary should also provide an update on the status of negotiations with the San Antonio Water System and proposed way-ahead for the site investigations and construction of the W-6 replacement pipeline.

#### Department of Defense Lands Leases in Hawaii

The Department of Defense has multiple land leases in Hawaii that require renegotiation and renewal within the next 15 years, including the Pohakuloa Training Area, Kahuku Training Area, Makua Military Reservation, and Poamoho Training Area. Therefore, the committee directs the Secretary of Defense to report to the House Committee on Armed Services on efforts to renew Department of Defense leases in Hawaii by July 31, 2018.

#### Incremental Funding of Military Construction Projects

As noted elsewhere in this report, the committee continues to believe in the value and appropriateness of incrementally authorizing appropriations for certain military construction projects. The committee notes that the Office of Management and Budget has directed the Department of Defense to not plan, program, or request incremental funded projects. However, the committee believes that allowing the Department to seek incremental funding for certain projects ensures more stability and predictability in the planning process, reduces acquisition costs, and enables the Department to execute more work in place on other infrastructure requirements in the fiscal year. Furthermore, the committee believes that incremental funding of large and complex military construction projects ensures continuous oversight and opportunities to adjust the authorization of appropriation level for projects should issues arise or requirements change over the course of construction. To date, the committee is not aware of any example where a military construction project has been left with inadequate funding or has not been executable as a result of an incremental funding approach. The committee expects the Secretary of Defense and the Director of the Office of Management and Budget to work with the House Committee on Armed Services, and the other appropriate congressional oversight committees, to develop a framework that enables the planning, programming, budgeting, and execution of incrementally funded military construction projects.

#### Naval Academy Dairy Farm

The committee is aware the Secretary of the Navy is currently prohibited by section 6976 of title 10, United States Code from disposing of 875 acres of real property containing the Naval Academy dairy farm located in Gambrills, Maryland.

The committee notes that this prohibition has been in place for more than twenty years and believes that it should be reexamined. Therefore, the committee directs the Secretary of the Navy to provide a report to the House Armed Services Committee, not later than September 30, 2018, regarding the real property containing the Naval Academy dairy farm. At minimum, the report shall address the current use and activities taking place on the property, an assessment of the continued need for the property to be retained by the Navy, and an evaluation of potential future uses for the property, including conveyance to a local county or municipality. In addition, the report should address how the Navy would continue supporting the functions and activities that benefit from the proceeds of current leases of the real property.

### Operational Energy Technologies

The committee is aware of a variety of technologies that may improve operational flexibility, enhance logistics, and reduce supply lines for forces operating in deployed environments, to include the ability to convert natural gas to tactical fuels, improve power generation, distribution, and storage in deployed environments, and increase the range and capability of tactical vehicles. The committee is supportive of these efforts and encourages the Department of Defense to transition such natural gas to tactical fuel technologies from the research and development stage in support of operational requirements. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Armed Services Committee, not later than March 1, 2019, that outlines steps the Department is taking, to include resourcing and timelines for maturation of operational energy technologies, to transition such technologies to full scale demonstrations and commercial production.

### Privatization of On-Base Lodging

The committee supports the ongoing efforts of the Secretary of Defense to make Department of Defense business operations more efficient. As the Secretary of Defense noted in his February 2017 Memorandum, this efficiency will free up resources to enable “a larger, more capable and more lethal Joint force.” One of the ways to accomplish this is to find savings in areas that may no longer merit individual military department approaches, particularly in non-core functions. To that end, the committee notes that the Army has privatized its on-base lodging operations and understands this effort has resulted in upgraded on-base lodging facilities, an improved experience for the military traveler, annual savings for the Army, and a self-sustaining lodging program. The committee is aware that the Department is considering options to consolidate and privatize Navy and Air Force on-base lodging.

Therefore, the committee directs the Secretary of the Navy and the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services, not later than March 1, 2019, on how the Navy and Air Force will ensure



holistic sustainability and affordability of their lodging programs. At a minimum, the briefing shall include details on capital investment needs to correct facility configuration and capacity deficiencies, provision of adequate long-term sustainment of facilities, and the implementation of best practices that will maximize reductions in government manpower and operational costs for Navy and Air Force on-base lodging programs.

#### Relocation of Defense Non-Tactical Generator and Rail Equipment Center, Hill Air Force Base, Utah

The committee is aware of the Department of the Army's decision to relocate the Defense Non-Tactical Generator and Rail Equipment Center (DGRC) from Hill Air Force Base, Utah, to Anniston Army Depot, Alabama. The committee is also aware the Utah Department of Transportation plans to construct a new interchange at the current site of the DGRC and State funding is programmed in 2022. The committee understands that the Army, Air Force, and State of Utah must undertake a number of actions before the DGRC parcel may be transferred and encourages the Secretary of the Air Force to begin discussions as soon as practicable with the Utah Department of Transportation to ensure the orderly transfer of the property by 2022.

Furthermore, the committee directs the Secretary of the Army, in coordination with the Secretary of the Air Force, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than January 31, 2019, on the detailed plan for executing the relocation of the DGRC and all actions necessary to ultimately transfer property to the Utah Department of Transportation. The report shall provide a detailed plan and timeline to relocate this mission to Anniston Army Depot and all necessary construction or renovation of facilities at Anniston Army Depot. The report should also include all actions necessary to enable transfer of Air Force property on Hill Air Force Base to the Utah Department of Transportation, to include the demolition of facilities, the construction or renovation of facilities, environmental remediation required, funding programmed to facilitate the transfer of the property to the Utah Department of Transportation, and any constraints to the execution of the transfer of the property by 2022.

#### Wireless Communications on Base

The committee recognizes that some military installations are located in rural areas with limited wireless communications coverage. There are also installations that cover such a large amount of land that communications infrastructure outside the fence line is unable to provide consistent or optimal service to portions of the installation. The committee believes that wireless communications coverage on military installations not only provide valuable support for the quality of life for service members and their families, but also can support military requirements related to force protection, logistics, training, or

operations. The committee is aware that the Navy is considering using real estate agreements, such as easements and enhanced use leases, to allow commercial industry to develop communications infrastructure on its installations to improve service and connectivity. The committee is aware that the Army and Air Force have also expressed a desire to improve wireless communications capabilities on military installations but may not be taking the same approach as the Navy. Therefore, the committee directs the service secretaries to provide a briefing to the House Armed Services Committee, not later than September 30, 2018, on each of the military departments' requirements, plans, and timelines for improving communications coverage and capabilities on its installations.

### Yucca Mountain

Pursuant to the Nuclear Waste Policy Act, the Department of Energy (DOE) plans to permanently dispose of high-level nuclear waste at Yucca Mountain, Nevada, located on DOE's Nevada National Security Site (NNSS), which would require transportation of nuclear waste to the repository. The committee has been briefed on DOE's proposed route to transport the waste to Yucca Mountain, and understands the route is located near DOE activities at NNSS and Department of Defense (DOD) activities at the Nevada Test and Training Range (NTTR). In 2017, Secretary of the Air Force Heather Wilson stated that, "if Yucca Mountain becomes a storage area it needs to operate without impacting the ability of the country to defend itself," and, "there is no route across the range that would not impact testing and training." Documents provided to the committee by the Air Force indicate that although the proposed route is located outside of the boundaries of NTTR, several sections of the route would border the range, and this siting of the rail line was confirmed in a DOE Record of Decision and Environmental Impact Statement.

The NTTR provides the largest air and ground military training space in the contiguous United States, free from commercial aircraft interference, and stores 75 percent of stateside Air Force live munitions. The NNSS provides DOE and other government agencies unique, high-hazard testing environments. Both facilities are national assets.

The committee directs the Secretary of Defense, in coordination with the Secretary of Energy, to submit a report to the congressional defense committees, not later than January 15, 2019, describing any impacts that the Yucca Mountain Project would have on DOD and DOE activities at NNSS, NTTR, and any other defense facilities in proximity to Yucca Mountain or the proposed transportation route.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—MILITARY CONSTRUCTION PROGRAM AND MILITARY FAMILY HOUSING

#### Section 2801—Commercial Construction Standards for Facilities on Leased Property

This section would amend section 2667 of title 10, United States Code, to allow the use of commercial construction standards when a private developer is constructing facilities on military land for commercial use under an enhanced use lease agreement.

#### Section 2802—Extension of Temporary, Limited Authority to Use Operation and Maintenance Funds for Construction Projects Outside the United States

This section would provide continued authority for the Secretary of Defense to use funds appropriated for operation and maintenance for military construction to meet temporary operational requirements during a time of declared war, national emergency, or contingency operation through the end of fiscal year 2019.

#### Section 2803—Small Business Set-Aside for Contracts for Architectural and Engineering Services and Construction Design

This section would amend section 2855 of title 10, United States Code, to increase the threshold for small business set-asides for architectural and engineering services and construction design contracts from \$300,000 to \$1.0 million.

#### Section 2804—Authority to Obtain Architectural and Engineering Services and Construction Design for Defense Laboratory Modernization Program

This section would amend section 2803 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92) to clarify that the Secretary of the military department concerned may use amounts available for research, development, testing, and evaluation funding to obtain architectural and engineering services to carry out a construction project under this authority. This section would also extend the period of the Defense Laboratory Modernization Pilot Program until October 1, 2023.

#### Section 2805—Repeal of Limitation on Certain Guam Project

This section would amend section 2879 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) by repealing the requirement that the Secretary of the Navy award five military construction projects prior to awarding the "Replace Andersen Housing Phase II" project.

#### Section 2806—Enhancing Force Protection and Safety on Military Installations

This section would authorize the Secretaries of the military departments to carry out military construction projects to enhance force protection and safety on military installations. This section would require a notification to the congressional

defense committees prior to obligating or expending funds to carry out a project under this authority.

Section 2807—Limitation on Use of Funds for Acquisition of Furnished Energy for  
New Medical Center in Germany

This section would prohibit the Secretary of Defense or Secretary of any military department from using funds to enter into a contract for the acquisition of energy for the proposed Rhine Ordnance Barracks Army Medical Center until the Secretary of Defense submits certain certifications regarding the source of energy supply and the design of the medical center.

Section 2808—Treatment of Leases of Non-Excess Property Entered into with  
Insured Depository Institutions

This section would amend section 2667 of title 10, United States Code, to direct the Secretary concerned to accept financial services provided by an insured depository institution to service members and employees of the Department of Defense as sufficient in-kind consideration to cover all lease, services, and utilities costs assessed with regard to the leased property.

SUBTITLE B—REAL PROPERTY AND FACILITIES ADMINISTRATION

Section 2811—Optional Participation in Collection of Information on Unutilized and  
Underutilized Military Installation Properties Available for Homeless Assistance

This provision would amend section 11411 of title 42, United States Code, to provide the Department of Defense discretion on the reporting of surplus facilities for possible assistance for the homeless. Since most facilities owned by the Department require credentialed access, few if any facilities have been transferred for adaptive reuse by homeless organizations.

Section 2812—Force Structure Plans and Infrastructure Capabilities Necessary to  
Support the Force Structure

This section would require the Secretary of Defense to submit a force structure plan for each military service not later than February 3, 2021, accompanied by a categorical model of installation capabilities required to support force structure and an assessment of the adequacy of the Department of Defense's existing infrastructure inventory to support force structure plans.

Section 2813—Retrofitting Existing Windows in Military Family Housing Units To  
Be Equipped with Fall Prevention Devices

This section would amend section 2879 of title 10, United States Code, to authorize the Secretaries of the military departments to create a grant program from which privatized housing entities and military installations may request funds to retrofit or install window fall prevention devices in privatized and military-owned housing.

Section 2814—Updating Prohibition on Use of Certain Assessment of Public Schools on Department of Defense Installations to Supersede Funding of Certain Projects

This section would freeze a portion of the Public Schools on Military Installations List required in the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) to ensure that the original top 38 schools do not lose priority due to any reassessment.

SUBTITLE C—LAND CONVEYANCES

Section 2821—Authority for Transfer of Administrative Jurisdiction over Certain Lands, Marine Corps Air Ground Combat Center Twentynine Palms, California, and Marine Corps Air Station Yuma, Arizona

This section would authorize the Secretary of the Navy to transfer acquired State and privately owned lands to the Secretary of the Interior for inclusion as public lands withdrawn and reserved by section 2941 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66). This section would also allow the Secretary of the Interior to transfer certain parcels of land at Marine Corps Air Station Yuma to the Secretary of the Navy.

Section 2822—Public Inventory of Guam Land Parcels for Transfer to Government of Guam

This section would require the Secretary of the Navy to establish, maintain, and regularly update an inventory of real property located on Guam owned by the U.S. Government and administered by the Department of the Navy which the Secretary of the Navy expects to transfer to the Government of Guam. Such inventory shall be available online and accessible to the public and include specific information about each parcel of land included in the inventory. This section would also establish a formal process for the Governor of Guam to petition the Secretary of the Navy to add parcels to the inventory.

Section 2823—Land Conveyance, Naval Academy Dairy Farm, Gambrills, Maryland

This section would authorize conveyance of 40 acres of land from the United States Naval Academy Dairy Farm to Anne Arundel County, Maryland, contingent on certain conditions and considerations.

Section 2824—Technical Correction of Description of Limestone Hills Training Area  
Land Withdrawal and Reservation, Montana

This section would amend section 2931 of the Military Construction Authorization Act for Fiscal Year 2014 (division B of Public Law 113–66) to adjust the acreage of withdrawn public land in Broadwater County, Montana.

Section 2825—Land Conveyance, Wasatch-Cache National Forest, Rich County,  
Utah

This section would direct the Secretary of Agriculture to transfer ownership of 80 acres of public land to the Utah State University Research Foundation, a 501(c)(3) non-profit.

SUBTITLE D—MILITARY LAND WITHDRAWALS

Section 2831—Indefinite Duration of Certain Military Land Withdrawals and  
Reservations and Improved Management of Withdrawn and Reserved Lands

This section would amend statutory authority for several military land withdrawals to extend the withdrawals indefinitely. This section would also amend section 670a of title 16, United States Code, to require the Secretary of the Interior and the concerned Secretary of a military department to continuously review such withdrawals and would establish a public comment process regarding the resource management plans and military use of such lands.

Section 2832—Designation of Potential Wilderness Area

This section would allow the Secretary of the Interior to permit a microwave communications site on one acre of land within a federally protected wilderness area.

SUBTITLE E—OTHER MATTERS

Section 2841—Defense Community Infrastructure Program

This section would amend section 2391 of title 10, United States Code, to authorize the Secretary of Defense to make grants, conclude cooperative agreements, and supplement funds available under other Federal programs to assist States and local governments in addressing deficiencies in community infrastructure projects or facilities which are located outside of military installations but which support military installations.

Section 2842—Restrictions on Use of Funds for Development of Public  
Infrastructure in Commonwealth of Northern Mariana Islands

This section would require the Secretary of Defense to convene an Economic Adjustment Committee meeting and describe assistance necessary to support changes in Department of Defense activities in the Commonwealth of the Northern Mariana Islands in a report to the congressional defense committees. This section would also prohibit the Department of Defense from carrying out any grant, transfer, cooperative agreement, or supplemental funding that will result in the development of public infrastructure unless such project is included in the Economic Adjustment Committee report and specifically authorized by law.

#### Section 2843—Study and Report on Coleman Bridge, York River, Virginia

This section would require the Commander, U.S. Transportation Command, to review the feasibility of including the George P. Coleman Memorial Bridge near Naval Weapons Station, Yorktown, Virginia, in the Strategic Highways Network and to report his findings to the congressional defense committees not later than 180 days after the date of the enactment of this Act.

#### Section 2844—Certifications Required Prior to Transfer of Certain Veterans Memorial Object

This section would amend section 2864 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91); it would provide language clarifying the certification requirement and require a report prior to the return of certain veterans memorial objects.

## TITLE XXIX—OVERSEAS CONTINGENCY OPERATIONS MILITARY CONSTRUCTION

### SUMMARY

The budget request contained \$921,420,000 for Overseas Contingency Operations military construction for fiscal year 2019. The committee recommends authorization of appropriations of \$921,420,000 for Overseas Contingency Operations military construction for fiscal year 2019.

### ITEMS OF SPECIAL INTEREST

#### Explanation of Funding Adjustments

The committee recommends reduction of funding for a project contained in the Overseas Contingency Operations budget request submitted by the Department of Defense for military construction. This reduction is:

(1) \$69.0 million for a High Value Detention Facility at Guantanamo Bay, Cuba. The Department of Defense did not provide the committee sufficient

justification for the need to construct a new, permanent facility with increased capacity and capabilities. In addition, the committee notes that while the current facility may not be ideally configured, it is still capable of meeting current and foreseeable detention requirements. Therefore, the committee recommends no funds, a reduction of \$69.0 million, for this project.

As noted earlier in this report, the committee recommended a reduction in funding for several projects included in the base budget request in order to transfer them to the Overseas Contingency Operations title of this Act. Therefore, the committee recommends a commensurate increase in the Overseas Contingency Operations account to support these projects. Specifically, these projects include:

- (1) \$40.0 million for a Personnel Deployment Processing facility at Al Udeid, Qatar; and
- (2) \$30.4 million for Flightline Support facilities at Al Udeid, Qatar.

## LEGISLATIVE PROVISIONS

### Section 2901—Authorized Army Construction and Land Acquisition Projects

This section would contain the list of certain authorized Army construction projects for fiscal year 2019. These projects represent a binding list of the specific projects authorized at these locations.

### Section 2902—Authorized Navy Construction and Land Acquisition Projects

This section would contain the list of authorized Navy construction projects for fiscal year 2019. These projects represent a binding list of the specific projects authorized at these locations.

### Section 2903—Authorized Air Force Construction and Land Acquisition Projects

This section would contain the list of certain authorized Air Force construction projects for fiscal year 2019. These projects represent a binding list of the specific projects authorized at these locations.

### Section 2904—Authorized Defense Agencies Construction and Land Acquisition Projects

This section would contain the list of authorized defense agencies' construction projects for fiscal year 2019. These projects represent a binding list of the specific projects authorized at these locations.

### Section 2905—Authorization of Appropriations



This section would authorize appropriations for Overseas Contingency Operations military construction at the levels identified in section 4602 of division D.

#### Section 2906—Restrictions on Use of Funds for Planning and Design Costs of European Deterrence Initiative Projects

This section would limit the ability of the secretaries concerned from using any of the amounts authorized to be appropriated for planning and design of military construction projects requested under the European Deterrence Initiative until the Secretary of Defense submits a list of the military construction projects to support the European Deterrence Initiative that are anticipated during fiscal year 2019 and at least the four succeeding fiscal years. The committee notes its support for the European Deterrence Initiative and the military construction program that supports it. However, the committee believes that it is important for Congress to have a clear understanding of the overall military construction plan for Europe and the construction projects that will be supported with this planning and design funding.

## **DIVISION C—DEPARTMENT OF ENERGY NATIONAL SECURITY AUTHORIZATIONS AND OTHER AUTHORIZATIONS**

### **TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS**

#### **OVERVIEW**

The budget request for fiscal year 2019 contained \$21.60 billion for atomic energy defense activities. The committee recommends \$21.96 billion, an increase of \$357.0 million to the budget request.

#### **ITEMS OF SPECIAL INTEREST**

##### **NATIONAL NUCLEAR SECURITY ADMINISTRATION**

###### **Overview**

The budget request for fiscal year 2019 contained \$15.09 billion for the programs of the National Nuclear Security Administration. The committee recommends \$15.40 billion, an increase of \$307.0 million to the budget request.

###### **Weapons Activities**

### *Defense Nuclear Security and related construction projects*

The budget request contained \$690.6 million for Defense Nuclear Security at the National Nuclear Security Administration (NNSA). This funding supports day-to-day security operations across the nuclear security enterprise, as well as sustainment and recapitalization of physical security infrastructure and equipment. This does not include certain major line item construction projects that would result in significant security improvements.

The committee continues to emphasize the need for sustained and focused NNSA and Department of Energy leadership attention on physical security efforts within the nuclear security enterprise. The security certifications required by section 2657 of title 50, United States Code, were intended to ensure the Administrator for Nuclear Security and the Secretary of Energy focus significant personal attention on the issue and are accountable for both progress and problems. Further, the congressionally mandated Center for Security Technology, Analysis, Response, and Testing, the Security Management Improvement Plan, and Security Infrastructure Revitalization Program have helped provide a solid knowledge base of physical security expertise and clear direction for a program that must be continuously vigilant and improving. The committee commends these steps, but continues to seek further progress on two major line item construction projects that will support both improved security and accomplishment of NNSA's mission deliverables: the West End Protected Area Reduction Project at the Y-12 National Security Complex, and the Material Staging Facility at the Pantex Plant.

The committee recommends \$701.6 million for Defense Nuclear Security, an increase of \$11.0 million to the budget request, \$9.0 million for the West End Protected Area Reduction project, and \$24.0 million for the Material Staging Facility.

### *Directed Stockpile Work*

The budget request included \$4.67 billion for Directed Stockpile Work (DSW), including life extension programs (LEP) and major alterations, stockpile systems, stockpile services, and strategic materials. The committee continues to believe the National Nuclear Security Administration (NNSA) must emphasize these programs and capabilities that directly support and enable NNSA's deliverables to the Department of Defense.

The W76-1 LEP will soon complete production and its successful delivery to the Navy is a notable achievement. This weapon will soon comprise approximately 70 percent of the nation's operationally deployed strategic warheads. Production engineering on the B61-12 LEP continues, and the committee will closely oversee capacity and throughput challenges to ensure it stays on track for delivery of a first production unit and associated capabilities by December 2019. This weapon will be both a tangible and credible extended deterrent for U.S. allies, as well as form an important component of the United States' own strategic deterrent. The W88 ALT 370, with its refresh of components and high explosives, will produce a modernized

warhead that will ensure its reliability for decades. And the W80-4 LEP will produce a warhead for the future long-range standoff (LRSO) cruise missile, which supports the air leg of the strategic triad. The committee will continue to track alignment between the W80-4 LEP and the LRSO program itself. Finally, the W76-2 program will produce a lower-yield submarine-launched ballistic missile warhead, as proposed by the 2018 Nuclear Posture Review. Aligning initial production of the W76-2 with the end of production of the W76-1 will help minimize costs and ensure timely production and deployment.

The committee recommends \$4.66 billion for Directed Stockpile Work, a decrease of \$8.0 million to the budget request.

### *Domestic uranium*

The committee understands that recent market trends, foreign competition, and other factors have had significant negative impacts on the nation's domestic uranium industry. For instance, the domestic uranium mining industry has diminished such that in recent years domestic suppliers provide less than 5 percent of U.S. demand for uranium. Additionally, all domestically owned uranium enrichment facilities have been closed.

The National Nuclear Security Administration (NNSA) is conducting an analysis of alternatives (AOA), due for completion in 2020, regarding if and how to reconstitute a domestic uranium enrichment capability for national security purposes. In its review of NNSA's AOA guidance, the Comptroller General of the United States found that NNSA's mission needs statement was limited in scope, showed preference toward a particular solution, and did not include the potential for enrichment facilities that meet multiple mission needs beyond just tritium production. The Comptroller General also found that NNSA's cost estimates for two potential enrichment technologies, which ranged from \$3.8 billion to \$14.0 billion depending on the technology and assumptions, only partially or minimally met best practice standards for being comprehensive, credible, well-documented, and accurate.

The committee also notes that policy changes must be considered as part of the AOA, including changes that would enable the current supply of unobligated fuel to last longer and changes that would revise domestic policies or international agreements regarding limitations on the use of obligated fuel. The committee believes this AOA must be comprehensive and data-driven, and expects NNSA to update the mission needs statement and AOA guidance to address the Government Accountability Office's recommendations.

While the AOA is underway, the committee believes NNSA must be mindful of ensuring U.S. technical expertise for uranium does not atrophy and that both mature and less-mature technology options continue to be advanced. The committee also believes NNSA and the wider Federal Government must be mindful of any short- or long-term implications for national security if the domestic uranium industry as a whole is moribund.

To enable its oversight of these issues, the committee directs the Administrator for Nuclear Security, in consultation with appropriate officials from the Department of Energy and other agencies, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 30, 2018, on the state of the domestic uranium industry in general, its impacts on national security, and the status of NNSA's ongoing analysis of alternatives related to domestic uranium enrichment. Such briefing should include:

(1) an assessment of commercial market trends, Department of Energy excess uranium sales, Federal regulations and policies, enrichment capacity, and foreign imports;

(2) details on how NNSA is sustaining technical expertise in domestically owned uranium enrichment technologies while its analysis of alternatives is ongoing and no domestically owned source of enriched uranium is operational;

(3) NNSA's plans to revise and clarify the mission needs statement, as recommended by the Comptroller General;

(4) how NNSA intends to consider a comprehensive range of options in the AOA, including policy changes such as reexamining the mixture of obligated and unobligated fuel used in reactors in proportion to tritium production and energy production, and revisions regarding limitations on the use of obligated fuel;

(5) how NNSA will ensure that cost estimates of all options are consistent with best practices, and how the cost estimates are aligned with the updated scope of need.

### *Fusion technology pathways*

The committee is aware of several different paths that may, some day, lead to viable fusion-based energy production and believes such a breakthrough would have extraordinary implications for energy security, national security, and the world in general. The committee is also cognizant that fusion-based energy production has been a long-sought outcome of the high energy density physics community, but has yet to yield anticipated results. The committee understands that tokamak technology is of particular interest in the scientific community for its potential to achieve viability for fusion energy production.

To better understand the state of science and technology development in this field, the committee directs the Administrator for Nuclear Security, in coordination with the directors of appropriate national laboratories and appropriate officials of the Department of Energy, to provide a briefing to the Committee on Armed Services of the House of Representatives by February 1, 2019, on fusion energy technology development. Such briefing should review and assess all potential fusion technology paths, particularly technologies related to the tokamaks and the use of divertor test facilities to better understand remaining challenges for dealing with hot plasma exhaust. In addition, the briefing should assess fusion technology paths, their viability as a potential future power source, remaining risks and challenges associated with such technologies, any complementary research and

development that is needed or ongoing, any implications of such research and technologies for the programs of the National Nuclear Security Administration, and any other matters the Administrator determines appropriate to enhance the committee's oversight and understanding.

### *Inertial Confinement Fusion*

The budget request included \$418.9 million for the Inertial Confinement Fusion (ICF) Ignition and High Yield program at the National Nuclear Security Administration (NNSA).

In the absence of nuclear explosive testing, this program provides for specialized expertise and unique facilities to better understand high energy density science and the operation of nuclear weapons. The budget request proposed a significant decrease in funding for ICF, including initiation of "a three-year ramp-down in NNSA's financial commitment to ... the Omega Laser Facility, resulting in the cessation of the financial assistance agreement," and reductions in funding for both ignition and non-ignition experiments at the National Ignition Facility.

The committee is encouraged by NNSA's proposal to rebalance and prioritize funding for programs and capabilities that directly support NNSA's deliverables to the Department of Defense, recapitalize NNSA's aging infrastructure, and prepare for an uncertain future. The committee also notes that the ICF program has, so far, failed to achieve fusion ignition, an outcome that was long-promised on specific timelines. However, the committee also believes that NNSA must carefully consider the impacts of its deep proposed reduction to the ICF program, particularly on the long-term pipeline of expertise and the sustainment of unique capabilities upon which certification of the U.S. nuclear stockpile has depended since the cessation of nuclear explosive testing.

To better understand these impacts and deliverables, the committee directs the Administrator for Nuclear Security to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by September 1, 2018, on NNSA's plans for the ICF program. Such briefing should include the impacts of the proposed budget reductions, any risks and risk mitigation options, the sustainability of facilities and infrastructure related to the ICF program, plans for maintaining a robust pipeline of experts in high energy density science and ICF at NNSA, clear criteria and milestones for measuring ICF program performance against measurable goals, an evaluation of ICF lines of efforts against stated goals, and such other matters as the Administrator determines relevant.

The committee recommends \$467.9 million, an increase of \$49.0 million, for the ICF program.

### *Infrastructure*

The budget request includes \$540.7 million for Recapitalization and \$365.0 million for Maintenance and Repair of Facilities. These programs fund efforts to reduce the large backlog of deferred maintenance across the nuclear security

enterprise and preventative maintenance activities. Combined, these programs and the large line item construction projects are critical to arresting and reversing the declining state of the National Nuclear Security Administration's (NNSA) infrastructure.

Section 3111 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) directed the Administrator for Nuclear Security to establish the Infrastructure Modernization Initiative (IMI) with a goal of reducing the backlog of deferred maintenance and repair needs at NNSA by 30 percent by 2025. The committee believes that achieving this goal is critical to accomplishing NNSA's national security mission and to the safety and well-being of NNSA's workforce. Section 3111 and section 3119 of Public Law 115-91 also provided the Administrator new and enhanced statutory authorities to accelerate and streamline action on these infrastructure problems. The committee agrees with NNSA's view that infrastructure risk is becoming safety risk and mission risk and will closely monitor NNSA's progress in implementing the IMI and leveraging its associated authorities. The committee continues to note the importance of adequately resourcing preventative and sustaining maintenance to extend the life and increase the safety of its facilities. The committee encourages the Administrator to work closely with Congress as it prepares and executes the long-term NNSA infrastructure strategy.

The committee recommends \$611.7 million for Recapitalization, an increase of \$71.0 million to the budget request, and \$404.0 million for Maintenance and Repair of Facilities, an increase of \$39.0 million to the budget request.

### *Lithium and tritium*

The committee continues to conduct oversight of the National Nuclear Security Administration's (NNSA) approach to managing and ensuring a sustainable supply of key strategic materials, and recognizes NNSA's efforts to bring coherency and stability to what were previously scattered and decentralized efforts. The committee believes that a clear, long-term plan to ensure access to these materials is important for the credibility of the nuclear deterrent.

Although NNSA's plans for all of its strategic materials would benefit from further clarification and refinement, the committee in particular desires increased detail and clarity on NNSA's plans with regard to tritium and lithium. As the Nuclear Posture Review (NPR) states, "U.S. production of tritium ... is now insufficient to meet the forthcoming U.S. nuclear force sustainment demands, or to hedge against unforeseen developments. Programs are planned, but not yet fully funded, to ease these critical production shortfalls." And as the NPR states with regards to lithium: "The U.S. is also unable to produce or process a number of other critical materials, including lithium... For instance, the United States largely relies on dismantling retired warheads to recover lithium to sustain and produce deployable warheads. This may be inadequate to support the nuclear force replacement program and any supplements to it."

The committee therefore directs the Administrator for Nuclear Security to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 1, 2018, on NNSA's plans to meet near- and long-term requirements for tritium and lithium. Such briefing should include the requirements, the options and plans to meet such requirements, costs associated with these options and plans, and the status of any actions underway.

#### *Report on IW-1 and W78 replacement*

The committee notes that the recent Nuclear Posture Review (NPR) proposes "advancing the W78 warhead replacement one year to FY19 to support fielding on [the] Ground Based Strategic Deterrent (GBSD) by 2030." The NPR also discusses "exploring future ballistic missile warhead requirements based on the threats and vulnerabilities of potential adversaries, including the possibility of common reentry systems between the Air Force and Navy," but does not directly mention the Interoperable Warhead-1 (IW-1) program.

However, the fiscal year 2019 budget request for the National Nuclear Security Administration includes \$53.0 million for the IW-1 restart of the Phase 6.2 work (Feasibility Study & Design Options) on this program. The budget request justification materials further say that the IW-1 program "will replace the W78 warhead by 2030 and support fielding of the U.S. Air Force GBSD missile system planned to replace the current Minuteman III ICBM force. Additionally, the program will investigate the feasibility of deploying the replacement warhead's nuclear explosive package in a US Navy flight body."

To clarify and better understand the direction of this program, the committee directs the Administrator for Nuclear Security, in coordination with the Chairman of the Nuclear Weapons Council, to provide a report to the congressional defense committees no later than January 15, 2019, on the status of the W78 replacement, also referenced as the IW-1 program. Specifically, the report should include, since deferral of the program or due to the NPR, any changes in requirements, program plans and schedules, assumptions, and options and designs being considered or that are preferred.

#### *Secure transportation asset and Mobile Guardian Transporter*

The budget request includes \$278.6 million for the National Nuclear Security Administration's (NNSA) Secure Transportation Asset. Run by the NNSA Office of Secure Transportation, this program provides for the safe and secure transportation of nuclear weapons, weapons components, and special nuclear materials.

Within this amount, \$51.8 million was requested to continue development of the Mobile Guardian Transporter (MGT) program, which is developing and procuring new highly-secure trailers to replace existing Safeguards Transporter (SGT) trailers that are nearing the end of their 20-year service life. The committee understands that several SGTs are beginning to show signs of significant rusting

and structural degradation in key locations, that mitigation of this issue is not cost effective, and that at least one SGT has been removed from the fleet earlier than planned due to this problem.

The committee is concerned that this issue, or similar unexpected issues, if widespread, could undermine NNSA's planned risk reduction effort to keep a portion of the SGT fleet in operation beyond their 20-year service life while MGT is developed. Coupled with NNSA's reduction in its planned fiscal year 2019 budget request for MGT, NNSA's ability to meet surging transportation requirements in the 2020s could be at risk. The committee will oversee the SGT risk reduction effort, the MGT development and prototyping effort, and the Secure Transportation more broadly to track these important efforts.

The committee recommends \$278.6 million for the Secure Transportation Asset, the amount of the budget request.

### *Streamlined and innovative approaches to non-nuclear construction projects*

Section 3111 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) created the Infrastructure Modernization Initiative (IMI) at the National Nuclear Security Administration (NNSA) to accelerate and streamline efforts to reduce the large backlog of deferred maintenance and repair needs across the infrastructure of the nuclear security enterprise. As part of IMI, the Secretary of Energy is required to provide an enhanced and streamlined process to the Administrator for Nuclear Security to construct and demolish non-nuclear facilities that cost less than \$100.0 million.

The committee continues to endorse and encourage efforts of the Department of Energy (DOE) and NNSA to streamline approaches and processes related to constructing these types of facilities using commercial standards and best practices, as well as efforts to employ innovative approaches. For example, new office buildings, light laboratories, fire stations, and emergency operations centers currently being planned at sites across the nuclear enterprise may be constructed at less cost and more quickly if streamlined, commercially-based, or more innovative approaches are utilized.

The committee believes continued focus and action is needed. Therefore, the committee directs the Administrator for Nuclear Security to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by January 15, 2019, on the actions taken by NNSA and DOE to implement the IMI, and in particular to carry out a streamlined process to construct or demolish non-nuclear facilities costing less than \$100.0 million. Such briefing should include options for further streamlining and accelerating associated processes (while retaining applicable safety standards), identification of any innovative approaches or pilot programs to accelerate construction of such facilities, and such other matters as the Administrator determines appropriate.

### *Weapons Activities and the Future Years Nuclear Security Program*



The budget request contained \$11.02 billion for the Weapons Activities of the National Nuclear Security Administration (NNSA). These programs support NNSA's central mission of ensuring and sustaining the safety, security, reliability, and credibility of the U.S. nuclear weapon stockpile.

In previous years, the committee has highlighted the comments of senior administration and military officials that have expressed concern that NNSA's 5-year, Future Years Nuclear Security Program (FYNSP) budget profile was inadequate to meet NNSA's programmatic needs. The committee believes NNSA has taken noteworthy steps in this regard within its recent budget requests and the FYNSP submitted to Congress with the budget request for fiscal year 2019. Recent increases have made significant strides to address the inadequacy in NNSA funding identified by the Secretary of Energy in a December 23, 2015, letter to the Director of the White House Office of Management and Budget, which said NNSA's 5-year, Future Years Nuclear Security Program budget profile, "does not reflect the funding that we estimate is necessary to meet [NNSA] requirements over the period...we estimate that an additional \$5.2 billion over FY2018-2021 is needed to establish a viable and sustainable program portfolio."

Elsewhere in this title, the committee discusses its recommendations for increased funding and prioritization for several programs within Weapons Activities, including for infrastructure, defense nuclear security, and inertial confinement fusion.

The committee recommends \$11.22 billion for Weapons Activities, an increase of \$198.0 million to the budget request.

## Defense Nuclear Nonproliferation

### *Future nuclear proliferation challenges*

The committee continues to focus on the challenges associated with the detection, evaluation, and response to emerging nuclear threats, including emerging technologies that could lead to technological surprise. Recent advancements in materials, manufacturing, computing, and cyber interconnectivity indicate that robust efforts are needed to identify and develop solutions to ensure the United States can continue to reliably detect, define, deter, delay, deny, and defeat these threats.

The committee therefore directs the Administrator for Nuclear Security, in coordination with the directors of relevant national security laboratories, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 15, 2018, on emerging nuclear proliferation threats and the state of our capabilities to address these threats. Such briefing should include options for novel solutions to meet these challenging threats, leverage ongoing efforts within the national security laboratories, and include an estimate of the resources required to respond effectively and stay ahead of any emerging threats.

### *Nuclear Counterterrorism and Incident Response program*

The budget request contained \$319.2 million for the Nuclear Counterterrorism and Incident Response program of the National Nuclear Security Administration (NNSA). This program is responsible for countering nuclear threats, responding to nuclear incidents worldwide, and providing for the Department of Energy's emergency management capability.

The committee continues to highlight the importance and value of these programs that leverage the unique capabilities and knowledge at NNSA's laboratories for national-level response efforts. Though a smaller and often-overlooked part of NNSA's portfolio of responsibilities, the personnel within this program ensure the nation's warfighters and first responders are able to detect, evaluate, and take decisive and technically informed action against all types of nuclear threats and incidents.

The budget request includes \$32.5 million to procure three fixed-wing Aerial Measuring System (AMS) aircraft in fiscal year 2019. These aircraft will replace antiquated and increasingly difficult to sustain aircraft, and provide NNSA enhanced capability to support national and international events involving radiological releases. Based on the completed analysis of alternatives for AMS, the committee supports this recapitalization.

The committee recommends \$319.2 million, the amount of the budget request, for the Nuclear Counterterrorism and Incident Response program.

### Naval Reactors

#### *Naval Reactors program*

The budget request contained \$1.79 billion for the Naval Reactors program. Naval Reactors is responsible for all aspects of naval nuclear propulsion efforts, including reactor plant technology design and development, reactor plant operation and maintenance, and reactor retirement and disposal. The program ensures the safe and reliable operation of reactor plants in nuclear-powered submarines and aircraft carriers that comprise over 45 percent of the Navy's major combatants.

The committee has long been supportive of the Naval Reactors program and believes it is an exceptional example of a nuclear-related government program that is mission-driven, safety-focused, and well-managed. Due to this success, the committee will continue to have very high expectations for performance by Naval Reactors, particularly as it develops and delivers the life-of-ship reactor for the Columbia-class submarines. The committee is encouraged by the strong actions taken by Naval Reactors to address a manufacturing problem with the prototype electric-drive motor for the Columbia class but is mindful that there is no schedule margin remaining for delivering this prototype, the reactor, and the Columbia itself. The committee notes that, as work on the Columbia-class Reactor System Development program ramps down over the 5-year Future Years Nuclear Security Program, Naval Reactors is planning increases in its Naval Reactors Development

funding. The committee expects Naval Reactors to more clearly justify these proposed increases within future budget requests.

The budget request includes a significant, long-planned increase in funding for Naval Reactors to begin construction of the Spent Fuel Handling Recapitalization Project in Idaho and refueling of the S8G land-based prototype reactor in New York. The committee appreciates Naval Reactors' transparency and adherence to its planned budget profile.

The committee recommends \$1.79 billion for the Naval Reactors program, the amount of the budget request.

## Federal Salaries and Expenses

### *Management and operating contracts for national security laboratories*

The committee notes that the National Nuclear Security Administration (NNSA) continues to implement its plans to compete its large management and operating (M&O) contracts for running the laboratories and plants of the nuclear security enterprise. The committee has long conducted oversight of these plans to ensure the costs and benefits of the M&O contract competitions and overall contracting strategy are appropriately weighed. Last year, the committee included section 3138 in the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to continue this oversight and require an independent organization to review NNSA's contracting strategy. Among other matters, this review is required to assess the current for-profit contracting model for NNSA's nuclear security laboratories.

The committee is aware that the State of New Mexico recently considered legislation that would require NNSA and its M&O laboratory contractors to continue paying certain State taxes as a for-profit entity, even if the M&O contract is awarded to a non-profit entity. The committee cautions that such an approach may be counterproductive and inappropriately interfere with the Federal Government's ability to manage its national security laboratories to provide maximum value and benefit to national security and U.S. taxpayers. The committee understands the important role that these laboratories play in their local communities and States, and highlights other means, such as payments in lieu of taxes, that the Federal Government may leverage to support such local communities.

### *Security clearance investigations for the nuclear security enterprise*

The committee notes that, while the Office of Personnel Management (OPM) has undertaken significant steps to improve the security clearance investigation process, the backlog of security clearance investigations continues to prevent the Federal Government, including the National Nuclear Security Administration's (NNSA) nuclear security enterprise, from hiring qualified personnel in a timely manner. This problem is particularly acute for NNSA as

elements of the nuclear security enterprise continue to execute robust hiring plans to support the increased workload associated with the nation's nuclear modernization program. In a recent report on the state of the nuclear weapons stockpile, the director of one of national security laboratories highlighted this challenge, saying that for his laboratory, "1,011 staff were hired in 2016, and about 1,000 new hires are expected by the end of 2017. This hiring rate is expected to continue...However, technical mentoring, particularly by experienced senior staff who are on the verge of retiring, is virtually impossible if newly hired staff are unable to obtain a security clearance in a timely manner." The director further noted that 1,300 DOE "Q" clearances were awaiting approval.

The committee understands the complexity of this issue and continues to seek solutions that enable a robust background review but also timely completion. To enhance its oversight, the committee directs the Administrator for Nuclear Security, in consultation with the Director of the Office of Personnel Management, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by December 1, 2018, on efforts to streamline and improve the security clearance investigation and adjudication process for the nuclear security enterprise. Such briefing should include actions taken by NNSA and OPM, any planned actions, options for future action, and any recommendations of the Administrator regarding statutory changes or other Congressional action.

## ENVIRONMENTAL AND OTHER DEFENSE ACTIVITIES

### Overview

The budget request for fiscal year 2019 contained \$6.51 billion for environmental and other defense activities. The committee recommends \$6.56 billion, an increase of \$50.0 million to the budget request.

### Defense Environmental Cleanup

#### *Briefings on vapor events at Hanford Site*

The committee is concerned about the continuing reports of toxic vapors emanating from nuclear waste tanks at the Hanford Site being inhaled by workers. Over the past several years, many workers have reported suspicious odors and subsequent health effects. The committee notes that additional protective measures and guidance have been implemented at the site, but that reported events continue. The committee therefore directs the Secretary of Energy, acting through the Assistant Secretary of Energy for Environmental Management, to provide semiannual briefings to the Committee on Armed Services of the House of Representatives, starting on August 31, 2018, and continuing during fiscal year 2019, on waste tank vapor incidents at the Hanford Site. Such briefings should include details on recent vapor inhalation events, any technical data regarding the vapors, any health problems caused by the vapors, mitigation measures in place to

protect workers from the vapors, engineered or administrative controls being considered to prevent such events, and any other information the Secretary determines to be relevant.

## LEGISLATIVE PROVISIONS

### SUBTITLE A—NATIONAL SECURITY PROGRAMS AND AUTHORIZATIONS

#### Section 3101—National Nuclear Security Administration

This section would authorize appropriations for the National Nuclear Security Administration for fiscal year 2019, including funds for weapons activities, defense nuclear nonproliferation programs, naval reactor programs, and Federal Salaries and Expenses, at the levels specified in the funding table in division D of this Act.

This section would also authorize several new plant projects for the National Nuclear Security Administration.

#### Section 3102—Defense Environmental Cleanup

This section would authorize appropriations for defense environmental cleanup activities for fiscal year 2019 at the levels specified in the funding table in division D of this Act.

#### Section 3103—Other Defense Activities

This section would authorize appropriations for Other Defense Activities for the Department of Energy for fiscal year 2019 at the levels specified in the funding table in division D of this Act.

#### Section 3104—Nuclear Energy

This section would authorize appropriations for certain nuclear energy programs for the Department of Energy for fiscal year 2019 at the levels specified in the funding table in division D of this Act.

### SUBTITLE B—PROGRAM AUTHORIZATIONS, RESTRICTIONS, AND LIMITATIONS

#### Section 3111—Security Clearance for Dual Nationals Employed by National Nuclear Security Agency

This section would authorize the Secretary of Energy to apply additional security reviews to dual citizens seeking positions that require access to highly classified information. The committee expects that any additional security reviews will not further exacerbate background investigation backlogs.

### Section 3112—Department of Energy Counterintelligence Polygraph Program

This section would amend section 4504b of the Atomic Energy Defense Act (50 U.S.C 2654b) by authorizing the Secretary of Energy to add dual citizens to the Department of Energy counterintelligence polygraph program, for the purposes of assessing risk.

### Section 3113—Extension of Enhanced Procurement Authority to Manage Supply Chain Risk

This section would extend the authority provided by section 2786 of title 50, U.S. Code, for an additional 5 years, to June 30, 2023. This authority enables the Secretary of Energy to take certain procurement actions to help protect the supply chain for certain critical national security technologies. This section would also make a technical correction to section 2786 of title 50, U.S. Code.

### Section 3114—Low-Yield Nuclear Weapons

This section would repeal section 3116 of the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136) related to low-yield nuclear weapons. This section would also authorize the Secretary of Energy, acting through the Administrator for Nuclear Security, to carry out the engineering development phase, and any subsequent phase, to modify or develop a low-yield nuclear warhead for submarine-launched ballistic missiles.

### Section 3115—Use of Funds for Construction and Project Support Activities Relating to MOX Facility

This section would require the Secretary of Energy to carry out construction and project support activities relating to the Mixed Oxide Fuel Fabrication Facility with any funds authorized to be appropriated by this Act or otherwise made available for such purposes for fiscal year 2019. The Secretary would be allowed to waive this requirement if the Secretary submits to the congressional defense committees the matters described under section 3121(b)(1) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91).

### Section 3116—Prohibition on Availability of Funds for Programs in Russian Federation

This section would provide that none of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 for atomic energy defense activities may be obligated or expended to enter into a contract with, or otherwise provide assistance to, the Russian Federation. The Secretary of Energy, without delegation, would be provided the authority to waive this prohibition if the Secretary determines, in writing, that a nuclear-related threat in

Russia must be addressed urgently and that it is necessary to waive the prohibition to address that threat. The waiver could only be used if the Secretary of State and the Secretary of Defense concur in that determination, and the Secretary of Energy submits a report to the appropriate congressional committees containing notification that such waiver is in the national security interest of the United States, a justification for such waiver, a description of the activities to be carried out pursuant to the waiver, and a period of 7 days elapses. The prohibition and waiver contained in this section would not apply to up to \$3.0 million that the Secretary of Energy may make available for the Department of Energy's Russian Health Studies Program.

#### Section 3117—Prohibition on Availability of Funds for Research and Development of Advanced Naval Nuclear Fuel System Based on Low-Enriched Uranium

This section would prohibit any funds authorized to be appropriated by this Act for fiscal year 2019 or otherwise made available to the Department of Energy or the Department of Defense from being obligated or expended to plan or carry out research and development of an advanced naval nuclear fuel system based on low-enriched uranium. The section would provide an exception to this prohibition and require that, in accordance with section 7319 of title 10, United States Code, that \$10.0 million of the funds authorized for defense nuclear nonproliferation within the National Nuclear Security Administration's atomic energy defense activities shall be made available to the Deputy Administrator for Naval Reactors for low-enriched uranium activities.

#### Section 3118—Limitation on Availability of Funds Relating to Submission of Annual Reports on Unfunded Priorities

This section would amend section 4716 of the Atomic Energy Defense Act (50 U.S.C. 2756) to provide that, for any of fiscal years 2020 through 2024 in which the Administrator fails to submit a report pursuant to such section 4716 that contains at least one unfunded priority of the National Nuclear Security Administration (NNSA), the Administrator for Nuclear Security would be prohibited from obligating or expending funds for travel and transportation of persons under the NNSA's Federal Salaries and Expenses account until the date on which such a report is submitted.

### SUBTITLE C—REPORTS

#### Section 3121—Notification Regarding Release of Contamination at Hanford Site

This section would require the Assistant Secretary of Energy for Environmental Management to promptly notify and provide a briefing to the congressional defense committees after any improper release of contamination resulting from defense waste at the Hanford Site.

## SUBTITLE D—OTHER MATTERS

### Section 3131—Inclusion of Capital Assets Acquisition Projects in Activities by Director for Cost Estimating and Program Evaluation

This section would amend section 3221 of the National Nuclear Security Administration Act (50 U.S.C. 2411) to include capital assets in the definition of major atomic energy defense acquisition programs regarding the authorities of the Director for Cost Estimating and Program Evaluation.

The committee clarifies that this section does not affect the role of the Department of Energy (DOE) Office of Project Management in overseeing implementation of DOE Order 413.3B.

### Section 3132—Whistleblower Protections

This section would make a series of findings and express the sense of Congress regarding nuclear safety and whistleblowers. This section would also require the Secretary of Energy, including by acting through the Administrator for Nuclear Security as appropriate, to impose civil penalties, as the Secretary or the Administrator determine appropriate, on contractors, subcontractors, and suppliers for violations of Department of Energy rules, regulations, and orders relating to nuclear safety and radiation protection.

This section would also require the Secretary to define, within 120 days of enactment of this Act, what constitutes evidence of a chilled work environment with respect to employees and contractors making a whistleblower complaint and would require an annual congressional notification on the imposition of any penalties related to violations of rules, regulations, and orders by contractors, subcontractors, and suppliers.

## TITLE XXXII—DEFENSE NUCLEAR FACILITIES SAFETY BOARD

### LEGISLATIVE PROVISIONS

#### Section 3201—Authorization

The budget request contained \$31.2 million for the Defense Nuclear Facilities Safety Board for fiscal year 2019. The committee recommends \$31.2 million, the amount of the budget request.

## TITLE XXXIV—NAVAL PETROLEUM RESERVES

### LEGISLATIVE PROVISIONS

#### Section 3401—Authorization of Appropriations



This section would authorize \$10.0 million for fiscal year 2019 for operation and maintenance of the Naval Petroleum Reserves.

## TITLE XXXV—MARITIME MATTERS

### ITEMS OF SPECIAL INTEREST

#### Maritime Security Program

The committee remains deeply concerned by the decrease in our merchant mariner fleet. The committee notes that the U.S. commercial presence in the international maritime domain has been on a steady decline since its peak in World War II and is currently at the lowest level in American history. Of some 40,000 large, oceangoing commercial vessels in the world today, just 181 sail under the U.S. flag, including 81 vessels operating exclusively in international trade. A robust commercial shipping industry is vital to the U.S. military's ability to project power around the world. The Maritime Security Program (MSP) is critical to U.S. sustainment capability and supporting the pool of highly trained Mariners necessary to support our government owned Ready Reserve Force fleet when activated. Created in 1996, the program helps maintain an active, privately-owned, U.S.-flag and U.S.-crewed fleet of 60 militarily useful commercial ships operating in international trade. MSP participants receive an annual stipend and their ships are available "on-call" to support DOD's global transportation needs. The MSP supports employment for 2,400 U.S. merchant mariners, and provides DOD with assured access to the critical multibillion-dollar global network of intermodal facilities and transport systems maintained by MSP participants. Recent agreements such as the 2016 US-Israel Memorandum of Understanding (MOU) and the decision to end foreign military financing (FMF) funding for jet fuel purchases may affect the ability to project forces in times of future contingencies because of the potential diminution of government-impelled cargo.

Therefore, the committee directs the Secretary of the Navy, in consultation with the Secretary of Transportation, to provide a briefing to the House Armed Services Committee by September 1, 2018 as to the MSP impact, if any, of the 2016 U.S.-Israel (MOU). Such a briefing shall specifically include an assessment of the loss of merchant mariners and the national security impact associated with the long-term sustainment of the Ready Reserve Force in times of conflict.

### LEGISLATIVE PROVISIONS

#### SUBTITLE A—MARITIME ADMINISTRATION

##### Section 3501—Authorization of the Maritime Administration

This section would authorize appropriations for the national security aspects of the merchant marine for fiscal year 2019.

Section 3502—Compliance by Ready Reserve Fleet Vessels with SOLAS Lifeboats and Fire Suppression Requirements

This section would require the Secretary of Defense to incorporate lifeboat and fire suppression standards associated with the International Convention for the Safety of Life at Sea for Ready Reserve Fleet vessels that are planned to be retained by the Secretary beyond October 1, 2026.

Section 3503—Maritime Administration National Security Multi-Mission Vessel Program

This section would limit the Maritime Administration from procuring used training vessels for the National Security Multi-Mission Vessel Program.

The committee notes that the Maritime Administration requested authority to procure two used vessels and is concerned that such a short-term strategy would not support the long-term maritime academies' interests. The committee continues to support the new construction of these training vessels in the United States.

Section 3504—Permanent Authority of Secretary of Transportation to Issue Vessel War Risk Insurance

This section would amend chapter 539 of title 46, United States Code, to make permanent the authority of the Secretary of Transportation to provide vessel war risk insurance.

Section 3505—Use of State Maritime Academy Training Vessels

This section would require the Secretary of Transportation to implement a program to share maritime academy training vessels with the State maritime academies.

SUBTITLE B—COAST GUARD

Section 3521—Alignment with Department of Defense and Sea Services Authorities

This section would require the Coast Guard to notify the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on August 26, 2018, if there is not in effect any general order or regulation prohibiting sexual harassment by members of the Coast Guard and that the violation of such order or regulation is punishable in accordance with the Uniform Code of Military Justice. The notification is required to include the status of the drafting of such a regulation,

the projected implementation timeline, and an explanation of any barriers to implementation. The subsection also amends section 217 of the Coast Guard Authorization Act of 2010 (Public Law 111-281) to include sexual harassment in the annual report on sexual assaults reported to the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

This section would amend chapter 29 of title 14 by adding a new section, Annual Performance Report, to require the Coast Guard to submit to the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate an update on Coast Guard mission performance during the previous fiscal year, and make it available on a public website.

#### Section 3522—Preliminary Development and Demonstration

This section would amend section 573 of title 14, United States Code, to clarify the process to report safety concerns found either by an independent third party or a Government employee for acquisition programs or projects or a capability or asset or any subsystem of a capability or asset not previously identified during operational test and evaluation of a capability or asset already in low, initial or full-rate production.

#### Section 3523—Contract Termination

This section would amend chapter 17 of title 14, United States Code, by inserting a new section 657 to establish a process for contract cancellation, including requiring the Coast Guard to notify each vendor when it terminates a procurement or acquisition contact with a total value of more than \$1.0 million and that such vendors are required to maintain all work product related to the contract for at least 1 year. Additionally, the Coast Guard shall provide an annual report to the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on terminated contracts.

#### Section 3524—Reimbursement for Travel Expenses

This section would amend section 518 of title 14, United States Code, to state that a covered beneficiary and their dependents residing on an island located in the 48 contiguous States and the District of Columbia that lacks public access roads to the mainland, shall be reimbursed for reasonable travel expenses for medical services when referred by a primary care physician to a physician on the mainland or the Coast Guard medical regional manager for the area determines medical services cannot be provided on the island.

#### Section 3525—Capital Investment Plan

This section would amend section 2902(a) of title 14, United States Code, to change the date when the Capital Investment shall be reported to the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate to require reporting on projected commissioning and decommissioning dates for each asset.

#### Section 3526—Major Acquisition Program Risk Assessment

This section would amend chapter 29 of title 14, United States Code, to add a section on major acquisition program risk assessment stating that twice a year the Coast Guard shall provide to the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a briefing regarding a current assessment of risks associated with all current major acquisition programs, including breach of program schedule or costs.

#### Section 3527—Marine Safety Implementation Status

This section would state that the Coast Guard shall submit a report on the date on which the President submits to Congress a budget for fiscal year 2020 and for the following two years to the Committee of Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the implementation of each action outlined in the Commandant's final action memo from December 19, 2017.

#### Section 3528—Retirement of Vice Commandant

This section would amend section 46 of title 14, United States Code, to state that a Vice Commandant who is not reappointed or appointed Commandant shall retire with the grade of admiral.

#### Section 3529—Large Commercial Yacht Code

This section would require the Secretary of the department in which the Coast Guard is operating through the Commandant of the Coast Guard to establish a code for certification of certain large commercial yachts.

### SUBTITLE C—COAST GUARD AND SHIPPING TECHNICAL CORRECTIONS

#### CHAPTER 1—COAST GUARD

#### Section 3531—Commandant Defined

This section amends chapter 1 of title 14, U.S. Code, to add a section with the definition of the Commandant as the "Commandant of the Coast Guard".

Throughout title 14, “Commandant of the Coast Guard” is replaced with “Commandant”.

#### Section 3532—Training Course on Workings of Congress

This section would amend section 60(d) of title 14, U.S. Code, by striking an outdated training requirement and stating that a Coast Guard flag officer or Coast Guard Senior Executive Service employee working in the National Capital Region shall complete a training course on the workings of Congress not later than 60 days after reporting for duty.

#### Section 3533—Miscellaneous

This section would amend multiple sections of title 14, U.S. Codes with various technical changes.

#### Section 3534—Department of Defense Consultation

This section would amend section 566 of title 14, U.S. Code, to change “enter into” to “maintain” the memorandum of understanding with the Navy for technical assistance. This section would also amend section 566 of title 14, U.S. Code, to remove language for an already delivered one-time report on Coast Guard acquisitions.

#### Section 3535—Repeal

This section would strike section 568 of title 14, U.S. Code, to remove guidance on excessive pass-through charges related to the long-defunct Deepwater acquisition program.

#### Section 3536—Mission Need Statement

This section would amend section 569 of title 14, U.S. Code, to appear after section 2904 and renumber this section. This section would also amend subsection (a) in section 2904 of title 14, U.S. Code, as so redesignated, to strike “, on the date on which the President submits to Congress a budget for fiscal year 2019 under such section,” and replaces “for fiscal year 2016” with “for fiscal year 2019”.

#### Section 3537—Continuation on Active Duty

This section would amend section 290(a) of title 14, U.S. Code, to change “Officers, other than the Commandant, serving” to “Officers serving” in or above the grade of vice admiral are not subject to consideration for continuation under this subsection.

## Section 3538—System Acquisition Authorization

This section would amend section 2701(2) of title 14, U.S. Code, to change “and aircraft” to “aircraft, and systems” for the requirement for prior authorization of appropriations. This section would also amend section 2702(2) of title 14, U.S. Code, to change “and aircraft” to “aircraft, and systems” for the appropriations.

## Section 3539—Inventory of Real Property

This section would amend section 679(a) of title 14, U.S. Code, to change “not later than September 30, 2015, the Commandant shall establish” to “The Commandant shall maintain” the inventory of real property. This section would also amend section 679(b) of title 14, U.S. Code, to state that the Commandant shall update inventory of real property not later than 30 days after any change to control of such property.

## CHAPTER 2—MARITIME TRANSPORTATION

### Section 3541—Definitions

This section would amend section 2101 of title 46, U.S. Code, to add the definition of the Commandant as the “Commandant of the Coast Guard”, re-designate existing definitions, and update all cross-references to the definitions in 46 U.S.C. 2101 throughout the code.

### Section 3542—Authority to Exempt Vessels

This section would amend section 2113 of title 46, U.S. Code, to strike subsections (4) and (5) and replace with a new subsection (4) to state that the Secretary may maintain different structural fire protection, manning, operating, and equipment requirements for vessels.

### Section 3543—Passenger Vessels

This section would amend section 3507 of title 46, U.S. Code, to strike subsection (a)(3) pertaining to an expired effective date, clarify subsection (e)(2) by changing “services confidential” to “services as confidential”, and, in subsection (i), replace “Within 6 months after the date of enactment of the Cruise Vessel Security and Safety Act of 2010, the Secretary shall issue” with “The Secretary shall maintain” for procedures related to passenger vessel security and safety requirements.

This section would also amend section 3508 of title 46, U.S. Code, to strike subsection (d) and removes outdated requirements in subsections (a), (c), and (e), as redesignated by the section.

### Section 3544—Tank Vessels

This section would amend section 3703a, 3705 and 3706 of title 46, U.S. Code, to remove outdated requirements. Amends section 1001(32)(A) of the Oil Pollution Act of 1990 (33 U.S.C. 2701(32)(a)) to remove an outdated cross-reference.

### Section 3545—Grounds for Denial or Revocation

This section would amend section 7503a and 7704 of title 46, U.S. Code, to renumber the subsections after striking previously repealed subsection (a) in each section.

### Section 3546—Miscellaneous Corrections to Title 46, U.S.C.

This section would amend miscellaneous sections of title 46, U.S. Code, to remove outdated requirements, re-designate subsections, and update cross-references.

### Section 3547—Miscellaneous Corrections to Oil Pollution Act of 1990

This section would amend the Oil Pollution Act of 1990 (33 U.S.C. 2701) to remove outdated requirements, re-designate subsections, and update cross-references.

### Section 3548—Miscellaneous Corrections

This section would amend: section 1 of the Act of June 15, 1917 (chapter 30; 50 U.S.C. 191) to replace the “Secretary of Transportation” with the “Secretary of the department in which the Coast Guard is operating.”; section 5(b) of the Act entitled “An Act to regulate the construction of bridges over navigable waters”, approved March 23, 1906 (chapter 1130; 33 U.S.C. 495(b)) to remove outdated requirements; and section 5(f) of the Act to Prevent Pollution from Ships (33 U.S.C. 1904(f)) to remove outdated cross-references.

## **DIVISION D—FUNDING TABLES**

### Section 4001—Authorization of Amounts in Funding Tables

This section would provide for the allocation of funds among programs, projects, and activities in accordance with the tables in division D of this Act, subject to reprogramming guidance in accordance with established procedures.

Consistent with the previously expressed views of the committee, this section would also require that a decision by an agency head to commit, obligate, or expend funds to a specific entity on the basis of such funding tables be based on merit-based selection procedures in accordance with the requirements of section

2304(k) and section 2374 of title 10, United States Code, and other applicable provisions of law.



## SUMMARY OF NATIONAL DEFENSE AUTHORIZATIONS FOR FISCAL YEAR 2019

(In Thousands of Dollars)

	FY 2019 Request	House Change	House Authorized
<b>DISCRETIONARY AUTHORIZATIONS WITHIN THE JURISDICTION OF THE ARMED SERVICES COMMITTEE</b>			
<b>National Defense Funding, Base Budget Request</b>			
<b>Function 051, Department of Defense-Military</b>			
<b>Division A: Department of Defense Authorizations</b>			
<b>Title I—Procurement</b>			
Aircraft Procurement, Army .....	3,782,558	223,270	4,005,828
Missile Procurement, Army .....	3,355,777	494,338	3,850,115
Weapons & Tracked Combat Vehicles, Army .....	4,489,118	1,368,521	5,857,639
Procurement of Ammunition, Army .....	2,234,761	249,661	2,484,422
Other Procurement, Army .....	7,999,529	410,925	8,410,454
Aircraft Procurement, Navy .....	19,041,799	-327,950	18,713,849
Weapons Procurement, Navy .....	3,702,393	175,200	3,877,593
Procurement of Ammunition, Navy & Marine Corps .....	1,006,209		1,006,209
Shipbuilding & Conversion, Navy .....	21,871,437	1,852,100	23,723,537
Other Procurement, Navy .....	9,414,355	-377,325	9,037,030
Procurement, Marine Corps .....	2,860,410	19,900	2,880,310
Aircraft Procurement, Air Force .....	16,206,937	-673,516	15,533,421
Missile Procurement, Air Force .....	2,669,454		2,669,454
Space Procurement, Air Force .....	2,527,542	5,000	2,532,542
Procurement of Ammunition, Air Force .....	1,587,304	-5,000	1,582,304
Other Procurement, Air Force .....	20,890,164	-235,250	20,654,914
Procurement, Defense-Wide .....	6,786,271	-18,000	6,768,271
Joint Urgent Operational Needs Fund .....	100,025	-100,025	0
<b>Subtotal, Title I—Procurement .....</b>	<b>130,526,043</b>	<b>3,061,849</b>	<b>133,587,892</b>
<b>Title II—Research, Development, Test and Evaluation</b>			
Research, Development, Test & Evaluation, Army .....	10,159,379	162,200	10,321,579
Research, Development, Test & Evaluation, Navy .....	18,481,666	-94,550	18,387,116
Research, Development, Test & Evaluation, Air Force .....	40,178,343	694,100	40,872,443
Research, Development, Test & Evaluation, Defense- Wide .....	22,016,553	97,950	22,114,503
Operational Test & Evaluation, Defense .....	221,009		221,009
<b>Subtotal, Title II—Research, Development, Test and Evaluation .....</b>	<b>91,056,950</b>	<b>859,700</b>	<b>91,916,650</b>
<b>Title III—Operation and Maintenance</b>			
Operation & Maintenance, Army .....	42,009,317	-2,775,388	39,233,929
Operation & Maintenance, Army Reserve .....	2,916,909	30,000	2,946,909
Operation & Maintenance, Army National Guard .....	7,399,295	70,000	7,469,295
Operation & Maintenance, Navy .....	49,003,633	-673,430	48,330,203
Operation & Maintenance, Marine Corps .....	6,832,510	78,100	6,910,610
Operation & Maintenance, Navy Reserve .....	1,027,006	10,000	1,037,006
Operation & Maintenance, Marine Corps Reserve .....	271,570	16,700	288,270
Operation & Maintenance, Air Force .....	42,060,568	-78,900	41,981,668
Operation & Maintenance, Air Force Reserve .....	3,260,234	50,600	3,310,834
Operation & Maintenance, Air National Guard .....	6,427,622	23,900	6,451,522

May 11, 2018 (12:14 a.m.)

## SUMMARY OF NATIONAL DEFENSE AUTHORIZATIONS FOR FISCAL YEAR 2019—Continued

(In Thousands of Dollars)

	FY 2019 Request	House Change	House Authorized
Operation & Maintenance, Defense-Wide .....	36,352,625	-745,825	35,606,800
US Court of Appeals for the Armed Forces, Defense ...	14,662		14,662
DoD Acquisition Workforce Development Fund .....	400,000		400,000
Overseas Humanitarian, Disaster and Civic Aid .....	107,663		107,663
Cooperative Threat Reduction .....	335,240		335,240
Environmental Restoration, Army .....	203,449	10,000	213,449
Environmental Restoration, Navy .....	329,253	10,000	339,253
Environmental Restoration, Air Force .....	296,808	50,000	346,808
Environmental Restoration, Defense .....	8,926		8,926
Environmental Restoration, Formerly Used Sites .....	212,346		212,346
<b>Subtotal, Title III—Operation and Maintenance .....</b>	<b>199,469,636</b>	<b>-3,924,243</b>	<b>195,545,393</b>
<b>Title IV—Military Personnel</b>			
Military Personnel Appropriations .....	140,689,301	-700,500	139,988,801
Medicare-Eligible Retiree Health Fund Contributions ...	7,533,090		7,533,090
<b>Subtotal, Title IV—Military Personnel .....</b>	<b>148,222,391</b>	<b>-700,500</b>	<b>147,521,891</b>
<b>Title XIV—Other Authorizations</b>			
Working Capital Fund, Army .....	158,765		158,765
Working Capital Fund, Air Force .....	69,054		69,054
Working Capital Fund, DECA .....	48,096		48,096
Working Capital Fund, Defense-Wide .....	1,266,200		1,266,200
National Defense Sealift Fund .....	0	816,752	816,752
Chemical Agents & Munitions Destruction .....	993,816		993,816
Drug Interdiction and Counter Drug Activities .....	787,525	20,000	807,525
Office of the Inspector General .....	329,273	5,000	334,273
Defense Health Program .....	33,729,192	-452,500	33,276,692
<b>Subtotal, Title XIV—Other Authorizations .....</b>	<b>37,381,921</b>	<b>389,252</b>	<b>37,771,173</b>
<b>Total, Division A: Department of Defense Authoriza- tions .....</b>	<b>606,656,941</b>	<b>-313,942</b>	<b>606,342,999</b>
<b>Division B: Military Construction Authorizations</b>			
<b>Military Construction</b>			
Army .....	1,011,768	84,100	1,095,868
Navy .....	2,543,189	-4,291	2,538,898
Air Force .....	1,725,707	-154,934	1,570,773
Defense-Wide .....	2,693,324	-219,986	2,473,338
NATO Security Investment Program .....	171,064		171,064
Army National Guard .....	180,122	11,000	191,122
Army Reserve .....	64,919	23,000	87,919
Navy and Marine Corps Reserve .....	43,065		43,065
Air National Guard .....	129,126	62,000	191,126
Air Force Reserve .....	50,163	84,800	134,963
Unaccompanied Housing Improvement Fund .....	600		600
<b>Subtotal, Military Construction .....</b>	<b>8,613,047</b>	<b>-114,311</b>	<b>8,498,736</b>
<b>Family Housing</b>			
Construction, Army .....	330,660		330,660

May 11, 2018 (12:14 a.m.)

## SUMMARY OF NATIONAL DEFENSE AUTHORIZATIONS FOR FISCAL YEAR 2019—Continued

(In Thousands of Dollars)

	FY 2019 Request	House Change	House Authorized
Operation & Maintenance, Army .....	376,509		376,509
Construction, Navy and Marine Corps .....	104,581		104,581
Operation & Maintenance, Navy and Marine Corps .....	314,536		314,536
Construction, Air Force .....	78,446		78,446
Operation & Maintenance, Air Force .....	317,274		317,274
Operation & Maintenance, Defense-Wide .....	58,373		58,373
Improvement Fund .....	1,653		1,653
<b>Subtotal, Family Housing .....</b>	<b>1,582,032</b>	<b>0</b>	<b>1,582,032</b>
<b>Base Realignment and Closure</b>			
Base Realignment and Closure—Army .....	62,796	18,110	80,906
Base Realignment and Closure—Navy .....	151,839	19,110	170,949
Base Realignment and Closure—Air Force .....	52,903	18,110	71,013
<b>Subtotal, Base Realignment and Closure .....</b>	<b>267,538</b>	<b>55,330</b>	<b>322,868</b>
Prior Year Savings .....	0	-71,158	-71,158
<b>Total, Division B: Military Construction Authoriza- tions .....</b>	<b>10,462,617</b>	<b>-130,139</b>	<b>10,332,478</b>
<b>Total, 051, Department of Defense-Military .....</b>	<b>617,119,558</b>	<b>-444,081</b>	<b>616,675,477</b>
<b>Division C: Department of Energy National Security Authorization and Other Authorizations</b>			
<b>Function 053, Atomic Energy Defense Activities</b>			
<b>Environmental and Other Defense Activities</b>			
Nuclear Energy .....	136,090		136,090
Weapons Activities .....	11,017,078	198,000	11,215,078
Defense Nuclear Nonproliferation .....	1,862,825	127,000	1,989,825
Naval Reactors .....	1,788,618		1,788,618
Federal Salaries and Expenses .....	422,529	-18,000	404,529
Defense Environmental Cleanup .....	5,630,217	50,000	5,680,217
Other Defense Activities .....	853,300		853,300
Defense Nuclear Waste Disposal .....	30,000		30,000
<b>Subtotal, Environmental and Other Defense Activi- ties .....</b>	<b>21,740,657</b>	<b>357,000</b>	<b>22,097,657</b>
<b>Independent Federal Agency Authorization</b>			
Defense Nuclear Facilities Safety Board .....	31,243		31,243
<b>Subtotal, Independent Federal Agency Authorization .....</b>	<b>31,243</b>	<b>0</b>	<b>31,243</b>
<b>Subtotal, 053, Atomic Energy Defense Activities .....</b>	<b>21,771,900</b>	<b>357,000</b>	<b>22,128,900</b>
<b>Function 054, Defense-Related Activities</b>			
<b>Other Agency Authorizations</b>			
Maritime Security Program .....	214,000	86,000	300,000
<b>Subtotal, Independent Federal Agency Authorization .....</b>	<b>214,000</b>	<b>86,000</b>	<b>300,000</b>

## SUMMARY OF NATIONAL DEFENSE AUTHORIZATIONS FOR FISCAL YEAR 2019—Continued

(In Thousands of Dollars)

	FY 2019 Request	House Change	House Authorized
<b>Subtotal, 054, Defense-Related Activities .....</b>	<b>214,000</b>	<b>86,000</b>	<b>300,000</b>
<b>Subtotal, Division C: Department of Energy National Security Authorization and Other Authorizations ..</b>	<b>21,985,900</b>	<b>443,000</b>	<b>22,428,900</b>
<b>Total, National Defense Funding, Base Budget Re- quest .....</b>	<b>639,105,458</b>	<b>-1,081</b>	<b>639,104,377</b>

## National Defense Funding, Overseas Contingency Operations

## Function 051, Department of Defense-Military

**Procurement**

Aircraft Procurement, Army .....	363,363	-54,270	309,093
Missile Procurement, Army .....	1,802,351	-646,938	1,155,413
Weapons & Tracked Combat Vehicles, Army .....	1,107,183	-1,095,521	11,662
Procurement of Ammunition, Army .....	309,525	-211,661	97,864
Other Procurement, Army .....	1,382,047	-273,125	1,108,922
Aircraft Procurement, Navy .....	80,119		80,119
Weapons Procurement, Navy .....	14,134		14,134
Procurement of Ammunition, Navy & Marine Corps .....	246,541		246,541
Other Procurement, Navy .....	187,173		187,173
Procurement, Marine Corps .....	58,023		58,023
Aircraft Procurement, Air Force .....	1,018,888	-192,700	826,188
Missile Procurement, Air Force .....	493,526		493,526
Procurement of Ammunition, Air Force .....	1,421,516		1,421,516
Other Procurement, Air Force .....	3,725,944		3,725,944
Procurement, Defense-Wide .....	572,135		572,135
National Guard & Reserve Equipment .....	0	150,000	150,000
<b>Subtotal, Procurement .....</b>	<b>12,782,468</b>	<b>-2,324,215</b>	<b>10,458,253</b>

**Research, Development, Test and Evaluation**

Research, Development, Test & Evaluation, Army .....	325,104	-40,000	285,104
Research, Development, Test & Evaluation, Navy .....	167,812		167,812
Research, Development, Test & Evaluation, Air Force .....	314,271		314,271
Research, Development, Test & Evaluation, Defense- Wide .....	500,544		500,544
<b>Subtotal, Research, Development, Test and Evalua- tion .....</b>	<b>1,307,731</b>	<b>-40,000</b>	<b>1,267,731</b>

**Operation and Maintenance**

Operation & Maintenance, Army .....	18,210,500	2,314,057	20,524,557
Operation & Maintenance, Army Reserve .....	41,887		41,887
Operation & Maintenance, Army National Guard .....	110,729		110,729
Afghanistan Security Forces Fund .....	5,199,450		5,199,450
Counter-ISIS Train & Equip Fund .....	1,400,000		1,400,000
Operation & Maintenance, Navy .....	4,757,155		4,757,155
Operation & Maintenance, Marine Corps .....	1,121,900		1,121,900
Operation & Maintenance, Navy Reserve .....	25,637		25,637
Operation & Maintenance, Marine Corps Reserve .....	3,345		3,345

May 11, 2018 (12:14 a.m.)

## SUMMARY OF NATIONAL DEFENSE AUTHORIZATIONS FOR FISCAL YEAR 2019—Continued

(In Thousands of Dollars)

	FY 2019 Request	House Change	House Authorized
Operation & Maintenance, Air Force .....	9,285,789		9,285,789
Operation & Maintenance, Air Force Reserve .....	60,500		60,500
Operation & Maintenance, Air National Guard .....	15,870		15,870
Operation & Maintenance, Defense-Wide .....	8,549,908	-200,000	8,349,908
Ukraine Security Assistance .....	0	250,000	250,000
<b>Subtotal, Operation and Maintenance .....</b>	<b>48,782,670</b>	<b>2,364,057</b>	<b>51,146,727</b>
<b>Military Personnel</b>			
Military Personnel Appropriations .....	4,660,661		4,660,661
<b>Subtotal, Military Personnel .....</b>	<b>4,660,661</b>	<b>0</b>	<b>4,660,661</b>
<b>Other Authorizations</b>			
Working Capital Fund, Army .....	6,600		6,600
Working Capital Fund, Air Force .....	8,590		8,590
Drug Interdiction and Counter Drug Activities .....	153,100		153,100
Office of the Inspector General .....	24,692		24,692
Defense Health Program .....	352,068		352,068
<b>Subtotal, Other Authorizations .....</b>	<b>545,050</b>	<b>0</b>	<b>545,050</b>
<b>Military Construction</b>			
Army .....	261,250	-69,000	192,250
Navy .....	227,320		227,320
Air Force .....	345,800	69,000	414,800
Defense-Wide .....	87,050		87,050
<b>Subtotal, Military Construction .....</b>	<b>921,420</b>	<b>0</b>	<b>921,420</b>
<b>Total, National Defense Funding, Overseas Contingency Operations .....</b>	<b>69,000,000</b>	<b>-158</b>	<b>68,999,842</b>
<b>Total, National Defense .....</b>	<b>708,105,458</b>	<b>-1,239</b>	<b>708,104,219</b>
<b>MEMORANDUM: NON-DEFENSE AUTHORIZATIONS</b>			
Title XIV—Armed Forces Retirement Home (Function 600) .....	64,300		64,300
Title XXXIV—Naval Petroleum and Oil Shale Reserves (Function 270) .....	10,000		10,000
<b>MEMORANDUM: TRANSFER AUTHORITIES (NON-ADD)</b>			
Title X—General Transfer Authority .....	[5,000,000]		[5,000,000]
Title XV—Special Transfer Authority .....	[4,500,000]		[4,500,000]
<b>MEMORANDUM: DEFENSE AUTHORIZATIONS NOT UNDER THE JURISDICTION OF THE ARMED SERVICES COMMITTEE (NON-ADD)</b>			
Defense Production Act .....	[38,578]		[38,578]

May 11, 2018 (12:14 a.m.)

## NATIONAL DEFENSE BUDGET AUTHORITY IMPLICATION

(In Thousands of Dollars)

	FY 2019 Request	House Change	House Authorized
<b>Summary, Discretionary Authorizations Within the Jurisdiction of the Armed Services Committee</b>			
<b>SUBTOTAL, DEPARTMENT OF DEFENSE (051)</b> .....	<b>617,119,558</b>	<b>-444,081</b>	<b>616,675,477</b>
<b>SUBTOTAL, ATOMIC ENERGY DEFENSE PROGRAMS (053)</b> .....	<b>21,771,900</b>	<b>357,000</b>	<b>22,128,900</b>
<b>SUBTOTAL, DEFENSE-RELATED ACTIVITIES (054)</b> .....	<b>214,000</b>	<b>86,000</b>	<b>300,000</b>
<b>TOTAL, NATIONAL DEFENSE (050)—BASE BILL</b> .....	<b>639,105,458</b>	<b>-1,081</b>	<b>639,104,377</b>
<b>TOTAL, OVERSEAS CONTINGENCY OPERATIONS</b> .....	<b>69,000,000</b>	<b>-158</b>	<b>68,999,842</b>
<b>GRAND TOTAL, NATIONAL DEFENSE</b> .....	<b>708,105,458</b>	<b>-1,239</b>	<b>708,104,219</b>
<b>Scoring adjustments to account for transfers out already credited to 050 by OMB</b>			
Transfers to non-Defense budget functions .....	-128,000		-128,000
<b>Subtotal, Budget Sub-Function 051</b> .....	<b>-128,000</b>		<b>-128,000</b>
<b>Base National Defense Discretionary Programs that are Not In the Jurisdiction of the Armed Services Committee or Do Not Require Additional Authorization (CBO Estimates)</b>			
Defense Production Act Purchases .....	39,000		39,000
Indefinite Account: Disposal Of DOD Real Property .....	8,000		8,000
Indefinite Account: Lease Of DOD Real Property .....	36,000		36,000
<b>Subtotal, Budget Sub-Function 051</b> .....	<b>83,000</b>		<b>83,000</b>
Formerly Utilized Sites Remedial Action Program .....	120,000		120,000
<b>Subtotal, Budget Sub-Function 053</b> .....	<b>120,000</b>		<b>120,000</b>
Other Discretionary Programs .....	7,819,542		7,819,542
<b>Subtotal, Budget Sub-Function 054</b> .....	<b>7,819,542</b>		<b>7,819,542</b>
<b>Total Defense Discretionary Adjustments (050)</b> .....	<b>8,022,542</b>		<b>8,022,542</b>
<b>Budget Authority Implication, National Defense Discretionary</b>			
Department of Defense--Military (051) .....	686,074,558	-444,239	685,630,319
Atomic Energy Defense Activities (053) .....	21,891,900	357,000	22,248,900
Defense-Related Activities (054) .....	8,033,542	86,000	8,119,542
<b>Total BA Implication, National Defense Discretionary</b> .....	<b>716,000,000</b>	<b>-1,239</b>	<b>715,998,761</b>
<b>National Defense Mandatory Programs, Current Law (CBO Baseline)</b>			
Concurrent receipt accrual payments to the Military Retirement Fund .....	7,720,000		7,720,000
Revolving, trust and other DOD Mandatory .....	1,794,000		1,794,000
Offsetting receipts .....	-1,855,000		-1,855,000
<b>Subtotal, Budget Sub-Function 051</b> .....	<b>7,659,000</b>		<b>7,659,000</b>
Energy employees occupational illness compensation programs and other .....	1,277,000		1,277,000
<b>Subtotal, Budget Sub-Function 053</b> .....	<b>1,277,000</b>		<b>1,277,000</b>
Radiation exposure compensation trust fund .....	50,000		50,000
Payment to CIA retirement fund and other .....	514,000		514,000
<b>Subtotal, Budget Sub-Function 054</b> .....	<b>564,000</b>		<b>564,000</b>
<b>Total National Defense Mandatory (050)</b> .....	<b>9,500,000</b>		<b>9,500,000</b>
<b>Budget Authority Implication, National Defense Discretionary and Mandatory</b>			
Department of Defense--Military (051) .....	693,733,558	-444,239	693,289,319
Atomic Energy Defense Activities (053) .....	23,168,900	357,000	23,525,900

May 11, 2018 (12:14 a.m.)

**NATIONAL DEFENSE BUDGET AUTHORITY IMPLICATION—Continued**

(In Thousands of Dollars)

	<b>FY 2019 Request</b>	<b>House Change</b>	<b>House Authorized</b>
Defense-Related Activities (054) .....	8,597,542	86,000	8,683,542
<b>Total BA Implication, National Defense Discretionary and Mandatory .....</b>	<b>725,500,000</b>	<b>-1,239</b>	<b>725,498,761</b>

# TITLE XLI—PROCUREMENT

## SEC. 4101. PROCUREMENT.

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
<b>AIRCRAFT PROCUREMENT, ARMY</b>							
<b>FIXED WING</b>							
002	UTILITY F/W AIRCRAFT .....		744				744
003	MQ-1 UAV .....		43,326		60,000		103,326
	MQ-1 Gray Eagle Service Life Extension Program .....				[60,000]		
004	RQ-11 (RAVEN) .....		46,416				46,416
<b>ROTARY</b>							
007	AH-64 APACHE BLOCK IIIA REMAN .....	48	753,248			48	753,248
008	ADVANCE PROCUREMENT (CY) .....		174,550				174,550
009	AH-64 APACHE BLOCK IIIB NEW BUILD .....	12	284,687			12	284,687
	Additional AH-64Es to address ARNG shortfalls .....			[6]	[192,000]		
	Realignment to cover ARNG shortfalls .....			[-6]	[-192,000]		
010	ADVANCE PROCUREMENT (CY) .....		58,600				58,600
011	UH-60 BLACKHAWK M MODEL (MYP) .....	49	988,810	5	85,000	54	1,073,810
	Additional UH-60Ms for ARNG .....			[5]	[85,000]		
012	ADVANCE PROCUREMENT (CY) .....		106,150				106,150
013	UH-60 BLACK HAWK A AND L MODELS .....	18	146,138			18	146,138
014	CH-47 HELICOPTER .....	6	99,278			6	99,278
015	ADVANCE PROCUREMENT (CY) .....		24,235				24,235
<b>MODIFICATION OF AIRCRAFT</b>							



SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
018	UNIVERSAL GROUND CONTROL EQUIPMENT (UAS) .....		27,114				27,114
019	GRAY EAGLE MODS2 .....		97,781				97,781
020	MULTI SENSOR ABN RECON (MIP) .....		52,274		14,000		66,274
	Army UFR: program increase .....				[14,000]		
021	AH-64 MODS .....		104,996				104,996
022	CH-47 CARGO HELICOPTER MODS (MYP) .....		7,807				7,807
023	GRCS SEMA MODS (MIP) .....		5,573				5,573
024	ARL SEMA MODS (MIP) .....		7,522				7,522
025	EMARSS SEMA MODS (MIP) .....		20,448				20,448
026	UTILITY/CARGO AIRPLANE MODS .....		17,719				17,719
027	UTILITY HELICOPTER MODS .....		6,443		10,000		16,443
	UH-72A Life-Cycle Sustainability .....				[10,000]		
028	NETWORK AND MISSION PLAN .....		123,614				123,614
029	COMMS, NAV SURVEILLANCE .....		161,969				161,969
030	DEGRADED VISUAL ENVIRONMENT .....		30,000				30,000
031	GATM ROLLUP .....		26,848				26,848
032	RQ-7 UAV MODS .....		103,246		50,868		154,114
	Realignment of EDI APS Unit Set from OCO to Base .....				[50,868]		
033	UAS MODS .....		17,644		3,402		21,046
	Realignment of EDI APS Unit Set from OCO to Base .....				[3,402]		
	<b>GROUND SUPPORT AVIONICS</b>						
034	AIRCRAFT SURVIVABILITY EQUIPMENT .....		57,170				57,170
035	SURVIVABILITY CM .....		5,853				5,853
036	CMWS .....		13,496				13,496
037	COMMON INFRARED COUNTERMEASURES (CIRCM) .....		36,839				36,839
	<b>OTHER SUPPORT</b>						

038	AVIONICS SUPPORT EQUIPMENT .....		1,778			1,778	
039	COMMON GROUND EQUIPMENT .....		34,818			34,818	
040	AIRCREW INTEGRATED SYSTEMS .....		27,243			27,243	
041	AIR TRAFFIC CONTROL .....		63,872			63,872	
042	INDUSTRIAL FACILITIES .....		1,417			1,417	
043	LAUNCHER, 2.75 ROCKET .....		1,901			1,901	
044	LAUNCHER GUIDED MISSILE: LONGBOW HELLFIRE XM2 .....		991			991	
	<b>TOTAL AIRCRAFT PROCUREMENT, ARMY .....</b>	<b>133</b>	<b>3,782,558</b>	<b>5</b>	<b>223,270</b>	<b>138</b>	<b>4,005,828</b>
	<b>MISSILE PROCUREMENT, ARMY</b>						
	<b>SURFACE-TO-AIR MISSILE SYSTEM</b>						
001	LOWER TIER AIR AND MISSILE DEFENSE (AMD) .....		111,395			111,395	
002	MSE MISSILE .....	179	871,276		260,000	179	1,131,276
	Realignment of EDI APS Unit Set from OCO to Base .....				[260,000]		
003	INDIRECT FIRE PROTECTION CAPABILITY INC 2-I .....		145,636				145,636
004	ADVANCE PROCUREMENT (CY) .....		31,286				31,286
	<b>AIR-TO-SURFACE MISSILE SYSTEM</b>						
006	JOINT AIR-TO-GROUND MSLS (JAGM) .....	1,046	276,462		-27,600	1,046	248,862
	Unit cost and engineering services cost growth .....				[-27,600]		
	<b>ANTI-TANK/ASSAULT MISSILE SYS</b>						
008	JAVELIN (AAWS-M) SYSTEM SUMMARY .....	709	303,665		-36,200	709	267,465
	Forward financed in the FY18 Omnibus for command launch units .....				[-50,000]		
	Realignment of EDI APS Unit Set from OCO to Base .....				[13,800]		
009	TOW 2 SYSTEM SUMMARY .....	1,472	105,014			1,472	105,014
010	ADVANCE PROCUREMENT (CY) .....		19,949				19,949
011	GUIDED MLRS ROCKET (GMLRS) .....	3,267	359,613		-30,000	3,267	329,613
	Forward financed in the FY18 Omnibus .....				[-30,000]		
012	MLRS REDUCED RANGE PRACTICE ROCKETS (RRPR) .....	2,214	20,964			2,214	20,964
013	HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS) .....				171,138		171,138
	Realignment of EDI APS Unit Set from OCO to Base .....				[171,138]		
	<b>MODIFICATIONS</b>						
015	PATRIOT MODS .....		313,228		20,000		333,228

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
016	Increase PATRIOT Mod efforts .....				[20,000]		
	ATACMS MODS .....		221,656		15,000		236,656
	Forward financed in the FY18 Omnibus .....				[-65,000]		
	Realignment of EDI APS Unit Set from OCO to Base .....				[80,000]		
017	GMLRS MOD .....		266				266
018	STINGER MODS .....		94,756				94,756
019	AVENGER MODS .....		48,670				48,670
020	ITAS/TOW MODS .....		3,173				3,173
021	MLRS MODS .....		383,216		122,000		505,216
	Realignment of EDI APS Unit Set from OCO to Base .....				[122,000]		
022	HIMARS MODIFICATIONS .....		10,196				10,196
	<b>SPARES AND REPAIR PARTS</b>						
023	SPARES AND REPAIR PARTS .....		27,737				27,737
	<b>SUPPORT EQUIPMENT &amp; FACILITIES</b>						
024	AIR DEFENSE TARGETS .....		6,417				6,417
025	PRODUCTION BASE SUPPORT .....		1,202				1,202
	<b>TOTAL MISSILE PROCUREMENT, ARMY</b> .....	<b>8,887</b>	<b>3,355,777</b>		<b>494,338</b>	<b>8,887</b>	<b>3,850,115</b>
	<b>PROCUREMENT OF W&amp;TCV, ARMY</b>						
	<b>TRACKED COMBAT VEHICLES</b>						
001	BRADLEY PROGRAM .....				205,000		205,000
	Realignment of EDI APS Unit Set from OCO to Base .....				[205,000]		
002	ARMORED MULTI PURPOSE VEHICLE (AMPV) .....	131	479,801		230,359	131	710,160
	Realignment of EDI APS Unit Set from OCO to Base .....				[230,359]		
	<b>MODIFICATION OF TRACKED COMBAT VEHICLES</b>						
004	STRYKER (MOD) .....		287,490		-149,300		138,190

	Army requested realignment to WTCV-5 .....				[-149,300]		
005	STRYKER UPGRADE .....	3	21,900	110	338,100	113	360,000
	A1 conversions for 5th SBCT .....			[61]	[188,800]		
	Army requested realignment—A1 conversions for 5th SBCT .....			[49]	[149,300]		
006	BRADLEY PROGRAM (MOD) .....		625,424		50,000		675,424
	Realignment of EDI APS Unit Set from OCO to Base .....				[50,000]		
007	M109 FOV MODIFICATIONS .....		26,482				26,482
008	PALADIN INTEGRATED MANAGEMENT (PIM) .....	30	351,802		142,000	30	493,802
	Realignment of EDI APS Unit Set from OCO to Base .....				[67,000]		
	Smooth funding production profile .....				[75,000]		
009	IMPROVED RECOVERY VEHICLE (M88A2 HERCULES) .....	26	110,500		42,354	26	152,854
	Realignment of EDI APS Unit Set from OCO to Base .....				[42,354]		
010	ASSAULT BRIDGE (MOD) .....		2,120				2,120
011	ASSAULT BREACHER VEHICLE .....	12	62,407			12	62,407
012	M88 FOV MODS .....		4,517				4,517
013	JOINT ASSAULT BRIDGE .....	30	142,255			30	142,255
014	M1 ABRAMS TANK (MOD) .....		927,600		34,000		961,600
	Realignment of EDI APS Unit Set from OCO to Base .....				[34,000]		
015	ABRAMS UPGRADE PROGRAM .....	95	1,075,999		455,000	95	1,530,999
	Realignment of EDI APS Unit Set from OCO to Base .....				[455,000]		
	<b>WEAPONS &amp; OTHER COMBAT VEHICLES</b>						
018	M240 MEDIUM MACHINE GUN (7.62MM) .....		1,955		5,126		7,081
	Program Increase—M240L and M240B .....				[5,000]		
	Realignment of EDI APS Unit Set from OCO to Base .....				[126]		
019	MULTI-ROLE ANTI-ARMOR ANTI-PERSONNEL WEAPON S .....		23,345				23,345
020	GUN AUTOMATIC 30MM M230 .....		7,434				7,434
021	MACHINE GUN, CAL .50 M2 ROLL .....		22,330				22,330
022	MORTAR SYSTEMS .....		12,470		180		12,650
	Realignment of EDI APS Unit Set from OCO to Base .....				[180]		
023	XM320 GRENADE LAUNCHER MODULE (GLM) .....		697				697
024	COMPACT SEMI-AUTOMATIC SNIPER SYSTEM .....		46,236				46,236
025	CARBINE .....		69,306		1,800		71,106

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
	Realignment of EDI APS Unit Set from OCO to Base .....				[1,800]		
026	SMALL ARMS—FIRE CONTROL .....		7,929				7,929
027	COMMON REMOTELY OPERATED WEAPONS STATION .....		35,968		3,378		39,346
	Realignment of EDI APS Unit Set from OCO to Base .....				[3,378]		
028	HANDGUN .....		48,251				48,251
	<b>MOD OF WEAPONS AND OTHER COMBAT VEH</b>						
029	MK-19 GRENADE MACHINE GUN MODS .....		1,684				1,684
030	M777 MODS .....		3,086				3,086
031	M4 CARBINE MODS .....		31,575		4,200		35,775
	Additional free-float forward extended rails .....				[4,200]		
032	M2 50 CAL MACHINE GUN MODS .....		21,600		4,920		26,520
	Realignment of EDI APS Unit Set from OCO to Base .....				[4,920]		
033	M249 SAW MACHINE GUN MODS .....		3,924				3,924
034	M240 MEDIUM MACHINE GUN MODS .....		6,940		7		6,947
	Realignment of EDI APS Unit Set from OCO to Base .....				[7]		
035	SNIPER RIFLES MODIFICATIONS .....		2,747				2,747
036	M119 MODIFICATIONS .....		5,704				5,704
037	MORTAR MODIFICATION .....		3,965				3,965
038	MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV) .....		5,577				5,577
	<b>SUPPORT EQUIPMENT &amp; FACILITIES</b>						
039	ITEMS LESS THAN \$5.0M (WOCV-WTCV) .....		3,174		1,397		4,571
	Realignment of EDI APS Unit Set from OCO to Base .....				[1,397]		
040	PRODUCTION BASE SUPPORT (WOCV-WTCV) .....		3,284				3,284
041	SMALL ARMS EQUIPMENT (SOLDIER ENH PROG) .....		1,640				1,640
	<b>TOTAL PROCUREMENT OF W&amp;TCV, ARMY .....</b>	<b>327</b>	<b>4,489,118</b>	<b>110</b>	<b>1,368,521</b>	<b>437</b>	<b>5,857,639</b>

<b>PROCUREMENT OF AMMUNITION, ARMY</b>				
<b>SMALL/MEDIUM CAL AMMUNITION</b>				
001	CTG, 5.56MM, ALL TYPES .....	41,848	3,392	45,240
	Realignment of EDI APS Unit Set from OCO to Base .....		[3,392]	
002	CTG, 7.62MM, ALL TYPES .....	86,199	40	86,239
	Realignment of EDI APS Unit Set from OCO to Base .....		[40]	
003	CTG, HANDGUN, ALL TYPES .....	20,158	17	20,175
	Realignment of EDI APS Unit Set from OCO to Base .....		[17]	
004	CTG, .50 CAL, ALL TYPES .....	65,573	189	65,762
	Realignment of EDI APS Unit Set from OCO to Base .....		[189]	
005	CTG, 20MM, ALL TYPES .....	8,198		8,198
007	CTG, 30MM, ALL TYPES .....	77,995	25,000	102,995
	Realignment of EDI APS Unit Set from OCO to Base .....		[25,000]	
008	CTG, 40MM, ALL TYPES .....	69,781		69,781
<b>MORTAR AMMUNITION</b>				
009	60MM MORTAR, ALL TYPES .....	45,280	218	45,498
	Realignment of EDI APS Unit Set from OCO to Base .....		[218]	
010	81MM MORTAR, ALL TYPES .....	46,853	484	47,337
	Realignment of EDI APS Unit Set from OCO to Base .....		[484]	
011	120MM MORTAR, ALL TYPES .....	83,003		83,003
<b>TANK AMMUNITION</b>				
012	CARTRIDGES, TANK, 105MM AND 120MM, ALL TYPES .....	168,101		168,101
<b>ARTILLERY AMMUNITION</b>				
013	ARTILLERY CARTRIDGES, 75MM & 105MM, ALL TYPES .....	39,341		39,341
014	ARTILLERY PROJECTILE, 155MM, ALL TYPES .....	211,442	79,400	290,842
	Realignment of EDI APS Unit Set from OCO to Base .....		[79,400]	
015	PROJ 155MM EXTENDED RANGE M982 .....	1,189	51,700	152,606
	Realignment of EDI APS Unit Set from OCO to Base .....		[51,700]	
016	ARTILLERY PROPELLANTS, FUZES AND PRIMERS, ALL .....	236,677	31,900	268,577
	Forward financed in the FY18 Omnibus .....		[-15,000]	
	Program decrease .....		[-2,000]	
	Realignment of EDI APS Unit Set from OCO to Base .....		[48,900]	

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
	<b>MINES</b>						
017	MINES & CLEARING CHARGES, ALL TYPES .....		15,905				15,905
	<b>ROCKETS</b>						
018	SHOULDER LAUNCHED MUNITIONS, ALL TYPES .....		4,503	1,572	27,242	1,572	31,745
	Army UFR: bunker defeat munitions .....			[1,572]	[25,000]		
	Realignment of EDI APS Unit Set from OCO to Base .....				[2,242]		
019	ROCKET, HYDRA 70, ALL TYPES .....		211,211	20,000	30,000	20,000	241,211
	Army UFR: additional HYDRA rockets .....			[20,000]	[30,000]		
	<b>OTHER AMMUNITION</b>						
020	CAD/PAD, ALL TYPES .....		10,428				10,428
021	DEMOLITION MUNITIONS, ALL TYPES .....		44,656		5		44,661
	Realignment of EDI APS Unit Set from OCO to Base .....				[5]		
022	GRENADES, ALL TYPES .....		19,896		8		19,904
	Realignment of EDI APS Unit Set from OCO to Base .....				[8]		
023	SIGNALS, ALL TYPES .....		10,121				10,121
024	SIMULATORS, ALL TYPES .....		11,464				11,464
	<b>MISCELLANEOUS</b>						
025	AMMO COMPONENTS, ALL TYPES .....		5,224				5,224
026	NON-LETHAL AMMUNITION, ALL TYPES .....		4,310				4,310
027	ITEMS LESS THAN \$5 MILLION (AMMO) .....		11,193		66		11,259
	Realignment of EDI APS Unit Set from OCO to Base .....				[66]		
028	AMMUNITION PECULIAR EQUIPMENT .....		10,500				10,500
029	FIRST DESTINATION TRANSPORTATION (AMMO) .....		18,456				18,456
030	CLOSEOUT LIABILITIES .....		100				100
	<b>PRODUCTION BASE SUPPORT</b>						
032	INDUSTRIAL FACILITIES .....		394,133				394,133

033	CONVENTIONAL MUNITIONS DEMILITARIZATION .....	157,535				157,535
034	ARMS INITIATIVE .....	3,771				3,771
	<b>TOTAL PROCUREMENT OF AMMUNITION, ARMY .....</b>	<b>1,189</b>	<b>2,234,761</b>	<b>21,572</b>	<b>249,661</b>	<b>22,761</b>
	<b>2,484,422</b>					
	<b>OTHER PROCUREMENT, ARMY</b>					
	<b>TACTICAL VEHICLES</b>					
001	TACTICAL TRAILERS/DOLLY SETS .....	16,512				16,512
002	SEMITRAILERS, FLATBED: .....	16,951			8,000	24,951
	Realignment of EDI APS Unit Set from OCO to Base .....				[8,000]	
003	AMBULANCE, 4 LITTER, 5/4 TON, 4X4 .....	50,123			20,770	70,893
	Realignment of EDI APS Unit Set from OCO to Base .....				[20,770]	
004	GROUND MOBILITY VEHICLES (GMV) .....	46,988			-10,000	36,988
	Unobligated Balances .....				[-10,000]	
005	ARNG HMMWV MODERNIZATION PROGRAM .....				25,000	25,000
	Additional HMMWVs .....				[25,000]	
006	JOINT LIGHT TACTICAL VEHICLE .....	1,319,436				1,319,436
007	TRUCK, DUMP, 20T (CCE) .....	6,480				6,480
008	FAMILY OF MEDIUM TACTICAL VEH (FMTV) .....	132,882				132,882
009	FIRETRUCKS & ASSOCIATED FIREFIGHTING EQUIP .....	14,842				14,842
010	FAMILY OF HEAVY TACTICAL VEHICLES (FHTV) .....	138,105			115,400	253,505
	Realignment of EDI APS Unit Set from OCO to Base .....				[115,400]	
012	HVY EXPANDED MOBILE TACTICAL TRUCK EXT SERV .....	31,892			6,682	38,574
	Realignment of EDI APS Unit Set from OCO to Base .....				[6,682]	
013	TACTICAL WHEELED VEHICLE PROTECTION KITS .....	38,128			50,000	88,128
	Realignment of EDI APS Unit Set from OCO to Base .....				[50,000]	
014	MODIFICATION OF IN SVC EQUIP .....	78,507			377	78,884
	Realignment of EDI APS Unit Set from OCO to Base .....				[377]	
015	MINE-RESISTANT AMBUSH-PROTECTED (MRAP) MODS .....				27,000	27,000
	SFAB emerging requirements .....				[27,000]	
	<b>NON-TACTICAL VEHICLES</b>					
016	HEAVY ARMORED VEHICLE .....	790				790
017	PASSENGER CARRYING VEHICLES .....	1,390				1,390



SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
018	NONTACTICAL VEHICLES, OTHER .....		15,415				15,415
	<b>COMM—JOINT COMMUNICATIONS</b>						
020	SIGNAL MODERNIZATION PROGRAM .....		150,777				150,777
021	TACTICAL NETWORK TECHNOLOGY MOD IN SVC .....		469,117		64,000		533,117
	Additional TCN-L, NOSC-L, and next generation embedded kits for IBCTs and SBCTs.				[64,000]		
022	SITUATION INFORMATION TRANSPORT .....		62,727				62,727
023	JOINT INCIDENT SITE COMMUNICATIONS CAPABILITY .....		13,895				13,895
024	JCSE EQUIPMENT (USREDCOM) .....		4,866				4,866
	<b>COMM—SATELLITE COMMUNICATIONS</b>						
027	DEFENSE ENTERPRISE WIDEBAND SATCOM SYSTEMS .....		108,133				108,133
028	TRANSPORTABLE TACTICAL COMMAND COMMUNICATIONS .....		56,737				56,737
029	SHF TERM .....		13,100				13,100
030	SMART-T (SPACE) .....		9,160				9,160
031	GLOBAL BRDCST SVC—GBS .....		25,647				25,647
032	ENROUTE MISSION COMMAND (EMC) .....		37,401				37,401
	<b>COMM—C3 SYSTEM</b>						
036	COE TACTICAL SERVER INFRASTRUCTURE (TSI) .....		20,500				20,500
	<b>COMM—COMBAT COMMUNICATIONS</b>						
037	JOINT TACTICAL RADIO SYSTEM .....				1,560		1,560
	Realignment of EDI APS Unit Set from OCO to Base .....				[1,560]		
038	HANDHELD MANPACK SMALL FORM FIT (HMS) .....		351,565				351,565
040	RADIO TERMINAL SET, MIDS LVT(2) .....		4,641				4,641
041	TRACTOR DESK .....		2,187				2,187
042	TRACTOR RIDE .....		9,411		13,200		22,611
	Army UFR: program increase .....				[13,200]		

044	SPIDER FAMILY OF NETWORKED MUNITIONS INCR .....	17,515		17,515
045	TACTICAL COMMUNICATIONS AND PROTECTIVE SYSTEM .....	819		819
046	UNIFIED COMMAND SUITE .....	17,807		17,807
047	COTS COMMUNICATIONS EQUIPMENT .....	191,835	17,000	208,835
	Program decrease .....		[-5,000]	
	Realignment of EDI APS Unit Set from OCO to Base .....		[22,000]	
048	FAMILY OF MED COMM FOR COMBAT CASUALTY CARE .....	25,177		25,177
	<b>COMM—INTELLIGENCE COMM</b>			
050	CI AUTOMATION ARCHITECTURE (MIP) .....	9,740		9,740
051	DEFENSE MILITARY DECEPTION INITIATIVE .....	2,667		2,667
	<b>INFORMATION SECURITY</b>			
053	FAMILY OF BIOMETRICS .....	8,319		8,319
054	INFORMATION SYSTEM SECURITY PROGRAM-ISSP .....	2,000		2,000
055	COMMUNICATIONS SECURITY (COMSEC) .....	88,337	3	88,340
	Realignment of EDI APS Unit Set from OCO to Base .....		[3]	
056	DEFENSIVE CYBER OPERATIONS .....	51,343		51,343
057	INSIDER THREAT PROGRAM—UNIT ACTIVITY MONITO .....	330		330
058	PERSISTENT CYBER TRAINING ENVIRONMENT .....	3,000		3,000
	<b>COMM—LONG HAUL COMMUNICATIONS</b>			
059	BASE SUPPORT COMMUNICATIONS .....	34,434		34,434
	<b>COMM—BASE COMMUNICATIONS</b>			
060	INFORMATION SYSTEMS .....	95,558		95,558
061	EMERGENCY MANAGEMENT MODERNIZATION PROGRAM .....	4,736		4,736
062	HOME STATION MISSION COMMAND CENTERS (HSMCC) .....	24,479		24,479
063	INSTALLATION INFO INFRASTRUCTURE MOD PROGRAM .....	216,433	9,050	225,483
	Realignment of EDI APS Unit Set from OCO to Base .....		[9,050]	
	<b>ELECT EQUIP—TACT INT REL ACT (TIARA)</b>			
066	JTT/CIBS-M (MIP) .....	10,268		10,268
068	DCGS-A (MIP) .....	261,863		261,863
069	JOINT TACTICAL GROUND STATION (JTAGS) (MIP) .....	5,434		5,434
070	TROJAN (MIP) .....	20,623	600	21,223
	Realignment of EDI APS Unit Set from OCO to Base .....		[600]	

SEC. 4101. PROCUREMENT  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
071	MOD OF IN-SVC EQUIP (INTEL SPT) (MIP) .....		45,998				45,998
072	CI HUMINT AUTO REPRTING & COLL(CHARCS)(MIP) .....		296				296
076	ITEMS LESS THAN \$5.0M (MIP) .....		410				410
	<b>ELECT EQUIP—ELECTRONIC WARFARE (EW)</b>						
077	LIGHTWEIGHT COUNTER MORTAR RADAR .....		9,165				9,165
078	EW PLANNING & MANAGEMENT TOOLS (EWPMT) .....		5,875				5,875
079	AIR VIGILANCE (AV) (MIP) .....		8,497				8,497
083	CI MODERNIZATION (MIP) .....		486				486
	<b>ELECT EQUIP—TACTICAL SURV. (TAC SURV)</b>						
084	SENTINEL MODS .....		79,629				79,629
085	NIGHT VISION DEVICES .....		153,180		86		153,266
	Realignment of EDI APS Unit Set from OCO to Base .....				[86]		
086	LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM .....				2,861		2,861
	Realignment of EDI APS Unit Set from OCO to Base .....				[2,861]		
087	SMALL TACTICAL OPTICAL RIFLE MOUNTED MLRF .....		22,882				22,882
088	RADIATION MONITORING SYSTEMS .....		17,393		11		17,404
	Realignment of EDI APS Unit Set from OCO to Base .....				[11]		
090	INDIRECT FIRE PROTECTION FAMILY OF SYSTEMS .....		46,740		262		47,002
	Realignment of EDI APS Unit Set from OCO to Base .....				[262]		
091	FAMILY OF WEAPON SIGHTS (FWS) .....		140,737		-8,775		131,962
	Realignment of EDI APS Unit Set from OCO to Base .....				[525]		
	Unexecutable funds .....				[-9,300]		
093	PROFILER .....		171				171
094	JOINT BATTLE COMMAND—PLATFORM (JBC-P) .....		405,239		26,146		431,385
	Realignment of EDI APS Unit Set from OCO to Base .....				[26,146]		
095	JOINT EFFECTS TARGETING SYSTEM (JETS) .....		66,574				66,574

May 11, 2018 (12:14 a.m.)

096	MOD OF IN-SVC EQUIP (LLDR) .....	20,783	4,050	24,833
	Realignment of EDI APS Unit Set from OCO to Base .....		[4,050]	
097	COMPUTER BALLISTICS: LHMCB XM32 .....	8,553		8,553
098	MORTAR FIRE CONTROL SYSTEM .....	21,489		21,489
099	COUNTERFIRE RADARS .....	162,121		162,121
	<b>ELECT EQUIP—TACTICAL C2 SYSTEMS</b>			
100	ARMY COMMAND POST INTEGRATED INFRASTRUCTURE ( .....	2,855		2,855
101	FIRE SUPPORT C2 FAMILY .....	19,153		19,153
102	AIR & MSL DEFENSE PLANNING & CONTROL SYS .....	33,837		33,837
103	LIFE CYCLE SOFTWARE SUPPORT (LCSS) .....	5,136		5,136
104	NETWORK MANAGEMENT INITIALIZATION AND SERVICE .....	18,329		18,329
105	MANEUVER CONTROL SYSTEM (MCS) .....	38,015		38,015
106	GLOBAL COMBAT SUPPORT SYSTEM-ARMY (GCSS-A) .....	15,164		15,164
107	INTEGRATED PERSONNEL AND PAY SYSTEM-ARMY (IPP) .....	29,239		29,239
109	RECONNAISSANCE AND SURVEYING INSTRUMENT SET .....	6,823		6,823
110	MOD OF IN-SVC EQUIPMENT (ENFIRE) .....	1,177		1,177
	<b>ELECT EQUIP—AUTOMATION</b>			
111	ARMY TRAINING MODERNIZATION .....	12,265		12,265
112	AUTOMATED DATA PROCESSING EQUIP .....	201,875		201,875
113	GENERAL FUND ENTERPRISE BUSINESS SYSTEMS FAM .....	10,976		10,976
114	HIGH PERF COMPUTING MOD PGM (HPCMP) .....	66,330		66,330
115	CONTRACT WRITING SYSTEM .....	5,927		5,927
116	RESERVE COMPONENT AUTOMATION SYS (RCAS) .....	27,896		27,896
	<b>ELECT EQUIP—AUDIO VISUAL SYS (A/V)</b>			
117	TACTICAL DIGITAL MEDIA .....	4,392		4,392
118	ITEMS LESS THAN \$5M (SURVEYING EQUIPMENT) .....	1,970		1,970
	<b>ELECT EQUIP—SUPPORT</b>			
119	PRODUCTION BASE SUPPORT (C-E) .....	506		506
	<b>CLASSIFIED PROGRAMS</b>			
120A	CLASSIFIED PROGRAMS .....	4,501		4,501
	<b>CHEMICAL DEFENSIVE EQUIPMENT</b>			
121	PROTECTIVE SYSTEMS .....	2,314	27	2,341

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
	Realignment of EDI APS Unit Set from OCO to Base .....				[27]		
122	FAMILY OF NON-LETHAL EQUIPMENT (FNLE) .....		7,478				7,478
124	CBRN DEFENSE .....		173,954		317		174,271
	Realignment of EDI APS Unit Set from OCO to Base .....				[317]		
	<b>BRIDGING EQUIPMENT</b>						
125	TACTICAL BRIDGING .....		98,229				98,229
126	TACTICAL BRIDGE, FLOAT-RIBBON .....		64,438				64,438
127	COMMON BRIDGE TRANSPORTER (CBT) RECAP .....		79,916				79,916
	<b>ENGINEER (NON-CONSTRUCTION) EQUIPMENT</b>						
128	HANDHELD STANDOFF MINEFIELD DETECTION SYS-HST .....		8,471				8,471
129	GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS) .....		29,883				29,883
130	AREA MINE DETECTION SYSTEM (AMDS) .....		11,594		1		11,595
	Realignment of EDI APS Unit Set from OCO to Base .....				[1]		
131	HUSKY MOUNTED DETECTION SYSTEM (HMDS) .....		40,834				40,834
132	ROBOTIC COMBAT SUPPORT SYSTEM (RCSS) .....		4,029				4,029
133	EOD ROBOTICS SYSTEMS RECAPITALIZATION .....		14,208				14,208
134	ROBOTICS AND APPLIQUE SYSTEMS .....		31,456				31,456
136	REMOTE DEMOLITION SYSTEMS .....		1,748		1		1,749
	Realignment of EDI APS Unit Set from OCO to Base .....				[1]		
137	< \$5M, COUNTERMINE EQUIPMENT .....		7,829				7,829
138	FAMILY OF BOATS AND MOTORS .....		5,806				5,806
	<b>COMBAT SERVICE SUPPORT EQUIPMENT</b>						
139	HEATERS AND ECU'S .....		9,852				9,852
140	SOLDIER ENHANCEMENT .....		1,103				1,103
141	PERSONNEL RECOVERY SUPPORT SYSTEM (PRSS) .....		5,875				5,875
142	GROUND SOLDIER SYSTEM .....		92,487				92,487

143	MOBILE SOLDIER POWER .....	30,774		30,774
145	FIELD FEEDING EQUIPMENT .....	17,521		17,521
146	CARGO AERIAL DEL & PERSONNEL PARACHUTE SYSTEM .....	44,855		44,855
147	FAMILY OF ENGR COMBAT AND CONSTRUCTION SETS .....	17,173		17,173
148	ITEMS LESS THAN \$5M (ENG SPT) .....	2,000		2,000
	<b>PETROLEUM EQUIPMENT</b>			
149	QUALITY SURVEILLANCE EQUIPMENT .....	1,770		1,770
150	DISTRIBUTION SYSTEMS, PETROLEUM & WATER .....	39,730		39,730
	<b>MEDICAL EQUIPMENT</b>			
151	COMBAT SUPPORT MEDICAL .....	57,752	20,000	77,752
	Simulators and other technologies to reduce the use of live animal tissue for medical training.		[20,000]	
	<b>MAINTENANCE EQUIPMENT</b>			
152	MOBILE MAINTENANCE EQUIPMENT SYSTEMS .....	37,722		37,722
153	ITEMS LESS THAN \$5.0M (MAINT EQ) .....	4,985	268	5,253
	Realignment of EDI APS Unit Set from OCO to Base .....		[268]	
	<b>CONSTRUCTION EQUIPMENT</b>			
155	SCRAPERS, EARTHMOVING .....	7,961		7,961
156	HYDRAULIC EXCAVATOR .....	1,355		1,355
158	ALL TERRAIN CRANES .....	13,031		13,031
159	HIGH MOBILITY ENGINEER EXCAVATOR (HMEE) .....	46,048		46,048
160	ENHANCED RAPID AIRFIELD CONSTRUCTION CAPAP .....	980	7,500	8,480
	Program increase—additional ERACC systems .....		[7,500]	
161	CONST EQUIP ESP .....	37,017		37,017
162	ITEMS LESS THAN \$5.0M (CONST EQUIP) .....	6,103		6,103
	<b>RAIL FLOAT CONTAINERIZATION EQUIPMENT</b>			
163	ARMY WATERCRAFT ESP .....	27,711		27,711
164	ITEMS LESS THAN \$5.0M (FLOAT/RAIL) .....	8,385		8,385
	<b>GENERATORS</b>			
165	GENERATORS AND ASSOCIATED EQUIP .....	133,772		133,772
166	TACTICAL ELECTRIC POWER RECAPITALIZATION .....	8,333		8,333
	<b>MATERIAL HANDLING EQUIPMENT</b>			

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
167	FAMILY OF FORKLIFTS .....		12,901				12,901
	<b>TRAINING EQUIPMENT</b>						
168	COMBAT TRAINING CENTERS SUPPORT .....		123,228				123,228
169	TRAINING DEVICES, NONSYSTEM .....		228,598				228,598
170	CLOSE COMBAT TACTICAL TRAINER .....		33,080				33,080
171	AVIATION COMBINED ARMS TACTICAL TRAINER .....		32,700				32,700
172	GAMING TECHNOLOGY IN SUPPORT OF ARMY TRAINING .....		25,161				25,161
	<b>TEST MEASURE AND DIG EQUIPMENT (TMD)</b>						
173	CALIBRATION SETS EQUIPMENT .....		4,270				4,270
174	INTEGRATED FAMILY OF TEST EQUIPMENT (IFTE) .....		76,295		9,495		85,790
	Realignment of EDI APS Unit Set from OCO to Base .....				[9,495]		
175	TEST EQUIPMENT MODERNIZATION (TEMOD) .....		9,806				9,806
	<b>OTHER SUPPORT EQUIPMENT</b>						
176	M25 STABILIZED BINOCULAR .....		4,368		33		4,401
	Realignment of EDI APS Unit Set from OCO to Base .....				[33]		
177	RAPID EQUIPPING SOLDIER SUPPORT EQUIPMENT .....		9,879				9,879
178	PHYSICAL SECURITY SYSTEMS (OPA3) .....		54,043				54,043
179	BASE LEVEL COMMON EQUIPMENT .....		6,633				6,633
180	MODIFICATION OF IN-SVC EQUIPMENT (OPA-3) .....		49,797				49,797
181	PRODUCTION BASE SUPPORT (OTH) .....		2,301				2,301
182	SPECIAL EQUIPMENT FOR USER TESTING .....		11,608				11,608
183	TRACTOR YARD .....		4,956				4,956
	<b>OPA2</b>						
184	INITIAL SPARES—C&E .....		9,817				9,817
	<b>TOTAL OTHER PROCUREMENT, ARMY</b> .....		<b>7,999,529</b>		<b>410,925</b>		<b>8,410,454</b>

<b>AIRCRAFT PROCUREMENT, NAVY</b>						
<b>COMBAT AIRCRAFT</b>						
001	F/A-18E/F (FIGHTER) HORNET .....	24	1,937,553	-30,000	24	1,907,553
	Excess NRE and Support Costs .....			[-30,000]		
002	ADVANCE PROCUREMENT (CY) .....		58,799			58,799
003	JOINT STRIKE FIGHTER CV .....	9	1,144,958	-12,900	9	1,132,058
	Production Efficiencies .....			[-12,900]		
004	ADVANCE PROCUREMENT (CY) .....		140,010			140,010
005	JSF STOVL .....	20	2,312,847	-36,300	20	2,276,547
	Production Efficiencies .....			[-36,300]		
006	ADVANCE PROCUREMENT (CY) .....		228,492			228,492
007	CH-53K (HEAVY LIFT) .....	8	1,113,804	-24,000	8	1,089,804
	Support cost growth .....			[-24,000]		
008	ADVANCE PROCUREMENT (CY) .....		161,079			161,079
009	V-22 (MEDIUM LIFT) .....	7	806,337		7	806,337
010	ADVANCE PROCUREMENT (CY) .....		36,955			36,955
011	H-1 UPGRADES (UH-1Y/AH-1Z) .....	25	820,755		25	820,755
014	P-8A POSEIDON .....	10	1,803,753	-26,000	10	1,777,753
	Excessive CFE Electronics cost growth .....			[-5,000]		
	Excessive GFE Electronics cost growth .....			[-1,000]		
	Excessive support cost growth .....			[-20,000]		
015	ADVANCE PROCUREMENT (CY) .....		180,000			180,000
016	E-2D ADV HAWKEYE .....	4	742,693	-16,300	4	726,393
	Excessive CFE cost growth .....			[-5,800]		
	Excessive Non-reoccurring cost growth .....			[-2,900]		
	Excessive Other ILS cost growth .....			[-1,700]		
	Excessive peculiar equipment cost growth .....			[-5,900]		
017	ADVANCE PROCUREMENT (CY) .....		240,734			240,734
	<b>AIRLIFT AIRCRAFT</b>					
018	C-40A .....	2	206,000	-206,000	2	0
	Forward financed in the FY18 Omnibus .....			[-206,000]		
	<b>OTHER AIRCRAFT</b>					



SEC. 4101. PROCUREMENT  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
020	KC-130J .....	2	160,433			2	160,433
021	ADVANCE PROCUREMENT (CY) .....		110,013				110,013
022	MQ-4 TRITON .....	3	568,743		-23,950	3	544,793
	Unit and support cost growth .....				[-23,950]		
023	ADVANCE PROCUREMENT (CY) .....		58,522				58,522
024	MQ-8 UAV .....		54,761				54,761
025	STUASLO UAV .....		14,866				14,866
026	VH-92A EXECUTIVE HELO .....	6	649,015			6	649,015
	<b>MODIFICATION OF AIRCRAFT</b>						
027	AEA SYSTEMS .....		25,277				25,277
028	AV-8 SERIES .....		58,577				58,577
029	ADVERSARY .....		14,606				14,606
030	F-18 SERIES .....		1,213,482		-2,500		1,210,982
	Program decrease .....				[-2,500]		
031	H-53 SERIES .....		70,997				70,997
032	SH-60 SERIES .....		130,661				130,661
033	H-1 SERIES .....		87,143				87,143
034	EP-3 SERIES .....		3,633				3,633
035	P-3 SERIES .....		803				803
036	E-2 SERIES .....		88,780				88,780
037	TRAINER A/C SERIES .....		11,660				11,660
038	C-2A .....		11,327				11,327
039	C-130 SERIES .....		79,075				79,075
040	FEWSG .....		597				597
041	CARGO/TRANSPORT A/C SERIES .....		8,932				8,932
042	E-6 SERIES .....		181,821				181,821

043	EXECUTIVE HELICOPTERS SERIES .....	23,566		23,566
044	SPECIAL PROJECT AIRCRAFT .....	7,620		7,620
045	T-45 SERIES .....	195,475		195,475
046	POWER PLANT CHANGES .....	21,521		21,521
047	JPATS SERIES .....	27,644		27,644
048	AVIATION LIFE SUPPORT MODS .....	15,864		15,864
049	COMMON ECM EQUIPMENT .....	166,306	25,000	191,306
	Navy UFR: F/A-18E/F Super Hornet Adaptive RADAR countermeasures ..		[25,000]	
050	COMMON AVIONICS CHANGES .....	117,551	-5,000	112,551
	Program decrease .....		[-5,000]	
051	COMMON DEFENSIVE WEAPON SYSTEM .....	1,994		1,994
052	ID SYSTEMS .....	40,696		40,696
053	P-8 SERIES .....	71,251		71,251
054	MAGTF EW FOR AVIATION .....	11,590		11,590
055	MQ-8 SERIES .....	37,907		37,907
057	V-22 (TILT/ROTOR ACFT) OSPREY .....	214,820		214,820
058	NEXT GENERATION JAMMER (NGJ) .....	952		952
059	F-35 STOVL SERIES .....	36,618		36,618
060	F-35 CV SERIES .....	21,236		21,236
061	QRC .....	101,499		101,499
062	MQ-4 SERIES .....	48,278		48,278
063	RQ-21 SERIES .....	6,904		6,904
	<b>AIRCRAFT SPARES AND REPAIR PARTS</b>			
064	SPARES AND REPAIR PARTS .....	1,792,920	40,000	1,832,920
	F-35B Spares .....		[40,000]	
	<b>AIRCRAFT SUPPORT EQUIP &amp; FACILITIES</b>			
065	COMMON GROUND EQUIPMENT .....	421,606	-10,000	411,606
	Program decrease .....		[-10,000]	
066	AIRCRAFT INDUSTRIAL FACILITIES .....	24,496		24,496
067	WAR CONSUMABLES .....	42,108		42,108
068	OTHER PRODUCTION CHARGES .....	1,444		1,444
069	SPECIAL SUPPORT EQUIPMENT .....	49,489		49,489

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
070	FIRST DESTINATION TRANSPORTATION .....		1,951				1,951
	<b>TOTAL AIRCRAFT PROCUREMENT, NAVY</b> .....	<b>120</b>	<b>19,041,799</b>		<b>-327,950</b>	<b>120</b>	<b>18,713,849</b>
	<b>WEAPONS PROCUREMENT, NAVY</b>						
	<b>MODIFICATION OF MISSILES</b>						
001	TRIDENT II MODS .....		1,078,750				1,078,750
	<b>SUPPORT EQUIPMENT &amp; FACILITIES</b>						
002	MISSILE INDUSTRIAL FACILITIES .....		6,998				6,998
	<b>STRATEGIC MISSILES</b>						
003	TOMAHAWK .....		98,570	198	114,800	198	213,370
	Forward financed in the FY18 Omnibus .....				[-81,000]		
	Program Increase—198 missile .....			[198]	[216,000]		
	Shutdown costs early to need .....				[-20,200]		
	<b>TACTICAL MISSILES</b>						
004	AMRAAM .....	140	211,058			140	211,058
005	SIDEWINDER .....	191	77,927	59	45,000	250	122,927
	Navy UFR: additional AIM 9-X missiles .....			[59]	[45,000]		
006	JSOW .....		1,330				1,330
007	STANDARD MISSILE .....	125	490,210			125	490,210
008	ADVANCE PROCUREMENT (CY) .....		125,683				125,683
009	SMALL DIAMETER BOMB II .....	750	91,272			750	91,272
010	RAM .....	120	96,221		-2,300	120	93,921
	Excess Production Support .....				[-2,300]		
011	JOINT AIR GROUND MISSILE (JAGM) .....	75	24,109			75	24,109
014	STAND OFF PRECISION GUIDED MUNITIONS (SOPGM) .....	31	11,378			31	11,378
015	AERIAL TARGETS .....		137,137				137,137

016	OTHER MISSILE SUPPORT .....		3,318				3,318
017	LRASM .....	25	81,190	10	30,000	35	111,190
	Navy Unfunded Requirement .....			[10]	[30,000]		
018	LCS OTH MISSILE .....	8	18,156			8	18,156
	<b>MODIFICATION OF MISSILES</b>						
019	ESSM .....	45	98,384		-2,000	45	96,384
	Excess Production Support .....				[-2,000]		
020	HARPOON MODS .....		14,840				14,840
021	HARM MODS .....		187,985				187,985
	<b>SUPPORT EQUIPMENT &amp; FACILITIES</b>						
023	WEAPONS INDUSTRIAL FACILITIES .....		2,006				2,006
024	FLEET SATELLITE COMM FOLLOW-ON .....		66,779				66,779
	<b>ORDNANCE SUPPORT EQUIPMENT</b>						
025	ORDNANCE SUPPORT EQUIPMENT .....		62,008				62,008
	<b>TORPEDOES AND RELATED EQUIP</b>						
026	SSTD .....		6,353				6,353
027	MK-48 TORPEDO .....	45	92,616	5	11,000	50	103,616
	Navy Unfunded Requirement .....			[5]	[11,000]		
028	ASW TARGETS .....		12,324				12,324
	<b>MOD OF TORPEDOES AND RELATED EQUIP</b>						
029	MK-54 TORPEDO MODS .....		105,946		-10,500		95,446
	HAAWC unit cost growth .....				[-6,500]		
	Non Recurring Engineering excess growth .....				[-4,000]		
030	MK-48 TORPEDO ADCAP MODS .....		40,005				40,005
031	QUICKSTRIKE MINE .....		9,758				9,758
	<b>SUPPORT EQUIPMENT</b>						
032	TORPEDO SUPPORT EQUIPMENT .....		79,371				79,371
033	ASW RANGE SUPPORT .....		3,872				3,872
	<b>DESTINATION TRANSPORTATION</b>						
034	FIRST DESTINATION TRANSPORTATION .....		3,726				3,726
	<b>GUNS AND GUN MOUNTS</b>						
035	SMALL ARMS AND WEAPONS .....		15,067				15,067

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
<b>MODIFICATION OF GUNS AND GUN MOUNTS</b>							
036	CIWS MODS .....		63,318				63,318
037	COAST GUARD WEAPONS .....		40,823				40,823
038	GUN MOUNT MODS .....		74,618				74,618
039	LCS MODULE WEAPONS .....	90	11,350		-5,800	90	5,550
	Mission Module Early to need .....				[-5,800]		
041	AIRBORNE MINE NEUTRALIZATION SYSTEMS .....		22,249				22,249
<b>SPARES AND REPAIR PARTS</b>							
043	SPARES AND REPAIR PARTS .....		135,688		-5,000		130,688
	Unjustified program cost growth .....				[-5,000]		
	<b>TOTAL WEAPONS PROCUREMENT, NAVY .....</b>	<b>1,645</b>	<b>3,702,393</b>	<b>272</b>	<b>175,200</b>	<b>1,917</b>	<b>3,877,593</b>
<b>PROCUREMENT OF AMMO, NAVY &amp; MC</b>							
<b>NAVY AMMUNITION</b>							
001	GENERAL PURPOSE BOMBS .....		79,871				79,871
002	JDAM .....	3,688	87,900			3,688	87,900
003	AIRBORNE ROCKETS, ALL TYPES .....		151,431				151,431
004	MACHINE GUN AMMUNITION .....		11,344				11,344
005	PRACTICE BOMBS .....		49,471				49,471
006	CARTRIDGES & CART ACTUATED DEVICES .....		56,227				56,227
007	AIR EXPENDABLE COUNTERMEASURES .....		66,382				66,382
008	JATOS .....		2,907				2,907
009	5 INCH/54 GUN AMMUNITION .....		72,657				72,657
010	INTERMEDIATE CALIBER GUN AMMUNITION .....		33,613				33,613
011	OTHER SHIP GUN AMMUNITION .....		42,142				42,142
012	SMALL ARMS & LANDING PARTY AMMO .....		49,888				49,888

013	PYROTECHNIC AND DEMOLITION .....	10,931			10,931
015	AMMUNITION LESS THAN \$5 MILLION .....	1,106			1,106
	<b>MARINE CORPS AMMUNITION</b>				
019	MORTARS .....	28,266			28,266
021	DIRECT SUPPORT MUNITIONS .....	63,664			63,664
022	INFANTRY WEAPONS AMMUNITION .....	59,295			59,295
026	COMBAT SUPPORT MUNITIONS .....	31,577			31,577
028	AMMO MODERNIZATION .....	15,001			15,001
029	ARTILLERY MUNITIONS .....	86,297			86,297
030	ITEMS LESS THAN \$5 MILLION .....	6,239			6,239
	<b>TOTAL PROCUREMENT OF AMMO, NAVY &amp; MC .....</b>	<b>3,688</b>	<b>1,006,209</b>	<b>3,688</b>	<b>1,006,209</b>
	<b>SHIPBUILDING AND CONVERSION, NAVY</b>				
	<b>FLEET BALLISTIC MISSILE SHIPS</b>				
001	ADVANCE PROCUREMENT (CY) .....	3,005,330		82,700	3,088,030
	Accelerated Advance Procurement .....			[150,000]	
	Forward financed in the FY18 Omnibus for the foundry propeller center			[-19,000]	
	Ordnance Early to Need .....			[-48,300]	
	<b>OTHER WARSHIPS</b>				
002	CARRIER REPLACEMENT PROGRAM .....	1,598,181	1	-49,100	1,549,081
	Authorize CVN81—One ship .....		[1]		
	Excess change order rate .....			[-49,100]	
004	VIRGINIA CLASS SUBMARINE .....	2	4,373,382	938,000	2
	EOQ AP for submarine in FY 2022 and 2023 .....			[1,003,000]	
	Excess change order rate .....			[-20,000]	
	Forward financed in the FY18 Omnibus .....			[-45,000]	
005	ADVANCE PROCUREMENT (CY) .....	2,796,401			2,796,401
007	ADVANCE PROCUREMENT (CY) .....	449,597			449,597
008	DDG 1000 .....	270,965			270,965
009	DDG-51 .....	3	5,253,327	-312,000	3
	DDG Flight III Multiyear Procurement Savings .....			[-150,000]	
	Excessive Basic Construction Unit Cost Growth .....			[-162,000]	

**SEC. 4101. PROCUREMENT**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
010	ADVANCE PROCUREMENT (CY) .....		391,928				391,928
011	LITTORAL COMBAT SHIP .....	1	646,244	2	950,000	3	1,596,244
	Program Increase—Two ships .....			[2]	[950,000]		
	<b>AMPHIBIOUS SHIPS</b>						
012A	ADVANCE PROCUREMENT (CY) .....				150,000		150,000
	EOQ for LPD Flight II Multi-year Procurement .....				[150,000]		
013	EXPEDITIONARY SEA BASE (ESB) .....	1	650,000		-20,000	1	630,000
	Accelerated contracts learning curve .....				[-20,000]		
	<b>AUXILIARIES, CRAFT AND PRIOR YR PROGRAM COST</b>						
016	TAO FLEET OILER .....	2	977,104		-20,000	2	957,104
	Accelerated contracts learning curve .....				[-20,000]		
017	ADVANCE PROCUREMENT (CY) .....		75,046				75,046
018	TOWING, SALVAGE, AND RESCUE SHIP (ATS) .....	1	80,517		-5,000	1	75,517
	Accelerated contracts learning curve .....				[-5,000]		
020	LCU 1700 .....	2	41,520			2	41,520
021	OUTFITTING .....		634,038		-45,000		589,038
	Outfitting and Post Delivery early to need .....				[-45,000]		
022	SHIP TO SHORE CONNECTOR .....	5	325,375	3	182,500	8	507,875
	Program Increase—Three vessels .....			[3]	[182,500]		
023	SERVICE CRAFT .....		72,062				72,062
024	LCAC SLEP .....	1	23,321			1	23,321
028	COMPLETION OF PY SHIPBUILDING PROGRAMS .....		207,099				207,099
	<b>TOTAL SHIPBUILDING AND CONVERSION, NAVY</b> .....	<b>18</b>	<b>21,871,437</b>	<b>6</b>	<b>1,852,100</b>	<b>24</b>	<b>23,723,537</b>
	<b>OTHER PROCUREMENT, NAVY</b>						
	<b>SHIP PROPULSION EQUIPMENT</b>						

001	SURFACE POWER EQUIPMENT .....	19,700		19,700
	<b>GENERATORS</b>			
003	SURFACE COMBATANT HM&E .....	23,495		23,495
	<b>NAVIGATION EQUIPMENT</b>			
004	OTHER NAVIGATION EQUIPMENT .....	63,330		63,330
	<b>OTHER SHIPBOARD EQUIPMENT</b>			
005	SUB PERISCOPE, IMAGING AND SUPT EQUIP PROG .....	178,421		178,421
006	DDG MOD .....	487,999	103,200	591,199
	AWS Installation Unit Cost Growth .....		[-4,800]	
	Navy Unfunded Requirement .....		[43,000]	
	Program Increase—One additional Combat System .....		[65,000]	
007	FIREFIGHTING EQUIPMENT .....	28,143		28,143
008	COMMAND AND CONTROL SWITCHBOARD .....	2,248		2,248
009	LHA/LHD MIDLIFE .....	37,694		37,694
010	POLLUTION CONTROL EQUIPMENT .....	20,883		20,883
011	SUBMARINE SUPPORT EQUIPMENT .....	37,155		37,155
012	VIRGINIA CLASS SUPPORT EQUIPMENT .....	66,328		66,328
013	LCS CLASS SUPPORT EQUIPMENT .....	47,241		47,241
014	SUBMARINE BATTERIES .....	27,987		27,987
015	LPD CLASS SUPPORT EQUIPMENT .....	65,033		65,033
016	DDG 1000 CLASS SUPPORT EQUIPMENT .....	89,700		89,700
017	STRATEGIC PLATFORM SUPPORT EQUIP .....	22,254		22,254
018	DSSP EQUIPMENT .....	3,629		3,629
019	CG MODERNIZATION .....	276,446	-3,900	272,546
	Integrated Ship Controls Unit Cost Growth .....		[-3,900]	
020	LCAC .....	3,709		3,709
021	UNDERWATER EOD PROGRAMS .....	78,807	-30,400	48,407
	Insufficient transition strategy .....		[-30,400]	
022	ITEMS LESS THAN \$5 MILLION .....	126,865		126,865
023	CHEMICAL WARFARE DETECTORS .....	2,966		2,966
024	SUBMARINE LIFE SUPPORT SYSTEM .....	11,968		11,968
	<b>REACTOR PLANT EQUIPMENT</b>			



SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
025	REACTOR POWER UNITS .....		346,325		-346,325		0
	Early to need .....				[-346,325]		
026	REACTOR COMPONENTS .....		497,063				497,063
	<b>OCEAN ENGINEERING</b>						
027	DIVING AND SALVAGE EQUIPMENT .....		10,706				10,706
	<b>SMALL BOATS</b>						
028	STANDARD BOATS .....		49,771				49,771
	<b>PRODUCTION FACILITIES EQUIPMENT</b>						
029	OPERATING FORCES IPE .....		225,181				225,181
	<b>OTHER SHIP SUPPORT</b>						
031	LCS COMMON MISSION MODULES EQUIPMENT .....		46,732				46,732
032	LCS MCM MISSION MODULES .....		124,147				124,147
033	LCS ASW MISSION MODULES .....		57,294		-49,900		7,394
	Late test event for VDS and MFTA .....				[-49,900]		
034	LCS SUW MISSION MODULES .....		26,006		-11,000		15,006
	Surface to Surface MM Early to need .....				[-11,000]		
035	LCS IN-SERVICE MODERNIZATION .....		70,526				70,526
	<b>LOGISTIC SUPPORT</b>						
036	LSD MIDLIFE & MODERNIZATION .....		4,784				4,784
	<b>SHIP SONARS</b>						
037	SPQ-9B RADAR .....		20,309				20,309
038	AN/SQQ-89 SURF ASW COMBAT SYSTEM .....		115,459				115,459
039	SSN ACOUSTIC EQUIPMENT .....		318,189				318,189
040	UNDERSEA WARFARE SUPPORT EQUIPMENT .....		10,134				10,134
	<b>ASW ELECTRONIC EQUIPMENT</b>						
041	SUBMARINE ACOUSTIC WARFARE SYSTEM .....		23,815				23,815

042	SSTD .....	11,277		11,277
043	FIXED SURVEILLANCE SYSTEM .....	237,780	-30,000	207,780
	Forward financed in the FY18 Omnibus .....		[-30,000]	
044	SURTASS .....	57,872	-10,000	47,872
	Forward financed in the FY18 Omnibus for SURTASS-E .....		[-10,000]	
	<b>ELECTRONIC WARFARE EQUIPMENT</b>			
045	AN/SLQ-32 .....	420,344	-23,100	397,244
	Excess Ship Installation Unit Cost Growth .....		[-23,100]	
	<b>RECONNAISSANCE EQUIPMENT</b>			
046	SHIPBOARD IW EXPLOIT .....	220,883		220,883
047	AUTOMATED IDENTIFICATION SYSTEM (AIS) .....	4,028		4,028
	<b>OTHER SHIP ELECTRONIC EQUIPMENT</b>			
048	COOPERATIVE ENGAGEMENT CAPABILITY .....	44,173	-1,600	42,573
	Excess Production Engineering Support .....		[-1,600]	
049	NAVAL TACTICAL COMMAND SUPPORT SYSTEM (NTCSS) .....	10,991		10,991
050	ATDLS .....	34,526		34,526
051	NAVY COMMAND AND CONTROL SYSTEM (NCCS) .....	3,769		3,769
052	MINESWEEPING SYSTEM REPLACEMENT .....	35,709		35,709
053	SHALLOW WATER MCM .....	8,616		8,616
054	NAVSTAR GPS RECEIVERS (SPACE) .....	10,703		10,703
055	AMERICAN FORCES RADIO AND TV SERVICE .....	2,626		2,626
056	STRATEGIC PLATFORM SUPPORT EQUIP .....	9,467		9,467
	<b>AVIATION ELECTRONIC EQUIPMENT</b>			
057	ASHORE ATC EQUIPMENT .....	70,849		70,849
058	AFLOAT ATC EQUIPMENT .....	47,890		47,890
059	ID SYSTEMS .....	26,163		26,163
060	JOINT PRECISION APPROACH AND LANDING SYSTEM ( .....	38,094		38,094
061	NAVAL MISSION PLANNING SYSTEMS .....	11,966		11,966
	<b>OTHER SHORE ELECTRONIC EQUIPMENT</b>			
062	TACTICAL/MOBILE C4I SYSTEMS .....	42,010		42,010
063	DCGS-N .....	12,896		12,896
064	CANES .....	423,027		423,027

SEC. 4101. PROCUREMENT  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
065	RADIAC .....		8,175				8,175
066	CANES-INTELL .....		54,465				54,465
067	GPETE .....		5,985				5,985
068	MASF .....		5,413				5,413
069	INTEG COMBAT SYSTEM TEST FACILITY .....		6,251				6,251
070	EMI CONTROL INSTRUMENTATION .....		4,183				4,183
071	ITEMS LESS THAN \$5 MILLION .....		148,350				148,350
	<b>SHIPBOARD COMMUNICATIONS</b>						
072	SHIPBOARD TACTICAL COMMUNICATIONS .....		45,450				45,450
073	SHIP COMMUNICATIONS AUTOMATION .....		105,087				105,087
074	COMMUNICATIONS ITEMS UNDER \$5M .....		41,123				41,123
	<b>SUBMARINE COMMUNICATIONS</b>						
075	SUBMARINE BROADCAST SUPPORT .....		30,897				30,897
076	SUBMARINE COMMUNICATION EQUIPMENT .....		78,580				78,580
	<b>SATELLITE COMMUNICATIONS</b>						
077	SATELLITE COMMUNICATIONS SYSTEMS .....		41,205				41,205
078	NAVY MULTIBAND TERMINAL (NMT) .....		113,885				113,885
	<b>SHORE COMMUNICATIONS</b>						
079	JOINT COMMUNICATIONS SUPPORT ELEMENT (JCSE) .....		4,292				4,292
	<b>CRYPTOGRAPHIC EQUIPMENT</b>						
080	INFO SYSTEMS SECURITY PROGRAM (ISSP) .....		153,526				153,526
081	MIO INTEL EXPLOITATION TEAM .....		951				951
	<b>CRYPTOLOGIC EQUIPMENT</b>						
082	CRYPTOLOGIC COMMUNICATIONS EQUIP .....		14,209				14,209
	<b>OTHER ELECTRONIC SUPPORT</b>						
086	COAST GUARD EQUIPMENT .....		40,713				40,713

	<b>SONOBUOYS</b>			
088	SONOBUOYS—ALL TYPES .....	177,891	38,300	216,191
	Navy Unfunded Requirement .....		[38,300]	
	<b>AIRCRAFT SUPPORT EQUIPMENT</b>			
089	WEAPONS RANGE SUPPORT EQUIPMENT .....	93,864		93,864
090	AIRCRAFT SUPPORT EQUIPMENT .....	111,724		111,724
091	ADVANCED ARRESTING GEAR (AAG) .....	11,054		11,054
092	METEOROLOGICAL EQUIPMENT .....	21,072		21,072
093	DCRS/DPL .....	656		656
094	AIRBORNE MINE COUNTERMEASURES .....	11,299		11,299
095	LAMPS EQUIPMENT .....	594		594
096	AVIATION SUPPORT EQUIPMENT .....	39,374		39,374
097	UMCS-UNMAN CARRIER AVIATION(UCA)MISSION CNTRL .....	35,405		35,405
	<b>SHIP GUN SYSTEM EQUIPMENT</b>			
098	SHIP GUN SYSTEMS EQUIPMENT .....	5,337		5,337
	<b>SHIP MISSILE SYSTEMS EQUIPMENT</b>			
099	SHIP MISSILE SUPPORT EQUIPMENT .....	213,090	-5,000	208,090
	Unjustified Stalker Growth .....		[-5,000]	
100	TOMAHAWK SUPPORT EQUIPMENT .....	92,890		92,890
	<b>FBM SUPPORT EQUIPMENT</b>			
101	STRATEGIC MISSILE SYSTEMS EQUIP .....	271,817		271,817
	<b>ASW SUPPORT EQUIPMENT</b>			
102	SSN COMBAT CONTROL SYSTEMS .....	129,501	-5,500	124,001
	Excessive Unit Cost Growth for Install .....		[-5,500]	
103	ASW SUPPORT EQUIPMENT .....	19,436		19,436
	<b>OTHER ORDNANCE SUPPORT EQUIPMENT</b>			
104	EXPLOSIVE ORDNANCE DISPOSAL EQUIP .....	14,258		14,258
105	ITEMS LESS THAN \$5 MILLION .....	5,378		5,378
	<b>OTHER EXPENDABLE ORDNANCE</b>			
106	SUBMARINE TRAINING DEVICE MODS .....	65,543		65,543
107	SURFACE TRAINING EQUIPMENT .....	230,425		230,425
	<b>CIVIL ENGINEERING SUPPORT EQUIPMENT</b>			

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
108	PASSENGER CARRYING VEHICLES .....		4,867				4,867
109	GENERAL PURPOSE TRUCKS .....		2,674				2,674
110	CONSTRUCTION & MAINTENANCE EQUIP .....		20,994				20,994
111	FIRE FIGHTING EQUIPMENT .....		17,189				17,189
112	TACTICAL VEHICLES .....		19,916				19,916
113	AMPHIBIOUS EQUIPMENT .....		7,400				7,400
114	POLLUTION CONTROL EQUIPMENT .....		2,713				2,713
115	ITEMS UNDER \$5 MILLION .....		35,540				35,540
116	PHYSICAL SECURITY VEHICLES .....		1,155				1,155
	<b>SUPPLY SUPPORT EQUIPMENT</b>						
117	SUPPLY EQUIPMENT .....		18,786				18,786
118	FIRST DESTINATION TRANSPORTATION .....		5,375				5,375
119	SPECIAL PURPOSE SUPPLY SYSTEMS .....		580,371				580,371
	<b>TRAINING DEVICES</b>						
120	TRAINING SUPPORT EQUIPMENT .....		3,400				3,400
121	TRAINING AND EDUCATION EQUIPMENT .....		24,283		-2,100		22,183
	Excess Production Support .....				[-2,100]		
	<b>COMMAND SUPPORT EQUIPMENT</b>						
122	COMMAND SUPPORT EQUIPMENT .....		66,681				66,681
123	MEDICAL SUPPORT EQUIPMENT .....		3,352				3,352
125	NAVAL MIP SUPPORT EQUIPMENT .....		1,984				1,984
126	OPERATING FORCES SUPPORT EQUIPMENT .....		15,131				15,131
127	C4ISR EQUIPMENT .....		3,576				3,576
128	ENVIRONMENTAL SUPPORT EQUIPMENT .....		31,902				31,902
129	PHYSICAL SECURITY EQUIPMENT .....		175,436				175,436
130	ENTERPRISE INFORMATION TECHNOLOGY .....		25,393				25,393

	<b>OTHER</b>				
133	NEXT GENERATION ENTERPRISE SERVICE .....	96,269			96,269
	<b>CLASSIFIED PROGRAMS</b>				
133A	CLASSIFIED PROGRAMS .....	15,681			15,681
	<b>SPARES AND REPAIR PARTS</b>				
134	SPARES AND REPAIR PARTS .....	326,838			326,838
	<b>TOTAL OTHER PROCUREMENT, NAVY .....</b>	<b>9,414,355</b>		<b>-377,325</b>	<b>9,037,030</b>
	<b>PROCUREMENT, MARINE CORPS</b>				
	<b>TRACKED COMBAT VEHICLES</b>				
001	AAV7A1 PIP .....	156,249		-20,000	136,249
	Program reduction .....			[-20,000]	
002	AMPHIBIOUS COMBAT VEHICLE 1.1 .....	167,478	30		167,478
003	LAV PIP .....	43,701			43,701
	<b>ARTILLERY AND OTHER WEAPONS</b>				
005	155MM LIGHTWEIGHT TOWED HOWITZER .....	47,158			47,158
006	ARTILLERY WEAPONS SYSTEM .....	134,246			134,246
007	WEAPONS AND COMBAT VEHICLES UNDER \$5 MILLION .....	40,687			40,687
	<b>OTHER SUPPORT</b>				
008	MODIFICATION KITS .....	22,904			22,904
	<b>GUIDED MISSILES</b>				
009	GROUND BASED AIR DEFENSE .....	18,334			18,334
010	ANTI-ARMOR MISSILE-JAVELIN .....	3,020	5		3,020
011	FAMILY ANTI-ARMOR WEAPON SYSTEMS (FOAAWS) .....	13,760			13,760
012	ANTI-ARMOR MISSILE-TOW .....	59,702			59,702
	<b>COMMAND AND CONTROL SYSTEMS</b>				
013	COMMON AVIATION COMMAND AND CONTROL SYSTEM (C .....	35,467			35,467
	<b>REPAIR AND TEST EQUIPMENT</b>				
014	REPAIR AND TEST EQUIPMENT .....	46,081		-4,600	41,481
	Program Reduction .....			[-4,600]	
	<b>OTHER SUPPORT (TEL)</b>				
015	MODIFICATION KITS .....	971			971

**SEC. 4101. PROCUREMENT**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
<b>COMMAND AND CONTROL SYSTEM (NON-TEL)</b>							
016	ITEMS UNDER \$5 MILLION (COMM & ELEC) .....		69,203		-7,000		62,203
	Program Reduction .....				[-7,000]		
017	AIR OPERATIONS C2 SYSTEMS .....		14,269				14,269
<b>RADAR + EQUIPMENT (NON-TEL)</b>							
018	RADAR SYSTEMS .....		6,694				6,694
019	GROUND/AIR TASK ORIENTED RADAR (G/ATOR) .....	6	224,969			6	224,969
<b>INTELL/COMM EQUIPMENT (NON-TEL)</b>							
021	GCSS-MC .....		1,187				1,187
022	FIRE SUPPORT SYSTEM .....		60,189				60,189
023	INTELLIGENCE SUPPORT EQUIPMENT .....		73,848		-6,000		67,848
	Unjustified request for TSCS Inc 1 .....				[-6,000]		
025	UNMANNED AIR SYSTEMS (INTEL) .....		3,848				3,848
026	DCGS-MC .....		16,081				16,081
<b>OTHER SUPPORT (NON-TEL)</b>							
030	NEXT GENERATION ENTERPRISE NETWORK (NGEN) .....		87,120				87,120
031	COMMON COMPUTER RESOURCES .....		68,914				68,914
032	COMMAND POST SYSTEMS .....		124,838				124,838
033	RADIO SYSTEMS .....		279,680		-15,000		264,680
	Program reduction .....				[-15,000]		
034	COMM SWITCHING & CONTROL SYSTEMS .....		36,649				36,649
035	COMM & ELEC INFRASTRUCTURE SUPPORT .....		83,971				83,971
<b>CLASSIFIED PROGRAMS</b>							
035A	CLASSIFIED PROGRAMS .....		3,626				3,626
<b>ADMINISTRATIVE VEHICLES</b>							
036	COMMERCIAL CARGO VEHICLES .....		25,441				25,441

<b>TACTICAL VEHICLES</b>						
037	MOTOR TRANSPORT MODIFICATIONS .....	11,392				11,392
038	JOINT LIGHT TACTICAL VEHICLE .....	607,011	214	69,000	214	676,011
	Optimize production profile .....		[214]	[69,000]		
039	FAMILY OF TACTICAL TRAILERS .....	2,393				2,393
040	TRAILERS .....	6,540				6,540
<b>ENGINEER AND OTHER EQUIPMENT</b>						
041	ENVIRONMENTAL CONTROL EQUIP ASSORT .....	496				496
042	TACTICAL FUEL SYSTEMS .....	54				54
043	POWER EQUIPMENT ASSORTED .....	21,062				21,062
044	AMPHIBIOUS SUPPORT EQUIPMENT .....	5,290				5,290
045	EOD SYSTEMS .....	47,854				47,854
<b>MATERIALS HANDLING EQUIPMENT</b>						
046	PHYSICAL SECURITY EQUIPMENT .....	28,306				28,306
<b>GENERAL PROPERTY</b>						
047	FIELD MEDICAL EQUIPMENT .....	33,513				33,513
048	TRAINING DEVICES .....	52,040				52,040
049	FAMILY OF CONSTRUCTION EQUIPMENT .....	36,156		3,500		39,656
	GPS Grade Control Systems (GCS) and Survey Sets .....			[3,500]		
050	FAMILY OF INTERNALLY TRANSPORTABLE VEH (ITV) .....	606				606
<b>OTHER SUPPORT</b>						
051	ITEMS LESS THAN \$5 MILLION .....	11,608				11,608
<b>SPARES AND REPAIR PARTS</b>						
053	SPARES AND REPAIR PARTS .....	25,804				25,804
	<b>TOTAL PROCUREMENT, MARINE CORPS .....</b>	<b>41</b>	<b>2,860,410</b>	<b>214</b>	<b>19,900</b>	<b>2,880,310</b>
<b>AIRCRAFT PROCUREMENT, AIR FORCE</b>						
<b>TACTICAL FORCES</b>						
001	F-35 .....	48	4,261,021	-83,340	48	4,177,681
	Production Efficiencies .....			[-83,340]		
002	ADVANCE PROCUREMENT (CY) .....		406,000			406,000
<b>OTHER COMBAT AIRCRAFT</b>						



SEC. 4101. PROCUREMENT  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
003	C-135B .....	2	222,176	-2	-222,176		0
	Ahead of need .....			[-2]	[-222,176]		
	<b>TACTICAL AIRLIFT</b>						
004	C-130J .....		35,858				35,858
005	KC-46A TANKER .....	15	2,559,911	-3	-549,000	12	2,010,911
	Forward financed in the FY18 Omnibus—three aircraft .....			[-3]	[-499,000]		
	Interim contractor support early to need .....				[-50,000]		
	<b>OTHER AIRLIFT</b>						
007	HC-130J .....	1	129,437			1	129,437
009	MC-130J .....	6	770,201		-100,000	6	670,201
	Interim supply support costs unjustified growth .....				[-100,000]		
010	ADVANCE PROCUREMENT (CY) .....		218,000				218,000
	<b>HELICOPTERS</b>						
012	COMBAT RESCUE HELICOPTER .....	10	680,201			10	680,201
	<b>MISSION SUPPORT AIRCRAFT</b>						
014	CIVIL AIR PATROL A/C .....	4	2,719			4	2,719
	<b>OTHER AIRCRAFT</b>						
015	TARGET DRONES .....	48	139,053			48	139,053
016	COMPASS CALL MODS .....	1	108,113			1	108,113
018	MQ-9 .....	8	221,707	2	42,800	10	264,507
	Program increase .....			[2]	[42,800]		
	<b>STRATEGIC AIRCRAFT</b>						
020	B-2A .....		60,301		-23,000		37,301
	MOP modifications excess to need .....				[-23,000]		
021	B-1B .....		51,290				51,290
022	B-52 .....		105,519		-14,700		90,819

	Technical adjustment (move to R-173) .....		[−14,700]	
	<b>TACTICAL AIRCRAFT</b>			
024	A-10 .....	98,720	65,000	163,720
	Additional A-10 wing replacements .....		[65,000]	
025	C-130J .....	10,831		10,831
026	F-15 .....	548,109		548,109
027	F-16 .....	324,312		324,312
028	F-16 .....	11		11
029	F-22A .....	250,710		250,710
031	F-35 MODIFICATIONS .....	247,271		247,271
032	F-15 EPAW .....	147,685	67,200	214,885
	Eagle Passive Active Warning and Survivability System (EPAWSS) .....		[67,200]	
033	INCREMENT 3.2B .....	9,007		9,007
035	KC-46A TANKER .....	8,547		8,547
	<b>AIRLIFT AIRCRAFT</b>			
036	C-5 .....	77,845		77,845
038	C-17A .....	102,121		102,121
039	C-21 .....	17,516		17,516
040	C-32A .....	4,537		4,537
041	C-37A .....	419		419
	<b>TRAINER AIRCRAFT</b>			
043	GLIDER MODS .....	137		137
044	T-6 .....	22,550		22,550
045	T-1 .....	21,952		21,952
046	T-38 .....	70,623		70,623
	<b>OTHER AIRCRAFT</b>			
047	U-2 MODS .....	48,774		48,774
048	KC-10A (ATCA) .....	11,104		11,104
049	C-12 .....	4,900		4,900
050	VC-25A MOD .....	36,938		36,938
051	C-40 .....	251		251
052	C-130 .....	22,094	129,000	151,094

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
	Program Increase--eight blade proppeler upgrade (88 kits) .....				[55,000]		
	Program Increase--engine enhancement program (88 kits) .....				[74,000]		
053	C-130J MODS .....		132,045				132,045
054	C-135 .....		113,076				113,076
055	OC-135B .....		5,913				5,913
056	COMPASS CALL MODS .....		49,885				49,885
057	COMBAT FLIGHT INSPECTION (CFIN) .....		499				499
058	RC-135 .....		394,532				394,532
059	E-3 .....		133,906				133,906
060	E-4 .....		67,858				67,858
061	E-8 .....		9,919				9,919
062	AIRBORNE WARNING AND CNTR SYS (AWACS) 40/45 .....		57,780				57,780
063	FAMILY OF BEYOND LINE-OF-SIGHT TERMINALS .....		14,293				14,293
064	H-1 .....		2,940				2,940
065	H-60 .....		55,466				55,466
066	RQ-4 MODS .....		23,715	1	105,000	1	128,715
	EQ-4 BACN aircraft increase .....			[1]	[105,000]		
067	HC/MC-130 MODIFICATIONS .....		37,754				37,754
068	OTHER AIRCRAFT .....		62,010				62,010
069	MQ-9 MODS .....		171,548				171,548
071	CV-22 MODS .....		60,416				60,416
	<b>AIRCRAFT SPARES AND REPAIR PARTS</b>						
072	INITIAL SPARES/REPAIR PARTS .....		956,408		60,000		1,016,408
	F-35A Spares .....				[60,000]		
	<b>COMMON SUPPORT EQUIPMENT</b>						
073	AIRCRAFT REPLACEMENT SUPPORT EQUIP .....		81,241				81,241

	<b>POST PRODUCTION SUPPORT</b>					
076	B-2A .....	1,763				1,763
077	B-2B .....	35,861				35,861
078	B-52 .....	12,819				12,819
079	C-17A .....	10,114				10,114
081	F-15 .....	2,545				2,545
083	F-16 .....	11,718		-4,000		7,718
	F-16 Line Shutdown .....			[-4,000]		
084	F-22A .....	14,489				14,489
085	OTHER AIRCRAFT .....	9,928				9,928
086	RQ-4 POST PRODUCTION CHARGES .....	40,641		-37,300		3,341
	RQ-4 Post Production Support .....			[-37,300]		
	<b>INDUSTRIAL PREPAREDNESS</b>					
088	INDUSTRIAL RESPONSIVENESS .....	17,378				17,378
	<b>WAR CONSUMABLES</b>					
090	WAR CONSUMABLES .....	29,342				29,342
	<b>OTHER PRODUCTION CHARGES</b>					
091	OTHER PRODUCTION CHARGES .....	1,502,386		-109,000		1,393,386
	Classified program adjustment .....			[-109,000]		
	<b>CLASSIFIED PROGRAMS</b>					
095	CLASSIFIED PROGRAMS .....	28,278				28,278
	<b>TOTAL AIRCRAFT PROCUREMENT, AIR FORCE</b> .....	<b>143</b>	<b>16,206,937</b>	<b>-2</b>	<b>-673,516</b>	<b>141</b>
						<b>15,533,421</b>
	<b>MISSILE PROCUREMENT, AIR FORCE</b>					
	<b>MISSILE REPLACEMENT EQUIPMENT—BALLISTIC</b>					
001	MISSILE REPLACEMENT EQ-BALLISTIC .....	36,786				36,786
	<b>TACTICAL</b>					
002	JOINT AIR-SURFACE STANDOFF MISSILE .....	312	430,708		312	430,708
003	LRASMO .....	12	44,185		12	44,185
004	SIDEWINDER (AIM-9X) .....	256	121,253		256	121,253
005	AMRAAM .....	220	337,886		220	337,886
006	PREDATOR HELLFIRE MISSILE .....	1,338	113,765		1,338	113,765

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
007	SMALL DIAMETER BOMB .....	2,917	105,034			2,917	105,034
008	SMALL DIAMETER BOMB II .....	510	100,861			510	100,861
	<b>INDUSTRIAL FACILITIES</b>						
009	INDUSTR'L PREPAREDNS/POL PREVENTION .....		787				787
	<b>CLASS IV</b>						
010	ICBM FUZE MOD .....		15,767				15,767
011	ADVANCE PROCUREMENT (CY) .....		4,100				4,100
012	MM III MODIFICATIONS .....		129,199				129,199
013	AGM-65D MAVERICK .....		288				288
014	AIR LAUNCH CRUISE MISSILE (ALCM) .....		47,632				47,632
	<b>MISSILE SPARES AND REPAIR PARTS</b>						
016	REPLEN SPARES/REPAIR PARTS .....		97,481				97,481
	<b>SPECIAL PROGRAMS</b>						
018	SPECIAL UPDATE PROGRAMS .....		188,539				188,539
	<b>CLASSIFIED PROGRAMS</b>						
019	CLASSIFIED PROGRAMS .....		895,183				895,183
	<b>TOTAL MISSILE PROCUREMENT, AIR FORCE</b> .....	<b>5,565</b>	<b>2,669,454</b>			<b>5,565</b>	<b>2,669,454</b>
	<b>SPACE PROCUREMENT, AIR FORCE</b>						
	<b>SPACE PROGRAMS</b>						
001	ADVANCED EHF .....		29,829				29,829
002	AF SATELLITE COMM SYSTEM .....		35,400				35,400
003	COUNTERSPACE SYSTEMS .....		1,121				1,121
004	FAMILY OF BEYOND LINE-OF-SIGHT TERMINALS .....		27,867				27,867
005	WIDEBAND GAFILLER SATELLITES(SPACE) .....		61,606				61,606
006	GENERAL INFORMATION TECH—SPACE .....		3,425				3,425

007	GPS III SPACE SEGMENT .....	69,386		5,000		74,386
	GPS backup technology demonstration .....			[5,000]		
008	GLOBAL POSITIONING (SPACE) .....	2,181				2,181
009	INTEG BROADCAST SERV .....	16,445				16,445
010	SPACEBORNE EQUIP (COMSEC) .....	31,895				31,895
012	MILSATCOM .....	11,265				11,265
013	EVOLVED EXPENDABLE LAUNCH CAPABILITY .....	709,981				709,981
014	EVOLVED EXPENDABLE LAUNCH VEH(SPACE) .....	994,555	5		5	994,555
015	SBIR HIGH (SPACE) .....	138,397				138,397
017	NUDET DETECTION SYSTEM .....	7,705				7,705
018	ROCKET SYSTEMS LAUNCH PROGRAM .....	47,609				47,609
019	SPACE FENCE .....	51,361				51,361
020	SPACE MODS .....	148,065				148,065
021	SPACELIFT RANGE SYSTEM SPACE .....	117,637				117,637
	<b>SSPARES</b>					
022	SPARES AND REPAIR PARTS .....	21,812				21,812
	<b>TOTAL SPACE PROCUREMENT, AIR FORCE .....</b>	<b>2,527,542</b>	<b>5</b>	<b>5,000</b>	<b>5</b>	<b>2,532,542</b>
	<b>PROCUREMENT OF AMMUNITION, AIR FORCE</b>					
	<b>ROCKETS</b>					
001	ROCKETS .....	345,911				345,911
	<b>CARTRIDGES</b>					
002	CARTRIDGES .....	163,840				163,840
	<b>BOMBS</b>					
003	PRACTICE BOMBS .....	20,876				20,876
004	GENERAL PURPOSE BOMBS .....	259,308				259,308
005	MASSIVE ORDNANCE PENETRATOR (MOP) .....	38,111				38,111
006	JOINT DIRECT ATTACK MUNITION .....	234,198	7,899		7,899	234,198
007	B61 .....	109,292	250		250	109,292
008	ADVANCE PROCUREMENT (CY) .....	52,731				52,731
	<b>OTHER ITEMS</b>					
009	CAD/PAD .....	51,455				51,455

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
010	EXPLOSIVE ORDNANCE DISPOSAL (EOD) .....		6,038				6,038
011	SPARES AND REPAIR PARTS .....		524				524
012	MODIFICATIONS .....		1,270				1,270
013	ITEMS LESS THAN \$5,000,000 .....		4,604				4,604
	<b>FLARES</b>						
015	FLARES .....		125,286				125,286
	<b>FUZES</b>						
016	FUZES .....		109,358				109,358
	<b>SMALL ARMS</b>						
017	SMALL ARMS .....		64,502		-5,000		59,502
	Program decrease .....				[-5,000]		
	<b>TOTAL PROCUREMENT OF AMMUNITION, AIR FORCE .....</b>	<b>8,149</b>	<b>1,587,304</b>		<b>-5,000</b>	<b>8,149</b>	<b>1,582,304</b>
	<b>OTHER PROCUREMENT, AIR FORCE</b>						
	<b>PASSENGER CARRYING VEHICLES</b>						
001	PASSENGER CARRYING VEHICLES .....		6,949		-3,500		3,449
	Forward financed in the FY18 Omnibus .....				[-3,500]		
	<b>CARGO AND UTILITY VEHICLES</b>						
002	MEDIUM TACTICAL VEHICLE .....		36,002		-18,000		18,002
	Forward financed in the FY18 Omnibus .....				[-18,000]		
003	CAP VEHICLES .....		1,022				1,022
004	CARGO AND UTILITY VEHICLES .....		42,696		-21,000		21,696
	Forward financed in the FY18 Omnibus .....				[-21,000]		
	<b>SPECIAL PURPOSE VEHICLES</b>						
005	JOINT LIGHT TACTICAL VEHICLE .....		30,145				30,145
006	SECURITY AND TACTICAL VEHICLES .....		1,230				1,230

May 11, 2018 (12:14 a.m.)

007	SPECIAL PURPOSE VEHICLES .....	43,003	-21,000	22,003
	Forward financed in the FY18 Omnibus .....		[-21,000]	
	<b>FIRE FIGHTING EQUIPMENT</b>			
008	FIRE FIGHTING/CRASH RESCUE VEHICLES .....	23,328		23,328
	<b>MATERIALS HANDLING EQUIPMENT</b>			
009	MATERIALS HANDLING VEHICLES .....	11,537		11,537
	<b>BASE MAINTENANCE SUPPORT</b>			
010	RUNWAY SNOW REMOV AND CLEANING EQU .....	37,600		37,600
011	BASE MAINTENANCE SUPPORT VEHICLES .....	104,923	-52,000	52,923
	Forward financed in the FY18 Omnibus .....		[-52,000]	
	<b>COMM SECURITY EQUIPMENT(COMSEC)</b>			
012	COMSEC EQUIPMENT .....	114,372		114,372
	<b>INTELLIGENCE PROGRAMS</b>			
013	INTERNATIONAL INTEL TECH & ARCHITECTURES .....	8,290		8,290
014	INTELLIGENCE TRAINING EQUIPMENT .....	2,099		2,099
015	INTELLIGENCE COMM EQUIPMENT .....	37,415		37,415
	<b>ELECTRONICS PROGRAMS</b>			
016	AIR TRAFFIC CONTROL & LANDING SYS .....	57,937	-43,550	14,387
	D-RAPCON Cost Growth .....		[-43,550]	
018	BATTLE CONTROL SYSTEM—FIXED .....	3,012		3,012
019	THEATER AIR CONTROL SYS IMPROVEMEN .....	19,989		19,989
020	WEATHER OBSERVATION FORECAST .....	45,020		45,020
021	STRATEGIC COMMAND AND CONTROL .....	32,836		32,836
022	CHEYENNE MOUNTAIN COMPLEX .....	12,454		12,454
023	MISSION PLANNING SYSTEMS .....	14,263		14,263
025	INTEGRATED STRAT PLAN & ANALY NETWORK (ISPAN) .....	7,769		7,769
	<b>SPCL COMM-ELECTRONICS PROJECTS</b>			
026	GENERAL INFORMATION TECHNOLOGY .....	40,450		40,450
027	AF GLOBAL COMMAND & CONTROL SYS .....	6,619		6,619
028	MOBILITY COMMAND AND CONTROL .....	10,192		10,192
029	AIR FORCE PHYSICAL SECURITY SYSTEM .....	159,313	-15,900	143,413
	Underexecution .....		[-15,900]	



SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
030	COMBAT TRAINING RANGES .....		132,675				132,675
031	MINIMUM ESSENTIAL EMERGENCY COMM N .....		140,875				140,875
032	WIDE AREA SURVEILLANCE (WAS) .....		92,104				92,104
033	C3 COUNTERMEASURES .....		45,152				45,152
034	GCSS-AF FOS .....		483				483
035	DEFENSE ENTERPRISE ACCOUNTING & MGT SYS .....		802				802
036	MAINTENANCE REPAIR & OVERHAUL INITIATIVE .....		12,207				12,207
037	THEATER BATTLE MGT C2 SYSTEM .....		7,644				7,644
038	AIR & SPACE OPERATIONS CENTER (AOC) .....		40,066				40,066
	<b>AIR FORCE COMMUNICATIONS</b>						
041	BASE INFORMATION TRANSP T INFRAS T (BITI) WIRED .....		22,357				22,357
042	AFNET .....		102,836				102,836
043	JOINT COMMUNICATIONS SUPPORT ELEMENT (JCSE) .....		3,145				3,145
044	USCENTCOM .....		13,194				13,194
	<b>ORGANIZATION AND BASE</b>						
045	TACTICAL C-E EQUIPMENT .....		161,231				161,231
047	RADIO EQUIPMENT .....		12,142				12,142
048	CCTV/AUDIOVISUAL EQUIPMENT .....		6,505				6,505
049	BASE COMM INFRASTRUCTURE .....		169,404				169,404
	<b>MODIFICATIONS</b>						
050	COMM ELECT MODS .....		10,654				10,654
	<b>PERSONAL SAFETY &amp; RESCUE EQUIP</b>						
051	PERSONAL SAFETY AND RESCUE EQUIPMENT .....		51,906				51,906
	<b>DEPOT PLANT+MTRLS HANDLING EQ</b>						
052	MECHANIZED MATERIAL HANDLING EQUIP .....		88,298		-7,500		80,798
	Program reduction .....				[-7,500]		

<b>BASE SUPPORT EQUIPMENT</b>				
053	BASE PROCURED EQUIPMENT .....	17,031	5,000	22,031
	Civil Engineers Construction, Surveying, and Mapping Equipment .....		[5,000]	
054	ENGINEERING AND EOD EQUIPMENT .....	82,635		82,635
055	MOBILITY EQUIPMENT .....	9,549	-3,000	6,549
	Program reduction .....		[-3,000]	
056	BASE MAINTENANCE AND SUPPORT EQUIPMENT .....	24,005	-7,000	17,005
	Program reduction .....		[-7,000]	
<b>SPECIAL SUPPORT PROJECTS</b>				
058	DARP RC135 .....	26,262		26,262
059	DCGS-AF .....	448,290	-47,800	400,490
	Forward financed in the FY18 Omnibus .....		[-35,000]	
	Program decrease .....		[-12,800]	
061	SPECIAL UPDATE PROGRAM .....	913,813		913,813
<b>CLASSIFIED PROGRAMS</b>				
062	CLASSIFIED PROGRAMS .....	17,258,069		17,258,069
<b>SPARES AND REPAIR PARTS</b>				
063	SPARES AND REPAIR PARTS .....	86,365		86,365
	<b>TOTAL OTHER PROCUREMENT, AIR FORCE .....</b>	<b>20,890,164</b>	<b>-235,250</b>	<b>20,654,914</b>
<b>PROCUREMENT, DEFENSE-WIDE</b>				
<b>MAJOR EQUIPMENT, OSD</b>				
043	MAJOR EQUIPMENT, OSD .....	35,295		35,295
<b>MAJOR EQUIPMENT, NSA</b>				
042	INFORMATION SYSTEMS SECURITY PROGRAM (ISSP) .....	5,403		5,403
<b>MAJOR EQUIPMENT, WHS</b>				
046	MAJOR EQUIPMENT, WHS .....	497		497
<b>MAJOR EQUIPMENT, DISA</b>				
007	INFORMATION SYSTEMS SECURITY .....	21,590		21,590
008	TELEPORT PROGRAM .....	33,905		33,905
009	ITEMS LESS THAN \$5 MILLION .....	27,886		27,886
010	NET CENTRIC ENTERPRISE SERVICES (NCES) .....	1,017		1,017

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
011	DEFENSE INFORMATION SYSTEM NETWORK .....		150,674				150,674
013	WHITE HOUSE COMMUNICATION AGENCY .....		94,610				94,610
014	SENIOR LEADERSHIP ENTERPRISE .....		197,246				197,246
015	JOINT REGIONAL SECURITY STACKS (JRSS) .....		140,338				140,338
016	JOINT SERVICE PROVIDER .....		107,182				107,182
	<b>MAJOR EQUIPMENT, DLA</b>						
018	MAJOR EQUIPMENT .....		5,225				5,225
	<b>MAJOR EQUIPMENT, DSS</b>						
021	MAJOR EQUIPMENT .....		1,196				1,196
	<b>MAJOR EQUIPMENT, DCAA</b>						
001	ITEMS LESS THAN \$5 MILLION .....		2,542				2,542
	<b>MAJOR EQUIPMENT, TJS</b>						
044	MAJOR EQUIPMENT, TJS .....		4,360				4,360
045	MAJOR EQUIPMENT, TJS—CE2T2 .....		904				904
	<b>MAJOR EQUIPMENT, MISSILE DEFENSE AGENCY</b>						
026	THAAD .....	82	874,068			82	874,068
027	GROUND BASED MIDCOURSE .....	14	409,000			14	409,000
028	ADVANCE PROCUREMENT (CY) .....		115,000				115,000
029	AEGIS BMD .....	43	593,488			43	593,488
030	ADVANCE PROCUREMENT (CY) .....		115,206				115,206
031	BMDS AN/TPY-2 RADARS .....		13,185				13,185
032	ISRAELI PROGRAMS .....		80,000				80,000
033	SHORT RANGE BALLISTIC MISSILE DEFENSE (SRBMD) .....		50,000				50,000
034	AEGIS ASHORE PHASE III .....		15,000				15,000
035	IRON DOME .....		70,000				70,000
036	AEGIS BMD HARDWARE AND SOFTWARE .....	28	97,057			28	97,057

May 11, 2018 (12:14 a.m.)

	<b>MAJOR EQUIPMENT, DHRA</b>		
003	PERSONNEL ADMINISTRATION .....	10,630	10,630
	<b>MAJOR EQUIPMENT, DEFENSE THREAT REDUCTION AGENCY</b>		
023	VEHICLES .....	207	207
024	OTHER MAJOR EQUIPMENT .....	5,592	5,592
	<b>MAJOR EQUIPMENT, DODEA</b>		
020	AUTOMATION/EDUCATIONAL SUPPORT & LOGISTICS .....	1,723	1,723
	<b>MAJOR EQUIPMENT, DCMA</b>		
002	MAJOR EQUIPMENT .....	3,873	3,873
	<b>MAJOR EQUIPMENT, DMACT</b>		
019	MAJOR EQUIPMENT .....	13,106	13,106
	<b>CLASSIFIED PROGRAMS</b>		
046A	CLASSIFIED PROGRAMS .....	589,691	589,691
	<b>AVIATION PROGRAMS</b>		
050	ROTARY WING UPGRADES AND SUSTAINMENT .....	148,351	148,351
051	UNMANNED ISR .....	57,708	57,708
052	NON-STANDARD AVIATION .....	18,731	18,731
053	U-28 .....	32,301	32,301
054	MH-47 CHINOOK .....	131,033	131,033
055	CV-22 MODIFICATION .....	32,529	32,529
056	MQ-9 UNMANNED AERIAL VEHICLE .....	24,621	24,621
057	PRECISION STRIKE PACKAGE .....	226,965	226,965
058	AC/MC-130J .....	165,813	165,813
059	C-130 MODIFICATIONS .....	80,274	80,274
	<b>SHIPBUILDING</b>		
060	UNDERWATER SYSTEMS .....	136,723	136,723
	<b>AMMUNITION PROGRAMS</b>		
061	ORDNANCE ITEMS <\$5M .....	357,742	357,742
	<b>OTHER PROCUREMENT PROGRAMS</b>		
062	INTELLIGENCE SYSTEMS .....	85,699	85,699
063	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	17,863	17,863
064	OTHER ITEMS <\$5M .....	112,117	112,117

SEC. 4101. PROCUREMENT (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
065	COMBATANT CRAFT SYSTEMS .....		7,313				7,313
066	SPECIAL PROGRAMS .....		14,026				14,026
067	TACTICAL VEHICLES .....		88,608				88,608
068	WARRIOR SYSTEMS <\$5M .....		438,590		-5,200		433,390
	Link 16 handheld radios for USSOCOM .....				[12,800]		
	SAT Deployable Node .....				[-18,000]		
069	COMBAT MISSION REQUIREMENTS .....		19,408				19,408
070	GLOBAL VIDEO SURVEILLANCE ACTIVITIES .....		6,281				6,281
071	OPERATIONAL ENHANCEMENTS INTELLIGENCE .....		18,509				18,509
073	OPERATIONAL ENHANCEMENTS .....		367,433				367,433
	<b>CBDP</b>						
074	CHEMICAL BIOLOGICAL SITUATIONAL AWARENESS .....		166,418		-12,800		153,618
	Program decrease .....				[-12,800]		
075	CB PROTECTION & HAZARD MITIGATION .....		144,519				144,519
	<b>TOTAL PROCUREMENT, DEFENSE-WIDE .....</b>	<b>167</b>	<b>6,786,271</b>		<b>-18,000</b>	<b>167</b>	<b>6,768,271</b>
	<b>JOINT URGENT OPERATIONAL NEEDS FUND</b>						
	<b>JOINT URGENT OPERATIONAL NEEDS FUND</b>						
001	JOINT URGENT OPERATIONAL NEEDS FUND .....		100,025		-100,025		0
	Program decrease .....				[-100,025]		
	<b>TOTAL JOINT URGENT OPERATIONAL NEEDS FUND .....</b>		<b>100,025</b>		<b>-100,025</b>		<b>0</b>
	<b>TOTAL PROCUREMENT .....</b>	<b>30,077</b>	<b>130,526,043</b>	<b>22,177</b>	<b>3,061,849</b>	<b>52,254</b>	<b>133,587,892</b>

**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS.**

**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
<b>AIRCRAFT PROCUREMENT, ARMY</b>							
<b>FIXED WING</b>							
003	MQ-1 UAV .....	6	60,000			6	60,000
<b>ROTARY</b>							
011	UH-60 BLACKHAWK M MODEL (MYP) .....	1	21,246			1	21,246
014	CH-47 HELICOPTER .....	2	25,000			2	25,000
<b>MODIFICATION OF AIRCRAFT</b>							
017	MQ-1 PAYLOAD (MIP) .....		11,400				11,400
019	GRAY EAGLE MODS2 .....		32,000				32,000
020	MULTI SENSOR ABN RECON (MIP) .....		51,000				51,000
032	RQ-7 UAV MODS .....		50,868		-50,868		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-50,868]		
033	UAS MODS .....		3,402		-3,402		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-3,402]		
<b>GROUND SUPPORT AVIONICS</b>							
036	CMWS .....		84,387				84,387
037	COMMON INFRARED COUNTERMEASURES (CIRCM) .....		24,060				24,060
	<b>TOTAL AIRCRAFT PROCUREMENT, ARMY</b> .....	<b>9</b>	<b>363,363</b>		<b>-54,270</b>	<b>9</b>	<b>309,093</b>
<b>MISSILE PROCUREMENT, ARMY</b>							
<b>SURFACE-TO-AIR MISSILE SYSTEM</b>							
002	MSE MISSILE .....	61	260,000		-260,000	61	0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-260,000]		
<b>AIR-TO-SURFACE MISSILE SYSTEM</b>							

**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
005	HELLFIRE SYS SUMMARY .....	2,684	255,040			2,684	255,040
	<b>ANTI-TANK/ASSAULT MISSILE SYS</b>						
008	JAVELIN (AAWS-M) SYSTEM SUMMARY .....	75	31,120		-13,800	75	17,320
	Realignment of EDI APS Unit Set from OCO to Base .....				[-13,800]		
011	GUIDED MLRS ROCKET (GMLRS) .....	7,584	624,500			7,584	624,500
013	HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS) .....	24	171,138		-171,138	24	0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-171,138]		
014	LETHAL MINIATURE AERIAL MISSILE SYSTEM (LMAMS) .....	1,318	112,973			1,318	112,973
	<b>MODIFICATIONS</b>						
016	ATACMS MODS .....		225,580		-80,000		145,580
	Realignment of EDI APS Unit Set from OCO to Base .....				[-80,000]		
021	MLRS MODS .....		122,000		-122,000		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-122,000]		
	<b>TOTAL MISSILE PROCUREMENT, ARMY</b> .....	<b>11,746</b>	<b>1,802,351</b>		<b>-646,938</b>	<b>11,746</b>	<b>1,155,413</b>
	<b>PROCUREMENT OF W&amp;TCV, ARMY</b>						
	<b>TRACKED COMBAT VEHICLES</b>						
001	BRADLEY PROGRAM .....	61	205,000		-205,000	61	0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-205,000]		
002	ARMORED MULTI PURPOSE VEHICLE (AMPV) .....	66	230,359		-230,359	66	0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-230,359]		
	<b>MODIFICATION OF TRACKED COMBAT VEHICLES</b>						
006	BRADLEY PROGRAM (MOD) .....		50,000		-50,000		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-50,000]		
008	PALADIN INTEGRATED MANAGEMENT (PIM) .....	6	67,000		-67,000	6	0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-67,000]		

009	IMPROVED RECOVERY VEHICLE (M88A2 HERCULES) .....	12	42,354	-42,354	12	0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-42,354]		
014	M1 ABRAMS TANK (MOD) .....		34,000	-34,000		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-34,000]		
015	ABRAMS UPGRADE PROGRAM .....	40	455,000	-455,000	40	0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-455,000]		
	<b>WEAPONS &amp; OTHER COMBAT VEHICLES</b>					
018	M240 MEDIUM MACHINE GUN (7.62MM) .....		126	-126		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-126]		
022	MORTAR SYSTEMS .....		11,842	-180		11,662
	Realignm of EDI APS Unit Set from OCO to Base .....			[-180]		
025	CARBINE .....		1,800	-1,800		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-1,800]		
027	COMMON REMOTELY OPERATED WEAPONS STATION .....		3,378	-3,378		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-3,378]		
	<b>MOD OF WEAPONS AND OTHER COMBAT VEH</b>					
032	M2 50 CAL MACHINE GUN MODS .....		4,920	-4,920		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-4,920]		
034	M240 MEDIUM MACHINE GUN MODS .....		7	-7		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-7]		
	<b>SUPPORT EQUIPMENT &amp; FACILITIES</b>					
039	ITEMS LESS THAN \$5.0M (WOCV-WTCV) .....		1,397	-1,397		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-1,397]		
	<b>TOTAL PROCUREMENT OF W&amp;TCV, ARMY .....</b>	<b>185</b>	<b>1,107,183</b>	<b>-1,095,521</b>	<b>185</b>	<b>11,662</b>
	<b>PROCUREMENT OF AMMUNITION, ARMY</b>					
	<b>SMALL/MEDIUM CAL AMMUNITION</b>					
001	CTG, 5.56MM, ALL TYPES .....		3,392	-3,392		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-3,392]		
002	CTG, 7.62MM, ALL TYPES .....		40	-40		0
	Realignm of EDI APS Unit Set from OCO to Base .....			[-40]		
003	CTG, HANDGUN, ALL TYPES .....		17	-17		0



**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
	Realignm of EDI APS Unit Set from OCO to Base .....				[-17]		
004	CTG, .50 CAL, ALL TYPES .....		189		-189		0
	Realignm of EDI APS Unit Set from OCO to Base .....				[-189]		
005	CTG, 20MM, ALL TYPES .....		1,605				1,605
007	CTG, 30MM, ALL TYPES .....		25,000		-25,000		0
	Realignm of EDI APS Unit Set from OCO to Base .....				[-25,000]		
	<b>MORTAR AMMUNITION</b>						
009	60MM MORTAR, ALL TYPES .....		218		-218		0
	Realignm of EDI APS Unit Set from OCO to Base .....				[-218]		
010	81MM MORTAR, ALL TYPES .....		484		-484		0
	Realignm of EDI APS Unit Set from OCO to Base .....				[-484]		
	<b>ARTILLERY AMMUNITION</b>						
014	ARTILLERY PROJECTILE, 155MM, ALL TYPES .....		79,400		-79,400		0
	Realignm of EDI APS Unit Set from OCO to Base .....				[-79,400]		
015	PROJ 155MM EXTENDED RANGE M982 .....	973	72,985		-51,700	973	21,285
	Realignm of EDI APS Unit Set from OCO to Base .....				[-51,700]		
016	ARTILLERY PROPELLANTS, FUZES AND PRIMERS, ALL .....		63,900		-48,900		15,000
	Realignm of EDI APS Unit Set from OCO to Base .....				[-48,900]		
	<b>ROCKETS</b>						
018	SHOULDER LAUNCHED MUNITIONS, ALL TYPES .....		22,242		-2,242		20,000
	Realignm of EDI APS Unit Set from OCO to Base .....				[-2,242]		
019	ROCKET, HYDRA 70, ALL TYPES .....		39,974				39,974
	<b>OTHER AMMUNITION</b>						
021	DEMOLITION MUNITIONS, ALL TYPES .....		5		-5		0
	Realignm of EDI APS Unit Set from OCO to Base .....				[-5]		
022	GRENADES, ALL TYPES .....		8		-8		0

	Realignment of EDI APS Unit Set from OCO to Base .....			[−8]		
	<b>MISCELLANEOUS</b>					
027	ITEMS LESS THAN \$5 MILLION (AMMO) .....	66		−66		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−66]		
	<b>TOTAL PROCUREMENT OF AMMUNITION, ARMY .....</b>	<b>973</b>	<b>309,525</b>	<b>−211,661</b>	<b>973</b>	<b>97,864</b>
	<b>OTHER PROCUREMENT, ARMY</b>					
	<b>TACTICAL VEHICLES</b>					
002	SEMITRAILERS, FLATBED: .....	8,000		−8,000		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−8,000]		
003	AMBULANCE, 4 LITTER, 5/4 TON, 4X4 .....	20,770		−20,770		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−20,770]		
010	FAMILY OF HEAVY TACTICAL VEHICLES (FHTV) .....	596	115,400	−115,400	596	0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−115,400]		
012	HVY EXPANDED MOBILE TACTICAL TRUCK EXT SERV .....	6,682		−6,682		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−6,682]		
013	TACTICAL WHEELED VEHICLE PROTECTION KITS .....	50,000		−50,000		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−50,000]		
014	MODIFICATION OF IN SVC EQUIP .....	186,377		−377		186,000
	Realignment of EDI APS Unit Set from OCO to Base .....			[−377]		
	<b>COMM—SATELLITE COMMUNICATIONS</b>					
028	TRANSPORTABLE TACTICAL COMMAND COMMUNICATIONS .....	7,100				7,100
	<b>COMM—COMBAT COMMUNICATIONS</b>					
037	JOINT TACTICAL RADIO SYSTEM .....	1,560		−1,560		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−1,560]		
042	TRACTOR RIDE .....	13,190				13,190
045	TACTICAL COMMUNICATIONS AND PROTECTIVE SYSTEM .....	9,549				9,549
047	COTS COMMUNICATIONS EQUIPMENT .....	22,000		−22,000		0
	Realignment of EDI APS Unit Set from OCO to Base .....			[−22,000]		
	<b>COMM—INTELLIGENCE COMM</b>					
050	CI AUTOMATION ARCHITECTURE (MIP) .....	9,800				9,800
	<b>INFORMATION SECURITY</b>					

**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
055	COMMUNICATIONS SECURITY (COMSEC) .....		3		-3		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-3]		
	<b>COMM—LONG HAUL COMMUNICATIONS</b>						
059	BASE SUPPORT COMMUNICATIONS .....		690				690
	<b>COMM—BASE COMMUNICATIONS</b>						
060	INFORMATION SYSTEMS .....		8,750				8,750
063	INSTALLATION INFO INFRASTRUCTURE MOD PROGRAM .....		60,337		-9,050		51,287
	Realignment of EDI APS Unit Set from OCO to Base .....				[-9,050]		
	<b>ELECT EQUIP—TACT INT REL ACT (TIARA)</b>						
068	DCGS-A (MIP) .....		37,806				37,806
070	TROJAN (MIP) .....		6,926		-600		6,326
	Realignment of EDI APS Unit Set from OCO to Base .....				[-600]		
071	MOD OF IN-SVC EQUIP (INTEL SPT) (MIP) .....		2,011				2,011
075	BIOMETRIC TACTICAL COLLECTION DEVICES (MIP) .....		5,370				5,370
	<b>ELECT EQUIP—ELECTRONIC WARFARE (EW)</b>						
080	CREW .....		42,651				42,651
081	FAMILY OF PERSISTENT SURVEILLANCE CAP. (MIP) .....		20,050		5,400		25,450
	SOUTHCOM UFR: CENTAM Maritime Sensor .....				[3,600]		
	SOUTHCOM UFR: SIGINT Suite COMSAT RF .....				[1,800]		
082	COUNTERINTELLIGENCE/SECURITY COUNTERMEASURES .....		12,974				12,974
	<b>ELECT EQUIP—TACTICAL SURV. (TAC SURV)</b>						
085	NIGHT VISION DEVICES .....		463		-86		377
	Realignment of EDI APS Unit Set from OCO to Base .....				[-86]		
086	LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM .....		2,861		-2,861		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-2,861]		
087	SMALL TACTICAL OPTICAL RIFLE MOUNTED MLRF .....		60				60

088	RADIATION MONITORING SYSTEMS .....	11	-11	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-11]	
090	INDIRECT FIRE PROTECTION FAMILY OF SYSTEMS .....	251,062	-262	250,800
	Realignment of EDI APS Unit Set from OCO to Base .....		[-262]	
091	FAMILY OF WEAPON SIGHTS (FWS) .....	525	-525	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-525]	
094	JOINT BATTLE COMMAND—PLATFORM (JBC-P) .....	26,146	-26,146	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-26,146]	
096	MOD OF IN-SVC EQUIP (LLDR) .....	4,050	-4,050	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-4,050]	
097	COMPUTER BALLISTICS: LHMCB XM32 .....	960		960
098	MORTAR FIRE CONTROL SYSTEM .....	7,660		7,660
099	COUNTERFIRE RADARS .....	165,200		165,200
	<b>ELECT EQUIP—AUTOMATION</b>			
112	AUTOMATED DATA PROCESSING EQUIP .....	28,475		28,475
	<b>CHEMICAL DEFENSIVE EQUIPMENT</b>			
121	PROTECTIVE SYSTEMS .....	27	-27	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-27]	
122	FAMILY OF NON-LETHAL EQUIPMENT (FNLE) .....	20,200		20,200
123	BASE DEFENSE SYSTEMS (BDS) .....	39,200		39,200
124	CBRN DEFENSE .....	2,317	-317	2,000
	Realignment of EDI APS Unit Set from OCO to Base .....		[-317]	
	<b>ENGINEER (NON-CONSTRUCTION) EQUIPMENT</b>			
129	GRND STANDOFF MINE DETECTN SYSM (GSTAMIDS) .....	16,000		16,000
130	AREA MINE DETECTION SYSTEM (AMDS) .....	1	-1	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-1]	
132	ROBOTIC COMBAT SUPPORT SYSTEM (RCSS) .....	4,850		4,850
136	REMOTE DEMOLITION SYSTEMS .....	1	-1	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-1]	
	<b>COMBAT SERVICE SUPPORT EQUIPMENT</b>			
139	HEATERS AND ECU'S .....	270		270
141	PERSONNEL RECOVERY SUPPORT SYSTEM (PRSS) .....	4,300		4,300

**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS**  
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Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
142	GROUND SOLDIER SYSTEM .....		1,725				1,725
144	FORCE PROVIDER .....		55,800				55,800
145	FIELD FEEDING EQUIPMENT .....		1,035				1,035
146	CARGO AERIAL DEL & PERSONNEL PARACHUTE SYSTEM .....		1,980				1,980
	<b>MEDICAL EQUIPMENT</b>						
151	COMBAT SUPPORT MEDICAL .....		17,527				17,527
	<b>MAINTENANCE EQUIPMENT</b>						
153	ITEMS LESS THAN \$5.0M (MAINT EQ) .....		268		-268		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-268]		
	<b>CONSTRUCTION EQUIPMENT</b>						
159	HIGH MOBILITY ENGINEER EXCAVATOR (HMEE) .....		25,700				25,700
	<b>GENERATORS</b>						
165	GENERATORS AND ASSOCIATED EQUIP .....		569				569
	<b>TEST MEASURE AND DIG EQUIPMENT (TMD)</b>						
174	INTEGRATED FAMILY OF TEST EQUIPMENT (IFTE) .....		9,495		-9,495		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-9,495]		
	<b>OTHER SUPPORT EQUIPMENT</b>						
176	M25 STABILIZED BINOCULAR .....		33		-33		0
	Realignment of EDI APS Unit Set from OCO to Base .....				[-33]		
177	RAPID EQUIPPING SOLDIER SUPPORT EQUIPMENT .....		18,000				18,000
178	PHYSICAL SECURITY SYSTEMS (OPA3) .....		6,000				6,000
179	BASE LEVEL COMMON EQUIPMENT .....		2,080				2,080
180	MODIFICATION OF IN-SVC EQUIPMENT (OPA-3) .....		19,200				19,200
	<b>TOTAL OTHER PROCUREMENT, ARMY .....</b>	<b>596</b>	<b>1,382,047</b>		<b>-273,125</b>	<b>596</b>	<b>1,108,922</b>
	<b>AIRCRAFT PROCUREMENT, NAVY</b>						

May 11, 2018 (12:14 a.m.)

	<b>OTHER AIRCRAFT</b>				
025	STUASLO UAV .....		35,065		35,065
	<b>MODIFICATION OF AIRCRAFT</b>				
032	SH-60 SERIES .....		4,858		4,858
034	EP-3 SERIES .....		5,380		5,380
044	SPECIAL PROJECT AIRCRAFT .....		2,165		2,165
049	COMMON ECM EQUIPMENT .....		9,820		9,820
051	COMMON DEFENSIVE WEAPON SYSTEM .....		3,206		3,206
061	QRC .....		2,410		2,410
063	RQ-21 SERIES .....		17,215		17,215
	<b>TOTAL AIRCRAFT PROCUREMENT, NAVY .....</b>		<b>80,119</b>		<b>80,119</b>
	<b>WEAPONS PROCUREMENT, NAVY</b>				
	<b>TACTICAL MISSILES</b>				
004	AMRAAM .....	1	1,183	1	1,183
005	SIDEWINDER .....	1	381	1	381
012	HELLFIRE .....	23	1,530	23	1,530
015	AERIAL TARGETS .....		6,500		6,500
	<b>GUNS AND GUN MOUNTS</b>				
035	SMALL ARMS AND WEAPONS .....		1,540		1,540
	<b>MODIFICATION OF GUNS AND GUN MOUNTS</b>				
038	GUN MOUNT MODS .....		3,000		3,000
	<b>TOTAL WEAPONS PROCUREMENT, NAVY .....</b>	<b>25</b>	<b>14,134</b>	<b>25</b>	<b>14,134</b>
	<b>PROCUREMENT OF AMMO, NAVY &amp; MC</b>				
	<b>NAVY AMMUNITION</b>				
001	GENERAL PURPOSE BOMBS .....		62,530		62,530
002	JDAM .....	3,906	93,019	3,906	93,019
003	AIRBORNE ROCKETS, ALL TYPES .....		2,163		2,163
004	MACHINE GUN AMMUNITION .....		5,000		5,000
006	CARTRIDGES & CART ACTUATED DEVICES .....		5,334		5,334
007	AIR EXPENDABLE COUNTERMEASURES .....		36,580		36,580

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Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
008	JATOS .....		747				747
011	OTHER SHIP GUN AMMUNITION .....		2,538				2,538
013	PYROTECHNIC AND DEMOLITION .....		1,807				1,807
015	AMMUNITION LESS THAN \$5 MILLION .....		2,229				2,229
	<b>MARINE CORPS AMMUNITION</b>						
019	MORTARS .....		2,018				2,018
021	DIRECT SUPPORT MUNITIONS .....		632				632
022	INFANTRY WEAPONS AMMUNITION .....		779				779
026	COMBAT SUPPORT MUNITIONS .....		164				164
029	ARTILLERY MUNITIONS .....		31,001				31,001
	<b>TOTAL PROCUREMENT OF AMMO, NAVY &amp; MC .....</b>	<b>3,906</b>	<b>246,541</b>			<b>3,906</b>	<b>246,541</b>
	<b>OTHER PROCUREMENT, NAVY</b>						
	<b>OTHER SHIPBOARD EQUIPMENT</b>						
021	UNDERWATER EOD PROGRAMS .....		9,200				9,200
	<b>SMALL BOATS</b>						
028	STANDARD BOATS .....		19,060				19,060
	<b>ASW ELECTRONIC EQUIPMENT</b>						
043	FIXED SURVEILLANCE SYSTEM .....		56,950				56,950
	<b>SATELLITE COMMUNICATIONS</b>						
077	SATELLITE COMMUNICATIONS SYSTEMS .....		3,200				3,200
	<b>CRYPTOLOGIC EQUIPMENT</b>						
082	CRYPTOLOGIC COMMUNICATIONS EQUIP .....		2,000				2,000
	<b>SONOBUOYS</b>						
088	SONOBUOYS—ALL TYPES .....		21,156				21,156
	<b>OTHER ORDNANCE SUPPORT EQUIPMENT</b>						

May 11, 2018 (12:14 a.m.)

104	EXPLOSIVE ORDNANCE DISPOSAL EQUIP .....		33,580				33,580
	<b>CIVIL ENGINEERING SUPPORT EQUIPMENT</b>						
108	PASSENGER CARRYING VEHICLES .....		170				170
109	GENERAL PURPOSE TRUCKS .....		400				400
111	FIRE FIGHTING EQUIPMENT .....		770				770
112	TACTICAL VEHICLES .....		7,298				7,298
	<b>SUPPLY SUPPORT EQUIPMENT</b>						
118	FIRST DESTINATION TRANSPORTATION .....		500				500
	<b>COMMAND SUPPORT EQUIPMENT</b>						
123	MEDICAL SUPPORT EQUIPMENT .....		6,500				6,500
128	ENVIRONMENTAL SUPPORT EQUIPMENT .....		2,200				2,200
129	PHYSICAL SECURITY EQUIPMENT .....		19,389				19,389
	<b>CLASSIFIED PROGRAMS</b>						
133A	CLASSIFIED PROGRAMS .....		4,800				4,800
	<b>TOTAL OTHER PROCUREMENT, NAVY</b> .....		<b>187,173</b>				<b>187,173</b>
	<b>PROCUREMENT, MARINE CORPS</b>						
	<b>INTELL/COMM EQUIPMENT (NON-TEL)</b>						
022	FIRE SUPPORT SYSTEM .....		5,583				5,583
	<b>TACTICAL VEHICLES</b>						
037	MOTOR TRANSPORT MODIFICATIONS .....		44,440				44,440
	<b>ENGINEER AND OTHER EQUIPMENT</b>						
045	EOD SYSTEMS .....		8,000				8,000
	<b>TOTAL PROCUREMENT, MARINE CORPS</b> .....		<b>58,023</b>				<b>58,023</b>
	<b>AIRCRAFT PROCUREMENT, AIR FORCE</b>						
	<b>OTHER AIRLIFT</b>						
007	HC-130J .....	1	100,000			1	100,000
	<b>OTHER AIRCRAFT</b>						
018	MQ-9 .....	21	339,740	-9	-192,700	12	147,040
	Excess attrition aircraft .....			[-9]	[-192,700]		
019	RQ-20B PUMA .....		13,500				13,500



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Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
<b>STRATEGIC AIRCRAFT</b>							
021	B-1B .....		4,000				4,000
023	LARGE AIRCRAFT INFRARED COUNTERMEASURES .....		149,778				149,778
<b>TACTICAL AIRCRAFT</b>							
024	A-10 .....		10,350				10,350
<b>OTHER AIRCRAFT</b>							
047	U-2 MODS .....		7,900				7,900
056	COMPASS CALL MODS .....		36,400				36,400
061	E-8 .....		13,000				13,000
065	H-60 .....		40,560				40,560
067	HC/MC-130 MODIFICATIONS .....		87,900				87,900
068	OTHER AIRCRAFT .....		53,731				53,731
070	MQ-9 UAS PAYLOADS .....		16,000				16,000
<b>AIRCRAFT SPARES AND REPAIR PARTS</b>							
072	INITIAL SPARES/REPAIR PARTS .....		91,500				91,500
<b>COMMON SUPPORT EQUIPMENT</b>							
073	AIRCRAFT REPLACEMENT SUPPORT EQUIP .....		32,529				32,529
074	OTHER PRODUCTION CHARGES .....		22,000				22,000
	<b>TOTAL AIRCRAFT PROCUREMENT, AIR FORCE .....</b>	<b>22</b>	<b>1,018,888</b>	<b>-9</b>	<b>-192,700</b>	<b>13</b>	<b>826,188</b>
<b>MISSILE PROCUREMENT, AIR FORCE</b>							
<b>TACTICAL</b>							
002	JOINT AIR-SURFACE STANDOFF MISSILE .....	48	61,600			48	61,600
005	AMRAAM .....	2	2,600			2	2,600
006	PREDATOR HELLFIRE MISSILE .....	3,000	255,000			3,000	255,000
007	SMALL DIAMETER BOMB .....	3,909	140,724			3,909	140,724

	<b>CLASS IV</b>				
013	AGM-65D MAVERICK .....		33,602		33,602
	<b>TOTAL MISSILE PROCUREMENT, AIR FORCE .....</b>	<b>6,959</b>	<b>493,526</b>	<b>6,959</b>	<b>493,526</b>
	<b>PROCUREMENT OF AMMUNITION, AIR FORCE</b>				
	<b>CARTRIDGES</b>				
002	CARTRIDGES .....		29,587		29,587
	<b>BOMBS</b>				
004	GENERAL PURPOSE BOMBS .....		551,862		551,862
006	JOINT DIRECT ATTACK MUNITION .....	28,101	738,451	28,101	738,451
	<b>FLARES</b>				
015	FLARES .....		12,116		12,116
	<b>FUZES</b>				
016	FUZES .....		81,000		81,000
	<b>SMALL ARMS</b>				
017	SMALL ARMS .....		8,500		8,500
	<b>TOTAL PROCUREMENT OF AMMUNITION, AIR FORCE .....</b>	<b>28,101</b>	<b>1,421,516</b>	<b>28,101</b>	<b>1,421,516</b>
	<b>OTHER PROCUREMENT, AIR FORCE</b>				
	<b>PASSENGER CARRYING VEHICLES</b>				
001	PASSENGER CARRYING VEHICLES .....		9,680		9,680
	<b>CARGO AND UTILITY VEHICLES</b>				
002	MEDIUM TACTICAL VEHICLE .....		9,680		9,680
004	CARGO AND UTILITY VEHICLES .....		19,680		19,680
	<b>SPECIAL PURPOSE VEHICLES</b>				
006	SECURITY AND TACTICAL VEHICLES .....		24,880		24,880
007	SPECIAL PURPOSE VEHICLES .....		34,680		34,680
	<b>FIRE FIGHTING EQUIPMENT</b>				
008	FIRE FIGHTING/CRASH RESCUE VEHICLES .....		9,736		9,736
	<b>MATERIALS HANDLING EQUIPMENT</b>				
009	MATERIALS HANDLING VEHICLES .....		24,680		24,680
	<b>BASE MAINTENANCE SUPPORT</b>				

**SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
010	RUNWAY SNOW REMOV AND CLEANING EQU .....		9,680				9,680
011	BASE MAINTENANCE SUPPORT VEHICLES .....		9,680				9,680
	<b>INTELLIGENCE PROGRAMS</b>						
015	INTELLIGENCE COMM EQUIPMENT .....		6,156				6,156
	<b>ELECTRONICS PROGRAMS</b>						
016	AIR TRAFFIC CONTROL & LANDING SYS .....		56,884				56,884
	<b>SPCL COMM-ELECTRONICS PROJECTS</b>						
029	AIR FORCE PHYSICAL SECURITY SYSTEM .....		46,236				46,236
037	THEATER BATTLE MGT C2 SYSTEM .....		2,500				2,500
	<b>ORGANIZATION AND BASE</b>						
045	TACTICAL C-E EQUIPMENT .....		27,911				27,911
	<b>PERSONAL SAFETY &amp; RESCUE EQUIP</b>						
051	PERSONAL SAFETY AND RESCUE EQUIPMENT .....		13,600				13,600
	<b>BASE SUPPORT EQUIPMENT</b>						
053	BASE PROCURED EQUIPMENT .....		28,800				28,800
054	ENGINEERING AND EOD EQUIPMENT .....		53,500				53,500
055	MOBILITY EQUIPMENT .....		78,562				78,562
056	BASE MAINTENANCE AND SUPPORT EQUIPMENT .....		28,055				28,055
	<b>SPECIAL SUPPORT PROJECTS</b>						
059	DCGS-AF .....		2,000				2,000
	<b>CLASSIFIED PROGRAMS</b>						
062	CLASSIFIED PROGRAMS .....		3,229,364				3,229,364
	<b>TOTAL OTHER PROCUREMENT, AIR FORCE</b> .....		<b>3,725,944</b>				<b>3,725,944</b>
	<b>PROCUREMENT, DEFENSE-WIDE</b>						
	<b>MAJOR EQUIPMENT, DISA</b>						

008	TELEPORT PROGRAM .....	3,800		3,800
017	DEFENSE INFORMATION SYSTEMS NETWORK .....	12,000		12,000
	<b>MAJOR EQUIPMENT, DEFENSE THREAT REDUCTION AGENCY</b>			
025	COUNTER IED & IMPROVISED THREAT TECHNOLOGIES .....	5,534		5,534
	<b>CLASSIFIED PROGRAMS</b>			
046A	CLASSIFIED PROGRAMS .....	41,559		41,559
	<b>AVIATION PROGRAMS</b>			
047	MANNED ISR .....	5,000		5,000
048	MC-12 .....	5,000		5,000
049	MH-60 BLACKHAWK .....	27,600		27,600
051	UNMANNED ISR .....	17,000		17,000
052	NON-STANDARD AVIATION .....	13,000		13,000
053	U-28 .....	51,722		51,722
054	MH-47 CHINOOK .....	36,500		36,500
	<b>AMMUNITION PROGRAMS</b>			
061	ORDNANCE ITEMS <\$5M .....	100,850		100,850
	<b>OTHER PROCUREMENT PROGRAMS</b>			
062	INTELLIGENCE SYSTEMS .....	16,500		16,500
064	OTHER ITEMS <\$5M .....	7,700		7,700
067	TACTICAL VEHICLES .....	59,891		59,891
068	WARRIOR SYSTEMS <\$5M .....	21,135		21,135
069	COMBAT MISSION REQUIREMENTS .....	10,000		10,000
071	OPERATIONAL ENHANCEMENTS INTELLIGENCE .....	10,805		10,805
073	OPERATIONAL ENHANCEMENTS .....	13	126,539	13
	<b>TOTAL PROCUREMENT, DEFENSE-WIDE .....</b>	<b>13</b>	<b>572,135</b>	<b>13</b>
	<b>NATIONAL GUARD AND RESERVE EQUIPMENT</b>			
	<b>UNDISTRIBUTED</b>			
007	UNDISTRIBUTED .....		150,000	150,000
	Program increase .....		[150,000]	
	<b>TOTAL NATIONAL GUARD AND RESERVE EQUIPMENT .....</b>		<b>150,000</b>	<b>150,000</b>

SEC. 4102. PROCUREMENT FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)							
Line	Item	FY 2019 Request		House Change		House Authorized	
		Qty	Cost	Qty	Cost	Qty	Cost
	<b>TOTAL PROCUREMENT</b> .....	52,535	12,782,468	-9	-2,324,215	52,526	10,458,253

## TITLE XLII—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

### SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION.

SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
<b>RESEARCH, DEVELOPMENT, TEST &amp; EVAL, ARMY</b>					
<b>BASIC RESEARCH</b>					
001	0601101A	IN-HOUSE LABORATORY INDEPENDENT RESEARCH .....	11,585		11,585
002	0601102A	DEFENSE RESEARCH SCIENCES .....	276,912		276,912
003	0601103A	UNIVERSITY RESEARCH INITIATIVES .....	65,283		65,283
004	0601104A	UNIVERSITY AND INDUSTRY RESEARCH CENTERS .....	92,115		92,115
		<b>SUBTOTAL BASIC RESEARCH .....</b>	<b>445,895</b>		<b>445,895</b>
<b>APPLIED RESEARCH</b>					
005	0602105A	MATERIALS TECHNOLOGY .....	28,600	1,000	29,600
		Conformal batteries and composite armor .....		[1,000]	
006	0602120A	SENSORS AND ELECTRONIC SURVIVABILITY .....	32,366	4,000	36,366
		Expand Army Research lab Open Campus project .....		[4,000]	
007	0602122A	TRACTOR HIP .....	8,674		8,674
008	0602126A	TRACTOR JACK .....	400		400
009	0602211A	AVIATION TECHNOLOGY .....	64,847		64,847
010	0602270A	ELECTRONIC WARFARE TECHNOLOGY .....	25,571		25,571
011	0602303A	MISSILE TECHNOLOGY .....	50,183		50,183
012	0602307A	ADVANCED WEAPONS TECHNOLOGY .....	29,502		29,502

SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
013	0602308A	ADVANCED CONCEPTS AND SIMULATION .....	28,500		28,500
014	0602601A	COMBAT VEHICLE AND AUTOMOTIVE TECHNOLOGY .....	70,450		70,450
015	0602618A	BALLISTICS TECHNOLOGY .....	75,541		75,541
016	0602622A	CHEMICAL, SMOKE AND EQUIPMENT DEFEATING TECHNOLOGY .....	5,032		5,032
017	0602623A	JOINT SERVICE SMALL ARMS PROGRAM .....	12,394		12,394
018	0602624A	WEAPONS AND MUNITIONS TECHNOLOGY .....	40,444	10,000	50,444
		Accelerate Army railgun development and prototyping .....		[10,000]	
019	0602705A	ELECTRONICS AND ELECTRONIC DEVICES .....	58,283		58,283
020	0602709A	NIGHT VISION TECHNOLOGY .....	29,582		29,582
021	0602712A	COUNTERMINE SYSTEMS .....	21,244		21,244
022	0602716A	HUMAN FACTORS ENGINEERING TECHNOLOGY .....	24,131		24,131
023	0602720A	ENVIRONMENTAL QUALITY TECHNOLOGY .....	13,242		13,242
024	0602782A	COMMAND, CONTROL, COMMUNICATIONS TECHNOLOGY .....	55,003		55,003
025	0602783A	COMPUTER AND SOFTWARE TECHNOLOGY .....	14,958		14,958
026	0602784A	MILITARY ENGINEERING TECHNOLOGY .....	78,159		78,159
027	0602785A	MANPOWER/PERSONNEL/TRAINING TECHNOLOGY .....	21,862		21,862
028	0602786A	WARFIGHTER TECHNOLOGY .....	40,566	5,000	45,566
		Program increase .....		[5,000]	
029	0602787A	MEDICAL TECHNOLOGY .....	90,075		90,075
		<b>SUBTOTAL APPLIED RESEARCH .....</b>	<b>919,609</b>	<b>20,000</b>	<b>939,609</b>
		<b>ADVANCED TECHNOLOGY DEVELOPMENT</b>			
030	0603001A	WARFIGHTER ADVANCED TECHNOLOGY .....	39,338		39,338
031	0603002A	MEDICAL ADVANCED TECHNOLOGY .....	62,496		62,496
032	0603003A	AVIATION ADVANCED TECHNOLOGY .....	124,958		124,958
033	0603004A	WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY .....	102,686		102,686
034	0603005A	COMBAT VEHICLE AND AUTOMOTIVE ADVANCED TECHNOLOGY .....	119,739		119,739

035	0603006A	SPACE APPLICATION ADVANCED TECHNOLOGY .....	13,000		13,000
036	0603007A	MANPOWER, PERSONNEL AND TRAINING ADVANCED TECHNOLOGY .....	8,044		8,044
037	0603009A	TRACTOR HIKE .....	22,631		22,631
038	0603015A	NEXT GENERATION TRAINING & SIMULATION SYSTEMS .....	25,682		25,682
040	0603125A	COMBATING TERRORISM—TECHNOLOGY DEVELOPMENT .....	3,762		3,762
041	0603130A	TRACTOR NAIL .....	4,896		4,896
042	0603131A	TRACTOR EGGS .....	6,041		6,041
043	0603270A	ELECTRONIC WARFARE TECHNOLOGY .....	31,491		31,491
044	0603313A	MISSILE AND ROCKET ADVANCED TECHNOLOGY .....	61,132	10,000	71,132
		Shoot-on-the-Move Technology Development for SHORAD platforms .....		[10,000]	
045	0603322A	TRACTOR CAGE .....	16,845		16,845
046	0603461A	HIGH PERFORMANCE COMPUTING MODERNIZATION PROGRAM .....	183,322	5,000	188,322
		Enhance and accelerate Army artificial intelligence and machine learning .....		[5,000]	
047	0603606A	LANDMINE WARFARE AND BARRIER ADVANCED TECHNOLOGY .....	11,104		11,104
048	0603607A	JOINT SERVICE SMALL ARMS PROGRAM .....	5,885		5,885
049	0603710A	NIGHT VISION ADVANCED TECHNOLOGY .....	61,376	-2,500	58,876
		Program decrease .....		[-2,500]	
050	0603728A	ENVIRONMENTAL QUALITY TECHNOLOGY DEMONSTRATIONS .....	9,136		9,136
051	0603734A	MILITARY ENGINEERING ADVANCED TECHNOLOGY .....	25,864		25,864
052	0603772A	ADVANCED TACTICAL COMPUTER SCIENCE AND SENSOR TECHNOLOGY .....	34,883	5,000	39,883
		Program increase .....		[5,000]	
053	0603794A	C3 ADVANCED TECHNOLOGY .....	52,387	-2,500	49,887
		Program decrease .....		[-2,500]	
		<b>SUBTOTAL ADVANCED TECHNOLOGY DEVELOPMENT .....</b>	<b>1,026,698</b>	<b>15,000</b>	<b>1,041,698</b>
		<b>ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES</b>			
054	0603305A	ARMY MISSILE DEFENSE SYSTEMS INTEGRATION .....	10,777		10,777
056	0603327A	AIR AND MISSILE DEFENSE SYSTEMS ENGINEERING .....	42,802	1,000	43,802
		Realignment of EDI APS Unit Set from OCO to Base .....		[1,000]	
057	0603619A	LANDMINE WARFARE AND BARRIER—ADV DEV .....	45,254		45,254
058	0603627A	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV .....	22,700		22,700
059	0603639A	TANK AND MEDIUM CALIBER AMMUNITION .....	41,974	14,000	55,974



**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
		Army UFR: test and evaluation of the M999 155mm Anti-Personnel Improved Conventional Munition.		[14,000]	
060	0603645A	ARMORED SYSTEM MODERNIZATION—ADV DEV .....	119,395		119,395
061	0603747A	SOLDIER SUPPORT AND SURVIVABILITY .....	8,746		8,746
062	0603766A	TACTICAL ELECTRONIC SURVEILLANCE SYSTEM—ADV DEV .....	35,667		35,667
063	0603774A	NIGHT VISION SYSTEMS ADVANCED DEVELOPMENT .....	7,350		7,350
064	0603779A	ENVIRONMENTAL QUALITY TECHNOLOGY—DEM/VAL .....	14,749		14,749
065	0603790A	NATO RESEARCH AND DEVELOPMENT .....	3,687		3,687
066	0603801A	AVIATION—ADV DEV .....	10,793		10,793
067	0603804A	LOGISTICS AND ENGINEER EQUIPMENT—ADV DEV .....	14,248		14,248
068	0603807A	MEDICAL SYSTEMS—ADV DEV .....	34,284		34,284
069	0603827A	SOLDIER SYSTEMS—ADVANCED DEVELOPMENT .....	18,044	10,000	28,044
		Advanced materials research for personal protective equipment (PPE) .....		[10,000]	
070	0604017A	ROBOTICS DEVELOPMENT .....	95,660		95,660
071	0604020A	CROSS FUNCTIONAL TEAM (CFT) ADVANCED DEVELOPMENT & PROTOTYPING .....	38,000	30,000	68,000
		Iron Dome short range air defense experimentation .....		[30,000]	
072	0604100A	ANALYSIS OF ALTERNATIVES .....	9,765		9,765
073	0604113A	FUTURE TACTICAL UNMANNED AIRCRAFT SYSTEM (FTUAS) .....	12,393		12,393
074	0604114A	LOWER TIER AIR MISSILE DEFENSE (LTAMD) SENSOR .....	120,374		120,374
075	0604115A	TECHNOLOGY MATURATION INITIATIVES .....	95,347		95,347
076	0604117A	MANEUVER—SHORT RANGE AIR DEFENSE (M-SHORAD) .....	95,085	23,000	118,085
		Realignment of EDI APS Unit Set from OCO to Base .....		[23,000]	
077	0604118A	TRACTOR BEAM .....	52,894		52,894
079	0604121A	SYNTHETIC TRAINING ENVIRONMENT REFINEMENT & PROTOTYPING .....	77,939		77,939
080	0604319A	INDIRECT FIRE PROTECTION CAPABILITY INCREMENT 2—INTERCEPT (IFPC2) .....	51,030		51,030
081	0305251A	CYBERSPACE OPERATIONS FORCES AND FORCE SUPPORT .....	65,817		65,817
082	1206120A	ASSURED POSITIONING, NAVIGATION AND TIMING (PNT) .....	146,300		146,300

May 11, 2018 (12:14 a.m.)

083	1206308A	ARMY SPACE SYSTEMS INTEGRATION .....	38,319		38,319
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES .....</b>	<b>1,329,393</b>	<b>78,000</b>	<b>1,407,393</b>
		<b>SYSTEM DEVELOPMENT &amp; DEMONSTRATION</b>			
084	0604201A	AIRCRAFT AVIONICS .....	32,293		32,293
085	0604270A	ELECTRONIC WARFARE DEVELOPMENT .....	78,699		78,699
088	0604328A	TRACTOR CAGE .....	17,050		17,050
089	0604601A	INFANTRY SUPPORT WEAPONS .....	83,155		83,155
090	0604604A	MEDIUM TACTICAL VEHICLES .....	3,704		3,704
091	0604611A	JAVELIN .....	10,623		10,623
092	0604622A	FAMILY OF HEAVY TACTICAL VEHICLES .....	11,950		11,950
093	0604633A	AIR TRAFFIC CONTROL .....	12,347		12,347
095	0604642A	LIGHT TACTICAL WHEELED VEHICLES .....	8,212		8,212
096	0604645A	ARMORED SYSTEMS MODERNIZATION (ASM)—ENG DEV .....	393,613		393,613
097	0604710A	NIGHT VISION SYSTEMS—ENG DEV .....	139,614		139,614
098	0604713A	COMBAT FEEDING, CLOTHING, AND EQUIPMENT .....	4,507		4,507
099	0604715A	NON-SYSTEM TRAINING DEVICES—ENG DEV .....	49,436		49,436
100	0604741A	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE—ENG DEV .....	95,172		95,172
101	0604742A	CONSTRUCTIVE SIMULATION SYSTEMS DEVELOPMENT .....	22,628		22,628
102	0604746A	AUTOMATIC TEST EQUIPMENT DEVELOPMENT .....	13,297		13,297
103	0604760A	DISTRIBUTIVE INTERACTIVE SIMULATIONS (DIS)—ENG DEV .....	9,145		9,145
104	0604768A	BRILLIANT ANTI-ARMOR SUBMUNITION (BAT) .....	9,894		9,894
105	0604780A	COMBINED ARMS TACTICAL TRAINER (CATT) CORE .....	21,964		21,964
106	0604798A	BRIGADE ANALYSIS, INTEGRATION AND EVALUATION .....	49,288		49,288
107	0604802A	WEAPONS AND MUNITIONS—ENG DEV .....	183,100		183,100
108	0604804A	LOGISTICS AND ENGINEER EQUIPMENT—ENG DEV .....	79,706	-3,800	75,906
		Late MSV-L contract award and concurrency .....		[-3,800]	
109	0604805A	COMMAND, CONTROL, COMMUNICATIONS SYSTEMS—ENG DEV .....	15,970		15,970
110	0604807A	MEDICAL MATERIEL/MEDICAL BIOLOGICAL DEFENSE EQUIPMENT—ENG DEV .....	44,542		44,542
111	0604808A	LANDMINE WARFARE/BARRIER—ENG DEV .....	50,817		50,817
112	0604818A	ARMY TACTICAL COMMAND & CONTROL HARDWARE & SOFTWARE .....	178,693		178,693
113	0604820A	RADAR DEVELOPMENT .....	39,338		39,338

75

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SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
114	0604822A	GENERAL FUND ENTERPRISE BUSINESS SYSTEM (GFEB) .....	37,851		37,851
115	0604823A	FIREFINDER .....	45,473		45,473
116	0604827A	SOLDIER SYSTEMS—WARRIOR DEM/VAL .....	10,395		10,395
117	0604852A	SUITE OF SURVIVABILITY ENHANCEMENT SYSTEMS—EMD .....	69,204	-13,400	55,804
		Program reduction .....		[-13,400]	
118	0604854A	ARTILLERY SYSTEMS—EMD .....	1,781		1,781
119	0605013A	INFORMATION TECHNOLOGY DEVELOPMENT .....	113,758		113,758
120	0605018A	INTEGRATED PERSONNEL AND PAY SYSTEM—ARMY (IPPS-A) .....	166,603		166,603
121	0605028A	ARMORED MULTI-PURPOSE VEHICLE (AMPV) .....	118,239		118,239
122	0605029A	INTEGRATED GROUND SECURITY SURVEILLANCE RESPONSE CAPABILITY (IGSSR-C) .....	3,211		3,211
123	0605030A	JOINT TACTICAL NETWORK CENTER (JTNC) .....	15,889		15,889
124	0605031A	JOINT TACTICAL NETWORK (JTN) .....	41,972		41,972
125	0605032A	TRACTOR TIRE .....	41,166		41,166
126	0605033A	GROUND-BASED OPERATIONAL SURVEILLANCE SYSTEM—EXPEDITIONARY (GBOSS-E) .....	5,175		5,175
127	0605034A	TACTICAL SECURITY SYSTEM (TSS) .....	4,496		4,496
128	0605035A	COMMON INFRARED COUNTERMEASURES (CIRCM) .....	51,178		51,178
129	0605036A	COMBATING WEAPONS OF MASS DESTRUCTION (CWMD) .....	11,311		11,311
131	0605038A	NUCLEAR BIOLOGICAL CHEMICAL RECONNAISSANCE VEHICLE (NBCRV) SENSOR SUITE .....	17,154		17,154
132	0605041A	DEFENSIVE CYBER TOOL DEVELOPMENT .....	36,626		36,626
133	0605042A	TACTICAL NETWORK RADIO SYSTEMS (LOW-TIER) .....	3,829		3,829
134	0605047A	CONTRACT WRITING SYSTEM .....	41,928		41,928
135	0605049A	MISSILE WARNING SYSTEM MODERNIZATION (MWSM) .....	28,276		28,276
136	0605051A	AIRCRAFT SURVIVABILITY DEVELOPMENT .....	21,965		21,965
137	0605052A	INDIRECT FIRE PROTECTION CAPABILITY INC 2—BLOCK 1 .....	157,710		157,710
138	0605053A	GROUND ROBOTICS .....	86,167		86,167
139	0605054A	EMERGING TECHNOLOGY INITIATIVES .....	42,866	25,400	68,266
		Army UFR: program increase .....		[25,400]	

May 11, 2018 (12:14 a.m.)

140	0605380A	AMF JOINT TACTICAL RADIO SYSTEM (JTRS) .....	15,984		15,984
141	0605450A	JOINT AIR-TO-GROUND MISSILE (JAGM) .....	11,773		11,773
142	0605457A	ARMY INTEGRATED AIR AND MISSILE DEFENSE (AIAMD) .....	277,607		277,607
143	0605766A	NATIONAL CAPABILITIES INTEGRATION (MIP) .....	12,340		12,340
144	0605812A	JOINT LIGHT TACTICAL VEHICLE (JLTV) ENGINEERING AND MANUFACTURING DEVELOPMENT PH .....	2,686		2,686
145	0605830A	AVIATION GROUND SUPPORT EQUIPMENT .....	2,706		2,706
147	0303032A	TROJAN—RH12 .....	4,521		4,521
150	0304270A	ELECTRONIC WARFARE DEVELOPMENT .....	8,922		8,922
151	1205117A	TRACTOR BEARS .....	23,170		23,170
		<b>SUBTOTAL SYSTEM DEVELOPMENT &amp; DEMONSTRATION .....</b>	<b>3,192,689</b>	<b>8,200</b>	<b>3,200,889</b>
<b>RDT&amp;E MANAGEMENT SUPPORT</b>					
152	0604256A	THREAT SIMULATOR DEVELOPMENT .....	12,835		12,835
153	0604258A	TARGET SYSTEMS DEVELOPMENT .....	12,135		12,135
154	0604759A	MAJOR T&E INVESTMENT .....	82,996		82,996
155	0605103A	RAND ARROYO CENTER .....	19,821		19,821
156	0605301A	ARMY KWAJALEIN ATOLL .....	246,574		246,574
157	0605326A	CONCEPTS EXPERIMENTATION PROGRAM .....	30,430		30,430
159	0605601A	ARMY TEST RANGES AND FACILITIES .....	305,759		305,759
160	0605602A	ARMY TECHNICAL TEST INSTRUMENTATION AND TARGETS .....	62,379		62,379
161	0605604A	SURVIVABILITY/LETHALITY ANALYSIS .....	40,496		40,496
162	0605606A	AIRCRAFT CERTIFICATION .....	3,941		3,941
163	0605702A	METEOROLOGICAL SUPPORT TO RDT&E ACTIVITIES .....	9,767		9,767
164	0605706A	MATERIEL SYSTEMS ANALYSIS .....	21,226		21,226
165	0605709A	EXPLOITATION OF FOREIGN ITEMS .....	13,026		13,026
166	0605712A	SUPPORT OF OPERATIONAL TESTING .....	52,718		52,718
167	0605716A	ARMY EVALUATION CENTER .....	57,049		57,049
168	0605718A	ARMY MODELING & SIM X-CMD COLLABORATION & INTEG .....	2,801		2,801
169	0605801A	PROGRAMWIDE ACTIVITIES .....	60,942		60,942
170	0605803A	TECHNICAL INFORMATION ACTIVITIES .....	29,050		29,050
171	0605805A	MUNITIONS STANDARDIZATION, EFFECTIVENESS AND SAFETY .....	42,332		42,332
172	0605857A	ENVIRONMENTAL QUALITY TECHNOLOGY MGMT SUPPORT .....	3,216		3,216

**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
173	0605898A	ARMY DIRECT REPORT HEADQUARTERS—R&D - MHA .....	54,145		54,145
174	0606001A	MILITARY GROUND-BASED CREW TECHNOLOGY .....	4,896		4,896
175	0606002A	RONALD REAGAN BALLISTIC MISSILE DEFENSE TEST SITE .....	63,011		63,011
176	0606003A	COUNTERINTEL AND HUMAN INTEL MODERNIZATION .....	2,636		2,636
177	0606942A	ASSESSMENTS AND EVALUATIONS CYBER VULNERABILITIES .....	88,300		88,300
		<b>SUBTOTAL RDT&amp;E MANAGEMENT SUPPORT .....</b>	<b>1,322,481</b>		<b>1,322,481</b>
		<b>OPERATIONAL SYSTEMS DEVELOPMENT</b>			
181	0603778A	MLRS PRODUCT IMPROVEMENT PROGRAM .....	8,886		8,886
182	0603813A	TRACTOR PULL .....	4,067		4,067
183	0605024A	ANTI-TAMPER TECHNOLOGY SUPPORT .....	4,254		4,254
184	0607131A	WEAPONS AND MUNITIONS PRODUCT IMPROVEMENT PROGRAMS .....	16,022		16,022
185	0607133A	TRACTOR SMOKE .....	4,577		4,577
186	0607134A	LONG RANGE PRECISION FIRES (LRPF) .....	186,475		186,475
187	0607135A	APACHE PRODUCT IMPROVEMENT PROGRAM .....	31,049		31,049
188	0607136A	BLACKHAWK PRODUCT IMPROVEMENT PROGRAM .....	35,240		35,240
189	0607137A	CHINOOK PRODUCT IMPROVEMENT PROGRAM .....	157,822		157,822
190	0607138A	FIXED WING PRODUCT IMPROVEMENT PROGRAM .....	4,189		4,189
191	0607139A	IMPROVED TURBINE ENGINE PROGRAM .....	192,637		192,637
194	0607142A	AVIATION ROCKET SYSTEM PRODUCT IMPROVEMENT AND DEVELOPMENT .....	60,860		60,860
195	0607143A	UNMANNED AIRCRAFT SYSTEM UNIVERSAL PRODUCTS .....	52,019		52,019
196	0607665A	FAMILY OF BIOMETRICS .....	2,400		2,400
197	0607865A	PATRIOT PRODUCT IMPROVEMENT .....	65,369	25,000	90,369
		Increase PATRIOT improvement efforts .....		[25,000]	
198	0202429A	AEROSTAT JOINT PROJECT—COCOM EXERCISE .....	1		1
199	0203728A	JOINT AUTOMATED DEEP OPERATION COORDINATION SYSTEM (JADOCS) .....	30,954		30,954
200	0203735A	COMBAT VEHICLE IMPROVEMENT PROGRAMS .....	411,927		411,927

May 11, 2018 (12:14 a.m.)

202	0203743A	155MM SELF-PROPELLED HOWITZER IMPROVEMENTS .....	40,676		40,676
203	0203744A	AIRCRAFT MODIFICATIONS/PRODUCT IMPROVEMENT PROGRAMS .....	17,706		17,706
204	0203752A	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM .....	146		146
205	0203758A	DIGITIZATION .....	6,316		6,316
206	0203801A	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM .....	1,643	2,000	3,643
		Realignment of EDI APS Unit Set from OCO to Base .....		[2,000]	
207	0203802A	OTHER MISSILE PRODUCT IMPROVEMENT PROGRAMS .....	4,947		4,947
208	0203808A	TRACTOR CARD .....	34,050		34,050
210	0205410A	MATERIALS HANDLING EQUIPMENT .....	1,464		1,464
211	0205412A	ENVIRONMENTAL QUALITY TECHNOLOGY—OPERATIONAL SYSTEM DEV .....	249		249
212	0205456A	LOWER TIER AIR AND MISSILE DEFENSE (AMD) SYSTEM .....	79,283		79,283
213	0205778A	GUIDED MULTIPLE-LAUNCH ROCKET SYSTEM (GMLRS) .....	154,102		154,102
216	0303028A	SECURITY AND INTELLIGENCE ACTIVITIES .....	12,280		12,280
217	0303140A	INFORMATION SYSTEMS SECURITY PROGRAM .....	68,533		68,533
218	0303141A	GLOBAL COMBAT SUPPORT SYSTEM .....	68,619		68,619
220	0303150A	WWMCCS/GLOBAL COMMAND AND CONTROL SYSTEM .....	2,034		2,034
223	0305172A	COMBINED ADVANCED APPLICATIONS .....	1,500		1,500
224	0305179A	INTEGRATED BROADCAST SERVICE (IBS) .....	450		450
225	0305204A	TACTICAL UNMANNED AERIAL VEHICLES .....	6,000		6,000
226	0305206A	AIRBORNE RECONNAISSANCE SYSTEMS .....	12,416	14,000	26,416
		Realignment of EDI APS Unit Set from OCO to Base .....		[14,000]	
227	0305208A	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	38,667		38,667
229	0305232A	RQ-11 UAV .....	6,180		6,180
230	0305233A	RQ-7 UAV .....	12,863		12,863
231	0307665A	BIOMETRICS ENABLED INTELLIGENCE .....	4,310		4,310
233	0708045A	END ITEM INDUSTRIAL PREPAREDNESS ACTIVITIES .....	53,958		53,958
234	1203142A	SATCOM GROUND ENVIRONMENT (SPACE) .....	12,119		12,119
235	1208053A	JOINT TACTICAL GROUND SYSTEM .....	7,400		7,400
235A	9999999999	CLASSIFIED PROGRAMS .....	5,955		5,955
		<b>SUBTOTAL OPERATIONAL SYSTEMS DEVELOPMENT .....</b>	<b>1,922,614</b>	<b>41,000</b>	<b>1,963,614</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, ARMY .....</b>	<b>10,159,379</b>	<b>162,200</b>	<b>10,321,579</b>

79

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**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
<b>RESEARCH, DEVELOPMENT, TEST &amp; EVAL, NAVY</b>					
<b>BASIC RESEARCH</b>					
001	0601103N	UNIVERSITY RESEARCH INITIATIVES .....	119,433	10,000	129,433
		Defense University Research Instrumentation Program .....		[10,000]	
002	0601152N	IN-HOUSE LABORATORY INDEPENDENT RESEARCH .....	19,237		19,237
003	0601153N	DEFENSE RESEARCH SCIENCES .....	458,708		458,708
		<b>SUBTOTAL BASIC RESEARCH</b> .....	<b>597,378</b>	<b>10,000</b>	<b>607,378</b>
<b>APPLIED RESEARCH</b>					
004	0602114N	POWER PROJECTION APPLIED RESEARCH .....	14,643		14,643
005	0602123N	FORCE PROTECTION APPLIED RESEARCH .....	124,049		124,049
006	0602131M	MARINE CORPS LANDING FORCE TECHNOLOGY .....	59,607		59,607
007	0602235N	COMMON PICTURE APPLIED RESEARCH .....	36,348	5,000	41,348
		Enhance and accelerate Navy artificial intelligence research .....		[5,000]	
008	0602236N	WARFIGHTER SUSTAINMENT APPLIED RESEARCH .....	56,197		56,197
009	0602271N	ELECTROMAGNETIC SYSTEMS APPLIED RESEARCH .....	83,800		83,800
010	0602435N	OCEAN WARFIGHTING ENVIRONMENT APPLIED RESEARCH .....	42,998		42,998
011	0602651M	JOINT NON-LETHAL WEAPONS APPLIED RESEARCH .....	6,349		6,349
012	0602747N	UNDERSEA WARFARE APPLIED RESEARCH .....	58,049	20,000	78,049
		Academic partnerships for undersea unmanned warfare research and energy technology .....		[20,000]	
013	0602750N	FUTURE NAVAL CAPABILITIES APPLIED RESEARCH .....	147,771		147,771
014	0602782N	MINE AND EXPEDITIONARY WARFARE APPLIED RESEARCH .....	37,545	23,500	61,045
		Program increase-one sensor plus integration .....		[23,500]	
015	0602792N	INNOVATIVE NAVAL PROTOTYPES (INP) APPLIED RESEARCH .....	159,697	10,000	169,697
		Accelerate Navy railgun development and prototyping .....		[10,000]	
016	0602861N	SCIENCE AND TECHNOLOGY MANAGEMENT—ONR FIELD ACITIVITIES .....	64,418		64,418

		<b>SUBTOTAL APPLIED RESEARCH .....</b>	<b>891,471</b>	<b>58,500</b>	<b>949,971</b>
		<b>ADVANCED TECHNOLOGY DEVELOPMENT</b>			
019	0603123N	FORCE PROTECTION ADVANCED TECHNOLOGY .....	2,423		2,423
021	0603640M	USMC ADVANCED TECHNOLOGY DEMONSTRATION (ATD) .....	150,245		150,245
022	0603651M	JOINT NON-LETHAL WEAPONS TECHNOLOGY DEVELOPMENT .....	13,313		13,313
023	0603671N	NAVY ADVANCED TECHNOLOGY DEVELOPMENT (ATD) .....	131,502		131,502
024	0603673N	FUTURE NAVAL CAPABILITIES ADVANCED TECHNOLOGY DEVELOPMENT .....	232,996		232,996
025	0603680N	MANUFACTURING TECHNOLOGY PROGRAM .....	58,657		58,657
030	0603801N	INNOVATIVE NAVAL PROTOTYPES (INP) ADVANCED TECHNOLOGY DEVELOPMENT .....	161,859	20,000	181,859
		Accelerate Navy railgun development and prototyping .....		[20,000]	
		<b>SUBTOTAL ADVANCED TECHNOLOGY DEVELOPMENT .....</b>	<b>750,995</b>	<b>20,000</b>	<b>770,995</b>
		<b>ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES</b>			
031	0603207N	AIR/OCEAN TACTICAL APPLICATIONS .....	29,747		29,747
032	0603216N	AVIATION SURVIVABILITY .....	7,050		7,050
033	0603251N	AIRCRAFT SYSTEMS .....	793		793
034	0603254N	ASW SYSTEMS DEVELOPMENT .....	7,058	5,000	12,058
		Prototyping fiber deployment sonobuoy systems .....		[5,000]	
035	0603261N	TACTICAL AIRBORNE RECONNAISSANCE .....	3,540		3,540
036	0603382N	ADVANCED COMBAT SYSTEMS TECHNOLOGY .....	59,741		59,741
037	0603502N	SURFACE AND SHALLOW WATER MINE COUNTERMEASURES .....	62,727		62,727
038	0603506N	SURFACE SHIP TORPEDO DEFENSE .....	8,570	10,000	18,570
		Program increase .....		[10,000]	
039	0603512N	CARRIER SYSTEMS DEVELOPMENT .....	5,440		5,440
040	0603525N	PILOT FISH .....	162,222		162,222
041	0603527N	RETRACT LARCH .....	11,745		11,745
042	0603536N	RETRACT JUNIPER .....	114,265		114,265
043	0603542N	RADIOLOGICAL CONTROL .....	740		740
044	0603553N	SURFACE ASW .....	1,122		1,122
045	0603561N	ADVANCED SUBMARINE SYSTEM DEVELOPMENT .....	109,086	-20,000	89,086
		Excessive cost growth .....		[-7,000]	



SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
		Prior year inefficiencies impact .....		[-13,000]	
046	0603562N	SUBMARINE TACTICAL WARFARE SYSTEMS .....	9,374		9,374
047	0603563N	SHIP CONCEPT ADVANCED DESIGN .....	89,419		89,419
048	0603564N	SHIP PRELIMINARY DESIGN & FEASIBILITY STUDIES .....	13,348		13,348
049	0603570N	ADVANCED NUCLEAR POWER SYSTEMS .....	256,137		256,137
050	0603573N	ADVANCED SURFACE MACHINERY SYSTEMS .....	22,109		22,109
051	0603576N	CHALK EAGLE .....	29,744		29,744
052	0603581N	LITTORAL COMBAT SHIP (LCS) .....	27,997		27,997
053	0603582N	COMBAT SYSTEM INTEGRATION .....	16,351		16,351
054	0603595N	OHIO REPLACEMENT .....	514,846	12,000	526,846
		Advanced Submarines Control and Precision Propulsion Module Integration .....		[12,000]	
055	0603596N	LCS MISSION MODULES .....	103,633		103,633
056	0603597N	AUTOMATED TEST AND ANALYSIS .....	7,931		7,931
057	0603599N	FRIGATE DEVELOPMENT .....	134,772		134,772
058	0603609N	CONVENTIONAL MUNITIONS .....	9,307		9,307
060	0603635M	MARINE CORPS GROUND COMBAT/SUPPORT SYSTEM .....	1,828		1,828
061	0603654N	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT .....	43,148		43,148
062	0603713N	OCEAN ENGINEERING TECHNOLOGY DEVELOPMENT .....	5,915		5,915
063	0603721N	ENVIRONMENTAL PROTECTION .....	19,811	5,000	24,811
		High-Pressure Waterjet Explosive Ordnance Disposal Technology development .....		[5,000]	
064	0603724N	NAVY ENERGY PROGRAM .....	25,656		25,656
065	0603725N	FACILITIES IMPROVEMENT .....	5,301		5,301
066	0603734N	CHALK CORAL .....	267,985		267,985
067	0603739N	NAVY LOGISTIC PRODUCTIVITY .....	4,059		4,059
068	0603746N	RETRACT MAPLE .....	377,878		377,878
069	0603748N	LINK PLUMERIA .....	381,770		381,770
070	0603751N	RETRACT ELM .....	60,535		60,535

May 11, 2018 (12:14 a.m.)

073	0603790N	NATO RESEARCH AND DEVELOPMENT .....	9,652		9,652
074	0603795N	LAND ATTACK TECHNOLOGY .....	15,529		15,529
075	0603851M	JOINT NON-LETHAL WEAPONS TESTING .....	27,581	5,000	32,581
		Joint service adoption of non-lethal weapon technologies .....		[5,000]	
076	0603860N	JOINT PRECISION APPROACH AND LANDING SYSTEMS—DEM/VAL .....	101,566		101,566
077	0603925N	DIRECTED ENERGY AND ELECTRIC WEAPON SYSTEMS .....	223,344	-52,000	171,344
		Program decrease .....		[-52,000]	
078	0604014N	F/A -18 INFRARED SEARCH AND TRACK (IRST) .....	108,700		108,700
079	0604027N	DIGITAL WARFARE OFFICE .....	26,691		26,691
080	0604028N	SMALL AND MEDIUM UNMANNED UNDERSEA VEHICLES .....	16,717		16,717
081	0604029N	UNMANNED UNDERSEA VEHICLE CORE TECHNOLOGIES .....	30,187		30,187
082	0604030N	RAPID PROTOTYPING, EXPERIMENTATION AND DEMONSTRATION. ....	48,796		48,796
083	0604031N	LARGE UNMANNED UNDERSEA VEHICLES .....	92,613	-21,200	71,413
		Excessive Snakehead LDUUV growth .....		[-21,200]	
084	0604112N	GERALD R. FORD CLASS NUCLEAR AIRCRAFT CARRIER (CVN 78—80) .....	58,121	15,000	73,121
		EMALS software support activity .....		[15,000]	
086	0604126N	LITTORAL AIRBORNE MCM .....	17,622		17,622
087	0604127N	SURFACE MINE COUNTERMEASURES .....	18,154		18,154
088	0604272N	TACTICAL AIR DIRECTIONAL INFRARED COUNTERMEASURES (TADIRCM) .....	47,278		47,278
090	0604289M	NEXT GENERATION LOGISTICS .....	11,081		11,081
092	0604320M	RAPID TECHNOLOGY CAPABILITY PROTOTYPE .....	7,107		7,107
093	0604454N	LX (R) .....	5,549		5,549
094	0604536N	ADVANCED UNDERSEA PROTOTYPING .....	87,669		87,669
095	0604659N	PRECISION STRIKE WEAPONS DEVELOPMENT PROGRAM .....	132,818		132,818
096	0604707N	SPACE AND ELECTRONIC WARFARE (SEW) ARCHITECTURE/ENGINEERING SUPPORT .....	7,230		7,230
097	0604786N	OFFENSIVE ANTI-SURFACE WARFARE WEAPON DEVELOPMENT .....	143,062		143,062
099	0303354N	ASW SYSTEMS DEVELOPMENT—MIP .....	8,889		8,889
100	0304240M	ADVANCED TACTICAL UNMANNED AIRCRAFT SYSTEM .....	25,291	-14,950	10,341
		Unjustified cost growth .....		[-14,950]	
101	0304240N	ADVANCED TACTICAL UNMANNED AIRCRAFT SYSTEM .....	9,300		9,300
102	0304270N	ELECTRONIC WARFARE DEVELOPMENT—MIP .....	466		466
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES .....</b>	<b>4,293,713</b>	<b>-56,150</b>	<b>4,237,563</b>

83

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SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
<b>SYSTEM DEVELOPMENT &amp; DEMONSTRATION</b>					
103	0603208N	TRAINING SYSTEM AIRCRAFT .....	12,798	1,000	13,798
		TH-57 follow-on training system development .....		[1,000]	
104	0604212N	OTHER HELO DEVELOPMENT .....	32,128		32,128
105	0604214M	AV-8B AIRCRAFT—ENG DEV .....	46,363		46,363
107	0604215N	STANDARDS DEVELOPMENT .....	3,771		3,771
108	0604216N	MULTI-MISSION HELICOPTER UPGRADE DEVELOPMENT .....	16,611		16,611
109	0604218N	AIR/OCEAN EQUIPMENT ENGINEERING .....	17,368		17,368
110	0604221N	P-3 MODERNIZATION PROGRAM .....	2,134		2,134
111	0604230N	WARFARE SUPPORT SYSTEM .....	9,729		9,729
112	0604231N	TACTICAL COMMAND SYSTEM .....	57,688		57,688
113	0604234N	ADVANCED HAWKEYE .....	223,565	-8,000	215,565
		Forward financed in the FY18 Omnibus .....		[-10,000]	
		Program increase--IFF range improvement .....		[2,000]	
114	0604245M	H-1 UPGRADES .....	58,097		58,097
116	0604261N	ACOUSTIC SEARCH SENSORS .....	42,485		42,485
117	0604262N	V-22A .....	143,079		143,079
118	0604264N	AIR CREW SYSTEMS DEVELOPMENT .....	20,980		20,980
119	0604269N	EA-18 .....	147,419		147,419
120	0604270N	ELECTRONIC WARFARE DEVELOPMENT .....	89,824	31,600	121,424
		Navy UFR: EA-18G offensive airborne electronic attack special mission pods .....		[31,600]	
121	0604273M	EXECUTIVE HELO DEVELOPMENT .....	245,064		245,064
123	0604274N	NEXT GENERATION JAMMER (NGJ) .....	459,529		459,529
124	0604280N	JOINT TACTICAL RADIO SYSTEM—NAVY (JTRS-NAVY) .....	3,272		3,272
125	0604282N	NEXT GENERATION JAMMER (NGJ) INCREMENT II .....	115,253		115,253
126	0604307N	SURFACE COMBATANT COMBAT SYSTEM ENGINEERING .....	397,403	-20,000	377,403

May 11, 2018 (12:14 a.m.)

		ACB 20 unexecutable growth .....		[-20,000]	
127	0604311N	LPD-17 CLASS SYSTEMS INTEGRATION .....	939		939
128	0604329N	SMALL DIAMETER BOMB (SDB) .....	104,448		104,448
129	0604366N	STANDARD MISSILE IMPROVEMENTS .....	165,881	15,000	180,881
		XFU electronics unit integration .....		[15,000]	
130	0604373N	AIRBORNE MCM .....	10,831		10,831
131	0604378N	NAVAL INTEGRATED FIRE CONTROL—COUNTER AIR SYSTEMS ENGINEERING .....	33,429	-6,900	26,529
		Excess overhead .....		[-6,900]	
132	0604501N	ADVANCED ABOVE WATER SENSORS .....	35,635		35,635
133	0604503N	SSN-688 AND TRIDENT MODERNIZATION .....	126,932		126,932
134	0604504N	AIR CONTROL .....	62,448		62,448
135	0604512N	SHIPBOARD AVIATION SYSTEMS .....	9,710		9,710
136	0604518N	COMBAT INFORMATION CENTER CONVERSION .....	19,303		19,303
137	0604522N	AIR AND MISSILE DEFENSE RADAR (AMDR) SYSTEM .....	27,059		27,059
138	0604530N	ADVANCED ARRESTING GEAR (AAG) .....	184,106		184,106
139	0604558N	NEW DESIGN SSN .....	148,233	-21,400	126,833
		Excess cost growth .....		[-21,400]	
140	0604562N	SUBMARINE TACTICAL WARFARE SYSTEM .....	60,824		60,824
141	0604567N	SHIP CONTRACT DESIGN/ LIVE FIRE T&E .....	60,062		60,062
142	0604574N	NAVY TACTICAL COMPUTER RESOURCES .....	4,642		4,642
144	0604601N	MINE DEVELOPMENT .....	25,756		25,756
145	0604610N	LIGHTWEIGHT TORPEDO DEVELOPMENT .....	95,147		95,147
146	0604654N	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT .....	7,107		7,107
147	0604703N	PERSONNEL, TRAINING, SIMULATION, AND HUMAN FACTORS .....	6,539		6,539
148	0604727N	JOINT STANDOFF WEAPON SYSTEMS .....	441		441
149	0604755N	SHIP SELF DEFENSE (DETECT & CONTROL) .....	180,391		180,391
150	0604756N	SHIP SELF DEFENSE (ENGAGE: HARD KILL) .....	178,538		178,538
151	0604757N	SHIP SELF DEFENSE (ENGAGE: SOFT KILL/EW) .....	120,507		120,507
152	0604761N	INTELLIGENCE ENGINEERING .....	29,715		29,715
153	0604771N	MEDICAL DEVELOPMENT .....	8,095		8,095
154	0604777N	NAVIGATION/ID SYSTEM .....	121,026		121,026
155	0604800M	JOINT STRIKE FIGHTER (JSF)—EMD .....	66,566		66,566

85

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**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
156	0604800N	JOINT STRIKE FIGHTER (JSF)—EMD .....	65,494		65,494
159	0605013M	INFORMATION TECHNOLOGY DEVELOPMENT .....	14,005		14,005
160	0605013N	INFORMATION TECHNOLOGY DEVELOPMENT .....	268,567		268,567
161	0605024N	ANTI-TAMPER TECHNOLOGY SUPPORT .....	5,618		5,618
162	0605212M	CH-53K RDTE .....	326,945		326,945
164	0605215N	MISSION PLANNING .....	32,714		32,714
165	0605217N	COMMON AVIONICS .....	51,486		51,486
166	0605220N	SHIP TO SHORE CONNECTOR (SSC) .....	1,444		1,444
167	0605327N	T-AO 205 CLASS .....	1,298		1,298
168	0605414N	UNMANNED CARRIER AVIATION (UCA) .....	718,942	-116,900	602,042
		Insufficient Air Vehicle budget justification .....		[-116,900]	
169	0605450M	JOINT AIR-TO-GROUND MISSILE (JAGM) .....	6,759	5,000	11,759
		JAGM-F for USN and USMC .....		[5,000]	
171	0605500N	MULTI-MISSION MARITIME AIRCRAFT (MMA) .....	37,296		37,296
172	0605504N	MULTI-MISSION MARITIME (MMA) INCREMENT III .....	160,389		160,389
173	0605611M	MARINE CORPS ASSAULT VEHICLES SYSTEM DEVELOPMENT & DEMONSTRATION .....	98,223		98,223
174	0605813M	JOINT LIGHT TACTICAL VEHICLE (JLTV) SYSTEM DEVELOPMENT & DEMONSTRATION .....	2,260		2,260
175	0204202N	DDG-1000 .....	161,264		161,264
180	0304785N	TACTICAL CRYPTOLOGIC SYSTEMS .....	44,098		44,098
182	0306250M	CYBER OPERATIONS TECHNOLOGY DEVELOPMENT .....	6,808		6,808
		<b>SUBTOTAL SYSTEM DEVELOPMENT &amp; DEMONSTRATION .....</b>	<b>6,042,480</b>	<b>-120,600</b>	<b>5,921,880</b>
		<b>MANAGEMENT SUPPORT</b>			
183	0604256N	THREAT SIMULATOR DEVELOPMENT .....	94,576		94,576
184	0604258N	TARGET SYSTEMS DEVELOPMENT .....	10,981		10,981
185	0604759N	MAJOR T&E INVESTMENT .....	77,014	6,000	83,014
		Program increase .....		[6,000]	

May 11, 2018 (12:14 a.m.)

186	0605126N	JOINT THEATER AIR AND MISSILE DEFENSE ORGANIZATION .....	48		48
187	0605152N	STUDIES AND ANALYSIS SUPPORT—NAVY .....	3,942		3,942
188	0605154N	CENTER FOR NAVAL ANALYSES .....	48,797		48,797
189	0605285N	NEXT GENERATION FIGHTER .....	5,000		5,000
191	0605804N	TECHNICAL INFORMATION SERVICES .....	1,029		1,029
192	0605853N	MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT .....	87,565		87,565
193	0605856N	STRATEGIC TECHNICAL SUPPORT .....	4,231		4,231
194	0605861N	RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT .....	1,072		1,072
195	0605863N	RDT&E SHIP AND AIRCRAFT SUPPORT .....	97,471		97,471
196	0605864N	TEST AND EVALUATION SUPPORT .....	373,834		373,834
197	0605865N	OPERATIONAL TEST AND EVALUATION CAPABILITY .....	21,554		21,554
198	0605866N	NAVY SPACE AND ELECTRONIC WARFARE (SEW) SUPPORT .....	16,227		16,227
200	0605873M	MARINE CORPS PROGRAM WIDE SUPPORT .....	24,303		24,303
201	0605898N	MANAGEMENT HQ—R&D .....	43,262		43,262
202	0606355N	WARFARE INNOVATION MANAGEMENT .....	41,918		41,918
203	0606942M	ASSESSMENTS AND EVALUATIONS CYBER VULNERABILITIES .....	7,000		7,000
204	0606942N	ASSESSMENTS AND EVALUATIONS CYBER VULNERABILITIES .....	48,800		48,800
205	0305327N	INSIDER THREAT .....	1,682		1,682
206	0902498N	MANAGEMENT HEADQUARTERS (DEPARTMENTAL SUPPORT ACTIVITIES) .....	1,579		1,579
208	1206867N	SEW SURVEILLANCE/RECONNAISSANCE SUPPORT .....	8,684		8,684
		<b>SUBTOTAL MANAGEMENT SUPPORT .....</b>	<b>1,020,569</b>	<b>6,000</b>	<b>1,026,569</b>
		<b>OPERATIONAL SYSTEMS DEVELOPMENT</b>			
210	0604227N	HARPOON MODIFICATIONS .....	5,426		5,426
211	0604840M	F-35 C2D2 .....	259,122		259,122
212	0604840N	F-35 C2D2 .....	252,360		252,360
213	0607658N	COOPERATIVE ENGAGEMENT CAPABILITY (CEC) .....	130,515	-11,200	119,315
		Excess cost growth .....		[-11,200]	
214	0607700N	DEPLOYABLE JOINT COMMAND AND CONTROL .....	3,127		3,127
215	0101221N	STRATEGIC SUB & WEAPONS SYSTEM SUPPORT .....	157,679	9,000	166,679
		Project 2228, technical applications, systems engineering modeling and simulation capability and tool development.		[9,000]	

SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
216	0101224N	SSBN SECURITY TECHNOLOGY PROGRAM .....	43,198	-4,000	39,198
		Excess program growth .....		[-4,000]	
217	0101226N	SUBMARINE ACOUSTIC WARFARE DEVELOPMENT .....	11,311		11,311
218	0101402N	NAVY STRATEGIC COMMUNICATIONS .....	39,313		39,313
219	0204136N	F/A-18 SQUADRONS .....	193,086	7,500	200,586
		Engine noise reduction engineering .....		[2,500]	
		JAGM-F for USN and USMC .....		[5,000]	
220	0204163N	FLEET TELECOMMUNICATIONS (TACTICAL) .....	25,014		25,014
221	0204228N	SURFACE SUPPORT .....	11,661		11,661
222	0204229N	TOMAHAWK AND TOMAHAWK MISSION PLANNING CENTER (TMPC) .....	282,395		282,395
223	0204311N	INTEGRATED SURVEILLANCE SYSTEM .....	36,959		36,959
224	0204313N	SHIP-TOWED ARRAY SURVEILLANCE SYSTEMS .....	15,454		15,454
225	0204413N	AMPHIBIOUS TACTICAL SUPPORT UNITS (DISPLACEMENT CRAFT) .....	6,073		6,073
226	0204460M	GROUND/AIR TASK ORIENTED RADAR (G/ATOR) .....	45,029		45,029
227	0204571N	CONSOLIDATED TRAINING SYSTEMS DEVELOPMENT .....	104,903		104,903
228	0204574N	CRYPTOLOGIC DIRECT SUPPORT .....	4,544		4,544
229	0204575N	ELECTRONIC WARFARE (EW) READINESS SUPPORT .....	66,889		66,889
230	0205601N	HARM IMPROVEMENT .....	120,762		120,762
231	0205604N	TACTICAL DATA LINKS .....	104,696		104,696
232	0205620N	SURFACE ASW COMBAT SYSTEM INTEGRATION .....	28,421		28,421
233	0205632N	MK-48 ADCAP .....	94,155	-25,600	68,555
		Excessive TI-1 cost growth .....		[-25,600]	
234	0205633N	AVIATION IMPROVEMENTS .....	121,805	15,000	136,805
		Navy UFR: F/A-18E/F Super Hornet engine enhancements .....		[15,000]	
235	0205675N	OPERATIONAL NUCLEAR POWER SYSTEMS .....	117,028		117,028
236	0206313M	MARINE CORPS COMMUNICATIONS SYSTEMS .....	174,779		174,779
237	0206335M	COMMON AVIATION COMMAND AND CONTROL SYSTEM (CAC2S) .....	4,826		4,826

238	0206623M	MARINE CORPS GROUND COMBAT/SUPPORTING ARMS SYSTEMS .....	97,152		97,152
239	0206624M	MARINE CORPS COMBAT SERVICES SUPPORT .....	30,156		30,156
240	0206625M	USMC INTELLIGENCE/ELECTRONIC WARFARE SYSTEMS (MIP) .....	39,976		39,976
241	0206629M	AMPHIBIOUS ASSAULT VEHICLE .....	22,637		22,637
242	0207161N	TACTICAL AIM MISSILES .....	40,121		40,121
243	0207163N	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM) .....	32,473		32,473
249	0303138N	CONSOLIDATED AFLOAT NETWORK ENTERPRISE SERVICES (CANES) .....	23,697		23,697
250	0303140N	INFORMATION SYSTEMS SECURITY PROGRAM .....	44,228		44,228
252	0305192N	MILITARY INTELLIGENCE PROGRAM (MIP) ACTIVITIES .....	6,081		6,081
253	0305204N	TACTICAL UNMANNED AERIAL VEHICLES .....	8,529		8,529
254	0305205N	UAS INTEGRATION AND INTEROPERABILITY .....	41,212		41,212
255	0305208M	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	7,687		7,687
256	0305208N	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	42,846		42,846
257	0305220N	MQ-4C TRITON .....	14,395		14,395
258	0305231N	MQ-8 UAV .....	9,843		9,843
259	0305232M	RQ-11 UAV .....	524		524
260	0305234N	SMALL (LEVEL 0) TACTICAL UAS (STUASLO) .....	5,360		5,360
261	0305239M	RQ-21A .....	10,914		10,914
262	0305241N	MULTI-INTELLIGENCE SENSOR DEVELOPMENT .....	81,231		81,231
263	0305242M	UNMANNED AERIAL SYSTEMS (UAS) PAYLOADS (MIP) .....	5,956		5,956
264	0305421N	RQ-4 MODERNIZATION .....	219,894	-3,000	216,894
		Program decrease .....		[-3,000]	
265	0308601N	MODELING AND SIMULATION SUPPORT .....	7,097		7,097
266	0702207N	DEPOT MAINTENANCE (NON-IF) .....	36,560		36,560
267	0708730N	MARITIME TECHNOLOGY (MARITECH) .....	7,284		7,284
268	1203109N	SATELLITE COMMUNICATIONS (SPACE) .....	39,174		39,174
268A	9999999999	CLASSIFIED PROGRAMS .....	1,549,503		1,549,503
		<b>SUBTOTAL OPERATIONAL SYSTEMS DEVELOPMENT .....</b>	<b>4,885,060</b>	<b>-12,300</b>	<b>4,872,760</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, NAVY .....</b>	<b>18,481,666</b>	<b>-94,550</b>	<b>18,387,116</b>
		<b>RESEARCH, DEVELOPMENT, TEST &amp; EVAL, AF</b>			



**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
<b>BASIC RESEARCH</b>					
001	0601102F	DEFENSE RESEARCH SCIENCES .....	348,322		348,322
002	0601103F	UNIVERSITY RESEARCH INITIATIVES .....	154,991		154,991
003	0601108F	HIGH ENERGY LASER RESEARCH INITIATIVES .....	14,506		14,506
		<b>SUBTOTAL BASIC RESEARCH .....</b>	<b>517,819</b>		<b>517,819</b>
<b>APPLIED RESEARCH</b>					
004	0602102F	MATERIALS .....	125,373	19,000	144,373
		Additional facility engineering research and development .....		[3,000]	
		Structural Biology Techniques .....		[3,000]	
		Sub-atomic particle research .....		[3,000]	
		Thermal protecting systems for hypersonics .....		[10,000]	
005	0602201F	AEROSPACE VEHICLE TECHNOLOGIES .....	130,547	10,000	140,547
		Hypersonic vehicle structures .....		[10,000]	
006	0602202F	HUMAN EFFECTIVENESS APPLIED RESEARCH .....	112,518		112,518
007	0602203F	AEROSPACE PROPULSION .....	190,919	5,000	195,919
		Program increase .....		[5,000]	
008	0602204F	AEROSPACE SENSORS .....	166,534		166,534
009	0602298F	SCIENCE AND TECHNOLOGY MANAGEMENT— MAJOR HEADQUARTERS ACTIVITIES .....	8,288		8,288
011	0602602F	CONVENTIONAL MUNITIONS .....	112,841		112,841
012	0602605F	DIRECTED ENERGY TECHNOLOGY .....	141,898		141,898
013	0602788F	DOMINANT INFORMATION SCIENCES AND METHODS .....	162,420	10,000	172,420
		Enhance and accelerate Air Force artificial intelligence research .....		[10,000]	
014	0602890F	HIGH ENERGY LASER RESEARCH .....	43,359		43,359
015	1206601F	SPACE TECHNOLOGY .....	117,645		117,645
		<b>SUBTOTAL APPLIED RESEARCH .....</b>	<b>1,312,342</b>	<b>44,000</b>	<b>1,356,342</b>

		<b>ADVANCED TECHNOLOGY DEVELOPMENT</b>			
016	0603112F	ADVANCED MATERIALS FOR WEAPON SYSTEMS .....	34,426	10,000	44,426
		Metals Affordability Initiative .....		[10,000]	
017	0603199F	SUSTAINMENT SCIENCE AND TECHNOLOGY (S&T) .....	15,150	5,000	20,150
		Air Force artificial intelligence research and non-operational support activities .....		[5,000]	
018	0603203F	ADVANCED AEROSPACE SENSORS .....	39,968		39,968
019	0603211F	AEROSPACE TECHNOLOGY DEV/DEMO .....	121,002		121,002
020	0603216F	AEROSPACE PROPULSION AND POWER TECHNOLOGY .....	115,462	10,000	125,462
		Laser power system enhancement .....		[10,000]	
021	0603270F	ELECTRONIC COMBAT TECHNOLOGY .....	55,319		55,319
022	0603401F	ADVANCED SPACECRAFT TECHNOLOGY .....	54,895		54,895
023	0603444F	MAUI SPACE SURVEILLANCE SYSTEM (MSSS) .....	10,674		10,674
024	0603456F	HUMAN EFFECTIVENESS ADVANCED TECHNOLOGY DEVELOPMENT .....	36,463	10,000	46,463
		Autonomous life support system development .....		[10,000]	
025	0603601F	CONVENTIONAL WEAPONS TECHNOLOGY .....	194,981		194,981
026	0603605F	ADVANCED WEAPONS TECHNOLOGY .....	43,368		43,368
027	0603680F	MANUFACTURING TECHNOLOGY PROGRAM .....	42,025	5,000	47,025
		Academic and industrial partnerships for aerospace materials .....		[5,000]	
028	0603788F	BATTLESPACE KNOWLEDGE DEVELOPMENT AND DEMONSTRATION .....	51,064	13,300	64,364
		Additional facility engineering research and development .....		[8,300]	
		Enhance and accelerate Air Force artificial intelligence research .....		[5,000]	
		<b>SUBTOTAL ADVANCED TECHNOLOGY DEVELOPMENT .....</b>	<b>814,797</b>	<b>53,300</b>	<b>868,097</b>
		<b>ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES</b>			
030	0603260F	INTELLIGENCE ADVANCED DEVELOPMENT .....	5,568		5,568
032	0603742F	COMBAT IDENTIFICATION TECHNOLOGY .....	18,194		18,194
033	0603790F	NATO RESEARCH AND DEVELOPMENT .....	2,305		2,305
035	0603851F	INTERCONTINENTAL BALLISTIC MISSILE—DEM/VAL .....	41,856		41,856
037	0604015F	LONG RANGE STRIKE—BOMBER .....	2,314,196		2,314,196
038	0604201F	INTEGRATED AVIONICS PLANNING AND DEVELOPMENT .....	14,894		14,894
039	0604257F	ADVANCED TECHNOLOGY AND SENSORS .....	34,585		34,585
040	0604288F	NATIONAL AIRBORNE OPS CENTER (NAOC) RECAP .....	9,740		9,740

**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
041	0604317F	TECHNOLOGY TRANSFER .....	12,960		12,960
042	0604327F	HARD AND DEEPLY BURIED TARGET DEFEAT SYSTEM (HDBTDS) PROGRAM .....	71,501		71,501
043	0604414F	CYBER RESILIENCY OF WEAPON SYSTEMS-ACS .....	62,618		62,618
046	0604776F	DEPLOYMENT & DISTRIBUTION ENTERPRISE R&D .....	28,350		28,350
048	0604858F	TECH TRANSITION PROGRAM .....	1,186,075	15,000	1,201,075
		Competitively Awarded Transition Programs .....		[5,000]	
		Non-engine development technology .....		[10,000]	
049	0605230F	GROUND BASED STRATEGIC DETERRENT .....	345,041	69,400	414,441
		Accelerated execution of program .....		[69,400]	
050	0207110F	NEXT GENERATION AIR DOMINANCE .....	503,997	-90,000	413,997
		Ahead of need .....		[-90,000]	
051	0207455F	THREE DIMENSIONAL LONG-RANGE RADAR (3DELRR) .....	40,326		40,326
052	0208099F	UNIFIED PLATFORM (UP) .....	29,800		29,800
054	0305236F	COMMON DATA LINK EXECUTIVE AGENT (CDL EA) .....	41,880		41,880
055	0305601F	MISSION PARTNER ENVIRONMENTS .....	10,074		10,074
056	0306250F	CYBER OPERATIONS TECHNOLOGY DEVELOPMENT .....	253,825		253,825
057	0306415F	ENABLED CYBER ACTIVITIES .....	16,325		16,325
059	0901410F	CONTRACTING INFORMATION TECHNOLOGY SYSTEM .....	17,577		17,577
060	1203164F	NAVSTAR GLOBAL POSITIONING SYSTEM (USER EQUIPMENT) (SPACE) .....	286,629		286,629
061	1203710F	EO/IR WEATHER SYSTEMS .....	7,940		7,940
062	1206422F	WEATHER SYSTEM FOLLOW-ON .....	138,052	10,000	148,052
		Commercial weather data pilot .....		[10,000]	
063	1206425F	SPACE SITUATION AWARENESS SYSTEMS .....	39,338		39,338
064	1206434F	MIDTERM POLAR MILSATCOM SYSTEM .....	383,113		383,113
065	1206438F	SPACE CONTROL TECHNOLOGY .....	91,018	15,000	106,018
		NTS-3 Payload .....		[15,000]	
066	1206730F	SPACE SECURITY AND DEFENSE PROGRAM .....	45,542	4,000	49,542

May 11, 2018 (12:14 a.m.)

		Allied launch services .....		[4,000]	
067	1206760F	PROTECTED TACTICAL ENTERPRISE SERVICE (PTES) .....	51,419		51,419
068	1206761F	PROTECTED TACTICAL SERVICE (PTS) .....	29,776		29,776
069	1206855F	PROTECTED SATCOM SERVICES (PSCS)—AGGREGATED .....	29,379		29,379
070	1206857F	OPERATIONALLY RESPONSIVE SPACE .....	366,050	-119,000	247,050
		Space RCO Advanced Solar Power—early to need .....		[-119,000]	
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES .....</b>	<b>6,529,943</b>	<b>-95,600</b>	<b>6,434,343</b>
		<b>SYSTEM DEVELOPMENT &amp; DEMONSTRATION</b>			
071	0604200F	FUTURE ADVANCED WEAPON ANALYSIS & PROGRAMS .....	39,602		39,602
072	0604201F	INTEGRATED AVIONICS PLANNING AND DEVELOPMENT .....	58,531		58,531
073	0604222F	NUCLEAR WEAPONS SUPPORT .....	4,468		4,468
074	0604270F	ELECTRONIC WARFARE DEVELOPMENT .....	1,909		1,909
075	0604281F	TACTICAL DATA NETWORKS ENTERPRISE .....	207,746		207,746
076	0604287F	PHYSICAL SECURITY EQUIPMENT .....	14,421		14,421
077	0604329F	SMALL DIAMETER BOMB (SDB)—EMD .....	73,158	20,000	93,158
		SDB II cost reduction initiatives .....		[20,000]	
081	0604429F	AIRBORNE ELECTRONIC ATTACK .....	7,153		7,153
083	0604602F	ARMAMENT/ORDNANCE DEVELOPMENT .....	58,590		58,590
084	0604604F	SUBMUNITIONS .....	2,990		2,990
085	0604617F	AGILE COMBAT SUPPORT .....	20,028		20,028
086	0604618F	JOINT DIRECT ATTACK MUNITION .....	15,787		15,787
087	0604706F	LIFE SUPPORT SYSTEMS .....	8,919		8,919
088	0604735F	COMBAT TRAINING RANGES .....	35,895	27,000	62,895
		Advanced threat radar system .....		[27,000]	
089	0604800F	F-35—EMD .....	69,001		69,001
091	0604932F	LONG RANGE STANDOFF WEAPON .....	614,920	85,000	699,920
		Accelerated execution of program .....		[85,000]	
092	0604933F	ICBM FUZE MODERNIZATION .....	172,902		172,902
097	0605221F	KC-46 .....	88,170		88,170
098	0605223F	ADVANCED PILOT TRAINING .....	265,465		265,465
099	0605229F	COMBAT RESCUE HELICOPTER .....	457,652		457,652

93

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SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
105	0605830F	ACQ WORKFORCE- GLOBAL BATTLE MGMT .....	3,617		3,617
106	0605931F	B-2 DEFENSIVE MANAGEMENT SYSTEM .....	261,758		261,758
107	0101125F	NUCLEAR WEAPONS MODERNIZATION .....	91,907		91,907
108	0207171F	F-15 EPAWSS .....	137,095		137,095
109	0207328F	STAND IN ATTACK WEAPON .....	43,175		43,175
110	0207423F	ADVANCED COMMUNICATIONS SYSTEMS .....	14,888		14,888
111	0207701F	FULL COMBAT MISSION TRAINING .....	1,015		1,015
115	0307581F	JSTARS RECAP .....		623,000	623,000
		JSTARS recap EMD execution .....		[623,000]	
116	0401310F	C-32 EXECUTIVE TRANSPORT RECAPITALIZATION .....	7,943		7,943
117	0401319F	PRESIDENTIAL AIRCRAFT RECAPITALIZATION (PAR) .....	673,032		673,032
118	0701212F	AUTOMATED TEST SYSTEMS .....	13,653		13,653
119	1203176F	COMBAT SURVIVOR EVADER LOCATOR .....	939		939
120	1203269F	GPS IIIC .....	451,889		451,889
121	1203940F	SPACE SITUATION AWARENESS OPERATIONS .....	46,668		46,668
122	1206421F	COUNTERSPACE SYSTEMS .....	20,676		20,676
123	1206425F	SPACE SITUATION AWARENESS SYSTEMS .....	134,463		134,463
124	1206426F	SPACE FENCE .....	20,215		20,215
125	1206431F	ADVANCED EHF MILSATCOM (SPACE) .....	151,506		151,506
126	1206432F	POLAR MILSATCOM (SPACE) .....	27,337		27,337
127	1206433F	WIDEBAND GLOBAL SATCOM (SPACE) .....	3,970		3,970
128	1206441F	SPACE BASED INFRARED SYSTEM (SBIRS) HIGH EMD .....	60,565		60,565
129	1206442F	EVOLVED SBIRS .....	643,126		643,126
130	1206853F	EVOLVED EXPENDABLE LAUNCH VEHICLE PROGRAM (SPACE)—EMD .....	245,447		245,447
		<b>SUBTOTAL SYSTEM DEVELOPMENT &amp; DEMONSTRATION .....</b>	<b>5,272,191</b>	<b>755,000</b>	<b>6,027,191</b>
		<b>MANAGEMENT SUPPORT</b>			

May 11, 2018 (12:14 a.m.)

131	0604256F	THREAT SIMULATOR DEVELOPMENT .....	34,256		34,256
132	0604759F	MAJOR T&E INVESTMENT .....	91,844		91,844
133	0605101F	RAND PROJECT AIR FORCE .....	34,614		34,614
135	0605712F	INITIAL OPERATIONAL TEST & EVALUATION .....	18,043		18,043
136	0605807F	TEST AND EVALUATION SUPPORT .....	692,784	31,900	724,684
		Test range modernization .....		[31,900]	
137	0605826F	ACQ WORKFORCE- GLOBAL POWER .....	233,924		233,924
138	0605827F	ACQ WORKFORCE- GLOBAL VIG & COMBAT SYS .....	263,488		263,488
139	0605828F	ACQ WORKFORCE- GLOBAL REACH .....	153,591		153,591
140	0605829F	ACQ WORKFORCE- CYBER, NETWORK, & BUS SYS .....	232,315		232,315
141	0605830F	ACQ WORKFORCE- GLOBAL BATTLE MGMT .....	169,868		169,868
142	0605831F	ACQ WORKFORCE- CAPABILITY INTEGRATION .....	226,219		226,219
143	0605832F	ACQ WORKFORCE- ADVANCED PRGM TECHNOLOGY .....	38,400		38,400
144	0605833F	ACQ WORKFORCE- NUCLEAR SYSTEMS .....	125,761		125,761
147	0605898F	MANAGEMENT HQ—R&D .....	10,642		10,642
148	0605976F	FACILITIES RESTORATION AND MODERNIZATION—TEST AND EVALUATION SUPPORT .....	162,216		162,216
149	0605978F	FACILITIES SUSTAINMENT—TEST AND EVALUATION SUPPORT .....	28,888		28,888
150	0606017F	REQUIREMENTS ANALYSIS AND MATURATION .....	35,285		35,285
153	0308602F	ENTEPRISE INFORMATION SERVICES (EIS) .....	20,545		20,545
154	0702806F	ACQUISITION AND MANAGEMENT SUPPORT .....	12,367		12,367
155	0804731F	GENERAL SKILL TRAINING .....	1,448		1,448
157	1001004F	INTERNATIONAL ACTIVITIES .....	3,998		3,998
158	1206116F	SPACE TEST AND TRAINING RANGE DEVELOPMENT .....	23,254		23,254
159	1206392F	SPACE AND MISSILE CENTER (SMC) CIVILIAN WORKFORCE .....	169,912		169,912
160	1206398F	SPACE & MISSILE SYSTEMS CENTER—MHA .....	10,508		10,508
161	1206860F	ROCKET SYSTEMS LAUNCH PROGRAM (SPACE) .....	19,721	10,000	29,721
		Rocket systems launch program .....		[10,000]	
162	1206864F	SPACE TEST PROGRAM (STP) .....	25,620	50,000	75,620
		Blackjack project .....		[50,000]	
		<b>SUBTOTAL MANAGEMENT SUPPORT .....</b>	<b>2,839,511</b>	<b>91,900</b>	<b>2,931,411</b>
		<b>OPERATIONAL SYSTEMS DEVELOPMENT</b>			

SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
165	0604233F	SPECIALIZED UNDERGRADUATE FLIGHT TRAINING .....	11,344		11,344
167	0605018F	AF INTEGRATED PERSONNEL AND PAY SYSTEM (AF-IPPS) .....	47,287		47,287
168	0605024F	ANTI-TAMPER TECHNOLOGY EXECUTIVE AGENCY .....	32,770		32,770
169	0605117F	FOREIGN MATERIEL ACQUISITION AND EXPLOITATION .....	68,368		68,368
170	0605278F	HC/MC-130 RECAP RDT&E .....	32,574		32,574
171	0606018F	NC3 INTEGRATION .....	26,112		26,112
172	0606942F	ASSESSMENTS AND EVALUATIONS CYBER VULNERABILITIES .....	99,100		99,100
173	0101113F	B-52 SQUADRONS .....	280,414	14,700	295,114
		Technical adjustment .....		[14,700]	
174	0101122F	AIR-LAUNCHED CRUISE MISSILE (ALCM) .....	5,955		5,955
175	0101126F	B-1B SQUADRONS .....	76,030		76,030
176	0101127F	B-2 SQUADRONS .....	105,561		105,561
177	0101213F	MINUTEMAN SQUADRONS .....	156,047		156,047
179	0101316F	WORLDWIDE JOINT STRATEGIC COMMUNICATIONS .....	10,442		10,442
180	0101324F	INTEGRATED STRATEGIC PLANNING & ANALYSIS NETWORK .....	22,833		22,833
181	0101328F	ICBM REENTRY VEHICLES .....	18,412		18,412
183	0102110F	UH-1N REPLACEMENT PROGRAM .....	288,022		288,022
184	0102326F	REGION/SECTOR OPERATION CONTROL CENTER MODERNIZATION PROGRAM .....	9,252		9,252
186	0205219F	MQ-9 UAV .....	115,345		115,345
188	0207131F	A-10 SQUADRONS .....	26,738		26,738
189	0207133F	F-16 SQUADRONS .....	191,564		191,564
190	0207134F	F-15E SQUADRONS .....	192,883	50,000	242,883
		ALQ-128 EW suite for ANG units .....		[50,000]	
191	0207136F	MANNED DESTRUCTIVE SUPPRESSION .....	15,238		15,238
192	0207138F	F-22A SQUADRONS .....	603,553	-19,700	583,853
		Program reduction .....		[-19,700]	
193	0207142F	F-35 SQUADRONS .....	549,501		549,501

May 11, 2018 (12:14 a.m.)

194	0207161F	TACTICAL AIM MISSILES .....	37,230		37,230
195	0207163F	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM) .....	61,393		61,393
196	0207227F	COMBAT RESCUE—PARARESCUE .....	647		647
198	0207249F	PRECISION ATTACK SYSTEMS PROCUREMENT .....	14,891		14,891
199	0207253F	COMPASS CALL .....	13,901		13,901
200	0207268F	AIRCRAFT ENGINE COMPONENT IMPROVEMENT PROGRAM .....	121,203		121,203
202	0207325F	JOINT AIR-TO-SURFACE STANDOFF MISSILE (JASSM) .....	60,062		60,062
203	0207410F	AIR & SPACE OPERATIONS CENTER (AOC) .....	106,102	-26,500	79,602
		Unjustified request .....		[-26,500]	
204	0207412F	CONTROL AND REPORTING CENTER (CRC) .....	6,413		6,413
205	0207417F	AIRBORNE WARNING AND CONTROL SYSTEM (AWACS) .....	120,664	-41,800	78,864
		Program reduction .....		[-5,800]	
		Radar controller program delay .....		[-36,000]	
206	0207418F	TACTICAL AIRBORNE CONTROL SYSTEMS .....	2,659		2,659
208	0207431F	COMBAT AIR INTELLIGENCE SYSTEM ACTIVITIES .....	10,316		10,316
209	0207444F	TACTICAL AIR CONTROL PARTY-MOD .....	6,149		6,149
210	0207448F	C2ISR TACTICAL DATA LINK .....	1,738		1,738
211	0207452F	DCAPES .....	13,297		13,297
212	0207573F	NATIONAL TECHNICAL NUCLEAR FORENSICS .....	1,788		1,788
213	0207581F	JOINT SURVEILLANCE/TARGET ATTACK RADAR SYSTEM (JSTARS) .....	14,888		14,888
214	0207590F	SEEK EAGLE .....	24,699		24,699
215	0207601F	USAF MODELING AND SIMULATION .....	17,078		17,078
216	0207605F	WARGAMING AND SIMULATION CENTERS .....	6,141		6,141
218	0207697F	DISTRIBUTED TRAINING AND EXERCISES .....	4,225		4,225
219	0208006F	MISSION PLANNING SYSTEMS .....	63,653		63,653
220	0208007F	TACTICAL DECEPTION .....	6,949		6,949
221	0208087F	AF OFFENSIVE CYBERSPACE OPERATIONS .....	40,526		40,526
222	0208088F	AF DEFENSIVE CYBERSPACE OPERATIONS .....	24,166		24,166
223	0208097F	JOINT CYBER COMMAND AND CONTROL (JCC2) .....	13,000		13,000
224	0208099F	UNIFIED PLATFORM (UP) .....	28,759		28,759
229	0301017F	GLOBAL SENSOR INTEGRATED ON NETWORK (GSIN) .....	3,579		3,579
230	0301112F	NUCLEAR PLANNING AND EXECUTION SYSTEM (NPES) .....	29,620		29,620



**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
237	0301401F	AIR FORCE SPACE AND CYBER NON-TRADITIONAL ISR FOR BATTLESPACE AWARENESS .....	6,633		6,633
238	0302015F	E-4B NATIONAL AIRBORNE OPERATIONS CENTER (NAOC) .....	57,758		57,758
240	0303131F	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEECN) .....	99,088		99,088
241	0303133F	HIGH FREQUENCY RADIO SYSTEMS .....	51,612		51,612
242	0303140F	INFORMATION SYSTEMS SECURITY PROGRAM .....	34,612		34,612
244	0303142F	GLOBAL FORCE MANAGEMENT—DATA INITIATIVE .....	2,170		2,170
246	0304260F	AIRBORNE SIGINT ENTERPRISE .....	106,873	3,000	109,873
		SIGINT single-pod development .....		[3,000]	
247	0304310F	COMMERCIAL ECONOMIC ANALYSIS .....	3,472		3,472
250	0305015F	C2 AIR OPERATIONS SUITE—C2 INFO SERVICES .....	8,608		8,608
251	0305020F	CCMD INTELLIGENCE INFORMATION TECHNOLOGY .....	1,586		1,586
252	0305099F	GLOBAL AIR TRAFFIC MANAGEMENT (GATM) .....	4,492		4,492
254	0305111F	WEATHER SERVICE .....	26,942		26,942
255	0305114F	AIR TRAFFIC CONTROL, APPROACH, AND LANDING SYSTEM (ATCAL)S .....	6,271	2,500	8,771
		Augmentation of air surveillance and early warning radar systems .....		[2,500]	
256	0305116F	AERIAL TARGETS .....	8,383		8,383
259	0305128F	SECURITY AND INVESTIGATIVE ACTIVITIES .....	418		418
261	0305146F	DEFENSE JOINT COUNTERINTELLIGENCE ACTIVITIES .....	3,845		3,845
268	0305202F	DRAGON U-2 .....	48,518	17,000	65,518
		EO/IR sensor upgrades .....		[17,000]	
270	0305206F	AIRBORNE RECONNAISSANCE SYSTEMS .....	175,334		175,334
		Gorgon Stare .....		[10,800]	
		Program reduction .....		[-10,800]	
271	0305207F	MANNED RECONNAISSANCE SYSTEMS .....	14,223		14,223
272	0305208F	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	24,554		24,554
273	0305220F	RQ-4 UAV .....	221,690	-9,800	211,890
		RQ-4 infrastructure unjustified request .....		[-9,800]	

May 11, 2018 (12:14 a.m.)

274	0305221F	NETWORK-CENTRIC COLLABORATIVE TARGETING .....	14,288	14,288
275	0305238F	NATO AGS .....	51,527	51,527
276	0305240F	SUPPORT TO DCGS ENTERPRISE .....	26,579	26,579
278	0305600F	INTERNATIONAL INTELLIGENCE TECHNOLOGY AND ARCHITECTURES .....	8,464	8,464
280	0305881F	RAPID CYBER ACQUISITION .....	4,303	4,303
284	0305984F	PERSONNEL RECOVERY COMMAND & CTRL (PRC2) .....	2,466	2,466
285	0307577F	INTELLIGENCE MISSION DATA (IMD) .....	4,117	4,117
287	0401115F	C-130 AIRLIFT SQUADRON .....	105,988	105,988
288	0401119F	C-5 AIRLIFT SQUADRONS (IF) .....	25,071	25,071
289	0401130F	C-17 AIRCRAFT (IF) .....	48,299	48,299
290	0401132F	C-130J PROGRAM .....	15,409	15,409
291	0401134F	LARGE AIRCRAFT IR COUNTERMEASURES (LAIRCM) .....	4,334	4,334
292	0401218F	KC-135S .....	3,493	3,493
293	0401219F	KC-10S .....	6,569	6,569
294	0401314F	OPERATIONAL SUPPORT AIRLIFT .....	3,172	3,172
295	0401318F	CV-22 .....	18,502	18,502
296	0401840F	AMC COMMAND AND CONTROL SYSTEM .....	1,688	1,688
297	0408011F	SPECIAL TACTICS / COMBAT CONTROL .....	2,541	2,541
298	0702207F	DEPOT MAINTENANCE (NON-IF) .....	1,897	1,897
299	0708055F	MAINTENANCE, REPAIR & OVERHAUL SYSTEM .....	50,933	50,933
300	0708610F	LOGISTICS INFORMATION TECHNOLOGY (LOGIT) .....	13,787	13,787
301	0708611F	SUPPORT SYSTEMS DEVELOPMENT .....	4,497	4,497
302	0804743F	OTHER FLIGHT TRAINING .....	2,022	2,022
303	0808716F	OTHER PERSONNEL ACTIVITIES .....	108	108
304	0901202F	JOINT PERSONNEL RECOVERY AGENCY .....	2,023	2,023
305	0901218F	CIVILIAN COMPENSATION PROGRAM .....	3,772	3,772
306	0901220F	PERSONNEL ADMINISTRATION .....	6,358	6,358
307	0901226F	AIR FORCE STUDIES AND ANALYSIS AGENCY .....	1,418	1,418
308	0901538F	FINANCIAL MANAGEMENT INFORMATION SYSTEMS DEVELOPMENT .....	99,734	99,734
309	1201921F	SERVICE SUPPORT TO STRATCOM—SPACE ACTIVITIES .....	14,161	14,161
310	1202247F	AF TENCAP .....	26,986	26,986
311	1203001F	FAMILY OF ADVANCED BLOS TERMINALS (FAB-T) .....	80,168	80,168

**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
312	1203110F	SATELLITE CONTROL NETWORK (SPACE) .....	17,808		17,808
314	1203165F	NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE AND CONTROL SEGMENTS) .....	8,937		8,937
315	1203173F	SPACE AND MISSILE TEST AND EVALUATION CENTER .....	59,935		59,935
316	1203174F	SPACE INNOVATION, INTEGRATION AND RAPID TECHNOLOGY DEVELOPMENT .....	21,019		21,019
317	1203179F	INTEGRATED BROADCAST SERVICE (IBS) .....	8,568		8,568
318	1203182F	SPACELIFT RANGE SYSTEM (SPACE) .....	10,641		10,641
319	1203265F	GPS III SPACE SEGMENT .....	144,543		144,543
320	1203400F	SPACE SUPERIORITY INTELLIGENCE .....	16,278		16,278
321	1203614F	JSPOC MISSION SYSTEM .....	72,256		72,256
322	1203620F	NATIONAL SPACE DEFENSE CENTER .....	42,209		42,209
325	1203913F	NUDET DETECTION SYSTEM (SPACE) .....	19,778		19,778
326	1203940F	SPACE SITUATION AWARENESS OPERATIONS .....	19,572		19,572
327	1206423F	GLOBAL POSITIONING SYSTEM III—OPERATIONAL CONTROL SEGMENT .....	513,235		513,235
327A	9999999999	CLASSIFIED PROGRAMS .....	16,534,124	-143,900	16,390,224
		Classified adjustment .....		[-40,000]	
		Forward financed in the FY18 Omnibus .....		[-89,900]	
		PDSA staff reduction .....		[-14,000]	
		<b>SUBTOTAL OPERATIONAL SYSTEMS DEVELOPMENT .....</b>	<b>22,891,740</b>	<b>-154,500</b>	<b>22,737,240</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, AF .....</b>	<b>40,178,343</b>	<b>694,100</b>	<b>40,872,443</b>
		<b>RESEARCH, DEVELOPMENT, TEST &amp; EVAL, DW</b>			
		<b>BASIC RESEARCH</b>			
001	0601000BR	DTRA BASIC RESEARCH .....	37,023		37,023
002	0601101E	DEFENSE RESEARCH SCIENCES .....	422,130	-6,000	416,130
		Program decrease .....		[-6,000]	
003	0601110D8Z	BASIC RESEARCH INITIATIVES .....	42,702		42,702

May 11, 2018 (12:14 a.m.)

004	0601117E	BASIC OPERATIONAL MEDICAL RESEARCH SCIENCE .....	47,825		47,825
005	0601120D8Z	NATIONAL DEFENSE EDUCATION PROGRAM .....	85,919		85,919
006	0601228D8Z	HISTORICALLY BLACK COLLEGES AND UNIVERSITIES/MINORITY INSTITUTIONS .....	30,412	10,000	40,412
		Program increase .....		[10,000]	
007	0601384BP	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM .....	42,103		42,103
		<b>SUBTOTAL BASIC RESEARCH</b> .....	<b>708,114</b>	<b>4,000</b>	<b>712,114</b>
		<b>APPLIED RESEARCH</b>			
008	0602000D8Z	JOINT MUNITIONS TECHNOLOGY .....	19,170		19,170
009	0602115E	BIOMEDICAL TECHNOLOGY .....	101,300		101,300
011	0602234D8Z	LINCOLN LABORATORY RESEARCH PROGRAM .....	51,596		51,596
012	0602251D8Z	APPLIED RESEARCH FOR THE ADVANCEMENT OF S&T PRIORITIES .....	60,688		60,688
013	0602303E	INFORMATION & COMMUNICATIONS TECHNOLOGY .....	395,317		395,317
014	0602383E	BIOLOGICAL WARFARE DEFENSE .....	38,640		38,640
015	0602384BP	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM .....	192,674		192,674
016	0602668D8Z	CYBER SECURITY RESEARCH .....	14,969		14,969
017	0602702E	TACTICAL TECHNOLOGY .....	335,466		335,466
018	0602715E	MATERIALS AND BIOLOGICAL TECHNOLOGY .....	226,898		226,898
019	0602716E	ELECTRONICS TECHNOLOGY .....	333,847		333,847
020	0602718BR	COUNTER WEAPONS OF MASS DESTRUCTION APPLIED RESEARCH .....	161,151		161,151
021	0602751D8Z	SOFTWARE ENGINEERING INSTITUTE (SEI) APPLIED RESEARCH .....	9,300		9,300
022	1160401BB	SOF TECHNOLOGY DEVELOPMENT .....	35,921		35,921
		<b>SUBTOTAL APPLIED RESEARCH</b> .....	<b>1,976,937</b>		<b>1,976,937</b>
		<b>ADVANCED TECHNOLOGY DEVELOPMENT</b>			
023	0603000D8Z	JOINT MUNITIONS ADVANCED TECHNOLOGY .....	25,598		25,598
024	0603122D8Z	COMBATING TERRORISM TECHNOLOGY SUPPORT .....	125,271		125,271
025	0603133D8Z	FOREIGN COMPARATIVE TESTING .....	24,532		24,532
027	0603160BR	COUNTER WEAPONS OF MASS DESTRUCTION ADVANCED TECHNOLOGY DEVELOPMENT .....	299,858		299,858
028	0603176C	ADVANCED CONCEPTS AND PERFORMANCE ASSESSMENT .....	13,017		13,017
029	0603178C	WEAPONS TECHNOLOGY .....		10,000	10,000
		Accelerate hypersonic defense capability .....		[10,000]	

**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
031	0603180C	ADVANCED RESEARCH .....	20,365	20,000	40,365
		Accelerate hypersonic defense capability .....		[20,000]	
032	0603225D8Z	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT .....	18,644		18,644
034	0603286E	ADVANCED AEROSPACE SYSTEMS .....	277,603		277,603
035	0603287E	SPACE PROGRAMS AND TECHNOLOGY .....	254,671		254,671
036	0603288D8Z	ANALYTIC ASSESSMENTS .....	19,472		19,472
037	0603289D8Z	ADVANCED INNOVATIVE ANALYSIS AND CONCEPTS .....	37,263		37,263
038	0603291D8Z	ADVANCED INNOVATIVE ANALYSIS AND CONCEPTS—MHA .....	13,621		13,621
039	0603294C	COMMON KILL VEHICLE TECHNOLOGY .....	189,753	-89,000	100,753
		Early to need .....		[-89,000]	
040	0603342D8W	DEFENSE INNOVATION UNIT EXPERIMENTAL (DIUX) .....	29,364		29,364
041	0603375D8Z	TECHNOLOGY INNOVATION .....	83,143		83,143
042	0603384BP	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM—ADVANCED DEVELOPMENT .....	142,826		142,826
043	0603527D8Z	RETRACT LARCH .....	161,128		161,128
044	0603618D8Z	JOINT ELECTRONIC ADVANCED TECHNOLOGY .....	12,918		12,918
045	0603648D8Z	JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS .....	106,049		106,049
046	0603662D8Z	NETWORKED COMMUNICATIONS CAPABILITIES .....	12,696		12,696
047	0603680D8Z	DEFENSE-WIDE MANUFACTURING SCIENCE AND TECHNOLOGY PROGRAM .....	114,637		114,637
048	0603680S	MANUFACTURING TECHNOLOGY PROGRAM .....	49,667		49,667
049	0603699D8Z	EMERGING CAPABILITIES TECHNOLOGY DEVELOPMENT .....	48,338		48,338
050	0603712S	GENERIC LOGISTICS R&D TECHNOLOGY DEMONSTRATIONS .....	11,778		11,778
052	0603716D8Z	STRATEGIC ENVIRONMENTAL RESEARCH PROGRAM .....	76,514		76,514
053	0603720S	MICROELECTRONICS TECHNOLOGY DEVELOPMENT AND SUPPORT .....	168,931		168,931
054	0603727D8Z	JOINT WARFIGHTING PROGRAM .....	5,992		5,992
055	0603739E	ADVANCED ELECTRONICS TECHNOLOGIES .....	111,099		111,099
056	0603760E	COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS .....	185,984		185,984
057	0603766E	NETWORK-CENTRIC WARFARE TECHNOLOGY .....	438,569		438,569

May 11, 2018 (12:14 a.m.)

058	0603767E	SENSOR TECHNOLOGY .....	190,128		190,128
059	0603769D8Z	DISTRIBUTED LEARNING ADVANCED TECHNOLOGY DEVELOPMENT .....	13,564		13,564
060	0603781D8Z	SOFTWARE ENGINEERING INSTITUTE .....	15,050		15,050
061	0603826D8Z	QUICK REACTION SPECIAL PROJECTS .....	69,626		69,626
062	0603833D8Z	ENGINEERING SCIENCE & TECHNOLOGY .....	19,415		19,415
063	0603924D8Z	HIGH ENERGY LASER ADVANCED TECHNOLOGY PROGRAM .....	69,533		69,533
064	0603941D8Z	TEST & EVALUATION SCIENCE & TECHNOLOGY .....	96,389		96,389
065	0604055D8Z	OPERATIONAL ENERGY CAPABILITY IMPROVEMENT .....	40,582		40,582
066	0303310D8Z	CWMD SYSTEMS .....	26,644		26,644
067	1160402BB	SOF ADVANCED TECHNOLOGY DEVELOPMENT .....	79,380		79,380
		<b>SUBTOTAL ADVANCED TECHNOLOGY DEVELOPMENT .....</b>	<b>3,699,612</b>	<b>-59,000</b>	<b>3,640,612</b>
		<b>ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES</b>			
068	0603161D8Z	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT RDT&E ADC&P .....	28,140		28,140
069	0603600D8Z	WALKOFF .....	92,222		92,222
070	0603821D8Z	ACQUISITION ENTERPRISE DATA & INFORMATION SERVICES .....	2,506		2,506
071	0603851D8Z	ENVIRONMENTAL SECURITY TECHNICAL CERTIFICATION PROGRAM .....	40,016		40,016
072	0603881C	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT .....	214,173	145,000	359,173
		Accelerate USFK JEON delivery .....		[100,000]	
		Address cyber threats .....		[45,000]	
073	0603882C	BALLISTIC MISSILE DEFENSE MIDCOURSE DEFENSE SEGMENT .....	926,359	-200,000	726,359
		Address cyber threats .....		[8,000]	
		Forward financed in the FY18 Omnibus .....		[-208,000]	
074	0603884BP	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM—DEM/VAL .....	129,886		129,886
075	0603884C	BALLISTIC MISSILE DEFENSE SENSORS .....	220,876	25,000	245,876
		Accelerate USFK JEON delivery .....		[20,000]	
		Address cyber threats .....		[5,000]	
076	0603890C	BMD ENABLING PROGRAMS .....	540,926		540,926
077	0603891C	SPECIAL PROGRAMS—MDA .....	422,348		422,348
078	0603892C	AEGIS BMD .....	767,539		767,539
081	0603896C	BALLISTIC MISSILE DEFENSE COMMAND AND CONTROL, BATTLE MANAGEMENT AND COMMUNICATI .....	475,168	8,000	483,168
		Address cyber threats .....		[8,000]	

SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
082	0603898C	BALLISTIC MISSILE DEFENSE JOINT WARFIGHTER SUPPORT .....	48,767		48,767
083	0603904C	MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC) .....	54,925		54,925
084	0603906C	REGARDING TRENCH .....	16,916		16,916
085	0603907C	SEA BASED X-BAND RADAR (SBX) .....	149,715	-33,000	116,715
		Forward financed in the FY18 Omnibus .....		[-33,000]	
086	0603913C	ISRAELI COOPERATIVE PROGRAMS .....	300,000		300,000
087	0603914C	BALLISTIC MISSILE DEFENSE TEST .....	365,681	65,000	430,681
		Accelerate USFK JEON delivery .....		[50,000]	
		Address cyber threats .....		[15,000]	
088	0603915C	BALLISTIC MISSILE DEFENSE TARGETS .....	517,852	-26,500	491,352
		Accelerate USFK JEON delivery .....		[4,500]	
		Address cyber threats .....		[5,000]	
		Forward financed in the FY18 Omnibus .....		[-36,000]	
089	0603920D8Z	HUMANITARIAN DEMINING .....	11,347		11,347
090	0603923D8Z	COALITION WARFARE .....	8,528		8,528
091	0604016D8Z	DEPARTMENT OF DEFENSE CORROSION PROGRAM .....	3,477		3,477
092	0604115C	TECHNOLOGY MATURATION INITIATIVES .....	148,822	55,000	203,822
		Address cyber threats .....		[5,000]	
		Continue directed energy and boost phase intercept efforts .....		[50,000]	
093	0604132D8Z	MISSILE DEFEAT PROJECT .....	58,607		58,607
094	0604134BR	COUNTER IMPROVISED-THREAT DEMONSTRATION, PROTOTYPE DEVELOPMENT, AND TESTING .....	12,993		12,993
095	0604181C	HYPERSONIC DEFENSE .....	120,444	10,000	130,444
		Accelerate hypersonic defense capability .....		[10,000]	
096	0604250D8Z	ADVANCED INNOVATIVE TECHNOLOGIES .....	1,431,702	-50,000	1,381,702
		Program reduction .....		[-50,000]	
097	0604294D8Z	TRUSTED & ASSURED MICROELECTRONICS .....	233,142		233,142
098	0604331D8Z	RAPID PROTOTYPING PROGRAM .....	99,333		99,333

098A	0604342D8Z	DEFENSE TECHNOLOGY OFFSET .....		100,000	100,000
		Directed energy .....		[100,000]	
099	0604400D8Z	DEPARTMENT OF DEFENSE (DOD) UNMANNED SYSTEM COMMON DEVELOPMENT .....	3,781		3,781
100	0604673C	PACIFIC DISCRIMINATING RADAR .....	95,765		95,765
101	0604682D8Z	WARGAMING AND SUPPORT FOR STRATEGIC ANALYSIS (SSA) .....	3,768		3,768
103	0604826J	JOINT C5 CAPABILITY DEVELOPMENT, INTEGRATION AND INTEROPERABILITY ASSESSMENTS .....	22,435		22,435
104	0604873C	LONG RANGE DISCRIMINATION RADAR (LRDR) .....	164,562		164,562
105	0604874C	IMPROVED HOMELAND DEFENSE INTERCEPTORS .....	561,220	-139,400	421,820
		Forward financed in the FY18 Omnibus .....		[-139,400]	
106	0604876C	BALLISTIC MISSILE DEFENSE TERMINAL DEFENSE SEGMENT TEST .....	61,017		61,017
107	0604878C	AEGIS BMD TEST .....	95,756		95,756
108	0604879C	BALLISTIC MISSILE DEFENSE SENSOR TEST .....	81,001		81,001
109	0604880C	LAND-BASED SM-3 (LBSM3) .....	27,692	150	27,842
		Retain Poland CHUs .....		[150]	
111	0604887C	BALLISTIC MISSILE DEFENSE MIDCOURSE SEGMENT TEST .....	81,934	-9,300	72,634
		Forward financed in the FY18 Omnibus .....		[-9,300]	
112	0604894C	MULTI-OBJECT KILL VEHICLE .....	8,256		8,256
113	0300206R	ENTERPRISE INFORMATION TECHNOLOGY SYSTEMS .....	2,600		2,600
114	0303191D8Z	JOINT ELECTROMAGNETIC TECHNOLOGY (JET) PROGRAM .....	3,104		3,104
115	0305103C	CYBER SECURITY INITIATIVE .....	985		985
116	1206893C	SPACE TRACKING & SURVEILLANCE SYSTEM .....	36,955		36,955
117	1206895C	BALLISTIC MISSILE DEFENSE SYSTEM SPACE PROGRAMS .....	16,484	58,000	74,484
		Address cyber threats .....		[8,000]	
		Develop space sensor architecture .....		[50,000]	
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES .....</b>	<b>8,709,725</b>	<b>7,950</b>	<b>8,717,675</b>
		<b>SYSTEM DEVELOPMENT AND DEMONSTRATION</b>			
118	0604161D8Z	NUCLEAR AND CONVENTIONAL PHYSICAL SECURITY EQUIPMENT RDT&E SDD .....	8,333		8,333
119	0604165D8Z	PROMPT GLOBAL STRIKE CAPABILITY DEVELOPMENT .....	263,414	150,000	413,414
		Accelerate program .....		[150,000]	
120	0604384BP	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM—EMD .....	388,701		388,701
121	0604771D8Z	JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS) .....	19,503		19,503



**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
122	0605000BR	COUNTER WEAPONS OF MASS DESTRUCTION SYSTEMS DEVELOPMENT .....	6,163		6,163
123	0605013BL	INFORMATION TECHNOLOGY DEVELOPMENT .....	11,988		11,988
124	0605021SE	HOMELAND PERSONNEL SECURITY INITIATIVE .....	296		296
125	0605022D8Z	DEFENSE EXPORTABILITY PROGRAM .....	1,489		1,489
126	0605027D8Z	OUSD(C) IT DEVELOPMENT INITIATIVES .....	9,590		9,590
127	0605070S	DOD ENTERPRISE SYSTEMS DEVELOPMENT AND DEMONSTRATION .....	3,173		3,173
128	0605075D8Z	DCMO POLICY AND INTEGRATION .....	2,105		2,105
129	0605080S	DEFENSE AGENCY INITIATIVES (DAI)—FINANCIAL SYSTEM .....	21,156		21,156
130	0605090S	DEFENSE RETIRED AND ANNUITANT PAY SYSTEM (DRAS) .....	10,731		10,731
132	0605210D8Z	DEFENSE-WIDE ELECTRONIC PROCUREMENT CAPABILITIES .....	6,374		6,374
133	0605294D8Z	TRUSTED & ASSURED MICROELECTRONICS .....	56,178		56,178
134	0303141K	GLOBAL COMBAT SUPPORT SYSTEM .....	2,512		2,512
135	0305304D8Z	DOD ENTERPRISE ENERGY INFORMATION MANAGEMENT (EEIM) .....	2,435		2,435
136	0305310D8Z	CWMD SYSTEMS: SYSTEM DEVELOPMENT AND DEMONSTRATION .....	17,048		17,048
		<b>SUBTOTAL SYSTEM DEVELOPMENT AND DEMONSTRATION .....</b>	<b>831,189</b>	<b>150,000</b>	<b>981,189</b>
		<b>MANAGEMENT SUPPORT</b>			
137	0604774D8Z	DEFENSE READINESS REPORTING SYSTEM (DRRS) .....	6,661		6,661
138	0604875D8Z	JOINT SYSTEMS ARCHITECTURE DEVELOPMENT .....	4,088		4,088
139	0604940D8Z	CENTRAL TEST AND EVALUATION INVESTMENT DEVELOPMENT (CTEIP) .....	258,796		258,796
140	0604942D8Z	ASSESSMENTS AND EVALUATIONS .....	31,356		31,356
141	0605001E	MISSION SUPPORT .....	65,646		65,646
142	0605100D8Z	JOINT MISSION ENVIRONMENT TEST CAPABILITY (JMETC) .....	84,184		84,184
143	0605104D8Z	TECHNICAL STUDIES, SUPPORT AND ANALYSIS .....	22,576		22,576
144	0605126J	JOINT INTEGRATED AIR AND MISSILE DEFENSE ORGANIZATION (JIAMDO) .....	52,565	-10,000	42,565
		Unjustified program growth .....		[-10,000]	
146	0605142D8Z	SYSTEMS ENGINEERING .....	38,872		38,872

May 11, 2018 (12:14 a.m.)

147	0605151D8Z	STUDIES AND ANALYSIS SUPPORT—OSD .....	3,534		3,534
148	0605161D8Z	NUCLEAR MATTERS-PHYSICAL SECURITY .....	5,050		5,050
149	0605170D8Z	SUPPORT TO NETWORKS AND INFORMATION INTEGRATION .....	11,450		11,450
150	0605200D8Z	GENERAL SUPPORT TO USD (INTELLIGENCE) .....	1,693		1,693
151	0605384BP	CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM .....	102,883		102,883
159	0605790D8Z	SMALL BUSINESS INNOVATION RESEARCH (SBIR)/ SMALL BUSINESS TECHNOLOGY TRANSFER .....	2,545		2,545
160	0605798D8Z	DEFENSE TECHNOLOGY ANALYSIS .....	24,487		24,487
161	0605801KA	DEFENSE TECHNICAL INFORMATION CENTER (DTIC) .....	56,853		56,853
162	0605803SE	R&D IN SUPPORT OF DOD ENLISTMENT, TESTING AND EVALUATION .....	24,914		24,914
163	0605804D8Z	DEVELOPMENT TEST AND EVALUATION .....	20,179		20,179
164	0605898E	MANAGEMENT HQ—R&D .....	13,643		13,643
165	0605998KA	MANAGEMENT HQ—DEFENSE TECHNICAL INFORMATION CENTER (DTIC) .....	4,124		4,124
166	0606100D8Z	BUDGET AND PROGRAM ASSESSMENTS .....	5,768		5,768
167	0606225D8Z	ODNA TECHNOLOGY AND RESOURCE ANALYSIS .....	1,030		1,030
168	0606589D8W	DEFENSE DIGITAL SERVICE (DDS) DEVELOPMENT SUPPORT .....	1,000		1,000
169	0606942C	ASSESSMENTS AND EVALUATIONS CYBER VULNERABILITIES .....	3,400		3,400
170	0606942S	ASSESSMENTS AND EVALUATIONS CYBER VULNERABILITIES .....	4,000		4,000
171	0203345D8Z	DEFENSE OPERATIONS SECURITY INITIATIVE (DOSI) .....	3,008		3,008
172	0204571J	JOINT STAFF ANALYTICAL SUPPORT .....	6,658		6,658
175	0303166J	SUPPORT TO INFORMATION OPERATIONS (IO) CAPABILITIES .....	652		652
176	0303260D8Z	DEFENSE MILITARY DECEPTION PROGRAM OFFICE (DMDPO) .....	1,005		1,005
177	0305172K	COMBINED ADVANCED APPLICATIONS .....	21,363		21,363
180	0305245D8Z	INTELLIGENCE CAPABILITIES AND INNOVATION INVESTMENTS .....	109,529		109,529
181	0306310D8Z	CWMD SYSTEMS: RDT&E MANAGEMENT SUPPORT .....	1,244		1,244
184	0804768J	COCOM EXERCISE ENGAGEMENT AND TRAINING TRANSFORMATION (CE2T2)—NON-MHA .....	42,940		42,940
185	0901598C	MANAGEMENT HQ—MDA .....	28,626		28,626
187	0903235K	JOINT SERVICE PROVIDER (JSP) .....	5,104		5,104
188A	9999999999	CLASSIFIED PROGRAMS .....	45,604		45,604
		<b>SUBTOTAL MANAGEMENT SUPPORT .....</b>	<b>1,117,030</b>	<b>-10,000</b>	<b>1,107,030</b>
		<b>OPERATIONAL SYSTEM DEVELOPMENT</b>			
189	0604130V	ENTERPRISE SECURITY SYSTEM (ESS) .....	9,750		9,750

**SEC. 4201. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
190	0605127T	REGIONAL INTERNATIONAL OUTREACH (RIO) AND PARTNERSHIP FOR PEACE INFORMATION MANA .....	1,855		1,855
191	0605147T	OVERSEAS HUMANITARIAN ASSISTANCE SHARED INFORMATION SYSTEM (OHAIS) .....	304		304
192	0607210D8Z	INDUSTRIAL BASE ANALYSIS AND SUSTAINMENT SUPPORT .....	10,376		10,376
193	0607310D8Z	CWMD SYSTEMS: OPERATIONAL SYSTEMS DEVELOPMENT .....	5,915		5,915
194	0607327T	GLOBAL THEATER SECURITY COOPERATION MANAGEMENT INFORMATION SYSTEMS (G-TSCMIS) .....	5,869		5,869
195	0607384BP	CHEMICAL AND BIOLOGICAL DEFENSE (OPERATIONAL SYSTEMS DEVELOPMENT) .....	48,741		48,741
196	0208043J	PLANNING AND DECISION AID SYSTEM (PDAS) .....	3,037		3,037
197	0208045K	C4I INTEROPERABILITY .....	62,814		62,814
203	0302019K	DEFENSE INFO INFRASTRUCTURE ENGINEERING AND INTEGRATION .....	16,561		16,561
204	0303126K	LONG-HAUL COMMUNICATIONS—DCS .....	14,769		14,769
205	0303131K	MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEECN) .....	17,579		17,579
207	0303136G	KEY MANAGEMENT INFRASTRUCTURE (KMI) .....	31,737		31,737
208	0303140D8Z	INFORMATION SYSTEMS SECURITY PROGRAM .....	7,940	10,000	17,940
		Expand cyber scholarship program .....		[10,000]	
209	0303140G	INFORMATION SYSTEMS SECURITY PROGRAM .....	229,252		229,252
210	0303140K	INFORMATION SYSTEMS SECURITY PROGRAM .....	19,611		19,611
211	0303150K	GLOBAL COMMAND AND CONTROL SYSTEM .....	46,900		46,900
212	0303153K	DEFENSE SPECTRUM ORGANIZATION .....	7,570		7,570
213	0303228K	JOINT INFORMATION ENVIRONMENT (JIE) .....	7,947		7,947
215	0303430K	FEDERAL INVESTIGATIVE SERVICES INFORMATION TECHNOLOGY .....	39,400		39,400
224	0305186D8Z	POLICY R&D PROGRAMS .....	6,262		6,262
225	0305199D8Z	NET CENTRICITY .....	16,780		16,780
227	0305208BB	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	6,286		6,286
230	0305208K	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	2,970		2,970
233	0305327V	INSIDER THREAT .....	5,954		5,954
234	0305387D8Z	HOMELAND DEFENSE TECHNOLOGY TRANSFER PROGRAM .....	2,198		2,198
240	0307577D8Z	INTELLIGENCE MISSION DATA (IMD) .....	6,889		6,889

May 11, 2018 (12:14 a.m.)

242	0708012K	LOGISTICS SUPPORT ACTIVITIES .....	1,317		1,317
243	0708012S	PACIFIC DISASTER CENTERS .....	1,770		1,770
244	0708047S	DEFENSE PROPERTY ACCOUNTABILITY SYSTEM .....	1,805		1,805
246	1105219BB	MQ-9 UAV .....	18,403		18,403
248	1160403BB	AVIATION SYSTEMS .....	184,993	-5,000	179,993
		Realignment of funds .....		[-5,000]	
249	1160405BB	INTELLIGENCE SYSTEMS DEVELOPMENT .....	10,625		10,625
250	1160408BB	OPERATIONAL ENHANCEMENTS .....	102,307		102,307
251	1160431BB	WARRIOR SYSTEMS .....	46,942		46,942
252	1160432BB	SPECIAL PROGRAMS .....	2,479		2,479
253	1160434BB	UNMANNED ISR .....	27,270		27,270
254	1160480BB	SOF TACTICAL VEHICLES .....	1,121		1,121
255	1160483BB	MARITIME SYSTEMS .....	42,471		42,471
256	1160489BB	GLOBAL VIDEO SURVEILLANCE ACTIVITIES .....	4,780		4,780
257	1160490BB	OPERATIONAL ENHANCEMENTS INTELLIGENCE .....	12,176		12,176
258	1203610K	TELEPORT PROGRAM .....	2,323		2,323
258A	9999999999	CLASSIFIED PROGRAMS .....	3,877,898		3,877,898
		<b>SUBTOTAL OPERATIONAL SYSTEM DEVELOPMENT .....</b>	<b>4,973,946</b>	<b>5,000</b>	<b>4,978,946</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, DW .....</b>	<b>22,016,553</b>	<b>97,950</b>	<b>22,114,503</b>
		<b>OPERATIONAL TEST &amp; EVAL, DEFENSE</b>			
		<b>MANAGEMENT SUPPORT</b>			
001	06051180TE	OPERATIONAL TEST AND EVALUATION .....	85,685		85,685
002	06051310TE	LIVE FIRE TEST AND EVALUATION .....	64,332		64,332
003	06058140TE	OPERATIONAL TEST ACTIVITIES AND ANALYSES .....	70,992		70,992
		<b>SUBTOTAL MANAGEMENT SUPPORT .....</b>	<b>221,009</b>		<b>221,009</b>
		<b>TOTAL OPERATIONAL TEST &amp; EVAL, DEFENSE .....</b>	<b>221,009</b>		<b>221,009</b>
		<b>TOTAL RDT&amp;E .....</b>	<b>91,056,950</b>	<b>859,700</b>	<b>91,916,650</b>

109

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**SEC. 4202. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION FOR OVERSEAS CONTINGENCY OPERATIONS.**

SEC. 4202. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)					
Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
<b>ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES</b>					
056	0603327A	AIR AND MISSILE DEFENSE SYSTEMS ENGINEERING .....	1,000	-1,000	
		Realignment of EDI APS Unit Set from OCO to Base .....		[-1,000]	
058	0603627A	SMOKE, OBSCURANT AND TARGET DEFEATING SYS-ADV DEV .....	1,500		1,500
061	0603747A	SOLDIER SUPPORT AND SURVIVABILITY .....	3,000		3,000
076	0604117A	MANEUVER—SHORT RANGE AIR DEFENSE (M-SHORAD) .....	23,000	-23,000	
		Realignment of EDI APS Unit Set from OCO to Base .....		[-23,000]	
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES .....</b>	<b>28,500</b>	<b>-24,000</b>	<b>4,500</b>
<b>SYSTEM DEVELOPMENT &amp; DEMONSTRATION</b>					
088	0604328A	TRACTOR CAGE .....	12,000		12,000
100	0604741A	AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE—ENG DEV .....	119,300		119,300
125	0605032A	TRACTOR TIRE .....	66,760		66,760
128	0605035A	COMMON INFRARED COUNTERMEASURES (CIRCM) .....	2,670		2,670
136	0605051A	AIRCRAFT SURVIVABILITY DEVELOPMENT .....	34,933		34,933
147	0303032A	TROJAN—RH12 .....	1,200		1,200
		<b>SUBTOTAL SYSTEM DEVELOPMENT &amp; DEMONSTRATION .....</b>	<b>236,863</b>		<b>236,863</b>
<b>OPERATIONAL SYSTEMS DEVELOPMENT</b>					
184	0607131A	WEAPONS AND MUNITIONS PRODUCT IMPROVEMENT PROGRAMS .....	2,548		2,548
185	0607133A	TRACTOR SMOKE .....	7,780		7,780
206	0203801A	MISSILE/AIR DEFENSE PRODUCT IMPROVEMENT PROGRAM .....	2,000	-2,000	
		Realignment of EDI APS Unit Set from OCO to Base .....		[-2,000]	
209	0205402A	INTEGRATED BASE DEFENSE—OPERATIONAL SYSTEM DEV .....	8,000		8,000

May 11, 2018 (12:14 a.m.)

216	0303028A	SECURITY AND INTELLIGENCE ACTIVITIES .....	23,199		23,199
226	0305206A	AIRBORNE RECONNAISSANCE SYSTEMS .....	14,000	-14,000	
		Realignment of EDI APS Unit Set from OCO to Base .....		[-14,000]	
231	0307665A	BIOMETRICS ENABLED INTELLIGENCE .....	2,214		2,214
		<b>SUBTOTAL OPERATIONAL SYSTEMS DEVELOPMENT .....</b>	<b>59,741</b>	<b>-16,000</b>	<b>43,741</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, ARMY .....</b>	<b>325,104</b>	<b>-40,000</b>	<b>285,104</b>
		<b>ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES</b>			
041	0603527N	RETRACT LARCH .....	18,000		18,000
061	0603654N	JOINT SERVICE EXPLOSIVE ORDNANCE DEVELOPMENT .....	13,900		13,900
074	0603795N	LAND ATTACK TECHNOLOGY .....	1,400		1,400
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES .....</b>	<b>33,300</b>		<b>33,300</b>
		<b>SYSTEM DEVELOPMENT &amp; DEMONSTRATION</b>			
149	0604755N	SHIP SELF DEFENSE (DETECT & CONTROL) .....	1,100		1,100
		<b>SUBTOTAL SYSTEM DEVELOPMENT &amp; DEMONSTRATION .....</b>	<b>1,100</b>		<b>1,100</b>
		<b>OPERATIONAL SYSTEMS DEVELOPMENT</b>			
236	0206313M	MARINE CORPS COMMUNICATIONS SYSTEMS .....	16,130		16,130
268A	9999999999	CLASSIFIED PROGRAMS .....	117,282		117,282
		<b>SUBTOTAL OPERATIONAL SYSTEMS DEVELOPMENT .....</b>	<b>133,412</b>		<b>133,412</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, NAVY .....</b>	<b>167,812</b>		<b>167,812</b>
		<b>ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES</b>			
065	1206438F	SPACE CONTROL TECHNOLOGY .....	1,100		1,100
070	1206857F	OPERATIONALLY RESPONSIVE SPACE .....	12,395		12,395
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT &amp; PROTOTYPES .....</b>	<b>13,495</b>		<b>13,495</b>
		<b>OPERATIONAL SYSTEMS DEVELOPMENT</b>			
186	0205219F	MQ-9 UAV .....	4,500		4,500

111

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**SEC. 4202. RESEARCH, DEVELOPMENT, TEST, AND EVALUATION FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Program Element	Item	FY 2019 Request	House Change	House Authorized
187	0205671F	JOINT COUNTER RCIED ELECTRONIC WARFARE .....	4,000		4,000
188	0207131F	A-10 SQUADRONS .....	1,000		1,000
217	0207610F	BATTLEFIELD ABN COMM NODE (BACN) .....	42,349		42,349
228	0208288F	INTEL DATA APPLICATIONS .....	1,200		1,200
254	0305111F	WEATHER SERVICE .....	3,000		3,000
268	0305202F	DRAGON U-2 .....	22,100		22,100
272	0305208F	DISTRIBUTED COMMON GROUND/SURFACE SYSTEMS .....	29,500		29,500
310	1202247F	AF TENCAP .....	5,000		5,000
327A	9999999999	CLASSIFIED PROGRAMS .....	188,127		188,127
		<b>SUBTOTAL OPERATIONAL SYSTEMS DEVELOPMENT .....</b>	<b>300,776</b>		<b>300,776</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, AF .....</b>	<b>314,271</b>		<b>314,271</b>
		<b>ADVANCED TECHNOLOGY DEVELOPMENT</b>			
024	0603122D8Z	COMBATING TERRORISM TECHNOLOGY SUPPORT .....	25,000		25,000
026	0603134BR	COUNTER IMPROVISED-THREAT SIMULATION .....	13,648		13,648
		<b>SUBTOTAL ADVANCED TECHNOLOGY DEVELOPMENT .....</b>	<b>38,648</b>		<b>38,648</b>
		<b>ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES</b>			
094	0604134BR	COUNTER IMPROVISED-THREAT DEMONSTRATION, PROTOTYPE DEVELOPMENT, AND TESTING .....	242,668		242,668
		<b>SUBTOTAL ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES .....</b>	<b>242,668</b>		<b>242,668</b>
		<b>OPERATIONAL SYSTEM DEVELOPMENT</b>			
250	1160408BB	OPERATIONAL ENHANCEMENTS .....	3,632		3,632
251	1160431BB	WARRIOR SYSTEMS .....	11,040		11,040
253	1160434BB	UNMANNED ISR .....	11,700		11,700
254	1160480BB	SOF TACTICAL VEHICLES .....	725		725

258A	9999999999	CLASSIFIED PROGRAMS .....	192,131		192,131
		<b>SUBTOTAL OPERATIONAL SYSTEM DEVELOPMENT .....</b>	<b>219,228</b>		<b>219,228</b>
		<b>TOTAL RESEARCH, DEVELOPMENT, TEST &amp; EVAL, DW .....</b>	<b>500,544</b>		<b>500,544</b>
		<b>TOTAL RDT&amp;E .....</b>	<b>1,307,731</b>	<b>-40,000</b>	<b>1,267,731</b>



## TITLE XLIII—OPERATION AND MAINTENANCE

### SEC. 4301. OPERATION AND MAINTENANCE.

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
<b>OPERATION &amp; MAINTENANCE, ARMY</b>				
<b>OPERATING FORCES</b>				
010	MANEUVER UNITS .....	2,076,360	-445,300	1,631,060
	Readiness restoration .....		[9,400]	
	Realign OCO requirements from Base to OCO .....		[-454,700]	
020	MODULAR SUPPORT BRIGADES .....	107,946	1,800	109,746
	Readiness restoration .....		[1,800]	
030	ECHELONS ABOVE BRIGADE .....	732,485	-143,970	588,515
	Readiness restoration .....		[7,600]	
	Realign OCO requirements from Base to OCO .....		[-151,570]	
040	THEATER LEVEL ASSETS .....	1,169,508	-224,200	945,308
	Readiness restoration .....		[18,300]	
	Realign OCO requirements from Base to OCO .....		[-242,500]	
050	LAND FORCES OPERATIONS SUPPORT .....	1,180,460	17,500	1,197,960
	Readiness restoration .....		[17,500]	
060	AVIATION ASSETS .....	1,467,500	17,800	1,485,300
	Readiness restoration .....		[17,800]	
070	FORCE READINESS OPERATIONS SUPPORT .....	4,285,211	-604,260	3,680,951
	Female personal protective equipment .....		[2,000]	
	Realign OCO requirements from Base to OCO .....		[-606,260]	
080	LAND FORCES SYSTEMS READINESS .....	482,201		482,201

090	LAND FORCES DEPOT MAINTENANCE .....	1,536,851	-161,620	1,375,231
	Readiness restoration .....		[111,200]	
	Realign OCO requirements from Base to OCO .....		[-272,820]	
100	BASE OPERATIONS SUPPORT .....	8,274,299	-606,260	7,668,039
	Realign OCO requirements from Base to OCO .....		[-606,260]	
110	FACILITIES SUSTAINMENT .....	3,516,859	-1,018,881	2,497,978
	85% Sustainment .....		[175,469]	
	Capability Output Level 3 Funding .....		[25,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[-1,219,350]	
111	FACILITIES RESTORATION & MODERNIZATION .....		1,054,140	1,054,140
	Realignment of FSRM funds to new RM and Demo lines .....		[1,054,140]	
112	FACILITIES DEMOLITION .....		215,210	215,210
	Program increase .....		[50,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[165,210]	
120	MANAGEMENT AND OPERATIONAL HEADQUARTERS .....	438,733		438,733
180	US AFRICA COMMAND .....	231,518		231,518
190	US EUROPEAN COMMAND .....	150,268		150,268
200	US SOUTHERN COMMAND .....	195,964		195,964
210	US FORCES KOREA .....	59,625		59,625
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>25,905,788</b>	<b>-1,898,041</b>	<b>24,007,747</b>
	<b>MOBILIZATION</b>			
220	STRATEGIC MOBILITY .....	370,941		370,941
230	ARMY PREPOSITIONED STOCKS .....	573,560	158,753	732,313
	Realignment of EDI APS Unit Set from OCO to Base .....		[158,753]	
240	INDUSTRIAL PREPAREDNESS .....	7,678		7,678
	<b>SUBTOTAL MOBILIZATION</b> .....	<b>952,179</b>	<b>158,753</b>	<b>1,110,932</b>
	<b>TRAINING AND RECRUITING</b>			
250	OFFICER ACQUISITION .....	135,832		135,832
260	RECRUIT TRAINING .....	54,819		54,819
270	ONE STATION UNIT TRAINING .....	69,599		69,599

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
280	SENIOR RESERVE OFFICERS TRAINING CORPS .....	518,998		518,998
290	SPECIALIZED SKILL TRAINING .....	1,020,073		1,020,073
300	FLIGHT TRAINING .....	1,082,190		1,082,190
310	PROFESSIONAL DEVELOPMENT EDUCATION .....	220,399		220,399
320	TRAINING SUPPORT .....	611,482		611,482
330	RECRUITING AND ADVERTISING .....	698,962		698,962
340	EXAMINING .....	162,049		162,049
350	OFF-DUTY AND VOLUNTARY EDUCATION .....	215,622		215,622
360	CIVILIAN EDUCATION AND TRAINING .....	176,914		176,914
370	JUNIOR RESERVE OFFICER TRAINING CORPS .....	174,430		174,430
	<b>SUBTOTAL TRAINING AND RECRUITING .....</b>	<b>5,141,369</b>		<b>5,141,369</b>
	<b>ADMIN &amp; SRVWIDE ACTIVITIES</b>			
390	SERVICEWIDE TRANSPORTATION .....	588,047	-151,600	436,447
	Realign OCO requirements from Base to OCO .....		[-151,600]	
400	CENTRAL SUPPLY ACTIVITIES .....	931,462		931,462
410	LOGISTIC SUPPORT ACTIVITIES .....	696,114		696,114
420	AMMUNITION MANAGEMENT .....	461,637		461,637
430	ADMINISTRATION .....	447,564		447,564
440	SERVICEWIDE COMMUNICATIONS .....	2,069,127		2,069,127
450	MANPOWER MANAGEMENT .....	261,021		261,021
460	OTHER PERSONNEL SUPPORT .....	379,541		379,541
470	OTHER SERVICE SUPPORT .....	1,699,767		1,699,767
480	ARMY CLAIMS ACTIVITIES .....	192,686		192,686
490	REAL ESTATE MANAGEMENT .....	240,917		240,917
500	FINANCIAL MANAGEMENT AND AUDIT READINESS .....	291,569		291,569
510	INTERNATIONAL MILITARY HEADQUARTERS .....	442,656		442,656

520	MISC. SUPPORT OF OTHER NATIONS .....	48,251	10,000	58,251
	NATO Cooperative Cyber Defense Center of Excellence .....		[5,000]	
	NATO Strategic Communications Center of Excellence .....		[5,000]	
565	CLASSIFIED PROGRAMS .....	1,259,622		1,259,622
	<b>SUBTOTAL ADMIN &amp; SRVWIDE ACTIVITIES</b> .....	<b>10,009,981</b>	<b>-141,600</b>	<b>9,868,381</b>
	<b>UNDISTRIBUTED</b>			
570	UNDISTRIBUTED .....		-894,500	-894,500
	Foreign Currency adjustments .....		[-210,300]	
	Historical unobligated balances .....		[-694,200]	
	Simulators and other technologies to reduce the use of live animal tissue for medical training .....		[10,000]	
	<b>SUBTOTAL UNDISTRIBUTED</b> .....		<b>-894,500</b>	<b>-894,500</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, ARMY</b> .....	<b>42,009,317</b>	<b>-2,775,388</b>	<b>39,233,929</b>
	<b>OPERATION &amp; MAINTENANCE, ARMY RES</b>			
	<b>OPERATING FORCES</b>			
010	MODULAR SUPPORT BRIGADES .....	13,867		13,867
020	ECHELONS ABOVE BRIGADE .....	536,438		536,438
030	THEATER LEVEL ASSETS .....	113,225		113,225
040	LAND FORCES OPERATIONS SUPPORT .....	551,141		551,141
050	AVIATION ASSETS .....	89,073		89,073
060	FORCE READINESS OPERATIONS SUPPORT .....	409,531		409,531
070	LAND FORCES SYSTEMS READINESS .....	101,411		101,411
080	LAND FORCES DEPOT MAINTENANCE .....	60,114		60,114
090	BASE OPERATIONS SUPPORT .....	595,728		595,728
100	FACILITIES SUSTAINMENT .....	304,658	-41,593	263,065
	Realignment of FSRM funds to new RM and Demo lines .....		[-71,593]	
	Sustainment recovery .....		[30,000]	
101	FACILITIES RESTORATION & MODERNIZATION .....		49,176	49,176
	Realignment of FSRM funds to new RM and Demo lines .....		[49,176]	
102	FACILITIES DEMOLITION .....		22,417	22,417

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	Realignment of FSRM funds to new RM and Demo lines .....		[22,417]	
110	MANAGEMENT AND OPERATIONAL HEADQUARTERS .....	22,175		22,175
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>2,797,361</b>	<b>30,000</b>	<b>2,827,361</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
120	SERVICEMAN TRANSPORTATION .....	11,832		11,832
130	ADMINISTRATION .....	18,218		18,218
140	SERVICEMAN COMMUNICATIONS .....	25,069		25,069
150	MANPOWER MANAGEMENT .....	6,248		6,248
160	RECRUITING AND ADVERTISING .....	58,181		58,181
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES</b> .....	<b>119,548</b>		<b>119,548</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, ARMY RES</b> .....	<b>2,916,909</b>	<b>30,000</b>	<b>2,946,909</b>
	<b>OPERATION &amp; MAINTENANCE, ARNG</b>			
	<b>OPERATING FORCES</b>			
010	MANEUVER UNITS .....	810,269		810,269
020	MODULAR SUPPORT BRIGADES .....	193,402		193,402
030	ECHELONS ABOVE BRIGADE .....	753,815		753,815
040	THEATER LEVEL ASSETS .....	84,124		84,124
050	LAND FORCES OPERATIONS SUPPORT .....	31,881		31,881
060	AVIATION ASSETS .....	973,874		973,874
070	FORCE READINESS OPERATIONS SUPPORT .....	784,086		784,086
080	LAND FORCES SYSTEMS READINESS .....	51,353		51,353
090	LAND FORCES DEPOT MAINTENANCE .....	221,633		221,633
100	BASE OPERATIONS SUPPORT .....	1,129,942		1,129,942
110	FACILITIES SUSTAINMENT .....	919,947	-31,187	888,760

	Realignment of FSRM funds to new RM and Demo lines .....		[-101,187]	
	Sustainment recovery .....		[70,000]	
111	FACILITIES RESTORATION & MODERNIZATION .....		85,859	85,859
	Realignment of FSRM funds to new RM and Demo lines .....		[85,859]	
112	FACILITIES DEMOLITION .....		15,328	15,328
	Realignment of FSRM funds to new RM and Demo lines .....		[15,328]	
120	MANAGEMENT AND OPERATIONAL HEADQUARTERS .....	1,010,524		1,010,524
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>6,964,850</b>	<b>70,000</b>	<b>7,034,850</b>
<b>ADMIN &amp; SRVWD ACTIVITIES</b>				
130	SERVICEWIDE TRANSPORTATION .....	10,017		10,017
140	ADMINISTRATION .....	72,746		72,746
150	SERVICEWIDE COMMUNICATIONS .....	83,105		83,105
160	MANPOWER MANAGEMENT .....	10,678		10,678
170	OTHER PERSONNEL SUPPORT .....	254,753		254,753
180	REAL ESTATE MANAGEMENT .....	3,146		3,146
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>434,445</b>		<b>434,445</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, ARNG .....</b>	<b>7,399,295</b>	<b>70,000</b>	<b>7,469,295</b>
<b>OPERATION &amp; MAINTENANCE, NAVY</b>				
<b>OPERATING FORCES</b>				
010	MISSION AND OTHER FLIGHT OPERATIONS .....	5,372,399		5,372,399
020	FLEET AIR TRAINING .....	2,023,351	-8,758	2,014,593
	Advanced skills management .....		[-8,758]	
030	AVIATION TECHNICAL DATA & ENGINEERING SERVICES .....	56,225		56,225
040	AIR OPERATIONS AND SAFETY SUPPORT .....	156,081		156,081
050	AIR SYSTEMS SUPPORT .....	682,379		682,379
060	AIRCRAFT DEPOT MAINTENANCE .....	1,253,756	37,400	1,291,156
	Readiness restoration .....		[37,400]	
070	AIRCRAFT DEPOT OPERATIONS SUPPORT .....	66,649		66,649
080	AVIATION LOGISTICS .....	939,368	6,400	945,768

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	Readiness restoration .....		[6,400]	
090	MISSION AND OTHER SHIP OPERATIONS .....	4,439,566		4,439,566
100	SHIP OPERATIONS SUPPORT & TRAINING .....	997,663		997,663
110	SHIP DEPOT MAINTENANCE .....	8,751,526	148,600	8,900,126
	Readiness restoration .....		[116,600]	
	Western Pacific Dry Dock capability .....		[32,000]	
120	SHIP DEPOT OPERATIONS SUPPORT .....	2,168,876		2,168,876
130	COMBAT COMMUNICATIONS AND ELECTRONIC WARFARE .....	1,349,593		1,349,593
150	SPACE SYSTEMS AND SURVEILLANCE .....	215,255		215,255
160	WARFARE TACTICS .....	632,446		632,446
170	OPERATIONAL METEOROLOGY AND OCEANOGRAPHY .....	373,046		373,046
180	COMBAT SUPPORT FORCES .....	1,452,075		1,452,075
190	EQUIPMENT MAINTENANCE AND DEPOT OPERATIONS SUPPORT .....	153,719		153,719
210	COMBATANT COMMANDERS CORE OPERATIONS .....	63,039		63,039
220	COMBATANT COMMANDERS DIRECT MISSION SUPPORT .....	89,339		89,339
230	MILITARY INFORMATION SUPPORT OPERATIONS .....	8,475		8,475
240	CYBERSPACE ACTIVITIES .....	424,088		424,088
260	FLEET BALLISTIC MISSILE .....	1,361,947		1,361,947
280	WEAPONS MAINTENANCE .....	823,952	-4,500	819,452
	Insufficient budget justification for submarine acoustic systems .....		[-4,500]	
290	OTHER WEAPON SYSTEMS SUPPORT .....	494,101		494,101
300	ENTERPRISE INFORMATION .....	921,936		921,936
310	FACILITIES SUSTAINMENT .....	2,040,389	-328,167	1,712,222
	85% Sustainment .....		[101,000]	
	Capability Output Level 3 Funding .....		[20,000]	
	Project oversight (Unjustified Growth) .....		[-85,420]	
	Realignment of FSRM funds to new RM and Demo lines .....		[-363,747]	

311	FACILITIES RESTORATION & MODERNIZATION .....		243,745	243,745
	Realignment of FSRM funds to new RM and Demo lines .....		[243,745]	
312	FACILITIES DEMOLITION .....		160,002	160,002
	Program increase .....		[40,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[120,002]	
320	BASE OPERATING SUPPORT .....	4,414,753		4,414,753
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>41,725,992</b>	<b>254,722</b>	<b>41,980,714</b>
	<b>MOBILIZATION</b>			
330	SHIP PREPOSITIONING AND SURGE .....	549,142	-148,597	400,545
	Realign DoD Mobilization Alternation to NDSF .....		[-20,858]	
	Realign LG Med Spd RO/RO Maintenance to NDSF .....		[-127,739]	
340	READY RESERVE FORCE .....	310,805	-310,805	
	Realign Ready Reserve Forces to NDSF .....		[-310,805]	
360	SHIP ACTIVATIONS/INACTIVATIONS .....	161,150		161,150
370	EXPEDITIONARY HEALTH SERVICES SYSTEMS .....	120,338	-72,350	47,988
	Realign T-AH Maintenance to NDSF .....		[-72,350]	
390	COAST GUARD SUPPORT .....	24,097		24,097
	<b>SUBTOTAL MOBILIZATION</b> .....	<b>1,165,532</b>	<b>-531,752</b>	<b>633,780</b>
	<b>TRAINING AND RECRUITING</b>			
400	OFFICER ACQUISITION .....	145,481		145,481
410	RECRUIT TRAINING .....	9,637		9,637
420	RESERVE OFFICERS TRAINING CORPS .....	149,687		149,687
430	SPECIALIZED SKILL TRAINING .....	879,557		879,557
450	PROFESSIONAL DEVELOPMENT EDUCATION .....	184,436	1,700	186,136
	Naval Sea Cadets .....		[1,700]	
460	TRAINING SUPPORT .....	223,159		223,159
470	RECRUITING AND ADVERTISING .....	181,086		181,086
480	OFF-DUTY AND VOLUNTARY EDUCATION .....	96,006		96,006
490	CIVILIAN EDUCATION AND TRAINING .....	72,083		72,083
500	JUNIOR ROTC .....	54,156		54,156



SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	<b>SUBTOTAL TRAINING AND RECRUITING</b> .....	<b>1,995,288</b>	<b>1,700</b>	<b>1,996,988</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
510	ADMINISTRATION .....	1,089,964		1,089,964
530	CIVILIAN MANPOWER AND PERSONNEL MANAGEMENT .....	164,074		164,074
540	MILITARY MANPOWER AND PERSONNEL MANAGEMENT .....	418,350		418,350
580	SERVICEWIDE TRANSPORTATION .....	167,106		167,106
600	PLANNING, ENGINEERING, AND PROGRAM SUPPORT .....	333,556		333,556
610	ACQUISITION, LOGISTICS, AND OVERSIGHT .....	663,690		663,690
650	INVESTIGATIVE AND SECURITY SERVICES .....	705,087		705,087
765	CLASSIFIED PROGRAMS .....	574,994		574,994
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES</b> .....	<b>4,116,821</b>		<b>4,116,821</b>
	<b>UNDISTRIBUTED</b>			
770	UNDISTRIBUTED .....		-398,100	-398,100
	Foreign Currency adjustments .....		[-55,100]	
	Historical unobligated balances .....		[-343,000]	
	<b>SUBTOTAL UNDISTRIBUTED</b> .....		<b>-398,100</b>	<b>-398,100</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, NAVY</b> .....	<b>49,003,633</b>	<b>-673,430</b>	<b>48,330,203</b>
	<b>OPERATION &amp; MAINTENANCE, MARINE CORPS</b>			
	<b>OPERATING FORCES</b>			
010	OPERATIONAL FORCES .....	873,320	12,400	885,720
	Additional parts & spares to support intermediate & organizational maintenance .....		[8,200]	
	Additional training requirements .....		[4,200]	
020	FIELD LOGISTICS .....	1,094,187		1,094,187

030	DEPOT MAINTENANCE .....	314,182	26,900	341,082
	Readiness restoration .....		[26,900]	
040	MARITIME PREPOSITIONING .....	98,136		98,136
050	CYBERSPACE ACTIVITIES .....	183,546		183,546
060	FACILITIES SUSTAINMENT .....	832,636	-86,282	746,354
	85% Sustainment .....		[42,400]	
	Capability Output Level 3 Funding .....		[10,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[-138,682]	
061	FACILITIES RESTORATION & MODERNIZATION .....		61,469	61,469
	Realignment of FSRM funds to new RM and Demo lines .....		[61,469]	
062	FACILITIES DEMOLITION .....		107,213	107,213
	Program increase .....		[30,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[77,213]	
070	BASE OPERATING SUPPORT .....	2,151,390		2,151,390
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>5,547,397</b>	<b>121,700</b>	<b>5,669,097</b>
	<b>TRAINING AND RECRUITING</b>			
080	RECRUIT TRAINING .....	16,453		16,453
090	OFFICER ACQUISITION .....	1,144		1,144
100	SPECIALIZED SKILL TRAINING .....	106,360		106,360
110	PROFESSIONAL DEVELOPMENT EDUCATION .....	46,096		46,096
120	TRAINING SUPPORT .....	389,751		389,751
130	RECRUITING AND ADVERTISING .....	201,662		201,662
140	OFF-DUTY AND VOLUNTARY EDUCATION .....	32,461		32,461
150	JUNIOR ROTC .....	24,217		24,217
	<b>SUBTOTAL TRAINING AND RECRUITING .....</b>	<b>818,144</b>		<b>818,144</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
160	SERVICEWIDE TRANSPORTATION .....	29,735		29,735
170	ADMINISTRATION .....	386,375		386,375
225	CLASSIFIED PROGRAMS .....	50,859		50,859
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>466,969</b>		<b>466,969</b>

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
<b>UNDISTRIBUTED</b>				
230	UNDISTRIBUTED .....		-43,600	-43,600
	Foreign Currency adjustments .....		[-13,600]	
	Historical unobligated balances .....		[-30,000]	
	<b>SUBTOTAL UNDISTRIBUTED .....</b>		<b>-43,600</b>	<b>-43,600</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, MARINE CORPS .....</b>	<b>6,832,510</b>	<b>78,100</b>	<b>6,910,610</b>
<b>OPERATION &amp; MAINTENANCE, NAVY RES</b>				
<b>OPERATING FORCES</b>				
010	MISSION AND OTHER FLIGHT OPERATIONS .....	569,584		569,584
020	INTERMEDIATE MAINTENANCE .....	6,902		6,902
030	AIRCRAFT DEPOT MAINTENANCE .....	109,776		109,776
040	AIRCRAFT DEPOT OPERATIONS SUPPORT .....	538		538
050	AVIATION LOGISTICS .....	18,888		18,888
060	SHIP OPERATIONS SUPPORT & TRAINING .....	574		574
070	COMBAT COMMUNICATIONS .....	17,561		17,561
080	COMBAT SUPPORT FORCES .....	121,070		121,070
090	CYBERSPACE ACTIVITIES .....	337		337
100	ENTERPRISE INFORMATION .....	23,964		23,964
110	FACILITIES SUSTAINMENT .....	36,356	4,795	41,151
	Realignment of FSRM funds to new RM and Demo lines .....		[-5,205]	
	Sustainment recovery .....		[10,000]	
111	FACILITIES RESTORATION & MODERNIZATION .....		3,205	3,205
	Realignment of FSRM funds to new RM and Demo lines .....		[3,205]	
112	FACILITIES DEMOLITION .....		2,000	2,000

	Realignment of FSRM funds to new RM and Demo lines .....		[2,000]	
120	BASE OPERATING SUPPORT .....	103,562		103,562
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>1,009,112</b>	<b>10,000</b>	<b>1,019,112</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
130	ADMINISTRATION .....	1,868		1,868
140	MILITARY MANPOWER AND PERSONNEL MANAGEMENT .....	12,849		12,849
160	ACQUISITION AND PROGRAM MANAGEMENT .....	3,177		3,177
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>17,894</b>		<b>17,894</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, NAVY RES .....</b>	<b>1,027,006</b>	<b>10,000</b>	<b>1,037,006</b>
	<b>OPERATION &amp; MAINTENANCE, MC RESERVE</b>			
	<b>OPERATING FORCES</b>			
010	OPERATING FORCES .....	99,173	8,700	107,873
	Additional training requirements .....		[8,700]	
020	DEPOT MAINTENANCE .....	19,430		19,430
030	FACILITIES SUSTAINMENT .....	39,962	-14,296	25,666
	Realignment of FSRM funds to new RM and Demo lines .....		[-22,296]	
	Sustainment recovery .....		[8,000]	
031	FACILITIES RESTORATION & MODERNIZATION .....		22,296	22,296
	Realignment of FSRM funds to new RM and Demo lines .....		[22,296]	
040	BASE OPERATING SUPPORT .....	101,829		101,829
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>260,394</b>	<b>16,700</b>	<b>277,094</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
050	ADMINISTRATION .....	11,176		11,176
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>11,176</b>		<b>11,176</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, MC RESERVE .....</b>	<b>271,570</b>	<b>16,700</b>	<b>288,270</b>
	<b>OPERATION &amp; MAINTENANCE, AIR FORCE</b>			

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
<b>OPERATING FORCES</b>				
010	PRIMARY COMBAT FORCES .....	758,178		758,178
020	COMBAT ENHANCEMENT FORCES .....	1,509,027		1,509,027
030	AIR OPERATIONS TRAINING (OJT, MAINTAIN SKILLS) .....	1,323,330		1,323,330
040	DEPOT PURCHASE EQUIPMENT MAINTENANCE .....	3,511,830	84,500	3,596,330
	Readiness restoration .....		[46,500]	
	Restoration of U-2 Tail #80-1099 .....		[38,000]	
050	FACILITIES SUSTAINMENT .....	2,892,705	-270,881	2,621,824
	85% Sustainment .....		[152,000]	
	Capability Output Level 3 Funding .....		[23,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[-445,881]	
051	FACILITIES RESTORATION & MODERNIZATION .....		420,861	420,861
	Realignment of FSRM funds to new RM and Demo lines .....		[420,861]	
052	FACILITIES DEMOLITION .....		67,020	67,020
	Program increase .....		[42,000]	
	Realignment of FSRM funds to new RM and Demo lines .....		[25,020]	
060	CONTRACTOR LOGISTICS SUPPORT AND SYSTEM SUPPORT .....	7,613,084	74,800	7,687,884
	Readiness restoration .....		[74,800]	
070	FLYING HOUR PROGRAM .....	4,345,208		4,345,208
080	BASE SUPPORT .....	5,989,215		5,989,215
090	GLOBAL C3I AND EARLY WARNING .....	928,023		928,023
100	OTHER COMBAT OPS SPT PROGRAMS .....	1,080,956		1,080,956
110	CYBERSPACE ACTIVITIES .....	879,032		879,032
130	LAUNCH FACILITIES .....	183,777		183,777
140	SPACE CONTROL SYSTEMS .....	404,072		404,072
170	US NORTHCOM/NORAD .....	187,375		187,375
180	US STRATCOM .....	529,902		529,902

190	US CYBERCOM .....	329,474	329,474
200	US CENTCOM .....	166,024	166,024
210	US SOCOM .....	723	723
220	US TRANSCOM .....	535	535
225	CLASSIFIED PROGRAMS .....	1,164,810	1,164,810
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>33,797,280</b>	<b>34,173,580</b>
	<b>MOBILIZATION</b>		
230	AIRLIFT OPERATIONS .....	1,307,695	1,307,695
240	MOBILIZATION PREPAREDNESS .....	144,417	144,417
	<b>SUBTOTAL MOBILIZATION .....</b>	<b>1,452,112</b>	<b>1,452,112</b>
	<b>TRAINING AND RECRUITING</b>		
280	OFFICER ACQUISITION .....	133,187	133,187
290	RECRUIT TRAINING .....	25,041	25,041
300	RESERVE OFFICERS TRAINING CORPS (ROTC) .....	117,338	117,338
330	SPECIALIZED SKILL TRAINING .....	401,996	401,996
340	FLIGHT TRAINING .....	477,064	477,064
350	PROFESSIONAL DEVELOPMENT EDUCATION .....	276,423	276,423
360	TRAINING SUPPORT .....	95,948	95,948
380	RECRUITING AND ADVERTISING .....	154,530	154,530
390	EXAMINING .....	4,132	4,132
400	OFF-DUTY AND VOLUNTARY EDUCATION .....	223,150	223,150
410	CIVILIAN EDUCATION AND TRAINING .....	209,497	209,497
420	JUNIOR ROTC .....	59,908	59,908
	<b>SUBTOTAL TRAINING AND RECRUITING .....</b>	<b>2,178,214</b>	<b>2,178,214</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>		
430	LOGISTICS OPERATIONS .....	681,788	681,788
440	TECHNICAL SUPPORT ACTIVITIES .....	117,812	117,812
480	ADMINISTRATION .....	953,102	953,102
490	SERVICEWIDE COMMUNICATIONS .....	358,389	358,389

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
500	OTHER SERVICEWIDE ACTIVITIES .....	1,194,862		1,194,862
510	CIVIL AIR PATROL .....	29,594		29,594
540	INTERNATIONAL SUPPORT .....	74,959		74,959
545	CLASSIFIED PROGRAMS .....	1,222,456		1,222,456
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>4,632,962</b>		<b>4,632,962</b>
	<b>UNDISTRIBUTED</b>			
550	UNDISTRIBUTED .....		-455,200	-455,200
	Foreign Currency adjustments .....		[-104,500]	
	Historical unobligated balances .....		[-350,700]	
	<b>SUBTOTAL UNDISTRIBUTED .....</b>		<b>-455,200</b>	<b>-455,200</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, AIR FORCE .....</b>	<b>42,060,568</b>	<b>-78,900</b>	<b>41,981,668</b>
	<b>OPERATION &amp; MAINTENANCE, AF RESERVE</b>			
	<b>OPERATING FORCES</b>			
010	PRIMARY COMBAT FORCES .....	1,853,437		1,853,437
020	MISSION SUPPORT OPERATIONS .....	205,369		205,369
030	DEPOT PURCHASE EQUIPMENT MAINTENANCE .....	345,576	1,900	347,476
	Readiness restoration .....		[1,900]	
040	FACILITIES SUSTAINMENT .....	120,736	2,367	123,103
	Realignment of FSRM funds to new RM and Demo lines .....		[-27,633]	
	Sustainment recovery .....		[30,000]	
041	FACILITIES RESTORATION & MODERNIZATION .....		27,633	27,633
	Realignment of FSRM funds to new RM and Demo lines .....		[27,633]	
050	CONTRACTOR LOGISTICS SUPPORT AND SYSTEM SUPPORT .....	241,239	18,700	259,939
	Readiness restoration .....		[18,700]	

060	BASE SUPPORT .....	385,922		385,922
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>3,152,279</b>	<b>50,600</b>	<b>3,202,879</b>
	<b>ADMINISTRATION AND SERVICEWIDE ACTIVITIES</b>			
070	ADMINISTRATION .....	71,188		71,188
080	RECRUITING AND ADVERTISING .....	19,429		19,429
090	MILITARY MANPOWER AND PERS MGMT (ARPC) .....	9,386		9,386
100	OTHER PERS SUPPORT (DISABILITY COMP) .....	7,512		7,512
110	AUDIOVISUAL .....	440		440
	<b>SUBTOTAL ADMINISTRATION AND SERVICEWIDE ACTIVITIES .....</b>	<b>107,955</b>		<b>107,955</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, AF RESERVE .....</b>	<b>3,260,234</b>	<b>50,600</b>	<b>3,310,834</b>
	<b>OPERATION &amp; MAINTENANCE, ANG</b>			
	<b>OPERATING FORCES</b>			
010	AIRCRAFT OPERATIONS .....	2,619,940		2,619,940
020	MISSION SUPPORT OPERATIONS .....	623,265		623,265
030	DEPOT PURCHASE EQUIPMENT MAINTENANCE .....	748,287		748,287
040	FACILITIES SUSTAINMENT .....	303,792	-14,092	289,700
	Realignment of FSRM funds to new RM and Demo lines .....		[-34,092]	
	Sustainment recovery .....		[20,000]	
041	FACILITIES RESTORATION & MODERNIZATION .....		31,696	31,696
	Realignment of FSRM funds to new RM and Demo lines .....		[31,696]	
042	FACILITIES DEMOLITION .....		2,396	2,396
	Realignment of FSRM funds to new RM and Demo lines .....		[2,396]	
050	CONTRACTOR LOGISTICS SUPPORT AND SYSTEM SUPPORT .....	1,061,759	3,000	1,064,759
	Readiness restoration .....		[3,000]	
060	BASE SUPPORT .....	988,333	900	989,233
	Readiness restoration .....		[900]	
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>6,345,376</b>	<b>23,900</b>	<b>6,369,276</b>
	<b>ADMINISTRATION AND SERVICE-WIDE ACTIVITIES</b>			



SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
070	ADMINISTRATION .....	45,711		45,711
080	RECRUITING AND ADVERTISING .....	36,535		36,535
	<b>SUBTOTAL ADMINISTRATION AND SERVICE-WIDE ACTIVITIES .....</b>	<b>82,246</b>		<b>82,246</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, ANG .....</b>	<b>6,427,622</b>	<b>23,900</b>	<b>6,451,522</b>
	<b>OPERATION AND MAINTENANCE, DEFENSE-WIDE</b>			
	<b>OPERATING FORCES</b>			
010	JOINT CHIEFS OF STAFF .....	430,215		430,215
020	JOINT CHIEFS OF STAFF—CE2T2 .....	602,186		602,186
040	SPECIAL OPERATIONS COMMAND/OPERATING FORCES .....	5,389,250	-174,000	5,215,250
	Civilian pay ahead of need .....		[-10,700]	
	Communications .....		[-20,000]	
	DCGS-SOF .....		[-10,000]	
	MC-12 ahead of need .....		[-33,300]	
	Program decrease .....		[-100,000]	
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>6,421,651</b>	<b>-174,000</b>	<b>6,247,651</b>
	<b>TRAINING AND RECRUITING</b>			
050	DEFENSE ACQUISITION UNIVERSITY .....	181,601	-9,100	172,501
	Efficiencies within the 4th estate .....		[-9,100]	
060	JOINT CHIEFS OF STAFF .....	96,565		96,565
070	SPECIAL OPERATIONS COMMAND/TRAINING AND RECRUITING .....	370,583		370,583
	<b>SUBTOTAL TRAINING AND RECRUITING .....</b>	<b>648,749</b>	<b>-9,100</b>	<b>639,649</b>
	<b>ADMIN &amp; SRVWIDE ACTIVITIES</b>			
080	CIVIL MILITARY PROGRAMS .....	166,131	20,000	186,131

	STARBASE .....		[20,000]	
100	DEFENSE CONTRACT AUDIT AGENCY .....	625,633	-31,300	594,333
	Efficiencies within the 4th estate .....		[-31,300]	
110	DEFENSE CONTRACT MANAGEMENT AGENCY .....	1,465,354	-73,300	1,392,054
	Efficiencies within the 4th estate .....		[-73,300]	
120	DEFENSE HUMAN RESOURCES ACTIVITY .....	859,923	-43,000	816,923
	Efficiencies within the 4th estate .....		[-43,000]	
130	DEFENSE INFORMATION SYSTEMS AGENCY .....	2,106,930	-105,300	2,001,630
	Efficiencies within the 4th estate .....		[-105,300]	
150	DEFENSE LEGAL SERVICES AGENCY .....	27,403	-1,400	26,003
	Efficiencies within the 4th estate .....		[-1,400]	
160	DEFENSE LOGISTICS AGENCY .....	379,275	6,475	385,750
	Efficiencies within the 4th estate .....		[-19,000]	
	Program increase for the Procurement Technical Assistance Program (PTAP) .....		[25,475]	
170	DEFENSE MEDIA ACTIVITY .....	207,537	-10,400	197,137
	Efficiencies within the 4th estate .....		[-10,400]	
180	DEFENSE PERSONNEL ACCOUNTING AGENCY .....	130,696		130,696
190	DEFENSE SECURITY COOPERATION AGENCY .....	754,711		754,711
200	DEFENSE SECURITY SERVICE .....	789,175		789,175
220	DEFENSE TECHNOLOGY SECURITY ADMINISTRATION .....	34,951	-1,700	33,251
	Efficiencies within the 4th estate .....		[-1,700]	
230	DEFENSE THREAT REDUCTION AGENCY .....	553,329		553,329
250	DEPARTMENT OF DEFENSE EDUCATION ACTIVITY .....	2,892,284	50,000	2,942,284
	Impact Aid .....		[40,000]	
	Impact Aid for Children with Severe Disabilities .....		[10,000]	
260	MISSILE DEFENSE AGENCY .....	499,817		499,817
280	OFFICE OF ECONOMIC ADJUSTMENT .....	70,035	96,500	166,535
	Defense Community Infrastructure Program .....		[100,000]	
	Efficiencies within the 4th estate .....		[-3,500]	
290	OFFICE OF THE SECRETARY OF DEFENSE .....	1,519,655	11,000	1,530,655
	CDC PFOS/PFOA Health Study Increment .....		[7,000]	
	Contract support for ACCM oversight as directed by Sec. 1062 of FY17 NDAA .....		[5,000]	

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	Efficiencies within the 4th estate .....		[-76,000]	
	Establish Artificial Intelligence commission .....		[10,000]	
	Funds to support the Global Engagement Center .....		[60,000]	
	Initial capital for Department of Defense World War II Commemoration Fund .....		[2,000]	
	Training of qualified personnel to join the staff of the Boards of Corrections for Military and Naval Records .....		[3,000]	
300	SPECIAL OPERATIONS COMMAND/ADMIN & SVC-WIDE ACTIVITIES .....	97,787		97,787
310	WASHINGTON HEADQUARTERS SERVICES .....	456,407	-68,500	387,907
	Efficiencies within the 4th estate .....		[-68,500]	
315	CLASSIFIED PROGRAMS .....	15,645,192		15,645,192
	<b>SUBTOTAL ADMIN &amp; SRVWIDE ACTIVITIES .....</b>	<b>29,282,225</b>	<b>-150,925</b>	<b>29,131,300</b>
	<b>UNDISTRIBUTED</b>			
320	UNDISTRIBUTED .....		-411,800	-411,800
	Foreign Currency adjustments .....		[-26,400]	
	Historical unobligated balances .....		[-385,400]	
	<b>SUBTOTAL UNDISTRIBUTED .....</b>		<b>-411,800</b>	<b>-411,800</b>
	<b>TOTAL OPERATION AND MAINTENANCE, DEFENSE-WIDE .....</b>	<b>36,352,625</b>	<b>-745,825</b>	<b>35,606,800</b>
	<b>US COURT OF APPEALS FOR ARMED FORCES, DEF ADMINISTRATION AND ASSOCIATED ACTIVITIES</b>			
010	US COURT OF APPEALS FOR THE ARMED FORCES, DEFENSE .....	14,662		14,662
	<b>SUBTOTAL ADMINISTRATION AND ASSOCIATED ACTIVITIES .....</b>	<b>14,662</b>		<b>14,662</b>
	<b>TOTAL US COURT OF APPEALS FOR ARMED FORCES, DEF .....</b>	<b>14,662</b>		<b>14,662</b>
	<b>DOD ACQUISITION WORKFORCE DEVELOPMENT FUND</b>			

	<b>ACQUISITION WORKFORCE DEVELOPMENT</b>			
010	ACQ WORKFORCE DEV FD .....	400,000		400,000
	<b>SUBTOTAL ACQUISITION WORKFORCE DEVELOPMENT .....</b>	<b>400,000</b>		<b>400,000</b>
	<b>TOTAL DOD ACQUISITION WORKFORCE DEVELOPMENT FUND .....</b>	<b>400,000</b>		<b>400,000</b>
	<b>OVERSEAS HUMANITARIAN, DISASTER, AND CIVIC AID</b>			
	<b>HUMANITARIAN ASSISTANCE</b>			
010	OVERSEAS HUMANITARIAN, DISASTER AND CIVIC AID .....	107,663		107,663
	<b>SUBTOTAL HUMANITARIAN ASSISTANCE .....</b>	<b>107,663</b>		<b>107,663</b>
	<b>TOTAL OVERSEAS HUMANITARIAN, DISASTER, AND CIVIC AID .....</b>	<b>107,663</b>		<b>107,663</b>
	<b>COOPERATIVE THREAT REDUCTION ACCOUNT</b>			
	<b>FSU THREAT REDUCTION</b>			
010	FORMER SOVIET UNION (FSU) THREAT REDUCTION .....	335,240		335,240
	<b>SUBTOTAL FSU THREAT REDUCTION .....</b>	<b>335,240</b>		<b>335,240</b>
	<b>TOTAL COOPERATIVE THREAT REDUCTION ACCOUNT .....</b>	<b>335,240</b>		<b>335,240</b>
	<b>ENVIRONMENTAL RESTORATION, ARMY</b>			
	<b>DEPARTMENT OF THE ARMY</b>			
060	ENVIRONMENTAL RESTORATION, ARMY .....	203,449	10,000	213,449
	PFOS/PFOA remediation increase .....		[10,000]	
	<b>SUBTOTAL DEPARTMENT OF THE ARMY .....</b>	<b>203,449</b>	<b>10,000</b>	<b>213,449</b>
	<b>TOTAL ENVIRONMENTAL RESTORATION, ARMY .....</b>	<b>203,449</b>	<b>10,000</b>	<b>213,449</b>
	<b>ENVIRONMENTAL RESTORATION, NAVY</b>			
	<b>DEPARTMENT OF THE NAVY</b>			
080	ENVIRONMENTAL RESTORATION, NAVY .....	329,253	10,000	339,253
	PFOS/PFOA remediation increase .....		[10,000]	

SEC. 4301. OPERATION AND MAINTENANCE (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	<b>SUBTOTAL DEPARTMENT OF THE NAVY</b> .....	<b>329,253</b>	<b>10,000</b>	<b>339,253</b>
	<b>TOTAL ENVIRONMENTAL RESTORATION, NAVY</b> .....	<b>329,253</b>	<b>10,000</b>	<b>339,253</b>
	<b>ENVIRONMENTAL RESTORATION, AIR FORCE</b>			
	<b>DEPARTMENT OF THE AIR FORCE</b>			
100	ENVIRONMENTAL RESTORATION, AIR FORCE .....	296,808	50,000	346,808
	PFOS/PFOA remediation increase .....		[50,000]	
	<b>SUBTOTAL DEPARTMENT OF THE AIR FORCE</b> .....	<b>296,808</b>	<b>50,000</b>	<b>346,808</b>
	<b>TOTAL ENVIRONMENTAL RESTORATION, AIR FORCE</b> .....	<b>296,808</b>	<b>50,000</b>	<b>346,808</b>
	<b>ENVIRONMENTAL RESTORATION, DEFENSE</b>			
	<b>DEFENSE-WIDE</b>			
120	ENVIRONMENTAL RESTORATION, DEFENSE .....	8,926		8,926
	<b>SUBTOTAL DEFENSE-WIDE</b> .....	<b>8,926</b>		<b>8,926</b>
	<b>TOTAL ENVIRONMENTAL RESTORATION, DEFENSE</b> .....	<b>8,926</b>		<b>8,926</b>
	<b>ENVIRONMENTAL RESTORATION FORMERLY USED SITES</b>			
	<b>DEFENSE-WIDE</b>			
140	ENVIRONMENTAL RESTORATION FORMERLY USED SITES .....	212,346		212,346
	<b>SUBTOTAL DEFENSE-WIDE</b> .....	<b>212,346</b>		<b>212,346</b>
	<b>TOTAL ENVIRONMENTAL RESTORATION FORMERLY USED SITES</b> .....	<b>212,346</b>		<b>212,346</b>

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<b>TOTAL OPERATION &amp; MAINTENANCE .....</b>	<b>199,469,636</b>	<b>-3,924,243</b>	<b>195,545,393</b>
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**SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS.**

SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
<b>OPERATION &amp; MAINTENANCE, ARMY</b>				
<b>OPERATING FORCES</b>				
010	MANEUVER UNITS .....	1,179,339	454,700	1,634,039
	Realign OCO requirements from Base to OCO .....		[454,700]	
030	ECHELONS ABOVE BRIGADE .....	25,983	151,570	177,553
	Realign OCO requirements from Base to OCO .....		[151,570]	
040	THEATER LEVEL ASSETS .....	2,189,916	242,500	2,432,416
	Realign OCO requirements from Base to OCO .....		[242,500]	
050	LAND FORCES OPERATIONS SUPPORT .....	188,609		188,609
060	AVIATION ASSETS .....	120,787		120,787
070	FORCE READINESS OPERATIONS SUPPORT .....	3,867,286	606,260	4,473,546
	Realign OCO requirements from Base to OCO .....		[606,260]	
080	LAND FORCES SYSTEMS READINESS .....	550,068		550,068
090	LAND FORCES DEPOT MAINTENANCE .....	195,873	272,820	468,693
	Realign OCO requirements from Base to OCO .....		[272,820]	
100	BASE OPERATIONS SUPPORT .....	109,560	606,260	715,820
	Realign OCO requirements from Base to OCO .....		[606,260]	
110	FACILITIES SUSTAINMENT .....	60,807		60,807
140	ADDITIONAL ACTIVITIES .....	5,992,222		5,992,222
150	COMMANDERS EMERGENCY RESPONSE PROGRAM .....	10,000		10,000
160	RESET .....	1,036,454		1,036,454
180	US AFRICA COMMAND .....	248,796	15,000	263,796
	Contract personnel recovery/casualty evacuation in AFRICOM .....		[15,000]	
190	US EUROPEAN COMMAND .....	98,127		98,127

May 11, 2018 (12:14 a.m.)

200	US SOUTHERN COMMAND .....	2,550		2,550
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>15,876,377</b>	<b>2,349,110</b>	<b>18,225,487</b>
	<b>MOBILIZATION</b>			
230	ARMY PREPOSITIONED STOCKS .....	158,753	-158,753	0
	Realignment of EDI APS Unit Set from OCO to Base .....		[-158,753]	
	<b>SUBTOTAL MOBILIZATION</b> .....	<b>158,753</b>	<b>-158,753</b>	<b>0</b>
	<b>ADMIN &amp; SRVWIDE ACTIVITIES</b>			
390	SERVICEWIDE TRANSPORTATION .....	712,230	151,600	863,830
	Realign OCO requirements from Base to OCO .....		[151,600]	
400	CENTRAL SUPPLY ACTIVITIES .....	44,168		44,168
410	LOGISTIC SUPPORT ACTIVITIES .....	5,300		5,300
420	AMMUNITION MANAGEMENT .....	38,597		38,597
460	OTHER PERSONNEL SUPPORT .....	109,019		109,019
490	REAL ESTATE MANAGEMENT .....	191,786		191,786
565	CLASSIFIED PROGRAMS .....	1,074,270		1,074,270
	<b>SUBTOTAL ADMIN &amp; SRVWIDE ACTIVITIES</b> .....	<b>2,175,370</b>	<b>151,600</b>	<b>2,326,970</b>
	<b>UNDISTRIBUTED</b>			
570	UNDISTRIBUTED .....		-27,900	-27,900
	Historical unobligated balances .....		[-27,900]	
	<b>SUBTOTAL UNDISTRIBUTED</b> .....		<b>-27,900</b>	<b>-27,900</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, ARMY</b> .....	<b>18,210,500</b>	<b>2,314,057</b>	<b>20,524,557</b>
	<b>OPERATION &amp; MAINTENANCE, ARMY RES</b>			
	<b>OPERATING FORCES</b>			
020	ECHELONS ABOVE BRIGADE .....	20,700		20,700
060	FORCE READINESS OPERATIONS SUPPORT .....	700		700
090	BASE OPERATIONS SUPPORT .....	20,487		20,487
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>41,887</b>		<b>41,887</b>

137

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SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	<b>TOTAL OPERATION &amp; MAINTENANCE, ARMY RES</b> .....	<b>41,887</b>		<b>41,887</b>
	<b>OPERATION &amp; MAINTENANCE, ARNG</b>			
	<b>OPERATING FORCES</b>			
010	MANEUVER UNITS .....	42,519		42,519
020	MODULAR SUPPORT BRIGADES .....	778		778
030	ECHELONS ABOVE BRIGADE .....	12,093		12,093
040	THEATER LEVEL ASSETS .....	708		708
060	AVIATION ASSETS .....	28,135		28,135
070	FORCE READINESS OPERATIONS SUPPORT .....	5,908		5,908
100	BASE OPERATIONS SUPPORT .....	18,877		18,877
120	MANAGEMENT AND OPERATIONAL HEADQUARTERS .....	956		956
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>109,974</b>		<b>109,974</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
150	SERVICEMEN COMMUNICATIONS .....	755		755
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES</b> .....	<b>755</b>		<b>755</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, ARNG</b> .....	<b>110,729</b>		<b>110,729</b>
	<b>AFGHAN NATIONAL ARMY</b>			
090	SUSTAINMENT .....	1,522,777		1,522,777
100	INFRASTRUCTURE .....	137,732		137,732
110	EQUIPMENT AND TRANSPORTATION .....	71,922		71,922
120	TRAINING AND OPERATIONS .....	175,846		175,846
	<b>SUBTOTAL AFGHAN NATIONAL ARMY</b> .....	<b>1,908,277</b>		<b>1,908,277</b>

	<b>AFGHAN NATIONAL POLICE</b>		
130	SUSTAINMENT .....	527,554	527,554
140	INFRASTRUCTURE .....	42,984	42,984
150	EQUIPMENT AND TRANSPORTATION .....	14,554	14,554
160	TRAINING AND OPERATIONS .....	181,922	181,922
	<b>SUBTOTAL AFGHAN NATIONAL POLICE .....</b>	<b>767,014</b>	<b>767,014</b>
	<b>AFGHAN AIR FORCE</b>		
170	SUSTAINMENT .....	942,279	942,279
180	INFRASTRUCTURE .....	30,350	30,350
190	EQUIPMENT AND TRANSPORTATION .....	572,310	572,310
200	TRAINING AND OPERATIONS .....	277,191	277,191
	<b>SUBTOTAL AFGHAN AIR FORCE .....</b>	<b>1,822,130</b>	<b>1,822,130</b>
	<b>AFGHAN SPECIAL SECURITY FORCES</b>		
210	SUSTAINMENT .....	353,734	353,734
220	INFRASTRUCTURE .....	43,132	43,132
230	EQUIPMENT AND TRANSPORTATION .....	151,790	151,790
240	TRAINING AND OPERATIONS .....	153,373	153,373
	<b>SUBTOTAL AFGHAN SPECIAL SECURITY FORCES .....</b>	<b>702,029</b>	<b>702,029</b>
	<b>TOTAL AFGHANISTAN SECURITY FORCES FUND .....</b>	<b>5,199,450</b>	<b>5,199,450</b>
	<b>COUNTER-ISIS TRAIN AND EQUIP FUND</b>		
	<b>COUNTER-ISIS TRAIN AND EQUIP FUND (CTEF)</b>		
010	IRAQ .....	850,000	850,000
020	SYRIA .....	300,000	300,000
030	OTHER .....	250,000	250,000
	<b>SUBTOTAL COUNTER-ISIS TRAIN AND EQUIP FUND (CTEF) .....</b>	<b>1,400,000</b>	<b>1,400,000</b>
	<b>TOTAL COUNTER-ISIS TRAIN AND EQUIP FUND .....</b>	<b>1,400,000</b>	<b>1,400,000</b>

SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
<b>OPERATION &amp; MAINTENANCE, NAVY</b>				
<b>OPERATING FORCES</b>				
010	MISSION AND OTHER FLIGHT OPERATIONS .....	435,507		435,507
030	AVIATION TECHNICAL DATA & ENGINEERING SERVICES .....	800		800
040	AIR OPERATIONS AND SAFETY SUPPORT .....	9,394		9,394
050	AIR SYSTEMS SUPPORT .....	193,384		193,384
060	AIRCRAFT DEPOT MAINTENANCE .....	173,053		173,053
070	AIRCRAFT DEPOT OPERATIONS SUPPORT .....	3,524		3,524
080	AVIATION LOGISTICS .....	60,219		60,219
090	MISSION AND OTHER SHIP OPERATIONS .....	942,960		942,960
100	SHIP OPERATIONS SUPPORT & TRAINING .....	20,236		20,236
110	SHIP DEPOT MAINTENANCE .....	1,022,647		1,022,647
130	COMBAT COMMUNICATIONS AND ELECTRONIC WARFARE .....	59,553		59,553
160	WARFARE TACTICS .....	16,651		16,651
170	OPERATIONAL METEOROLOGY AND OCEANOGRAPHY .....	31,118		31,118
180	COMBAT SUPPORT FORCES .....	635,560		635,560
190	EQUIPMENT MAINTENANCE AND DEPOT OPERATIONS SUPPORT .....	4,334		4,334
220	COMBATANT COMMANDERS DIRECT MISSION SUPPORT .....	24,800		24,800
240	CYBERSPACE ACTIVITIES .....	355		355
280	WEAPONS MAINTENANCE .....	493,033		493,033
290	OTHER WEAPON SYSTEMS SUPPORT .....	12,780		12,780
310	FACILITIES SUSTAINMENT .....	67,321		67,321
320	BASE OPERATING SUPPORT .....	211,394		211,394
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>4,418,623</b>		<b>4,418,623</b>
<b>MOBILIZATION</b>				

370	EXPEDITIONARY HEALTH SERVICES SYSTEMS .....	12,902	12,902
390	COAST GUARD SUPPORT .....	165,000	165,000
	<b>SUBTOTAL MOBILIZATION .....</b>	<b>177,902</b>	<b>177,902</b>
	<b>TRAINING AND RECRUITING</b>		
430	SPECIALIZED SKILL TRAINING .....	51,138	51,138
	<b>SUBTOTAL TRAINING AND RECRUITING .....</b>	<b>51,138</b>	<b>51,138</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>		
510	ADMINISTRATION .....	4,145	4,145
540	MILITARY MANPOWER AND PERSONNEL MANAGEMENT .....	7,503	7,503
580	SERVICEWIDE TRANSPORTATION .....	69,297	69,297
610	ACQUISITION, LOGISTICS, AND OVERSIGHT .....	10,912	10,912
650	INVESTIGATIVE AND SECURITY SERVICES .....	1,559	1,559
765	CLASSIFIED PROGRAMS .....	16,076	16,076
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>109,492</b>	<b>109,492</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, NAVY .....</b>	<b>4,757,155</b>	<b>4,757,155</b>
	<b>OPERATION &amp; MAINTENANCE, MARINE CORPS</b>		
	<b>OPERATING FORCES</b>		
010	OPERATIONAL FORCES .....	734,505	734,505
020	FIELD LOGISTICS .....	212,691	212,691
030	DEPOT MAINTENANCE .....	53,040	53,040
070	BASE OPERATING SUPPORT .....	23,047	23,047
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>1,023,283</b>	<b>1,023,283</b>
	<b>TRAINING AND RECRUITING</b>		
120	TRAINING SUPPORT .....	30,459	30,459
	<b>SUBTOTAL TRAINING AND RECRUITING .....</b>	<b>30,459</b>	<b>30,459</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>		

**SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
160	SERVICEWIDE TRANSPORTATION .....	61,400		61,400
170	ADMINISTRATION .....	2,108		2,108
225	CLASSIFIED PROGRAMS .....	4,650		4,650
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES .....</b>	<b>68,158</b>		<b>68,158</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, MARINE CORPS .....</b>	<b>1,121,900</b>		<b>1,121,900</b>
	<b>OPERATION &amp; MAINTENANCE, NAVY RES</b>			
	<b>OPERATING FORCES</b>			
020	INTERMEDIATE MAINTENANCE .....	500		500
030	AIRCRAFT DEPOT MAINTENANCE .....	11,400		11,400
080	COMBAT SUPPORT FORCES .....	13,737		13,737
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>25,637</b>		<b>25,637</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, NAVY RES .....</b>	<b>25,637</b>		<b>25,637</b>
	<b>OPERATION &amp; MAINTENANCE, MC RESERVE</b>			
	<b>OPERATING FORCES</b>			
010	OPERATING FORCES .....	2,550		2,550
040	BASE OPERATING SUPPORT .....	795		795
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>3,345</b>		<b>3,345</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, MC RESERVE .....</b>	<b>3,345</b>		<b>3,345</b>
	<b>OPERATION &amp; MAINTENANCE, AIR FORCE</b>			
	<b>OPERATING FORCES</b>			
010	PRIMARY COMBAT FORCES .....	166,274		166,274

020	COMBAT ENHANCEMENT FORCES .....	1,492,580	1,492,580
030	AIR OPERATIONS TRAINING (OJT, MAINTAIN SKILLS) .....	110,237	110,237
040	DEPOT PURCHASE EQUIPMENT MAINTENANCE .....	209,996	209,996
050	FACILITIES SUSTAINMENT .....	92,412	92,412
060	CONTRACTOR LOGISTICS SUPPORT AND SYSTEM SUPPORT .....	1,289,693	1,289,693
070	FLYING HOUR PROGRAM .....	2,355,264	2,355,264
080	BASE SUPPORT .....	1,141,718	1,141,718
090	GLOBAL C3I AND EARLY WARNING .....	13,537	13,537
100	OTHER COMBAT OPS SPT PROGRAMS .....	224,713	224,713
110	CYBERSPACE ACTIVITIES .....	17,353	17,353
120	TACTICAL INTEL AND OTHER SPECIAL ACTIVITIES .....	36,098	36,098
130	LAUNCH FACILITIES .....	385	385
140	SPACE CONTROL SYSTEMS .....	38,966	38,966
170	US NORTHCOM/NORAD .....	725	725
180	US STRATCOM .....	2,056	2,056
190	US CYBERCOM .....	35,189	35,189
200	US CENTCOM .....	162,691	162,691
210	US SOCOM .....	19,000	19,000
	<b>SUBTOTAL OPERATING FORCES .....</b>	<b>7,408,887</b>	<b>7,408,887</b>
	<b>MOBILIZATION</b>		
230	AIRLIFT OPERATIONS .....	1,287,659	1,287,659
240	MOBILIZATION PREPAREDNESS .....	107,064	107,064
	<b>SUBTOTAL MOBILIZATION .....</b>	<b>1,394,723</b>	<b>1,394,723</b>
	<b>TRAINING AND RECRUITING</b>		
280	OFFICER ACQUISITION .....	300	300
290	RECRUIT TRAINING .....	340	340
330	SPECIALIZED SKILL TRAINING .....	25,327	25,327
340	FLIGHT TRAINING .....	844	844
350	PROFESSIONAL DEVELOPMENT EDUCATION .....	1,199	1,199
360	TRAINING SUPPORT .....	1,320	1,320

SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	<b>SUBTOTAL TRAINING AND RECRUITING</b> .....	<b>29,330</b>		<b>29,330</b>
	<b>ADMIN &amp; SRVWD ACTIVITIES</b>			
430	LOGISTICS OPERATIONS .....	154,485		154,485
440	TECHNICAL SUPPORT ACTIVITIES .....	13,608		13,608
480	ADMINISTRATION .....	4,814		4,814
490	SERVICEWIDE COMMUNICATIONS .....	131,123		131,123
500	OTHER SERVICEWIDE ACTIVITIES .....	97,471		97,471
540	INTERNATIONAL SUPPORT .....	240		240
545	CLASSIFIED PROGRAMS .....	51,108		51,108
	<b>SUBTOTAL ADMIN &amp; SRVWD ACTIVITIES</b> .....	<b>452,849</b>		<b>452,849</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, AIR FORCE</b> .....	<b>9,285,789</b>		<b>9,285,789</b>
	<b>OPERATION &amp; MAINTENANCE, AF RESERVE</b>			
	<b>OPERATING FORCES</b>			
030	DEPOT PURCHASE EQUIPMENT MAINTENANCE .....	51,000		51,000
060	BASE SUPPORT .....	9,500		9,500
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>60,500</b>		<b>60,500</b>
	<b>TOTAL OPERATION &amp; MAINTENANCE, AF RESERVE</b> .....	<b>60,500</b>		<b>60,500</b>
	<b>OPERATION &amp; MAINTENANCE, ANG</b>			
	<b>OPERATING FORCES</b>			
020	MISSION SUPPORT OPERATIONS .....	3,560		3,560
060	BASE SUPPORT .....	12,310		12,310
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>15,870</b>		<b>15,870</b>

	<b>TOTAL OPERATION &amp; MAINTENANCE, ANG</b> .....	<b>15,870</b>		<b>15,870</b>
	<b>OPERATION AND MAINTENANCE, DEFENSE-WIDE</b>			
	<b>OPERATING FORCES</b>			
010	JOINT CHIEFS OF STAFF .....	28,671		28,671
040	SPECIAL OPERATIONS COMMAND/OPERATING FORCES .....	3,733,161		3,733,161
	<b>SUBTOTAL OPERATING FORCES</b> .....	<b>3,761,832</b>		<b>3,761,832</b>
	<b>ADMIN &amp; SRVWIDE ACTIVITIES</b>			
100	DEFENSE CONTRACT AUDIT AGENCY .....	1,781		1,781
110	DEFENSE CONTRACT MANAGEMENT AGENCY .....	21,723		21,723
130	DEFENSE INFORMATION SYSTEMS AGENCY .....	111,702		111,702
150	DEFENSE LEGAL SERVICES AGENCY .....	127,023		127,023
170	DEFENSE MEDIA ACTIVITY .....	14,377		14,377
190	DEFENSE SECURITY COOPERATION AGENCY .....	2,208,442	-200,000	2,008,442
	Transfer of funds to Ukraine Security Assistance fund .....		[-200,000]	
230	DEFENSE THREAT REDUCTION AGENCY .....	302,250		302,250
250	DEPARTMENT OF DEFENSE EDUCATION ACTIVITY .....	31,620		31,620
290	OFFICE OF THE SECRETARY OF DEFENSE .....	16,579		16,579
310	WASHINGTON HEADQUARTERS SERVICES .....	7,766		7,766
315	CLASSIFIED PROGRAMS .....	1,944,813		1,944,813
	<b>SUBTOTAL ADMIN &amp; SRVWIDE ACTIVITIES</b> .....	<b>4,788,076</b>	<b>-200,000</b>	<b>4,588,076</b>
	<b>TOTAL OPERATION AND MAINTENANCE, DEFENSE-WIDE</b> .....	<b>8,549,908</b>	<b>-200,000</b>	<b>8,349,908</b>
	<b>UKRAINE SECURITY ASSISTANCE</b>			
010	UKRAINE SECURITY ASSISTANCE .....		250,000	250,000
	Program increase for defensive lethal assistance .....		[50,000]	
	Transfer of funds from the Defense Security Cooperation Agency .....		[200,000]	
	<b>SUBTOTAL UKRAINE SECURITY ASSISTANCE</b> .....		<b>250,000</b>	<b>250,000</b>



SEC. 4302. OPERATION AND MAINTENANCE FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)				
Line	Item	FY 2019 Request	House Change	House Authorized
	TOTAL UKRAINE SECURITY ASSISTANCE .....		250,000	250,000
	TOTAL OPERATION & MAINTENANCE .....	48,782,670	2,364,057	51,146,727

## TITLE XLIV—MILITARY PERSONNEL

### SEC. 4401. MILITARY PERSONNEL.

SEC. 4401. MILITARY PERSONNEL (In Thousands of Dollars)			
Item	FY 2019 Request	House Change	House Authorized
<b>Military Personnel Appropriations</b> .....	<b>140,689,301</b>	<b>-700,500</b>	<b>139,988,801</b>
Control Grade Increase .....		[7,000]	
Foreign Currency adjustments .....		[-218,000]	
Historical unobligated balance .....		[-761,500]	
Permanently reverse BAH reduction for Military Housing Privatization Initiative .....		[275,000]	
Program decrease .....		[-3,000]	
 <b>Medicare-Eligible Retiree Health Fund Contributions</b> .....	 <b>7,533,090</b>		 <b>7,533,090</b>
 <b>Total, Military Personnel</b> .....	 <b>148,222,391</b>	 <b>-700,500</b>	 <b>147,521,891</b>

**SEC. 4402. MILITARY PERSONNEL FOR OVERSEAS CONTINGENCY OPERATIONS.**

SEC. 4402. MILITARY PERSONNEL FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)			
Item	FY 2019 Request	House Change	House Authorized
Military Personnel Appropriations .....	4,660,661		4,660,661

## TITLE XLV—OTHER AUTHORIZATIONS

### SEC. 4501. OTHER AUTHORIZATIONS.

SEC. 4501. OTHER AUTHORIZATIONS (In Thousands of Dollars)			
Item	FY 2019 Request	House Change	House Authorized
<b>WORKING CAPITAL FUND, ARMY</b>			
ARMY ARSENALS INITIATIVE .....	59,002		59,002
ARMY SUPPLY MANAGEMENT .....	99,763		99,763
<b>TOTAL WORKING CAPITAL FUND, ARMY</b> .....	<b>158,765</b>		<b>158,765</b>
<b>WORKING CAPITAL FUND, AIR FORCE</b>			
WORKING CAPITAL FUND .....	69,054		69,054
<b>TOTAL WORKING CAPITAL FUND, AIR FORCE</b> .....	<b>69,054</b>		<b>69,054</b>
<b>WORKING CAPITAL FUND, DEFENSE-WIDE</b>			
WORKING CAPITAL FUND SUPPORT .....	48,096		48,096
<b>TOTAL WORKING CAPITAL FUND, DEFENSE-WIDE</b> .....	<b>48,096</b>		<b>48,096</b>
<b>WORKING CAPITAL FUND, DECA</b>			
WORKING CAPITAL FUND SUPPORT .....	1,266,200		1,266,200
<b>TOTAL WORKING CAPITAL FUND, DECA</b> .....	<b>1,266,200</b>		<b>1,266,200</b>
<b>NATIONAL DEFENSE SEALIFT FUND</b>			
SURGE SEALIFT RECAPITALIZATION .....		200,000	200,000
Program increase—one used vessel .....		[200,000]	
LG MED SPD RO/RO MAINTENANCE .....		127,739	127,739

SEC. 4501. OTHER AUTHORIZATIONS (In Thousands of Dollars)				
Item	FY 2019 Request	House Change	House Authorized	
Transfer from OMN .....		[127,739]		
DOD MOBILIZATION ALTERATIONS .....		20,858	20,858	
Transfer from OMN .....		[20,858]		
TAH MAINTENANCE .....		157,350	157,350	
Service Life Extension of USNS Comfort (TAH 20) .....		[85,000]		
Transfer from OMN .....		[72,350]		
READY RESERVE AND PREPOSITIONING FORCE .....		310,805	310,805	
Transfer from OMN .....		[310,805]		
<b>TOTAL NATIONAL DEFENSE SEALIFT FUND .....</b>		<b>816,752</b>	<b>816,752</b>	
<b>CHEM AGENTS &amp; MUNITIONS DESTRUCTION</b>				
OPERATION & MAINTENANCE .....	105,997		105,997	
RDT&E .....	886,728		886,728	
PROCUREMENT .....	1,091		1,091	
<b>TOTAL CHEM AGENTS &amp; MUNITIONS DESTRUCTION .....</b>	<b>993,816</b>		<b>993,816</b>	
<b>DRUG INTERDICTION &amp; CTR-DRUG ACTIVITIES, DEF</b>				
DRUG INTERDICTION AND COUNTER-DRUG ACTIVITIES, DEFENSE .....	547,171	20,000	567,171	
Combatting opioid trafficking and abuse .....		[20,000]		
DRUG DEMAND REDUCTION PROGRAM .....	117,900		117,900	
NATIONAL GUARD COUNTER-DRUG PROGRAM .....	117,178		117,178	
DRUG INTERDICTION AND COUNTER-DRUG ACTIVITIES, DEFENSE .....	5,276		5,276	
<b>TOTAL DRUG INTERDICTION &amp; CTR-DRUG ACTIVITIES, DEF .....</b>	<b>787,525</b>	<b>20,000</b>	<b>807,525</b>	
<b>OFFICE OF THE INSPECTOR GENERAL</b>				
OPERATION & MAINTENANCE .....	327,611	5,000	332,611	
Program increase .....		[5,000]		

May 11, 2018 (12:14 a.m.)

PROCUREMENT .....	1,602		1,602
RDT&E .....	60		60
<b>TOTAL OFFICE OF THE INSPECTOR GENERAL .....</b>	<b>329,273</b>	<b>5,000</b>	<b>334,273</b>
<b>DEFENSE HEALTH PROGRAM</b>			
<b>OPERATION &amp; MAINTENANCE</b>			
IN-HOUSE CARE .....	9,738,569		9,738,569
PRIVATE SECTOR CARE .....	15,103,735		15,103,735
CONSOLIDATED HEALTH SUPPORT .....	2,107,961		2,107,961
INFORMATION MANAGEMENT .....	2,039,878		2,039,878
MANAGEMENT ACTIVITIES .....	307,629		307,629
EDUCATION AND TRAINING .....	756,778		756,778
BASE OPERATIONS/COMMUNICATIONS .....	2,090,845		2,090,845
<b>RDT&amp;E</b>			
RESEARCH .....	11,386		11,386
EXPLORATORY DEVELOPMENT .....	75,010	5,000	80,010
Simulators and other technologies to reduce the use of live animal tissue for medical training .....		[5,000]	
ADVANCED DEVELOPMENT .....	275,258	5,000	280,258
Simulators and other technologies to reduce the use of live animal tissue for medical training .....		[5,000]	
DEMONSTRATION/VALIDATION .....	117,529	5,000	122,529
Simulators and other technologies to reduce the use of live animal tissue for medical training .....		[5,000]	
ENGINEERING DEVELOPMENT .....	151,985	25,000	176,985
FDA approved devices to detect and monitor traumatic brain injury .....		[10,000]	
Freeze-dried platelet derived hemostatic agents .....		[10,000]	
Simulators and other technologies to reduce the use of live animal tissue for medical training .....		[5,000]	
MANAGEMENT AND SUPPORT .....	63,755		63,755
CAPABILITIES ENHANCEMENT .....	15,714		15,714
<b>PROCUREMENT</b>			
INITIAL OUTFITTING .....	33,056		33,056
REPLACEMENT & MODERNIZATION .....	343,424		343,424
DOD HEALTHCARE MANAGEMENT SYSTEM MODERNIZATION .....	496,680		496,680
<b>UNDISTRIBUTED</b>			

151

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**SEC. 4501. OTHER AUTHORIZATIONS**  
(In Thousands of Dollars)

Item	FY 2019 Request	House Change	House Authorized
UNDISTRIBUTED .....		-492,500	-492,500
Foreign Currency adjustments .....		[-22,100]	
Historical unobligated balances .....		[-470,400]	
<b>TOTAL DEFENSE HEALTH PROGRAM</b> .....	<b>33,729,192</b>	<b>-452,500</b>	<b>33,276,692</b>
<b>TOTAL OTHER AUTHORIZATIONS</b> .....	<b>37,381,921</b>	<b>389,252</b>	<b>37,771,173</b>

**SEC. 4502. OTHER AUTHORIZATIONS FOR OVERSEAS CONTINGENCY OPERATIONS.**

SEC. 4502. OTHER AUTHORIZATIONS FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)			
Item	FY 2019 Request	House Change	House Authorized
<b>WORKING CAPITAL FUND, ARMY</b>			
ARMY SUPPLY MANAGEMENT .....	6,600		6,600
<b>TOTAL WORKING CAPITAL FUND, ARMY .....</b>	<b>6,600</b>		<b>6,600</b>
<b>WORKING CAPITAL FUND, AIR FORCE</b>			
WORKING CAPITAL FUND .....	8,590		8,590
<b>TOTAL WORKING CAPITAL FUND, AIR FORCE .....</b>	<b>8,590</b>		<b>8,590</b>
<b>DRUG INTERDICTION &amp; CTR-DRUG ACTIVITIES, DEF</b>			
DRUG INTERDICTION AND COUNTER-DRUG ACTIVITIES, DEFENSE .....	153,100		153,100
<b>TOTAL DRUG INTERDICTION &amp; CTR-DRUG ACTIVITIES, DEF .....</b>	<b>153,100</b>		<b>153,100</b>
<b>OFFICE OF THE INSPECTOR GENERAL</b>			
OPERATION & MAINTENANCE .....	24,692		24,692
<b>TOTAL OFFICE OF THE INSPECTOR GENERAL .....</b>	<b>24,692</b>		<b>24,692</b>
<b>DEFENSE HEALTH PROGRAM</b>			
<b>OPERATION &amp; MAINTENANCE</b>			
IN-HOUSE CARE .....	72,627		72,627
PRIVATE SECTOR CARE .....	277,066		277,066
CONSOLIDATED HEALTH SUPPORT .....	2,375		2,375
<b>TOTAL DEFENSE HEALTH PROGRAM .....</b>	<b>352,068</b>		<b>352,068</b>
<b>TOTAL OTHER AUTHORIZATIONS .....</b>	<b>545,050</b>		<b>545,050</b>



# TITLE XLVI—MILITARY CONSTRUCTION

## SEC. 4601. MILITARY CONSTRUCTION.

SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
Army	Alabama	Anniston Army Depot	Weapon Maintenance Shop .....	5,200		5,200
Army	California	Fort Irwin	Multipurpose Range Complex .....	29,000		29,000
Army	Colorado	Fort Carson	Vehicle Maintenance Shop .....	77,000		77,000
Army	Georgia	Fort Gordon	Cyber Instructional Fac and Network Ctr .....	99,000		99,000
Army	Germany	East Camp Grafenwoehr	Mission Training Complex .....	31,000		31,000
Army	Hawaii	Fort Shafter	Command and Control Facility, Incr 4 .....	105,000	-10,000	95,000
Army	Honduras	Soto Cano Air Base	Barracks .....	21,000		21,000
Army	Indiana	Crane Army Ammunition Plant	Railcar Holding Area .....	16,000		16,000
Army	Kentucky	Fort Campbell	Microgird and Power Plant .....	0	18,000	18,000
Army	Kentucky	Fort Campbell	Vehicle Maintenance Shop .....	32,000		32,000
Army	Kentucky	Fort Knox	Digital Air/Ground Integration Range .....	26,000		26,000
Army	Korea	Camp Tango	Command and Control Facility .....	17,500		17,500
Army	Kuwait	Camp Arifjan	Vehicle Maintenance Shop .....	44,000		44,000
Army	Maryland	Fort Meade	Cantonment Area Roads .....	0	16,500	16,500
Army	New Jersey	Picatinny Arsenal	Munitions Disassembly Complex .....	41,000		41,000
Army	New Mexico	White Sands Missile Range	Information Systems Facility .....	40,000		40,000
Army	New York	U.S. Military Academy	Engineering Center .....	95,000		95,000
Army	New York	U.S. Military Academy	Parking Structure .....	65,000		65,000
Army	North Carolina	Fort Bragg	Dining Facility .....	10,000		10,000
Army	South Carolina	Fort Jackson	Trainee Barracks Complex 3, Ph2 .....	52,000		52,000
Army	Texas	Fort Bliss	Supply Support Activity .....	24,000		24,000
Army	Texas	Fort Hood	Supply Support Activity .....	0	9,600	9,600

May 11, 2018 (12:14 a.m.)

Army	Worldwide Unspecified	Unspecified Worldwide Locations	Force Protection and Safety .....	0	50,000	50,000
Army	Worldwide Unspecified	Unspecified Worldwide Locations	Host Nation Support .....	34,000		34,000
Army	Worldwide Unspecified	Unspecified Worldwide Locations	Planning and Design .....	76,068		76,068
Army	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	72,000		72,000
<b>Military Construction, Army Total .....</b>				<b>1,011,768</b>	<b>84,100</b>	<b>1,095,868</b>
Navy	Arizona	Camp Navajo	Missile Motor Magazines and U&SI .....	0	14,800	14,800
Navy	Bahamas	Andros Island	AUTEC Austere Quarters .....	31,050		31,050
Navy	Bahrain	SW Asia	Fleet Maintenance Facility & TOC .....	26,340		26,340
Navy	California	Camp Pendleton	AAV-ACV Maintenance & Warehouse Facility .....	49,410		49,410
Navy	California	Camp Pendleton	Electrical Upgrades .....	4,020		4,020
Navy	California	Camp Pendleton	Full Motion Trainer Facility .....	10,670		10,670
Navy	California	Camp Pendleton	Potable Water Distribution Improvements .....	47,230		47,230
Navy	California	Camp Pendleton	Supply Warehouse SOI-West .....	0	16,600	16,600
Navy	California	Marine Corps Air Station Miramar	Airfield Security Improvements .....	11,500		11,500
Navy	California	Marine Corps Air Station Miramar	F-35 Vertical Landing Pads and Taxiway .....	20,480		20,480
Navy	California	Naval Air Station Lemoore	Communications Line Ops to Admin .....	0	14,900	14,900
Navy	California	Naval Air Station Lemoore	F-35 Maintenance Hangar .....	112,690		112,690
Navy	California	Naval Base Coronado	Aircraft Paint Complex .....	0	78,800	78,800
Navy	California	Naval Base Coronado	CMV-22B Airfield Improvements .....	77,780		77,780
Navy	California	Naval Base San Diego	Harbor Drive Switching Station .....	48,440		48,440
Navy	California	Naval Base San Diego	LCS Mission Module Readiness Center .....	0	19,500	19,500
Navy	California	Naval Base San Diego	Pier 8 Replacement .....	108,100	-59,353	48,747
Navy	California	Naval Base Ventura	Directed Energy Systems Intergration Lab .....	22,150		22,150
Navy	California	Naval Base Ventura	Missile Assembly Build & High Explosive Mag .....	31,010		31,010
Navy	California	Naval Weapons Station Seal Beach	Causeway, Boat Channel & Turning Basin .....	117,830		117,830
Navy	California	Naval Weapons Station Seal Beach	Missile Magazines .....	0	21,800	21,800
Navy	Cuba	Naval Station Guantanamo Bay	Consolidated Fire Station .....	0	19,700	19,700

155

E:\BILLS\DOD\_TABLES\MOST\_RECENT\LOCATOR\_VL\_COMBINED.LOC

SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
Navy	Cuba	Naval Station Guantanamo Bay	Solid Waste Management Facility .....	85,000		85,000
Navy	District Of Columbia	Naval Observatory	Master Time Clocks & Operations Facility .....	115,600	-55,600	60,000
Navy	Florida	Naval Air Station Whiting Field	Air Traffic Control Tower (North Field) .....	0	10,000	10,000
Navy	Florida	Naval Station Mayport	LCS Operational Training Facility Addition .....	29,110		29,110
Navy	Florida	Naval Station Mayport	LCS Support Facility .....	82,350		82,350
Navy	Georgia	Marine Corps Base Albany	Welding and Body Repair Shop Facility .....	0	31,900	31,900
Navy	Germany	Panzer Kaserne	MARFOREUR HQ Modernization and Expansion .....	43,950		43,950
Navy	Guam	Joint Region Marianas	ACE Gym & Dining .....	27,910		27,910
Navy	Guam	Joint Region Marianas	Earth Covered Magazines .....	52,270		52,270
Navy	Guam	Joint Region Marianas	Machine Gun Range .....	141,287	-71,287	70,000
Navy	Guam	Joint Region Marianas	Ordnance Ops .....	22,020		22,020
Navy	Guam	Joint Region Marianas	Unaccompanied Enlisted Housing .....	36,170		36,170
Navy	Guam	Naval Base Guam	X-Ray Wharf Improvements (Berth 2) .....	0	75,600	75,600
Navy	Hawaii	Joint Base Pearl Harbor-Hickam	Drydock Waterfront Facility .....	45,000		45,000
Navy	Hawaii	Joint Base Pearl Harbor-Hickam	Water Transmission Line .....	78,320		78,320
Navy	Hawaii	Marine Corps Base Hawaii	Corrosion Control Hangar .....	66,100		66,100
Navy	Japan	Kadena Air Base	Tactical Operations Center .....	9,049		9,049
Navy	Maine	Portsmouth Naval Yard	Dry Dock #1 Superflood Basin .....	109,960	-58,321	51,639
Navy	Maine	Portsmouth Naval Yard	Extend Portal Crane Rail .....	39,725		39,725
Navy	Mississippi	Naval Construction Battalion Center	Expeditionary Combat Skills Student Berthing .....	0	22,300	22,300
Navy	North Carolina	Camp Lejeune	2nd Radio BN Complex, Phase 2 .....	0	51,300	51,300
Navy	North Carolina	Marine Corps Air Station Cherry Point	Aircraft Maintenance Hangar .....	133,970	-73,970	60,000
Navy	North Carolina	Marine Corps Air Station Cherry Point	Flightline Utility Modernization .....	106,860	-51,860	55,000

Navy	Pennsylvania	Naval Support Activity Philadelphia	Submarine Propulsor Manufacturing Support Fac ....	71,050		71,050
Navy	South Carolina	Marine Corps Air Station Beaufort	Cryogenics Facility .....	0	6,300	6,300
Navy	South Carolina	Marine Corps Air Station Beaufort	Recycling/Hazardous Waste Facility .....	9,517		9,517
Navy	South Carolina	Marine Corps Recruit Depot, Parris Island	Range Improvements & Modernization, Phase 2 .....	35,190		35,190
Navy	Utah	Hill Air Force Base	D5 Missile Motor Receipt/Storage Facility .....	105,520	-50,520	55,000
Navy	Virginia	Marine Corps Base Quantico	Ammunition Supply Point Upgrade, Phase 2 .....	0	13,100	13,100
Navy	Virginia	Marine Corps Base Quantico	TBS Fire Station .....	21,980	-21,980	0
Navy	Virginia	Portsmouth	Ships Maintenance Facility .....	26,120		26,120
Navy	Washington	Bangor	Pier and Maintenance Facility .....	88,960		88,960
Navy	Washington	Naval Air Station Whidbey Island	Fleet Support Facility .....	19,450		19,450
Navy	Washington	Naval Air Station Whidbey Island	Next Generation Jammer Facility .....	7,930		7,930
Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Force Protection and Safety .....	0	50,000	50,000
Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Planning and Design .....	185,542	-8,000	177,542
Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	28,579		28,579
<b>Military Construction, Navy Total .....</b>				<b>2,543,189</b>	<b>-4,291</b>	<b>2,538,898</b>
AF	Alaska	Eielson Air Force Base	F-35 Aircraft Maintenance Unit Admin Facility .....	6,800		6,800
AF	Alaska	Eielson Air Force Base	F-35 Conventional Munitions Maintenance Fac .....	15,500		15,500
AF	Alaska	Eielson Air Force Base	F-35A CATM Range .....	19,000		19,000
AF	Alaska	Eielson Air Force Base	F-35A School Age Facility .....	22,500		22,500
AF	Arizona	Davis Monthan Air Force Base	AGE Facility .....	0	15,000	15,000
AF	Arizona	Luke Air Force Base	F-35A Aircraft Maintenance Unit Facility .....	23,000		23,000
AF	Arizona	Luke Air Force Base	F-35A Squad Ops #6 .....	17,000		17,000
AF	Arkansas	Little Rock Air Force Base	Dormitory - 168 PN .....	0	26,000	26,000
AF	Florida	Eglin Air Force Base	F-35A Integrated Trng Center Academics Bldg .....	34,863		34,863
AF	Florida	Eglin Air Force Base	F-35A Student Dormitory II .....	28,000		28,000

SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
AF	Florida	MacDill Air Force Base	KC135 Beddown Add Flight Simulator Training .....	3,100		3,100
AF	Florida	Patrick Air Force Base	Main Gate .....	0	9,000	9,000
AF	Guam	Joint Region Marianas	Hayman Munitions Storage Igloos MSA 2 .....	9,800		9,800
AF	Louisiana	Barksdale Air Force Base	Entrance Road and Gate Complex .....	0	12,250	12,250
AF	Mariana Islands	Tinian	APR—Cargo Pad with Taxiway Extension .....	46,000		46,000
AF	Mariana Islands	Tinian	APR—Maintenance Support Facility .....	4,700		4,700
AF	Maryland	Joint Base Andrews	Child Development Center .....	0	13,000	13,000
AF	Maryland	Joint Base Andrews	MWD Facility .....	0	8,000	8,000
AF	Maryland	Joint Base Andrews	PAR Relocate Haz Cargo Pad and EOD Range .....	37,000		37,000
AF	Maryland	Joint Base Andrews	Presidential Aircraft Recap Complex, Inc. 2 .....	154,000	-30,884	123,116
AF	Massachusetts	Hanscom Air Force Base	MIT-Lincoln Laboratory (West Lab CSL/MIF) .....	225,000	-185,000	40,000
AF	Nebraska	Offutt Air Force Base	Parking Lot, USSTRATCOM .....	9,500		9,500
AF	Nevada	Creech Air Force Base	MQ-9 CPIP GCS Operations Facility .....	28,000		28,000
AF	Nevada	Creech Air Force Base	MQ-9 CPIP Operations & Command Center Fac. ....	31,000		31,000
AF	Nevada	Nellis Air Force Base	CRH Simulator .....	5,900		5,900
AF	New Mexico	Holloman Air Force Base	MQ-9 FTU Ops Facility .....	85,000		85,000
AF	New Mexico	Kirtland Air Force Base	Wyoming Gate Upgrade for Anti-terrorism Compli- ance.	0	7,000	7,000
AF	New York	Rome Lab	Anti-Terrorism Perimeter Security / Entry Control Point.	0	14,200	14,200
AF	North Dakota	Minot Air Force Base	Consolidated Helo/TRF Ops/AMU and Alert Fac .....	66,000		66,000
AF	Ohio	Wright-Patterson Air Force Base	ADAL Intelligence Production Complex (NASIC) .....	116,100	-55,100	61,000
AF	Oklahoma	Altus Air Force Base	KC-46A FTU/FTC Simulator Facility Ph 3 .....	12,000		12,000
AF	Oklahoma	Tinker Air Force Base	KC-46A Depot Fuel Maintenance Hangar .....	85,000		85,000
AF	Oklahoma	Tinker Air Force Base	KC-46A Depot Maintenance Hangar .....	81,000		81,000
AF	Qatar	Al Udeid	Flightline Support Facilities .....	30,400	-30,400	0
AF	Qatar	Al Udeid	Personnel Deployment Processing Facility .....	40,000	-40,000	0

May 11, 2018 (12:14 a.m.)

AF	South Carolina	Shaw Air Force Base	CPIP MQ-9 MCE GROUP .....	53,000		53,000
AF	Texas	Joint Base San Antonio	BMT Recruit Dormitory 6 .....	25,000		25,000
AF	United Kingdom	RAF Lakenheath	F-35A 6 Bay Hangar .....	39,036		39,036
AF	United Kingdom	RAF Lakenheath	F-35A ADAL Conventional Munitions MX .....	9,204		9,204
AF	United Kingdom	RAF Lakenheath	F-35A ADAL Parts Store .....	13,926		13,926
AF	United Kingdom	RAF Lakenheath	F-35A AGE Facility .....	12,449		12,449
AF	United Kingdom	RAF Lakenheath	F-35A Dorm .....	29,541		29,541
AF	United Kingdom	RAF Lakenheath	F-35A Fuel System Maintenance Dock 2 Bay .....	16,880		16,880
AF	United Kingdom	RAF Lakenheath	F-35A Parking Apron .....	27,431		27,431
AF	Utah	Hill Air Force Base	Composite Aircraft Antenna Calibration Fac .....	0	26,000	26,000
AF	Washington	Fairchild—White Bluff	ADAL JPRA C2 Mission Support Facility .....	0	14,000	14,000
AF	Worldwide Classified	Classified Location	TACMOR—Utilities and Infrastructure Support .....	18,000		18,000
AF	Worldwide Unspecified	Unspecified Worldwide Locations	Force Protection and Safety .....	0	50,000	50,000
AF	Worldwide Unspecified	Various Worldwide Locations	Planning and Design .....	206,577	-8,000	198,577
AF	Worldwide Unspecified	Various Worldwide Locations	Unspecified Minor Military Construction .....	38,500		38,500
<b>Military Construction, AF Total .....</b>				<b>1,725,707</b>	<b>-154,934</b>	<b>1,570,773</b>
Def-Wide	Alaska	Clear Air Force Station	Long Range Discrim Radar Sys Complex Ph2 .....	174,000	-44,000	130,000
Def-Wide	Alaska	Fort Greely	Missile Field #1 Expansion .....	8,000	-8,000	0
Def-Wide	Alaska	Joint Base Elmendorf-Richardson	Operations Facility Replacement .....	14,000		14,000
Def-Wide	Arkansas	Little Rock Air Force Base	Hydrant Fuel System Alterations .....	14,000		14,000
Def-Wide	Belgium	Chievres Air Base	Europe West District Superintendent's Office .....	14,305		14,305
Def-Wide	California	Camp Pendleton	SOF EOD Facility—West .....	3,547		3,547
Def-Wide	California	Camp Pendleton	SOF Human Performance Training Center-West .....	9,049		9,049
Def-Wide	California	Defense Distribution Depot-Tracy	Main Access Control Point Upgrades .....	18,800		18,800
Def-Wide	California	Naval Base Coronado	SOF ATC Applied Instruction Facility .....	14,819		14,819
Def-Wide	California	Naval Base Coronado	SOF ATC Training Facility .....	18,329		18,329
Def-Wide	California	Naval Base Coronado	SOF Close Quarters Combat Facility .....	12,768		12,768
Def-Wide	California	Naval Base Coronado	SOF NSWG-1 Operations Support Facility .....	25,172		25,172
Def-Wide	Colorado	Fort Carson	SOF Human Performance Training Center .....	15,297		15,297
Def-Wide	Colorado	Fort Carson	SOF Mountaineering Facility .....	9,000		9,000

159

E:\BILLS\DOD\_TABLES\MOST\_RECENT\LOCATOR\_VL\_COMBINED.LOC

SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
Def-Wide	Conus Classified	Classified Location	Battalion Complex, PH2 .....	49,222		49,222
Def-Wide	Cuba	Naval Base Guantanamo Bay	Working Dog Treatment Facility Replacement .....	9,080		9,080
Def-Wide	Germany	Baumholder	SOF Joint Parachute Rigging Facility .....	11,504		11,504
Def-Wide	Germany	Kaiserlautern Air Base	Kaiserslautern Middle School .....	99,955		99,955
Def-Wide	Germany	Rhine Ordnance Barracks	Medical Center Replacement Inc. 8 .....	319,589		319,589
Def-Wide	Germany	Weisbaden	Clay Kaserne Elementary School .....	56,048		56,048
Def-Wide	Japan	Camp Mctureous	Bechtel Elementary School .....	94,851		94,851
Def-Wide	Japan	Iwakuni	Fuel Pier .....	33,200		33,200
Def-Wide	Japan	Kadena Air Base	Truck Unload Facilities .....	21,400		21,400
Def-Wide	Japan	Yokosuka	Kinnick High School .....	170,386	-130,386	40,000
Def-Wide	Kentucky	Fort Campbell	Ft Campbell Middle School .....	62,634		62,634
Def-Wide	Kentucky	Fort Campbell	SOF Air/Ground Integ. Urban Live Fire Range .....	9,091		9,091
Def-Wide	Kentucky	Fort Campbell	SOF Logistics Support Operations Facility .....	5,435		5,435
Def-Wide	Kentucky	Fort Campbell	SOF Multi-Use Helicopter Training Facility .....	5,138		5,138
Def-Wide	Maine	Kittery	Consolidated Warehouse Replacement .....	11,600		11,600
Def-Wide	Maryland	Fort Meade	Mission Support Operations Warehouse Facility .....	30,000		30,000
Def-Wide	Maryland	Fort Meade	NSAW Recapitalize Building #2 Inc 4 .....	218,000		218,000
Def-Wide	Maryland	Fort Meade	NSAW Recapitalize Building #3 Inc 1 .....	99,000		99,000
Def-Wide	Missouri	St Louis	Next NGA West (N2W) Complex Phase 1 Inc. 2 .....	213,600	-32,600	181,000
Def-Wide	Missouri	St Louis	Next NGA West (N2W) Complex Phase 2 Inc. 1 .....	110,000		110,000
Def-Wide	New Jersey	Joint Base Mcguire-Dix- Lakehurst	Hot Cargo Hydrant System Replacement .....	10,200		10,200
Def-Wide	North Carolina	Fort Bragg	SOF Replace Training Maze and Tower .....	12,109		12,109
Def-Wide	North Carolina	Fort Bragg	SOF SERE Resistance Training Lab. Complex .....	20,257		20,257
Def-Wide	North Carolina	New River	Amb Care Center/Dental Clinic Replacement .....	32,580		32,580
Def-Wide	Oklahoma	Mcalester	Bulk Diesel System Replacement .....	7,000		7,000
Def-Wide	Texas	Joint Base San Antonio	Energy Aerospace Operations Facility .....	10,200		10,200

Def-Wide	Texas	Red River Army Depot	General Purpose Warehouse .....	71,500		71,500
Def-Wide	United Kingdom	Croughton RAF	Ambulatory Care Center Addition/Alteration .....	10,000	-10,000	0
Def-Wide	Virginia	Fort A.P. Hill	Training Campus .....	11,734		11,734
Def-Wide	Virginia	Fort Belvoir	Human Performance Training Center .....	6,127		6,127
Def-Wide	Virginia	Humphreys Engineer Center	Maintenance and Supply Facility .....	20,257		20,257
Def-Wide	Virginia	Joint Base Langley-Eustis	Fuel Facilities Replacement .....	6,900		6,900
Def-Wide	Virginia	Joint Base Langley-Eustis	Ground Vehicle Fueling Facility Replacement .....	5,800		5,800
Def-Wide	Virginia	Pentagon	Exterior Infrastruc. & Security Improvements .....	23,650		23,650
Def-Wide	Virginia	Pentagon	North Village VACP & Fencing .....	12,200		12,200
Def-Wide	Virginia	Traning Center Dam Neck	SOF Magazines .....	8,959		8,959
Def-Wide	Washington	Joint Base Lewis-Mcchord	Refueling Facility .....	26,200		26,200
Def-Wide	Worldwide Unspecified	Unspecified Worldwide Locations	Contingency Construction .....	10,000	-10,000	0
Def-Wide	Worldwide Unspecified	Unspecified Worldwide Locations	Energy Resilience and Conserv. Invest. Prog. ....	150,000	15,000	165,000
Def-Wide	Worldwide Unspecified	Unspecified Worldwide Locations	ERCIP Design .....	10,000		10,000
Def-Wide	Worldwide Unspecified	Unspecified Worldwide Locations	Exercise Related Minor Construction .....	12,479		12,479
Def-Wide	Worldwide Unspecified	Unspecified Worldwide Locations	Planning and Design .....	86,941		86,941
Def-Wide	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	31,642		31,642
Def-Wide	Worldwide Unspecified	Various Worldwide Locations	Planning & Design .....	42,705		42,705
Def-Wide	Worldwide Unspecified	Various Worldwide Locations	Planning and Design .....	55,699		55,699
Def-Wide	Worldwide Unspecified	Various Worldwide Locations	Unspecified Minor Construction .....	17,366		17,366
<b>Military Construction, Def-Wide Total .....</b>				<b>2,693,324</b>	<b>-219,986</b>	<b>2,473,338</b>
NATO	Worldwide Unspecified	Nato Security Investment Program	Nato Security Investment Program .....	171,064		171,064
<b>NATO Security Investment Program Total .....</b>				<b>171,064</b>	<b>0</b>	<b>171,064</b>
Army NG	Alaska	Joint Base Elmendorf-Richardson	United States Property & Fiscal Office .....	27,000		27,000
Army NG	Illinois	Marseilles Training Center	Automated Record Fire Range .....	5,000		5,000
Army NG	Montana	Malta	National Guard Readiness Center .....	15,000		15,000
Army NG	Nevada	North Las Vegas	National Guard Readiness Center .....	32,000		32,000
Army NG	New Hampshire	Pembroke	National Guard Readiness Center .....	12,000		12,000



SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
Army NG	North Dakota	Fargo	National Guard Readiness Center .....	32,000		32,000
Army NG	Ohio	Camp Ravenna	Automated Multipurpose Machine Gun Range .....	7,400		7,400
Army NG	Oklahoma	Lexington	Aircraft Vehicle Storage Building .....	0	11,000	11,000
Army NG	South Dakota	Rapid City	National Guard Readiness Center .....	15,000		15,000
Army NG	Worldwide Unspecified	Unspecified Worldwide Locations	Planning and Design .....	16,622		16,622
Army NG	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	18,100		18,100
<b>Military Construction, Army National Guard Total .....</b>				<b>180,122</b>	<b>11,000</b>	<b>191,122</b>
Army Res	California	Fort Irwin	ECS Modified TEMF / Warehouse .....	34,000		34,000
Army Res	Washington	Yakima Training Center	ECS Modified TEMF .....	0	23,000	23,000
Army Res	Wisconsin	Fort Mccooy	Transient Training Barracks .....	23,000		23,000
Army Res	Worldwide Unspecified	Unspecified Worldwide Locations	Planning and Design .....	5,855		5,855
Army Res	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	2,064		2,064
<b>Military Construction, Army Reserve Total .....</b>				<b>64,919</b>	<b>23,000</b>	<b>87,919</b>
N/MC Res	California	Naval Weapons Station Seal Beach	Reserve Training Center .....	21,740		21,740
N/MC Res	Georgia	Fort Benning	Reserve Training Center .....	13,630		13,630
N/MC Res	Pennsylvania	Pittsburgh	Reserve Training Center .....	0		0
N/MC Res	Worldwide Unspecified	Unspecified Worldwide Locations	Planning & Design .....	4,695		4,695
N/MC Res	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	3,000		3,000
<b>Military Construction, Naval Reserve Total .....</b>				<b>43,065</b>	<b>0</b>	<b>43,065</b>
Air NG	California	Channel Islands Air National Guard Station	Construct C-130J Flight Simulator Facility .....	8,000		8,000
Air NG	Hawaii	Joint Base Pearl Harbor-Hickam	Construct Addition to F-22 LO/CRF B3408 .....	17,000		17,000
Air NG	Illinois	Greater Peoria Regional Airport	Construct New Fire Crash/Rescue Station .....	9,000		9,000

Air NG	Louisiana	New Orleans	NORTHCOM—Construct Alert Apron .....	15,000		15,000
Air NG	Louisiana	New Orleans	NORTHCOM—Construct Alert Facilities .....	0	24,000	24,000
Air NG	Minnesota	Duluth International Airport	Construct Small Arms Range .....	0	8,000	8,000
Air NG	Montana	Great Falls International Airport	Construct Aircraft Apron .....	0	9,000	9,000
Air NG	New York	Francis S. Gabreski Airport	Security Forces/Comm.Training Facility .....	20,000		20,000
Air NG	Ohio	Mansfield Lahm Airport	Replace Fire Station .....	0	13,000	13,000
Air NG	Ohio	Rickenbacker International Air- port	Construct Small Arms Range .....	0	8,000	8,000
Air NG	Pennsylvania	Fort Indiantown Gap	Replace Operations Training/Dining Hall .....	8,000		8,000
Air NG	Virginia	Joint Base Langley-Eustis	Construct Cyber Ops Facility .....	10,000		10,000
Air NG	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	23,626		23,626
Air NG	Worldwide Unspecified	Various Worldwide Locations	Planning and Design .....	18,500		18,500
<b>Military Construction, Air National Guard Total .....</b>				<b>129,126</b>	<b>62,000</b>	<b>191,126</b>
AF Res	Florida	Patrick Air Force Base	HC-130J Mx Hanger .....	0	24,000	24,000
AF Res	Indiana	Grissom Air Reserve Base	Add/Alter Aircraft Maintenance Hangar .....	12,100		12,100
AF Res	Indiana	Grissom Air Reserve Base	Aerial Port Facility .....	0	9,400	9,400
AF Res	Massachusetts	Westover Air Reserve Base	Regional ISO Mx Hanger .....	0	42,600	42,600
AF Res	Minnesota	Minneapolis-St Paul Inter- national Airport	Small Arms Range .....	9,000		9,000
AF Res	Mississippi	Keesler Air Force Base	Aeromedical Staging Squadron Facility .....	4,550		4,550
AF Res	New York	Niagara Falls International Air- port	Physical Fitness Center .....	14,000		14,000
AF Res	Ohio	Youngstown Air Rserve Station	Relocation Main Gate .....	0	8,800	8,800
AF Res	Texas	Naval Air Station Joint Reserve Base Fort Worth	Munitions Training/Admin Facility .....	3,100		3,100
AF Res	Worldwide Unspecified	Unspecified Worldwide Locations	Planning & Design .....	4,055		4,055
AF Res	Worldwide Unspecified	Unspecified Worldwide Locations	Unspecified Minor Construction .....	3,358		3,358
<b>Military Construction, Air Force Reserve Total .....</b>				<b>50,163</b>	<b>84,800</b>	<b>134,963</b>
FH Con Army	Germany	Baumholder	Family Housing Improvements .....	32,000		32,000
FH Con Army	Italy	Vicenza	Family Housing New Construction .....	95,134		95,134

SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
FH Con Army	Korea	Camp Humphreys	Family Housing New Construction Incr 3 .....	85,000		85,000
FH Con Army	Korea	Camp Walker	Family Housing Replacement Construction .....	68,000		68,000
FH Con Army	Puerto Rico	Fort Buchanan	Family Housing Replacement Construction .....	26,000		26,000
FH Con Army	Wisconsin	Fort Mccooy	Family Housing New Construction .....	6,200		6,200
FH Con Army	Worldwide Unspecified	Unspecified Worldwide Locations	Family Housing P & D .....	18,326		18,326
<b>Family Housing Construction, Army Total .....</b>				<b>330,660</b>	<b>0</b>	<b>330,660</b>
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Furnishings .....	15,842		15,842
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Housing Privatization Support .....	18,801	1,500	20,301
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Leasing .....	161,252		161,252
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Maintenance .....	75,530		75,530
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Management .....	36,302	-1,500	34,802
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Miscellaneous .....	408		408
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Services .....	10,502		10,502
FH Ops Army	Worldwide Unspecified	Unspecified Worldwide Locations	Utilities .....	57,872		57,872
<b>Family Housing Operation And Maintenance, Army Total .....</b>				<b>376,509</b>	<b>0</b>	<b>376,509</b>
FH Con Navy	Mariana Islands	Guam	Replace Anderson Housing PH III .....	83,441		83,441
FH Con Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Design, Washington DC .....	4,502		4,502
FH Con Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Improvements, Washington DC .....	16,638		16,638
<b>Family Housing Construction, Navy And Marine Corps Total .....</b>				<b>104,581</b>	<b>0</b>	<b>104,581</b>
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Furnishings .....	16,395		16,395
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Housing Privatization Support .....	21,767	1,500	23,267
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Leasing .....	62,515		62,515
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Maintenance .....	86,328		86,328
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Management .....	50,870	-1,500	49,370

May 11, 2018 (12:14 a.m.)

FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Miscellaneous .....	148		148
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Services .....	16,261		16,261
FH Ops Navy	Worldwide Unspecified	Unspecified Worldwide Locations	Utilities .....	60,252		60,252
<b>Family Housing Operation And Maintenance, Navy And Marine Corps Total .....</b>				<b>314,536</b>	<b>0</b>	<b>314,536</b>
FH Con AF	Worldwide Unspecified	Unspecified Worldwide Locations	Construction Improvements .....	75,247		75,247
FH Con AF	Worldwide Unspecified	Unspecified Worldwide Locations	Planning & Design .....	3,199		3,199
<b>Family Housing Construction, Air Force Total .....</b>				<b>78,446</b>	<b>0</b>	<b>78,446</b>
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Furnishings .....	30,645		30,645
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Housing Privatization Support .....	22,205	1,500	23,705
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Leasing .....	15,832		15,832
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Maintenance .....	129,763		129,763
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Management .....	54,423	-1,500	52,923
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Miscellaneous .....	2,171		2,171
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Services .....	13,669		13,669
FH Ops AF	Worldwide Unspecified	Unspecified Worldwide Locations	Utilities .....	48,566		48,566
<b>Family Housing Operation And Maintenance, Air Force Total .....</b>				<b>317,274</b>	<b>0</b>	<b>317,274</b>
FH Ops DW	Worldwide Unspecified	Unspecified Worldwide Locations	Furnishings .....	1,060		1,060
FH Ops DW	Worldwide Unspecified	Unspecified Worldwide Locations	Leasing .....	51,278		51,278
FH Ops DW	Worldwide Unspecified	Unspecified Worldwide Locations	Maintenance .....	1,663		1,663
FH Ops DW	Worldwide Unspecified	Unspecified Worldwide Locations	Management .....	155		155
FH Ops DW	Worldwide Unspecified	Unspecified Worldwide Locations	Services .....	2		2
FH Ops DW	Worldwide Unspecified	Unspecified Worldwide Locations	Utilities .....	4,215		4,215
<b>Family Housing Operation And Maintenance, Defense-Wide Total .....</b>				<b>58,373</b>	<b>0</b>	<b>58,373</b>
FHIF	Worldwide Unspecified	Unspecified Worldwide Locations	Administrative Expenses—FHIF .....	1,653		1,653
<b>DOD Family Housing Improvement Fund Total .....</b>				<b>1,653</b>	<b>0</b>	<b>1,653</b>
UHIF	Worldwide Unspecified	Unaccompanied Housing Improvement Fund	Administrative Expenses—UHIF .....	600		600

165

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SEC. 4601. MILITARY CONSTRUCTION (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
<b>Unaccompanied Housing Improvement Fund Total</b> .....				<b>600</b>	<b>0</b>	<b>600</b>
BRAC	Worldwide Unspecified	Unspecified Worldwide Locations	Base Realignment and Closure .....	62,796	18,110	80,906
BRAC	Worldwide Unspecified	Unspecified Worldwide Locations	Base Realignment and Closure .....	151,839	19,110	170,949
BRAC	Worldwide Unspecified	Unspecified Worldwide Locations	Base Realignment and Closure .....	52,903	18,110	71,013
<b>Base Realignment and Closure Total</b> .....				<b>267,538</b>	<b>55,330</b>	<b>322,868</b>
PYS	Prior Year Savings	Prior Year Savings	Prior Year Savings .....	0	-71,158	-71,158
<b>Prior Year Savings Total</b> .....				<b>0</b>	<b>-71,158</b>	<b>-71,158</b>
<b>Total, Military Construction</b> .....				<b>10,462,617</b>	<b>-130,139</b>	<b>10,332,478</b>

**SEC. 4602. MILITARY CONSTRUCTION FOR OVERSEAS CONTINGENCY OPERATIONS.**

**SEC. 4602. MILITARY CONSTRUCTION FOR OVERSEAS CONTINGENCY OPERATIONS**  
(In Thousands of Dollars)

Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
Army	Bulgaria	Nevo Selo	EDI: Ammunition Holding Area .....	5,200		5,200
Army	Cuba	Guantanamo Bay	High Value Detention Facility .....	69,000	-69,000	0
Army	Poland	Drawsko Pomorski Training Area	EDI: Staging Area .....	17,000		17,000
Army	Poland	Powidz Air Base	EDI: Ammunition Storage Facility .....	52,000		52,000
Army	Poland	Powidz Air Base	EDI: Bulk Fuel Storage .....	21,000		21,000
Army	Poland	Powidz Air Base	EDI: Rail Extension & Railhead .....	14,000		14,000
Army	Poland	Zagan Training Area	EDI: Rail Extension and Railhead .....	6,400		6,400
Army	Poland	Zagan Training Area	EDI: Staging Area .....	34,000		34,000
Army	Romania	Mihail Kogalniceanu	EDI: Explosives & Ammo Load/Unload Apron .....	21,651		21,651
Army	Worldwide Unspec- ified	Unspecified Worldwide Locations	EDI: Planning and Design .....	20,999		20,999
<b>Military Construction, Army Total .....</b>				<b>261,250</b>	<b>-69,000</b>	<b>192,250</b>
Navy	Greece	Souda Bay	EDI: Joint Mobility Processing Center .....	41,650		41,650
Navy	Greece	Souda Bay	EDI: Marathi Logistics Support Center .....	6,200		6,200
Navy	Italy	Sigonella	EDI: P-8A Taxiway .....	66,050		66,050
Navy	Spain	Rota	EDI: Port Operations Facilities .....	21,590		21,590
Navy	United Kingdom	Lossiemouth	EDI: P-8 Base Improvements .....	79,130		79,130
Navy	Worldwide Unspec- ified	Unspecified Worldwide Locations	EDI: Planning and Design .....	12,700		12,700
<b>Military Construction, Navy Total .....</b>				<b>227,320</b>	<b>0</b>	<b>227,320</b>
AF	Germany	Ramstein AB	EDI: KMC DABS-FEV/RH Storage Warehouses .....	119,000		119,000
AF	Norway	Rygge	EDI: Construct Taxiway .....	13,800		13,800
AF	Qatar	Al Udeid	Flight line Support Facilities .....	0	30,400	30,400

SEC. 4602. MILITARY CONSTRUCTION FOR OVERSEAS CONTINGENCY OPERATIONS (In Thousands of Dollars)						
Account	State/ Country	Installation	Project Title	FY 2019 Request	House Change	House Agreement
AF	Qatar	Al Udeid	Personnel Deployment Processing Facility .....	0	40,000	40,000
AF	Slovakia	Malacky	EDI: Regional Munitions Storage Area .....	59,000		59,000
AF	United Kingdom	RAF Fairford	EDI: Construct DABS-FEV Storage .....	87,000		87,000
AF	United Kingdom	RAF Fairford	EDI: Munitions Holding Area .....	19,000		19,000
AF	Worldwide Unspec- ified	Unspecified Worldwide Locations	EDI: Planning & Design Funds .....	48,000	-1,400	46,600
<b>Military Construction, Air Force Total .....</b>				<b>345,800</b>	<b>69,000</b>	<b>414,800</b>
Def-Wide	Estonia	Unspecified Estonia	EDI: SOF Operations Facility .....	6,100		6,100
Def-Wide	Estonia	Unspecified Estonia	EDI: SOF Training Facility .....	9,600		9,600
Def-Wide	Qatar	Al Udeid	Trans-Regional Logistics Complex .....	60,000		60,000
Def-Wide	Worldwide Unspec- ified	Unspecified Worldwide Locations	EDI: Planning and Design .....	7,100		7,100
Def-Wide	Worldwide Unspec- ified	Various Worldwide Locations	EDI: Planning and Design .....	4,250		4,250
<b>Military Construction, Defense-Wide Total .....</b>				<b>87,050</b>	<b>0</b>	<b>87,050</b>
<b>Total, Military Construction .....</b>				<b>921,420</b>	<b>0</b>	<b>921,420</b>

## TITLE XLVII—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

### SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS.

SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS (In Thousands of Dollars)			
Program	FY 2019 Request	House Change	House Authorized
<b>Discretionary Summary By Appropriation</b>			
<b>Energy And Water Development, And Related Agencies</b>			
<b>Appropriation Summary:</b>			
<b>Energy Programs</b>			
Nuclear Energy .....	136,090	0	136,090
<b>Atomic Energy Defense Activities</b>			
<b>National nuclear security administration:</b>			
Weapons activities .....	11,017,078	198,000	11,215,078
Defense nuclear nonproliferation .....	1,862,825	127,000	1,989,825
Naval reactors .....	1,788,618	0	1,788,618
Federal salaries and expenses .....	422,529	-18,000	404,529
<b>Total, National nuclear security administration .....</b>	<b>15,091,050</b>	<b>307,000</b>	<b>15,398,050</b>
<b>Environmental and other defense activities:</b>			
Defense environmental cleanup .....	5,630,217	50,000	5,680,217
Other defense activities .....	853,300	0	853,300
Defense nuclear waste disposal .....	30,000	0	30,000
<b>Total, Environmental &amp; other defense activities .....</b>	<b>6,513,517</b>	<b>50,000</b>	<b>6,563,517</b>



**SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS**  
(In Thousands of Dollars)

Program	FY 2019 Request	House Change	House Authorized
<b>Total, Atomic Energy Defense Activities</b> .....	<b>21,604,567</b>	<b>357,000</b>	<b>21,961,567</b>
<b>Total, Discretionary Funding</b> .....	<b>21,740,657</b>	<b>357,000</b>	<b>22,097,657</b>
<b>Nuclear Energy</b>			
Idaho sitewide safeguards and security .....	136,090		136,090
<b>Total, Nuclear Energy</b> .....	<b>136,090</b>	<b>0</b>	<b>136,090</b>
<b>Weapons Activities</b>			
<b>Directed stockpile work</b>			
<b>Life extension programs and major alterations</b>			
B61-12 Life extension program .....	794,049		794,049
W76-1 Life extension program .....	48,888		48,888
W88 Alt 370 .....	304,285		304,285
W80-4 Life extension program .....	654,766		654,766
IW-1 .....	53,000		53,000
W76-2 Warhead modification program .....	65,000		65,000
<b>Total, Life extension programs and major alterations</b> .....	<b>1,919,988</b>	<b>0</b>	<b>1,919,988</b>
<b>Stockpile systems</b>			
B61 Stockpile systems .....	64,547		64,547
W76 Stockpile systems .....	94,300		94,300
W78 Stockpile systems .....	81,329		81,329
W80 Stockpile systems .....	80,204		80,204
B83 Stockpile systems .....	35,082		35,082
W87 Stockpile systems .....	83,107		83,107
W88 Stockpile systems .....	180,913		180,913
<b>Total, Stockpile systems</b> .....	<b>619,482</b>	<b>0</b>	<b>619,482</b>

<b>Weapons dismantlement and disposition</b>			
Operations and maintenance .....	56,000		56,000
<b>Stockpile services</b>			
Production support .....	512,916	-4,000	508,916
Program decrease .....		[-4,000]	
Research and development support .....	38,129		38,129
R&D certification and safety .....	216,582	-2,000	214,582
Program decrease .....		[-2,000]	
Management, technology, and production .....	300,736	-2,000	298,736
Program decrease .....		[-2,000]	
<b>Total, Stockpile services .....</b>	<b>1,068,363</b>	<b>-8,000</b>	<b>1,060,363</b>
<b>Strategic materials</b>			
Uranium sustainment .....	87,182		87,182
Plutonium sustainment .....	361,282		361,282
Tritium sustainment .....	205,275		205,275
Lithium sustainment .....	29,135		29,135
Domestic uranium enrichment .....	100,704		100,704
Strategic materials sustainment .....	218,794		218,794
<b>Total, Strategic materials .....</b>	<b>1,002,372</b>	<b>0</b>	<b>1,002,372</b>
<b>Total, Directed stockpile work .....</b>	<b>4,666,205</b>	<b>-8,000</b>	<b>4,658,205</b>
<b>Research, development, test and evaluation (RDT&amp;E)</b>			
<b>Science</b>			
Advanced certification .....	57,710		57,710
Primary assessment technologies .....	95,057	-2,000	93,057
Program decrease .....		[-2,000]	
Dynamic materials properties .....	131,000	-3,000	128,000
Program decrease .....		[-3,000]	
Advanced radiography .....	32,544		32,544

SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS  
(In Thousands of Dollars)

Program	FY 2019 Request	House Change	House Authorized
Secondary assessment technologies .....	77,553		77,553
Academic alliances and partnerships .....	53,364		53,364
Enhanced Capabilities for Subcritical Experiments .....	117,632		117,632
<b>Total, Science .....</b>	<b>564,860</b>	<b>-5,000</b>	<b>559,860</b>
<b>Engineering</b>			
Enhanced surety .....	43,226		43,226
Weapon systems engineering assessment technology .....	27,536		27,536
Nuclear survivability .....	48,230		48,230
Enhanced surveillance .....	58,375		58,375
Stockpile Responsiveness .....	34,000	6,000	40,000
Program increase .....		[6,000]	
<b>Total, Engineering .....</b>	<b>211,367</b>	<b>6,000</b>	<b>217,367</b>
<b>Inertial confinement fusion ignition and high yield</b>			
Ignition .....	22,434	20,000	42,434
Maintain sustainable levels .....		[20,000]	
Support of other stockpile programs .....	17,397	4,000	21,397
Maintain sustainable levels .....		[4,000]	
Diagnostics, cryogenics and experimental support .....	51,453	10,000	61,453
Maintain sustainable levels .....		[10,000]	
Pulsed power inertial confinement fusion .....	8,310		8,310
Facility operations and target production .....	319,333	15,000	334,333
Maintain sustainable levels .....		[15,000]	
<b>Total, Inertial confinement fusion and high yield .....</b>	<b>418,927</b>	<b>49,000</b>	<b>467,927</b>
<b>Advanced simulation and computing</b>			

Advanced simulation and computing .....	656,401		656,401
<b>Construction:</b>			
18-D-670, Exascale Class Computer Cooling Equipment, LANL .....	24,000		24,000
18-D-620, Exascale Computing Facility Modernization Project, LLNL .....	23,000		23,000
<b>Total, Construction</b> .....	<b>47,000</b>	<b>0</b>	<b>47,000</b>
<b>Total, Advanced simulation and computing</b> .....	<b>703,401</b>	<b>0</b>	<b>703,401</b>
<b>Advanced manufacturing</b>			
Additive manufacturing .....	17,447		17,447
Component manufacturing development .....	48,477		48,477
Process technology development .....	30,914		30,914
<b>Total, Advanced manufacturing</b> .....	<b>96,838</b>	<b>0</b>	<b>96,838</b>
<b>Total, RDT&amp;E</b> .....	<b>1,995,393</b>	<b>50,000</b>	<b>2,045,393</b>
<b>Infrastructure and operations</b>			
Operations of facilities .....	891,000		891,000
Safety and environmental operations .....	115,000		115,000
Maintenance and repair of facilities .....	365,000	39,000	404,000
Address high-priority repair needs and preventive maintenance .....		[39,000]	
<b>Recapitalization:</b>			
Infrastructure and safety .....	431,631	67,000	498,631
Support high-priority deferred maintenance .....		[67,000]	
Capability based investments .....	109,057	4,000	113,057
Program increase .....		[4,000]	
<b>Total, Recapitalization</b> .....	<b>540,688</b>	<b>71,000</b>	<b>611,688</b>
<b>Construction:</b>			
19-D-670, 138kV Power Transmission System Replacement, NNSS .....	6,000		6,000
19-D-660, Lithium Production Capability, Y-12 .....	19,000		19,000
18-D-680, Material Staging Facility, Pantex .....	0	24,000	24,000
18-D-650, Tritium Production Capability, SRS .....	27,000		27,000
17-D-710, West End Protected Area reduction Project, Y-12 .....	0	9,000	9,000

**SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS**  
(In Thousands of Dollars)

Program	FY 2019 Request	House Change	House Authorized
17-D-640, U1a Complex Enhancements Project, NNSS .....	53,000		53,000
16-D-515, Albuquerque complex project .....	47,953		47,953
14-D-710, DAF Argus project, NNSS .....	0	2,000	2,000
06-D-141 Uranium processing facility Y-12, Oak Ridge, TN .....	703,000		703,000
04-D-125 Chemistry and metallurgy research facility replacement project, LANL .....	235,095		235,095
<b>Total, Construction .....</b>	<b>1,091,048</b>	<b>35,000</b>	<b>1,126,048</b>
<b>Total, Infrastructure and operations .....</b>	<b>3,002,736</b>	<b>145,000</b>	<b>3,147,736</b>
<b>Secure transportation asset</b>			
Operations and equipment .....	176,617		176,617
Program direction .....	102,022		102,022
<b>Total, Secure transportation asset .....</b>	<b>278,639</b>	<b>0</b>	<b>278,639</b>
<b>Defense nuclear security</b>			
Operations and maintenance .....	690,638	11,000	701,638
Physical security infrastructure recapitalization and CSTART .....		[11,000]	
<b>Total, Defense nuclear security .....</b>	<b>690,638</b>	<b>11,000</b>	<b>701,638</b>
Information technology and cybersecurity .....	221,175		221,175
Legacy contractor pensions .....	162,292		162,292
<b>Total, Weapons Activities .....</b>	<b>11,017,078</b>	<b>198,000</b>	<b>11,215,078</b>
<b>Defense Nuclear Nonproliferation</b>			
<b>Defense Nuclear Nonproliferation Programs</b>			
<b>Global material security</b>			

International nuclear security .....	46,339		46,339
Domestic radiological security .....	90,764		90,764
International radiological security .....	59,576		59,576
Nuclear smuggling detection and deterrence .....	140,429		140,429
<b>Total, Global material security .....</b>	<b>337,108</b>	<b>0</b>	<b>337,108</b>
<b>Material management and minimization</b>			
HEU reactor conversion .....	98,300		98,300
Nuclear material removal .....	32,925		32,925
Material disposition .....	200,869		200,869
<b>Total, Material management &amp; minimization .....</b>	<b>332,094</b>	<b>0</b>	<b>332,094</b>
Nonproliferation and arms control .....	129,703		129,703
Defense nuclear nonproliferation R&D .....	456,095	12,000	468,095
Acceleration of low-yield detection experiments .....		[6,000]	
Future nuclear proliferation challenges, including 3D printing .....		[6,000]	
<b>Nonproliferation Construction:</b>			
18-D-150 Surplus Plutonium Disposition Project .....	59,000		59,000
99-D-143 Mixed Oxide (MOX) Fuel Fabrication Facility, SRS .....	220,000	115,000	335,000
<b>Total, Nonproliferation construction .....</b>	<b>279,000</b>	<b>115,000</b>	<b>394,000</b>
<b>Total, Defense Nuclear Nonproliferation Programs .....</b>	<b>1,534,000</b>	<b>127,000</b>	<b>1,661,000</b>
Legacy contractor pensions .....	28,640		28,640
Nuclear counterterrorism and incident response program .....	319,185		319,185
Use of prior year balances .....	-19,000		-19,000
<b>Total, Defense Nuclear Nonproliferation .....</b>	<b>1,862,825</b>	<b>127,000</b>	<b>1,989,825</b>
<b>Naval Reactors</b>			
Naval reactors development .....	514,951		514,951
Columbia-Class reactor systems development .....	138,000		138,000
S8G Prototype refueling .....	250,000		250,000

SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS (In Thousands of Dollars)			
Program	FY 2019 Request	House Change	House Authorized
Naval reactors operations and infrastructure .....	525,764		525,764
<b>Construction:</b>			
19-D-930, KS Overhead Piping .....	10,994		10,994
17-D-911, BL Fire System Upgrade .....	13,200		13,200
14-D-901 Spent fuel handling recapitalization project, NRF .....	287,000		287,000
<b>Total, Construction</b> .....	<b>311,194</b>	<b>0</b>	<b>311,194</b>
Program direction .....	48,709		48,709
<b>Total, Naval Reactors</b> .....	<b>1,788,618</b>	<b>0</b>	<b>1,788,618</b>
 <b>Federal Salaries And Expenses</b>			
Program direction .....	422,529	-18,000	404,529
Program decrease .....		[-18,000]	
<b>Total, Office Of The Administrator</b> .....	<b>422,529</b>	<b>-18,000</b>	<b>404,529</b>
 <b>Defense Environmental Cleanup</b>			
<b>Closure sites:</b>			
Closure sites administration .....	4,889		4,889
 <b>Richland:</b>			
River corridor and other cleanup operations .....	89,577		89,577
Central plateau remediation .....	562,473	50,000	612,473
Accelerated remediation of 300-296 waste site .....		[50,000]	
Richland community and regulatory support .....	5,121		5,121
<b>Construction:</b>			
18-D-404 WESF Modifications and Capsule Storage .....	1,000		1,000

<b>Total, Construction</b> .....	<b>1,000</b>	<b>0</b>	<b>1,000</b>
<b>Total, Hanford site</b> .....	<b>658,171</b>	<b>50,000</b>	<b>708,171</b>
<b>Office of River Protection:</b>			
Waste Treatment Immobilization Plant Commissioning .....	15,000		15,000
Rad liquid tank waste stabilization and disposition .....	677,460		677,460
<b>Construction:</b>			
15-D-409 Low activity waste pretreatment system, ORP .....	56,053		56,053
01-D-416 A-D WTP Subprojects A-D .....	675,000		675,000
01-D-416 E—Pretreatment Facility .....	15,000		15,000
<b>Total, Construction</b> .....	<b>746,053</b>	<b>0</b>	<b>746,053</b>
<b>Total, Office of River protection</b> .....	<b>1,438,513</b>	<b>0</b>	<b>1,438,513</b>
<b>Idaho National Laboratory:</b>			
SNF stabilization and disposition—2012 .....	17,000		17,000
Solid waste stabilization and disposition .....	148,387		148,387
Radioactive liquid tank waste stabilization and disposition .....	137,739		137,739
Soil and water remediation—2035 .....	42,900		42,900
Idaho community and regulatory support .....	3,200		3,200
<b>Total, Idaho National Laboratory</b> .....	<b>349,226</b>	<b>0</b>	<b>349,226</b>
<b>NNSA sites and Nevada off-sites</b>			
Lawrence Livermore National Laboratory .....	1,704		1,704
<b>Nuclear facility D &amp; D</b>			
Separations Process Research Unit .....	15,000		15,000
Nevada .....	60,136		60,136
Sandia National Laboratories .....	2,600		2,600
Los Alamos National Laboratory .....	191,629		191,629
<b>Total, NNSA sites and Nevada off-sites</b> .....	<b>271,069</b>	<b>0</b>	<b>271,069</b>
<b>Oak Ridge Reservation:</b>			
<b>OR Nuclear facility D &amp; D</b>			



SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS (In Thousands of Dollars)			
Program	FY 2019 Request	House Change	House Authorized
OR-0041—D&D - Y-12 .....	30,214		30,214
OR-0042—D&D -ORNL .....	60,007		60,007
<b>Total, OR Nuclear facility D &amp; D .....</b>	<b>90,221</b>	<b>0</b>	<b>90,221</b>
U233 Disposition Program .....	45,000		45,000
<b>OR cleanup and waste disposition</b>			
OR cleanup and disposition .....	67,000		67,000
<b>Construction:</b>			
17-D-401 On-site waste disposal facility .....	5,000		5,000
14-D-403 Outfall 200 Mercury Treatment Facility .....	11,274		11,274
<b>Total, Construction .....</b>	<b>16,274</b>	<b>0</b>	<b>16,274</b>
<b>Total, OR cleanup and waste disposition .....</b>	<b>83,274</b>	<b>0</b>	<b>83,274</b>
OR community & regulatory support .....	4,711		4,711
OR technology development and deployment .....	3,000		3,000
<b>Total, Oak Ridge Reservation .....</b>	<b>226,206</b>	<b>0</b>	<b>226,206</b>
<b>Savannah River Sites:</b>			
Nuclear Material Management .....	351,331		351,331
<b>Environmental Cleanup</b>			
Environmental Cleanup .....	166,105		166,105
<b>Construction:</b>			
18-D-402, Emergency Operations Center .....	1,259		1,259
<b>Total, Environmental Cleanup .....</b>	<b>167,364</b>	<b>0</b>	<b>167,364</b>

SR community and regulatory support .....	4,749		4,749
Radioactive liquid tank waste stabilization and disposition .....	805,686		805,686
<b>Construction:</b>			
18-D-401, SDU #8/9 .....	37,450		37,450
17-D-402—Saltstone Disposal Unit #7 .....	41,243		41,243
05-D-405 Salt waste processing facility, Savannah River Site .....	65,000		65,000
<b>Total, Construction</b> .....	<b>143,693</b>	<b>0</b>	<b>143,693</b>
<b>Total, Savannah River site</b> .....	<b>1,472,823</b>	<b>0</b>	<b>1,472,823</b>
<b>Waste Isolation Pilot Plant</b>			
Operations and maintenance .....	220,000		220,000
Central characterization project .....	19,500		19,500
Critical Infrastructure Repair/Replacement .....	46,695		46,695
Transportation .....	25,500		25,500
<b>Construction:</b>			
15-D-411 Safety significant confinement ventilation system, WIPP .....	84,212		84,212
15-D-412 Exhaust shaft, WIPP .....	1,000		1,000
<b>Total, Construction</b> .....	<b>85,212</b>	<b>0</b>	<b>85,212</b>
<b>Total, Waste Isolation Pilot Plant</b> .....	<b>396,907</b>	<b>0</b>	<b>396,907</b>
Program direction .....	300,000		300,000
Program support .....	6,979		6,979
Minority Serving Institution Partnership .....	6,000		6,000
<b>Safeguards and Security</b>			
Oak Ridge Reservation .....	14,023		14,023
Paducah .....	15,577		15,577
Portsmouth .....	15,078		15,078
Richland/Hanford Site .....	86,686		86,686
Savannah River Site .....	183,357		183,357
Waste Isolation Pilot Project .....	6,580		6,580
West Valley .....	3,133		3,133
<b>Total, Safeguards and Security</b> .....	<b>324,434</b>	<b>0</b>	<b>324,434</b>

SEC. 4701. DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS (In Thousands of Dollars)			
Program	FY 2019 Request	House Change	House Authorized
Technology development .....	25,000		25,000
HQEF-0040—Excess Facilities .....	150,000		150,000
<b>Total, Defense Environmental Cleanup .....</b>	<b>5,630,217</b>	<b>50,000</b>	<b>5,680,217</b>
<b>Other Defense Activities</b>			
<b>Environment, health, safety and security</b>			
Environment, health, safety and security .....	135,194		135,194
Program direction .....	70,653		70,653
<b>Total, Environment, Health, safety and security .....</b>	<b>205,847</b>	<b>0</b>	<b>205,847</b>
<b>Independent enterprise assessments</b>			
Independent enterprise assessments .....	24,068		24,068
Program direction .....	52,702		52,702
<b>Total, Independent enterprise assessments .....</b>	<b>76,770</b>	<b>0</b>	<b>76,770</b>
Specialized security activities .....	254,378		254,378
<b>Office of Legacy Management</b>			
Legacy management .....	140,575		140,575
Program direction .....	18,302		18,302
<b>Total, Office of Legacy Management .....</b>	<b>158,877</b>	<b>0</b>	<b>158,877</b>
<b>Defense related administrative support</b>			
Chief financial officer .....	48,484		48,484
Chief information officer .....	96,793		96,793
Project management oversight and Assessments .....	8,412		8,412
<b>Total, Defense related administrative support .....</b>	<b>153,689</b>	<b>0</b>	<b>153,689</b>

May 11, 2018 (12:14 a.m.)

Office of hearings and appeals .....	5,739		5,739
<b>Subtotal, Other defense activities</b> .....	<b>855,300</b>	<b>0</b>	<b>855,300</b>
Rescission of prior year balances (OHA) .....	-2,000		-2,000
<b>Total, Other Defense Activities</b> .....	<b>853,300</b>	<b>0</b>	<b>853,300</b>
<b>Defense Nuclear Waste Disposal</b>			
Yucca mountain and interim storage .....	30,000		30,000
<b>Total, Defense Nuclear Waste Disposal</b> .....	<b>30,000</b>	<b>0</b>	<b>30,000</b>

## DEPARTMENT OF DEFENSE AUTHORIZATION REQUEST

The Department of Defense requested legislation, in accordance with the program of the President, as illustrated by the correspondence set out below:

MARCH 9, 2018.

HON. PAUL D. RYAN,  
*Speaker of the House of Representatives,*  
*Washington, DC.*

DEAR MR. SPEAKER: Enclosed please find a draft of proposed legislation, titled the "National Defense Authorization Act for Fiscal Year 2019", which the Department of Defense requests be enacted during the second session of the 115th Congress.

The purpose of each provision in the proposed bill is stated in the accompanying section-by-section analysis.

The Department is currently working with the Administration on additional legislative initiatives, which the Department hopes to transmit to Congress for its consideration in the coming weeks.

The Office of Management and Budget advises that there is no objection, from the standpoint of the Administration's program, to the presenting of these legislative proposals for your consideration and the consideration of Congress.

Sincerely,

ROBERT R. HOOD

Enclosure: As Stated

MARCH 16, 2018.

HON. PAUL D. RYAN,  
*Speaker of the House of Representatives,*  
*Washington, DC.*

DEAR MR. SPEAKER: Enclosed please find additional legislative proposals that the Department of Defense requests be enacted during the second session of the 115th Congress. The purpose of each proposal is stated in the accompanying section-by-section analysis. The Department submits these proposals as a follow-on to the earlier transmittal of our request for enactment of proposed legislation titled the "National Defense Authorization Act for Fiscal Year 2019".

The Department is currently working with the Administration on additional legislative initiatives, which the Department hopes to transmit to Congress for its consideration in the coming weeks.

The Office of Management and Budget advises that there is no objection, from the standpoint of the Administration's program, to the presenting of these legislative proposals for your consideration and the consideration of Congress.

Sincerely,

ROBERT R. HOOD

Enclosure: As Stated

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MARCH 26, 2018.

HON. PAUL D. RYAN,  
*Speaker of the House of Representatives,*  
*Washington, DC.*

DEAR MR. SPEAKER: Enclosed please find additional legislative proposals that the Department of Defense requests be enacted during the second session of the 115th Congress. The purpose of each proposal is stated in the accompanying section-by-section analysis. The Department submits these proposals as a follow-on to the earlier transmittal of our request for enactment of proposed legislation titled the "National Defense Authorization Act for Fiscal Year 2019".

The Department is currently working with the Administration on additional legislative initiatives, which the Department hopes to transmit to Congress for its consideration in the coming weeks.

The Office of Management and Budget advises that there is no objection, from the standpoint of the Administration's program, to the presenting of these legislative proposals for your consideration and the consideration of Congress.

Sincerely,

ROBERT R. HOOD

Enclosure: As Stated

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APRIL 3, 2018.

HON. PAUL D. RYAN,  
*Speaker of the House of Representatives,*  
*Washington, DC.*

DEAR MR. SPEAKER: Enclosed please find additional legislative proposals that the Department of Defense requests be enacted during the second session of the 115th Congress. The purpose of each proposal is stated in the accompanying section-by-section analysis. The Department submits these proposals as a follow-on to the earlier transmittal of our request for enactment of proposed legislation titled the "National Defense Authorization Act for Fiscal Year 2019".

The Department is currently working with the Administration on additional legislative initiatives, which the Department hopes to transmit to Congress for its consideration in the coming weeks.

The Office of Management and Budget advises that there is no objection, from the standpoint of the Administration's program, to the presenting of these legislative proposals for your consideration and the consideration of Congress.

Sincerely,

ROBERT R. HOOD

Enclosure: As Stated

APRIL 13, 2018.

HON. PAUL D. RYAN,  
*Speaker of the House of Representatives,*  
*Washington, DC.*

DEAR MR. SPEAKER: Enclosed please find additional legislative proposals that the Department of Defense requests be enacted during the second session of the 115th Congress. The purpose of each proposal is stated in the accompanying section-by-section analysis. The Department submits these proposals as a follow-on to the earlier transmittal of our request for enactment of proposed legislation titled the "National Defense Authorization Act for Fiscal Year 2019".

The Department is currently working with the Administration on additional legislative initiatives, which the Department hopes to transmit to Congress for its consideration in the coming weeks.

The Office of Management and Budget advises that there is no objection, from the standpoint of the Administration's program, to the presenting of these legislative proposals for your consideration and the consideration of Congress.

Sincerely,

ROBERT R. HOOD

Enclosure: As Stated

## COMMUNICATIONS FROM OTHER COMMITTEES

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON THE BUDGET,  
*Washington, DC, May 10, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,*

*House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I am writing regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. This legislation contains subject matter within the jurisdiction of the Committee on the Budget. However, in order to expedite floor consideration of this important legislation, the Committee waives consideration of the bill.

The Committee on the Budget takes this action only with the understanding that the Committee's jurisdictional interests over this and similar legislation are in no way diminished or altered. I also ask that the Committee on the Budget be appropriately consulted and involved as this bill or similar legislation moves forward so that the Committee may address any remaining issues that fall within its jurisdiction.

The Committee also reserves the right to seek appointment to any House-Senate conference on this legislation and requests your support if such a request is made. I would appreciate your response to this letter, confirming this understanding with respect to H.R. 5515 and would ask that a copy of our exchange of letters on this matter be included in the Congressional Record during House Floor consideration. Thank you for your attention to these matters.

Sincerely,

STEVE WOMACK,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. STEVE WOMACK,  
*Chairman, Committee on the Budget,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on the Budget has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on the Budget is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.



HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ENERGY AND COMMERCE,  
*Washington, DC, May 11, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I write in regard to H.R. 5515, the "National Defense Authorization Act for Fiscal Year 2019." Although the Committee on Energy and Commerce has jurisdictional interests in the bill, I wanted to notify you that the will forgo action on the bill so that it may proceed expeditiously to the House floor for consideration.

This is done with the understanding that the Committee on Energy and Commerce's jurisdictional interests over this and similar legislation are in no way diminished or altered. In addition, the Committee reserves the right to seek conferees on H.R. 5515 and requests your support when such a request is made.

I would appreciate your response confirming this understanding with respect to H.R. 5515 and ask that a copy of our exchange of letters on this matter be included in the Congressional Record during consideration of the bill on the House floor.

Sincerely,

GREG WALDEN,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. GREG WALDEN,  
*Chairman, Committee on Energy and Commerce,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Energy and Commerce has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Energy and Commerce is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON FINANCIAL SERVICES,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I am writing to you regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. There are certain provisions of H.R. 5515 which fall within the Rule X jurisdiction of the Committee on Financial Services.

In the interest of permitting your committee to have the House expeditiously consider H.R. 5515, I am writing to waive this Committee's right to sequential referral. I do so with the understanding that by waiving consideration of the bill the Committee on Financial Services does not waive any future jurisdictional claim over the subject matters contained in H.R. 5515 which fall within its Rule X jurisdiction. I request that you urge the Speaker to name members of the Committee on Financial Services to any conference committee which is named to consider such provisions.

Please place this letter into the committee report on H.R. 5515 and into the *Congressional Record* during consideration of the measure on the House floor. Thank you for your attention to these important matters.

Sincerely,

JEB HENSARLING,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. JEB HENSARLING,  
*Chairman, Committee on Financial Services  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Financial Services has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Financial Services

is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON FOREIGN AFFAIRS,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: I write to confirm our mutual understanding regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019, which contains substantial matter that falls within the Rule X legislative jurisdiction of the Foreign Affairs Committee. I appreciate the cooperation that allowed us to work out mutually agreeable text on numerous matters prior to your markup.

Based on that cooperation and our associated understandings, the Foreign Affairs Committee will not seek a sequential referral or object to floor consideration of the bill text approved at your Committee markup. This decision in no way diminishes or alters the jurisdictional interests of the Foreign Affairs Committee in this bill, any subsequent amendments, or similar legislation. I request your support for the appointment of House Foreign Affairs conferees during any House-Senate conference on this legislation.

Finally, I respectfully request that you include this letter and your response in your committee report on the bill and in the Congressional Record during consideration of H.R. 5515 on the House floor.

Sincerely,

EDWARD R. ROYCE,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. EDWARD R. ROYCE,  
*Chairman, Committee on Foreign Affairs,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Foreign Affairs has valid jurisdictional claims to certain provisions in

this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Foreign Affairs is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON HOMELAND SECURITY,  
*Washington, DC, May 10, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR MR. THORNBERRY: I am writing to you concerning H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. There are certain provisions in this legislation which fall within the Rule X jurisdiction of the Committee on Homeland Security.

In the interest of permitting your committee to proceed expeditiously to floor consideration of this important bill, I am willing to waive this committee's right to sequential referral. However, I do so with the understanding that by waiving consideration of the bill, the Committee on Homeland Security does not waive any future jurisdictional claim over the subject matters contained in the bill which fall within its Rule X jurisdiction. I request that you urge the Speaker to name members of this committee to any conference committee which is named to consider such provisions.

Please place this letter into the committee report on H.R. 5515 and into the Congressional Record during consideration of the measure on the House floor. Thank you for the cooperative spirit in which you and your staff have worked regarding this matter and others between our respective committees.

Sincerely,

MICHAEL T. MCCAUL,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. MICHAEL T. MCCAUL,  
*Chairman, Committee on Homeland Security*  
*House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Homeland Security has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Homeland Security is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON THE JUDICIARY,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,*  
*House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I write with respect to H.R. 5515, the "National Defense Authorization Act for Fiscal Year 2019." As a result of your having consulted with us on provisions within H.R. 5515 that fall within the Rule X jurisdiction of the Committee on the Judiciary, I forego any further consideration of this bill so that it may proceed expeditiously to the House floor for consideration.

The Judiciary Committee takes this action with our mutual understanding that by foregoing consideration of H.R. 5515 at this time, we do not waive any jurisdiction over subject matter contained in this or similar legislation and that our committee will be appropriately consulted and involved as this bill or similar legislation moves forward so that we may address any remaining issues in our jurisdiction. Our committee also reserves the right to seek appointment of an appropriate number of conferees to any House-Senate conference involving this or similar legislation and asks that you support any such request.

I would appreciate a response to this letter confirming this understanding with respect to H.R. 5515 and would ask that a copy of our exchange of letters on this matter be included your committee report and in the *Congressional Record* during floor consideration of H.R. 5515.

Sincerely,

BOB GOODLATTE,

CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. BOB GOODLATTE,  
*Chairman, Committee on the Judiciary,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on the Judiciary has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on the Judiciary is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON NATURAL RESOURCES,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR MR. THORNBERRY: I am writing to you concerning the bill H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. There are certain provisions in the legislation which fall within the Rule X jurisdiction of the Committee on Natural Resources.

In the interest of permitting your committee to proceed expeditiously to floor consideration of this important bill, I am willing to waive this committee's right to sequential referral. I do so with the understanding that by waiving consideration of the bill the Committee on Natural Resources does not waive any future jurisdictional claim over the subject matters contained in the bill which fall within its Rule X jurisdiction. I request that you urge the Speaker to name members of this committee to any conference committee which is named to consider such provisions.

Please place this letter into the committee report on H.R. 5515 and into the Congressional Record during consideration of the measure on the House floor.

Thank you for the cooperative spirit in which you have worked regarding this matter and others between our respective committees.

Sincerely,

ROB BISHOP,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. ROB BISHOP,  
*Chairman, Committee on Natural Resources,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Natural Resources has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Natural Resources is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON OVERSIGHT AND GOVERNMENT  
REFORM,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: I write concerning H.R. 5515, *the National Defense Authorization Act for Fiscal Year 2019*. This bill contains provisions within the jurisdiction of the Committee on Oversight and Government Reform. As a result of your having consulted with me concerning the provisions of the bill that fall within our Rule X jurisdiction, I agree to forgo consideration of the bill, so the bill may proceed expeditiously to the House floor.

The Committee takes this action with our mutual understanding that by foregoing consideration of H.R. 5515 we do not waive any jurisdiction over the

subject matter contained in this or similar legislation, and we will be appropriately consulted and involved as the bill or similar legislation moves forward so we may address any remaining issues within our Rule X jurisdiction. Further, I request your support for the appointment of conferees from the Committee on Oversight and Government Reform during any House-Senate conference on this or related legislation.

Finally, I would appreciate a response confirming this understanding and ask that a copy of our exchange of letters on this matter be included in the bill report filed by the Committee on Armed Services, as well as in the *Congressional Record* during floor consideration thereof.

Sincerely,

TREY GOWDY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. TREY GOWDY,  
*Chairman, Committee on Oversight and Government Reform,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Oversight and Government Reform has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Oversight and Government Reform is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON SCIENCE, SPACE, AND  
TECHNOLOGY,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*



DEAR MR. THORNBERRY: I am writing to you concerning the bill H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. There are certain provisions in the legislation which fall within the Rule X jurisdiction of the Committee on Science, Space, and Technology.

In the interest of permitting your committee to proceed expeditiously to floor consideration of this important bill, I am willing to waive this committee's right to sequential referral. I do so with the understanding that by waiving consideration of the bill the Committee on Science, Space, and Technology does not waive any future jurisdictional claim over the subject matters contained in the bill which fall within its Rule X jurisdiction. I request that you urge the Speaker to name members of this committee to any conference committee which is named to consider such provisions.

Please place this letter into the committee report on H.R. 5515 and into the Congressional Record during consideration of the measure on the House floor. Thank you for the cooperative spirit in which you have worked regarding this matter and others between our respective committees.

Sincerely,

LAMAR SMITH,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. LAMAR SMITH,  
*Chairman, Committee on Science, Space, and Technology,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Science, Space, and Technology has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Science, Space, and Technology is not waiving its jurisdiction. Further, this exchange of letters will be included in the Congressional Record.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,

COMMITTEE ON SMALL BUSINESS,  
*Washington, DC, May 10, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I write to confirm our mutual understanding regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. This legislation contains subject matter within the jurisdiction of the House of Representatives' Committee on Small Business. However, in order to expedite floor consideration of this important legislation, the Committee waives consideration of the bill.

The House of Representatives' Committee on Small Business takes this action only with the understanding that the committee's jurisdictional interests over this and similar legislation are in no way diminished or altered.

The Committee also reserves the right to seek appointment to any House-Senate conference on this legislation and requests your support if such a request is made. Finally, I would appreciate your including this letter in the Congressional Record during consideration of H.R. 5515 on the House Floor. Thank you for your cooperative spirit in which you have worked on these issues and others between our respective committees.

Sincerely,

STEVE CHABOT,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. STEVE CHABOT,  
*Chairman, Committee on Small Business,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Small Business has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Small Business is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON TRANSPORTATION AND  
INFRASTRUCTURE,

*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR MR. THORNBERRY: I am writing to you concerning the jurisdictional interest of the Committee on Transportation and Infrastructure in matters being considered in H.R. 5515, the *National Defense Authorization Act for Fiscal Year 2019*.

Our committee recognizes the importance of H.R. 5515 and the need for the legislation to move expeditiously. Therefore, while we have a valid claim to jurisdiction over the bill, I do not intend to request a sequential referral. This, of course, is conditional on our mutual understanding that nothing in this legislation or my decision to forego a sequential referral waives, reduces or otherwise affects the jurisdiction of the Committee on Transportation and Infrastructure, and that a copy of this letter and your response acknowledging our jurisdictional interest will be included in the Committee Report and as part of the Congressional Record during consideration of this bill by the House.

The Committee on Transportation and Infrastructure also asks that you support our request to be conferees on the provisions over which we have jurisdiction during any House-Senate conference.

Thank you for your consideration in this matter.

Sincerely,

BILL SHUSTER,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,

*Washington, DC, May 14, 2018.*

HON. BILL SHUSTER,  
*Chairman, Committee on Transportation and Infrastructure,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Transportation and Infrastructure has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the

bill. I agree that by foregoing a sequential referral, the Committee on Transportation and Infrastructure is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON VETERANS' AFFAIRS,  
*Washington, DC, May 9, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I write to confirm our mutual understanding regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. This legislation contains subject matter within the jurisdiction of the Committee on Veterans' Affairs. However, in order to expedite floor consideration of this important legislation, the committee waives consideration of the bill.

The Committee on Veterans' Affairs takes this action only with the understanding that the committee's jurisdictional interests over this and similar legislation are in no way diminished or altered.

The committee also reserves the right to seek appointment to any House-Senate conference on this legislation and requests your support if such a request is made. Finally, I would appreciate your including this letter in the Committee Report and as part of the Congressional Record during consideration of H.R. 5515 on the House Floor.

Thank you for your attention to these matters.

Sincerely,

DAVID P. ROE, M.D.,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. DAVID P. ROE, M.D.,  
*Chairman, Committee on Veterans' Affairs,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Veterans' Affairs has valid jurisdictional claims to certain provisions

in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Veterans' Affairs is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON WAYS AND MEANS,  
*Washington, DC, May 14, 2018.*

HON. WILLIAM M. "MAC" THORNBERRY,  
*Chairman, Committee on Armed Services,  
House of Representatives, Washington, DC.*

DEAR CHAIRMAN THORNBERRY: I am writing with respect to the jurisdictional interest of the Committee on Ways and Means in matters being considered in H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019.

As a result of your having consulted with us on provisions in H.R. 5515 that fall within the Rule X jurisdiction of the Committee on Ways and Means, I agree to waive formal consideration of this bill so that it may move expeditiously to the floor. The Committee on Ways and Means takes this action with the mutual understanding that we do not waive any jurisdiction over the subject matter contained in this or similar legislation, and the Committee will be appropriately consulted and involved as the bill or similar legislation moves forward so that we may address any remaining issues that fall within our jurisdiction. The Committee also reserves the right to seek appointment of an appropriate number of conferees to any House-Senate conference involving this or similar legislation, and requests your support for such request.

Finally, I would appreciate your response to this letter confirming this understanding, and would ask that a copy of our exchange of letters on this matter be included in the Congressional Record during floor consideration of H.R. 5515.

Sincerely,

KEVIN BRADY,  
CHAIRMAN.

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
*Washington, DC, May 14, 2018.*

HON. KEVIN BRADY,

*Chairman, Committee on Ways and Means,  
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: Thank you for your letter regarding H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019. I agree that the Committee on Ways and Means has valid jurisdictional claims to certain provisions in this important legislation, and I am most appreciative of your decision not to request a referral in the interest of expediting consideration of the bill. I agree that by foregoing a sequential referral, the Committee on Ways and Means is not waiving its jurisdiction. Further, this exchange of letters will be included in the committee report on the bill.

Sincerely,

WILLIAM M. "MAC" THORNBERRY,  
CHAIRMAN.

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## CONGRESSIONAL BUDGET OFFICE ESTIMATE

In compliance with clause 3(c)(3) of rule XIII of the House of Representatives, the cost estimate prepared by the Congressional Budget Office and submitted pursuant to section 402 of the Congressional Budget Act of 1974 is as follows:

### CONGRESSIONAL BUDGET OFFICE PRELIMINARY COST ESTIMATE

MAY 14, 2018.

HONORABLE MAC THORNBERRY  
*Chairman, Committee on Armed Services,  
U.S. House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has completed a preliminary estimate of the direct spending and revenue effects of H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019, as ordered reported by the House Committee on Armed Services on May 10, 2018. This preliminary estimate is based on the Committee Print 115-70 of H.R. 5515 that was posted to the website of the House Committee on Rules on May 11, 2018. CBO's complete cost estimate for H.R. 5515, including discretionary costs, will be provided shortly.

Several provisions of the legislation would have insignificant effects (some positive; some negative) on direct spending. Those budgetary changes would result primarily from provisions that would:

- Authorize the Department of Defense to accept and spend contributions for specific purposes,
- Increase eligibility for military retirement, and
- Change the timing of small amounts of outlays from appropriations that are currently available.

On a preliminary basis, CBO estimates that enacting H.R. 5515 would affect net direct spending by less than \$500,000 over the 2019-2028 period.

The bill also would increase certain civil and criminal fines and would impose sanctions on entities that engage in certain transactions with Russia. Those fines and penalties, which are classified as revenues, would total less than \$500,000 over the next 10 years, CBO estimates. Because enacting the bill would affect direct spending and revenues, pay-as-you-go procedures apply.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is David Newman, who can be reached at 226-2840.

Sincerely,

KEITH HALL,  
*Director.*

cc: Honorable Adam Smith  
Ranking Member

## STATEMENT REQUIRED BY THE CONGRESSIONAL BUDGET ACT

Pursuant to clause (3)(c)(2) of rule XIII of the Rules of the House of Representatives, and section 308(a) of the Congressional Budget Act of 1974 (Public Law 93-344):

(1) this legislation does not provide budget authority subject to an allocation made pursuant to section 302(b) of Public Law 93-344;

(2) the Congressional Budget Office (CBO) Estimate included in this report pursuant to clause (3)(c)(3) of rule XIII of the Rules of the House of Representatives contains CBO's projection of how this legislation will affect the levels of budget authority, budget outlays, revenues, and tax expenditures for fiscal year 2019 and for the ensuing 5 fiscal years; and

(3) the CBO Estimate does not identify any new budget authority for assistance to state and local governments by this measure at the time that this report was filed.

## COMMITTEE COST ESTIMATE

Pursuant to clause (3)(d)(2)(B) of rule XIII of the Rules of the House of Representatives, the Congressional Budget Office Estimate included in this report satisfies the requirement for the committee to include an estimate by the committee of the costs incurred in carrying out this bill.

## ADVISORY OF EARMARKS

The committee finds that H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019, as reported, does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9 of rule XXI of the Rules of the House of Representatives.

## OVERSIGHT FINDINGS

With respect to clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, this legislation results from hearings and other oversight activities conducted by the committee pursuant to clause 2(b)(1) of rule X. The findings are reflected in the body of this report.

## GENERAL PERFORMANCE GOALS AND OBJECTIVES

With respect to clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the general goal and objective of H.R. 5515 is to maintain our national defense, to prepare the warfighter for current and future threats, and to do so in a fiscally responsible manner.

Our country continues to face national security challenges: the Russian Federation continues its overt and covert attempts to undermine democratic



institutions and the international rules-based order; the People's Republic of China is pursuing a foreign policy that is increasingly aggressive toward U.S. interests; the Islamic Republic of Iran is seeking to destabilize a areas in the Middle East; the Democratic People's Republic of Korea maintains a nuclear program that undermines peace and security in East Asia; and terrorist groups continue to threaten U.S. citizens at home and abroad.

This legislation is a continuation of the efforts of the Committee on Armed Services to provide for the common defense by responding to these, and other, national security challenges. The bill provides \$617.1 billion to support core Department of Defense requirements, a number consistent with the President's Budget Request and the Bipartisan Budget Act of 2018 (Public Law 115-123). It also includes an additional \$69.0 billion of Overseas Contingency Operations, also matching the request. This includes money to fully fund the 2.6 percent pay raise for troops, to expand funding for maintenance and readiness, and to deter America's adversaries.

This bill also seeks to continue the committee's focus on reform to create savings by cutting unnecessary waste. This legislation includes numerous reforms to streamline the Department of Defense. The bill reforms the definition of commercial item to simplify Government purchasing, requires the Department to examine its bureaucracy to identify redundant activities for potential savings, and begins a process of updating acquisition statutes to reduce unnecessary confusion and red tape.

This bill continues the committee's work to ensure the military is both adequately resourced and prepared to maintain our national defense, and thereby fulfills the committee's duties under Article I, Section 8, of the Constitution.

#### STATEMENT OF FEDERAL MANDATES

Pursuant to section 423 of Public Law 104-4, this legislation contains no Federal mandates with respect to state, local, and tribal governments, nor with respect to the private sector. Similarly, the bill provides no Federal intergovernmental mandates.

#### FEDERAL ADVISORY COMMITTEE STATEMENT

Consistent with the requirements of section 5(b) of the Federal Advisory Committee Act, the committee finds that the functions of the proposed advisory committee authorized in the bill are not currently being nor could they be performed by one or more agencies, an advisory committee already in existence or by enlarging the mandate of an existing advisory committee.

#### APPLICABILITY TO THE LEGISLATIVE BRANCH

The committee finds that this legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the

meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104-1).

### DUPLICATION OF FEDERAL PROGRAMS

No provision of H.R. 5515 establishes or reauthorizes a program of the Federal Government known to be duplicative of another Federal program, a program that was included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111-139, or a program related to a program identified in the most recent Catalog of Federal Domestic Assistance.

### DISCLOSURE OF DIRECTED RULE MAKINGS

The committee estimates that H.R. 5515 requires three instances of directed rule makings. They are contained in the following provisions:

- (1) section 582
- (2) section 830; and
- (3) section 1610.

### COMMITTEE VOTES

In accordance with clause 3(b) of rule XIII of the Rules of the House of Representatives, record votes were taken with respect to the committee's consideration of H.R. 5515. The record of these votes is contained in the following pages.

The committee ordered H.R. 5515 to be reported to the House with a favorable recommendation by a vote of 60-1, a quorum being present.

COMMITTEE ON ARMED SERVICES

ROLL CALL VOTE NO. 1

H.R. 5515

On Hanabusa Log 301—Clarifies command and control relationship as it relates to surface force readiness.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....			
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....		x	
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>26</b>	<b>34</b>	<b>0</b>				

3

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 2

H.R. 5515

On Russell Log 323—Treatment of leases of non-excess property entered into with insured depository institutions.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....	x			Mr. Smith .....		x	
Mr. Jones .....				Mr. Brady .....			x
Mr. Wilson .....	x			Mrs. Davis .....			x
Mr. LoBiondo .....		x		Mr. Langevin .....			x
Mr. Bishop .....		x		Mr. Larsen .....			x
Mr. Turner .....	x			Mr. Cooper .....			x
Mr. Rogers .....	x			Ms. Bordallo .....			x
Mr. Shuster .....	x			Mr. Courtney .....			x
Mr. Conaway .....	x			Ms. Tsongas .....			x
Mr. Lamborn .....	x			Mr. Garamendi .....			x
Mr. Wittman .....	x			Ms. Speier .....			x
Mr. Hunter .....	x			Mr. Veasey .....			x
Mr. Coffman .....	x			Ms. Gabbard .....			x
Mrs. Hartzler .....	x			Mr. O'Rourke .....			x
Mr. Scott .....		x		Mr. Norcross .....			x
Mr. Brooks .....		x		Mr. Gallego .....			x
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....	x			Ms. Hanabusa .....			x
Mr. Byrne .....	x			Ms. Shea-Porter .....	x		
Mr. Graves .....	x			Ms. Rosen .....			x
Ms. Stefanik .....	x			Mr. McEachin .....			x
Ms. McSally .....	x			Mr. Carbajal .....			x
Mr. Knight .....	x			Mr. Brown .....	x		
Mr. Russell .....	x			Mrs. Murphy .....			x
Dr. DesJarlais .....	x			Mr. Khanna .....			x
Dr. Abraham .....	x			Mr. O'Halleran .....			x
Mr. Kelly .....	x			Mr. Suozzi .....	x		
Mr. Gallagher .....	x			Mr. Panetta .....	x		
Mr. Gaetz .....	x						
Mr. Bacon .....	x						
Mr. Banks .....	x						
Ms. Cheney .....	x						
Mr. Hice .....	x						
Mr. Mitchell .....	x						
<b>Roll Call Vote Total:</b>	<b>33</b>	<b>28</b>	<b>0</b>				

COMMITTEE ON ARMED SERVICES

ROLL CALL VOTE NO. 3

H.R. 5515

On Russell Log 328—Transfer or possession of defense items for national defense purposes.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....	x			Mr. Smith .....		x	
Mr. Jones .....				Mr. Brady .....		x	
Mr. Wilson .....	x			Mrs. Davis .....		x	
Mr. LoBiondo .....	x			Mr. Langevin .....		x	
Mr. Bishop .....	x			Mr. Larsen .....		x	
Mr. Turner .....	x			Mr. Cooper .....		x	
Mr. Rogers .....	x			Ms. Bordallo .....		x	
Mr. Shuster .....	x			Mr. Courtney .....		x	
Mr. Conaway .....	x			Ms. Tsongas .....		x	
Mr. Lamborn .....	x			Mr. Garamendi .....		x	
Mr. Wittman .....	x			Ms. Speier .....		x	
Mr. Hunter .....	x			Mr. Veasey .....	x		
Mr. Coffman .....	x			Ms. Gabbard .....		x	
Mrs. Hartzler .....	x			Mr. O'Rourke .....	x		
Mr. Scott .....	x			Mr. Norcross .....			
Mr. Brooks .....	x			Mr. Gallego .....		x	
Mr. Cook .....	x			Mr. Moulton .....	x		
Dr. Wenstrup .....	x			Ms. Hanabusa .....		x	
Mr. Byrne .....	x			Ms. Shea-Porter .....		x	
Mr. Graves .....	x			Ms. Rosen .....		x	
Ms. Stefanik .....	x			Mr. McEachin .....		x	
Ms. McSally .....	x			Mr. Carbajal .....		x	
Mr. Knight .....	x			Mr. Brown .....		x	
Mr. Russell .....	x			Mrs. Murphy .....		x	
Dr. DesJarlais .....	x			Mr. Khanna .....		x	
Dr. Abraham .....	x			Mr. O'Halleran .....		x	
Mr. Kelly .....	x			Mr. Suozzi .....		x	
Mr. Gallagher .....	x			Mr. Panetta .....		x	
Mr. Gaetz .....	x						
Mr. Bacon .....	x						
Mr. Banks .....	x						
Ms. Cheney .....	x						
Mr. Hice .....	x						
Mr. Mitchell .....	x						
<b>Roll Call Vote Total:</b>	<b>36</b>	<b>24</b>	<b>0</b>				

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 4

H.R. 5515

On O'Halleran Log 282—Requires the Secretary of Defense to submit reports, on a quarterly basis, to HASC detailing direct and indirect costs to DOD in support of travel by senior executive officials on military aircraft.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....	x			Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....	x						
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>30</b>	<b>31</b>	<b>0</b>				

6

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 5

H.R. 5515

On Speier Log 054r2—Randomizes selection of members for military courts-martial panels allowing for rank and theater of operations considerations.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....		x	
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....		x	
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McCally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>26</b>	<b>35</b>	<b>0</b>				

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 6

H.R. 5515

On Veasey Log 080r1—Directs the Secretary of Defense to provide a report on the feasibility of tracking the number of veterans who have served in the Armed Forces, as well as service member dependents who have been deported from the U.S.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....	x			Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>29</b>	<b>32</b>	<b>0</b>				



## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 7

H.R. 5515

On Gallego Log 336r1—Permit granting of reenlistment waivers to individuals who attest to using marijuana.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....	x						
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>29</b>	<b>32</b>	<b>0</b>				

9

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 8

H.R. 5515

On Rogers Log 028—Expresses Congress' support for and endorsement of the Administration's recent Nuclear Posture Review.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....	x			Mr. Smith .....		x	
Mr. Jones .....				Mr. Brady .....		x	
Mr. Wilson .....	x			Mrs. Davis .....		x	
Mr. LoBiondo .....	x			Mr. Langevin .....		x	
Mr. Bishop .....	x			Mr. Larsen .....		x	
Mr. Turner .....	x			Mr. Cooper .....		x	
Mr. Rogers .....	x			Ms. Bordallo .....		x	
Mr. Shuster .....	x			Mr. Courtney .....		x	
Mr. Conaway .....	x			Ms. Tsongas .....		x	
Mr. Lamborn .....	x			Mr. Garamendi .....		x	
Mr. Wittman .....	x			Ms. Speier .....		x	
Mr. Hunter .....	x			Mr. Veasey .....		x	
Mr. Coffman .....	x			Ms. Gabbard .....		x	
Mrs. Hartzler .....	x			Mr. O'Rourke .....		x	
Mr. Scott .....	x			Mr. Norcross .....		x	
Mr. Brooks .....	x			Mr. Gallego .....		x	
Mr. Cook .....	x			Mr. Moulton .....		x	
Dr. Wenstrup .....	x			Ms. Hanabusa .....		x	
Mr. Byrne .....	x			Ms. Shea-Porter .....		x	
Mr. Graves .....	x			Ms. Rosen .....		x	
Ms. Stefanik .....	x			Mr. McEachin .....		x	
Ms. McSally .....	x			Mr. Carbajal .....		x	
Mr. Knight .....	x			Mr. Brown .....		x	
Mr. Russell .....	x			Mrs. Murphy .....		x	
Dr. DesJarlais .....	x			Mr. Khanna .....		x	
Dr. Abraham .....	x			Mr. O'Halleran .....		x	
Mr. Kelly .....	x			Mr. Suozzi .....		x	
Mr. Gallagher .....	x			Mr. Panetta .....		x	
Mr. Gaetz .....	x						
Mr. Bacon .....	x						
Mr. Banks .....	x						
Ms. Cheney .....	x						
Mr. Hice .....	x						
Mr. Mitchell .....	x						
<b>Roll Call Vote Total:</b>	<b>33</b>	<b>28</b>	<b>0</b>				

10

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 9

H.R. 5515

On Larsen Log 070—Provides CJCS with waiver authority of the prohibitions related to ICBMs in section 1645 of the bill.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>28</b>	<b>33</b>	<b>0</b>				

11

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 10

H.R. 5515

On Langevin Log 420—Perfecting Amendment to the Substitute  
Amendment offered by Mr. Byrne (Log 414).

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>28</b>	<b>33</b>	<b>0</b>				

COMMITTEE ON ARMED SERVICES

ROLL CALL VOTE NO. 11

H.R. 5515

On Gallego Log 406—Strikes section 1109.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....			
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McCally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>27</b>	<b>33</b>	<b>0</b>				

13

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 12

H.R. 5515

On Bishop Log 221r2—Provision does not allow for listing of the Greater Sage Grouse, Lesser Prairie Chicken and American Burying Beetle under ESA for a 10-year period.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....	x			Mr. Smith .....		x	
Mr. Jones .....				Mr. Brady .....		x	
Mr. Wilson .....	x			Mrs. Davis .....		x	
Mr. LoBiondo .....	x			Mr. Langevin .....		x	
Mr. Bishop .....	x			Mr. Larsen .....		x	
Mr. Turner .....	x			Mr. Cooper .....		x	
Mr. Rogers .....	x			Ms. Bordallo .....		x	
Mr. Shuster .....	x			Mr. Courtney .....		x	
Mr. Conaway .....	x			Ms. Tsongas .....		x	
Mr. Lamborn .....	x			Mr. Garamendi .....		x	
Mr. Wittman .....	x			Ms. Speier .....		x	
Mr. Hunter .....	x			Mr. Veasey .....		x	
Mr. Coffman .....	x			Ms. Gabbard .....		x	
Mrs. Hartzler .....	x			Mr. O'Rourke .....		x	
Mr. Scott .....	x			Mr. Norcross .....		x	
Mr. Brooks .....	x			Mr. Gallego .....		x	
Mr. Cook .....	x			Mr. Moulton .....		x	
Dr. Wenstrup .....	x			Ms. Hanabusa .....		x	
Mr. Byrne .....	x			Ms. Shea-Porter .....		x	
Mr. Graves .....	x			Ms. Rosen .....		x	
Ms. Stefanik .....	x			Mr. McEachin .....		x	
Ms. McCally .....	x			Mr. Carbajal .....		x	
Mr. Knight .....	x			Mr. Brown .....		x	
Mr. Russell .....	x			Mrs. Murphy .....		x	
Dr. DesJarlais .....	x			Mr. Khanna .....		x	
Dr. Abraham .....	x			Mr. O'Halleran .....		x	
Mr. Kelly .....	x			Mr. Suozzi .....		x	
Mr. Gallagher .....	x			Mr. Panetta .....		x	
Mr. Gaetz .....	x						
Mr. Bacon .....	x						
Mr. Banks .....	x						
Ms. Cheney .....	x						
Mr. Hice .....	x						
Mr. Mitchell .....	x						
<b>Roll Call Vote Total:</b>	<b>33</b>	<b>28</b>	<b>0</b>				

14

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 13

H.R. 5515

On Brown Log 053r3—Strikes subsection (a), section 913, and requires a study on the feasibility and advisability of the transfer of DISA services and functions, which addresses the impact on jobs.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McCally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....	x			Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>29</b>	<b>32</b>	<b>0</b>				

15

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 14

H.R. 5515

On Knight Log 371—Strikes subsection (e) of section 913 regarding TRMC.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....		x	
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....		x	
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....	x			Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....	x			Mr. Brown .....	x		
Mr. Russell .....	x			Mrs. Murphy .....	x		
Dr. DesJarlais .....	x			Mr. Khanna .....	x		
Dr. Abraham .....	x			Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....	x						
Mr. Bacon .....	x						
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>33</b>	<b>28</b>	<b>0</b>				



16

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 15

H.R. 5515

On Khanna Log 310r1—Limits funds for U.S. refueling of non-U.S. military aircraft for missions against the Houthis in Yemen.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....		x	
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....		x	
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....		x	
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....		x	
Ms. Stefanik .....		x		Mr. McEachin .....		x	
Ms. McSally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....		x	
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....		x	
Mr. Kelly .....		x		Mr. Suozzi .....		x	
Mr. Gallagher .....		x		Mr. Panetta .....		x	
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>19</b>	<b>42</b>	<b>0</b>				

17

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 16

H.R. 5515

On Brown Log 025r1—Requires a report to Congress containing a comprehensive strategy for any National Guard deployments to the southern land border.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McCally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>28</b>	<b>33</b>	<b>0</b>				

18

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 17

H.R. 5515

On Smith Log 149—Strikes authorizing language and funding for the low-yield D5 missile warhead. Redirects funding (\$65.0M) to Army readiness.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McCally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>28</b>	<b>33</b>	<b>0</b>				

19

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 18

H.R. 5515

On Davis Log 127—Reduces LRSO and GBSO funding to President's Budget levels and uses additional funds for aviation readiness.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....		x		Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....		x		Mrs. Davis .....	x		
Mr. LoBiondo .....		x		Mr. Langevin .....	x		
Mr. Bishop .....		x		Mr. Larsen .....	x		
Mr. Turner .....		x		Mr. Cooper .....	x		
Mr. Rogers .....		x		Ms. Bordallo .....	x		
Mr. Shuster .....		x		Mr. Courtney .....	x		
Mr. Conaway .....		x		Ms. Tsongas .....	x		
Mr. Lamborn .....		x		Mr. Garamendi .....	x		
Mr. Wittman .....		x		Ms. Speier .....	x		
Mr. Hunter .....		x		Mr. Veasey .....	x		
Mr. Coffman .....		x		Ms. Gabbard .....	x		
Mrs. Hartzler .....		x		Mr. O'Rourke .....	x		
Mr. Scott .....		x		Mr. Norcross .....	x		
Mr. Brooks .....		x		Mr. Gallego .....	x		
Mr. Cook .....		x		Mr. Moulton .....	x		
Dr. Wenstrup .....		x		Ms. Hanabusa .....	x		
Mr. Byrne .....		x		Ms. Shea-Porter .....	x		
Mr. Graves .....		x		Ms. Rosen .....	x		
Ms. Stefanik .....		x		Mr. McEachin .....	x		
Ms. McCally .....		x		Mr. Carbajal .....	x		
Mr. Knight .....		x		Mr. Brown .....	x		
Mr. Russell .....		x		Mrs. Murphy .....	x		
Dr. DesJarlais .....		x		Mr. Khanna .....	x		
Dr. Abraham .....		x		Mr. O'Halleran .....	x		
Mr. Kelly .....		x		Mr. Suozzi .....	x		
Mr. Gallagher .....		x		Mr. Panetta .....	x		
Mr. Gaetz .....		x					
Mr. Bacon .....		x					
Mr. Banks .....		x					
Ms. Cheney .....		x					
Mr. Hice .....		x					
Mr. Mitchell .....		x					
<b>Roll Call Vote Total:</b>	<b>28</b>	<b>33</b>	<b>0</b>				

May 10, 2018 (10:33 p.m.)

20

## COMMITTEE ON ARMED SERVICES

## ROLL CALL VOTE NO. 19

H.R. 5515

On the motion by Mr. Wilson to report the bill H.R. 5515 as amended favorably to the House, with a recommendation that it do pass.

Member	Aye	No	Present	Member	Aye	No	Present
Mr. Thornberry .....	x			Mr. Smith .....	x		
Mr. Jones .....				Mr. Brady .....	x		
Mr. Wilson .....	x			Mrs. Davis .....	x		
Mr. LoBiondo .....	x			Mr. Langevin .....	x		
Mr. Bishop .....	x			Mr. Larsen .....	x		
Mr. Turner .....	x			Mr. Cooper .....	x		
Mr. Rogers .....	x			Ms. Bordallo .....	x		
Mr. Shuster .....	x			Mr. Courtney .....	x		
Mr. Conaway .....	x			Ms. Tsongas .....	x		
Mr. Lamborn .....	x			Mr. Garamendi .....	x		
Mr. Wittman .....	x			Ms. Speier .....	x		
Mr. Hunter .....	x			Mr. Veasey .....	x		
Mr. Coffman .....	x			Ms. Gabbard .....		x	
Mrs. Hartzler .....	x			Mr. O'Rourke .....	x		
Mr. Scott .....	x			Mr. Norcross .....	x		
Mr. Brooks .....	x			Mr. Gallego .....	x		
Mr. Cook .....	x			Mr. Moulton .....	x		
Dr. Wenstrup .....	x			Ms. Hanabusa .....	x		
Mr. Byrne .....	x			Ms. Shea-Porter .....	x		
Mr. Graves .....	x			Ms. Rosen .....	x		
Ms. Stefanik .....	x			Mr. McEachin .....	x		
Ms. McCally .....	x			Mr. Carbajal .....	x		
Mr. Knight .....	x			Mr. Brown .....	x		
Mr. Russell .....	x			Mrs. Murphy .....	x		
Dr. DesJarlais .....	x			Mr. Khanna .....	x		
Dr. Abraham .....	x			Mr. O'Halleran .....	x		
Mr. Kelly .....	x			Mr. Suozzi .....	x		
Mr. Gallagher .....	x			Mr. Panetta .....	x		
Mr. Gaetz .....	x						
Mr. Bacon .....	x						
Mr. Banks .....	x						
Ms. Cheney .....	x						
Mr. Hice .....	x						
Mr. Mitchell .....	x						
<b>Roll Call Vote Total:</b>	<b>60</b>	<b>1</b>	<b>0</b>				

May 10, 2018 (10:33 p.m.)

## CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

The committee has taken steps to make available the analysis of changes in existing law made by the bill, as required by clause 3(e) of rule XIII of the Rules of the House of Representatives, and will make the analysis available as soon as possible.

**Congress of the United States**  
**House of Representatives**  
Washington, DC 20515-4702

May 11, 2018

Additional Views of Mr. Larsen of Washington:

The Fiscal Year (FY) 2019 National Defense Authorization Act (NDAA) addresses many of the threats the nation faces in a clear and constructive manner. I am pleased that many of my proposals were included in the bill, including \$50 million in budget authority for DoD Supplemental Impact Aid, a pilot program intended to address combat-related infertility, and accelerating research into quieter jet engines. I will work with Chairman Thornberry and Ranking Member Smith to ensure these and other priorities remain in the final text of the legislation.

However, there is one area where I believe the FY 19 NDAA is particularly deficient, and I intend to work with my colleagues in the House and the Senate to address these concerns before this bill becomes law. In its current form, the FY 19 NDAA authorizes funding for new low-yield nuclear weapons proposed by the 2018 Nuclear Posture Review (NPR). But the NPR fails to make a convincing case for the utility of these weapons, and fails to address legitimate concerns about the consequences of fielding these new nuclear capabilities.

The NPR recommends fielding of two new low-yield nuclear weapons: a version of the existing D5 submarine launched ballistic missile (SLBM) and a nuclear-armed sea launched cruise missile (SLCM). The FY 2019 NDAA authorizes \$65 million for development of the low-yield D5.

While supporters of this program have been emphatic that these new weapons will not lower the nuclear threshold, the arguments for their development advanced in the NPR and in this committee have contradicted this assertion. The NPR envisions a scenario where the Russians use a low-yield weapon because they believe this action would not be met with a nuclear response because the U.S. lacks a tailored deterrent and the President would be unwilling to use a strategic nuclear weapon. With the development of new low-yield weapons, the NPR asserts, the U.S. could now use low yield weapons to deter low yield weapons, and America would no longer be self-deterred. This is dangerous thinking.

First, the U.S. already possesses low-yield nuclear weapons, including the variable yield B-61. If these weapons are not effective deterrents, this Committee should examine why before exploring new capabilities. Second, the NPR implies a scenario where both parties respond to a nuclear detonation by taking the time to determine the size and yield of the weapon employed before deciding whether and how to respond. In reality, escalation would be difficult, if not impossible to avoid. And finally, this concept of operations employs the sub-based leg of the triad, the most survivable leg, in the opening stages of a nuclear conflict, putting submarines at risk conducting a mission they were not intended for.

Additionally, the Committee considered this legislation prior to the release of the forthcoming Ballistic Missile Defense Review (BMDR). Based on comments from the President and other members of the

administration, I believe it is reasonable to anticipate a significant change to the role of missile defense in national security.

Missile defense and the nuclear deterrent both play a pivotal role in strategic stability. I am concerned that too often this committee treats these as two separate issues. America's adversaries consider both our missile defense and strategic deterrent when planning. This committee should as well.

When the BMDR is released, it is my hope that this committee will evaluate the report not only discretely, but based on the combined effect on strategic stability of both the BMDR and NPR.

I commend Chairman Thornberry and Ranking Member Smith for their leadership on this legislation and this committee, and look forward to working with them further on the FY 19 NDAA.

A handwritten signature in black ink, appearing to read "Rob Lamm". The signature is fluid and cursive, with a long horizontal stroke at the end.



JOHN GARAMENDI  
3<sup>RD</sup> DISTRICT, CALIFORNIA



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STRATEGIC FORCES SUBCOMMITTEE  
SEAPOWERS AND PROJECTION FORCES  
SUBCOMMITTEE

DISTRICT OFFICES:

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TRANSPORTATION AND  
INFRASTRUCTURE COMMITTEE

RANKING MEMBER  
COAST GUARD AND MARITIME TRANSPORTATION  
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WATER RESOURCES AND ENVIRONMENT  
SUBCOMMITTEE

May 11<sup>th</sup>, 2018

795 PLUMAS STREET  
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RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS  
SUBCOMMITTEE

UNITED STATES CONGRESS

Congressman John Garamendi's Additional Views for  
H.R. 5515, the National Defense Authorization Act for Fiscal Year 2019

I congratulate Chairman Thornberry and Ranking Member Smith on the passage of the committee mark for the 58<sup>th</sup> National Defense Authorization Act. I also appreciate the efforts of the House Armed Services Committee to prepare a committee mark that aims to ensure that our men and women in uniform have the means to protect our nation and advance American interests. However, there are several areas of concern that I have with this bill, and I look forward to our continued work to improve this critically important legislation.

One of the most concerning elements of this bill is the endorsement of the Trump Administration's Nuclear Posture Review (NPR). In addition to the planned modernization of our current force structure, the NPR proposes the development of supplemental capabilities, namely a low-yield warhead for submarine-launched ballistic missiles (SLBM) and a sea-launched cruise missile (SLCM). Not only does this bill repeal a 15-year ban on developing and producing low-yield nuclear warheads absent Congressional authorization, but it also authorizes \$65 million for the development of such. Fielding low-yield warheads on SLBMs will dramatically alter the way in which we utilize our nuclear submarine force, greatly increasing the risk of miscalculation and further fueling a dangerous arms race. We must thoughtfully consider the potential impact these weapons will have on strategic stability.

Furthermore, we're already on track to spend \$1.2 trillion over the next thirty years to operate, maintain, and recapitalize our nuclear arsenal, and that figure does not include the "supplemental capabilities" described in the recent NPR. I remain deeply concerned that excessive nuclear weapons spending will put significant pressure on the rest of the procurement budget in the middle of next decade when other areas of our national defense will also require recapitalization.

Lastly, while I am pleased that there are already several provisions in the bill that promote U.S. shipbuilding, I believe this bill could go much further. It is in the national security interests of the U.S. to maintain our domestic manufacturing base. Buy America requirements ensure we have a domestic, reliable source of critical equipment, and I will continue working with my colleagues to strengthen these key requirements.

As the process continues, I look forward to working on these important issues with my colleagues on the Armed Services Committee.

Sincerely,

A handwritten signature in black ink that reads "John Garamendi".

JOHN GARAMENDI  
Member of Congress

Congress of the United States  
Washington, DC 20515

DISSENTING VIEWS

**Section 314:** *To prohibit the Greater Sage Grouse and Lesser Prairie Chicken from being listed under the Endangered Species Act (ESA) for a period of 10 years and to reverse a 1989 determination of endangered status for the American Burying Beetle, and for other purposes.*

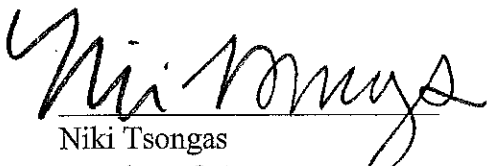
Section 314 of the National Defense Authorization Act as reported out of the House Armed Services Committee prohibits the Greater Sage Grouse and Lesser Prairie Chicken from being listed under the Endangered Species Act (ESA) for a period of 10 years, reverses a 1989 determination of endangered status for the American Burying Beetle, and would further exempt this provision from judicial review.


ESA listing decisions should be made with the best-available-science and not by a Congressional mandate. Sections 314 undermine science-based decision-making and State and Federal cooperative efforts to protect imperiled species. Furthermore, Section 314 set a terrible precedent for the management of species in need of conservation by having Congress micro-manage specific species.

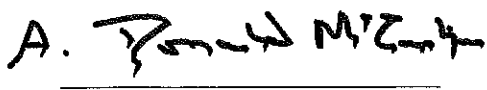
Pursuant to the Rules of the House of Representatives, the House Natural Resources Committee – not the House Armed Services Committee – has jurisdiction over wildlife and conservation, so it is only appropriate that any proposed legislative changes pertaining to the ESA, wildlife, or conservation go through the appropriate authorizing committee.

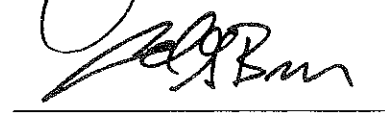
The language should be struck from the bill as it is non-germane. The Department of Defense has stated that it already has sufficient statutory authorities to protect the interest of the Department and its training and readiness activities. We should not jeopardize the progress of this bill with unnecessary environmental riders.

Sincerely,

  
\_\_\_\_\_  
Niki Tsongas  
Member of Congress

  
\_\_\_\_\_  
Jackie Speier  
Member of Congress

  
\_\_\_\_\_  
A. Donald McEachin  
Member of Congress

  
\_\_\_\_\_  
Anthony G. Brown  
Member of Congress

COLLEEN HANABUSA  
1ST DISTRICT, HAWAII

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<http://Hanabusa.house.gov>

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-1101**

May 11, 2018

COMMITTEE ON  
HOUSE ARMED SERVICES  
SUBCOMMITTEES:  
SEAPOWERS AND PROJECTION FORCES  
STRATEGIC FORCES  
COMMITTEE ON  
NATURAL RESOURCES  
SUBCOMMITTEES:  
FEDERAL LANDS, RANKING MEMBER  
INDIAN, INSULAR AND ALASKA  
NATIVE AFFAIRS  
COMMITTEE ON SCIENCE,  
SPACE, AND TECHNOLOGY  
SUBCOMMITTEE:  
ENVIRONMENT  
STEERING AND POLICY  
COMMITTEE

DISSENTING VIEWS OF CONGRESSWOMAN COLLEEN HANABUSA ON SECTION 903  
OF THE NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2019

I congratulate Chairman Thornberry and Ranking Member Smith on the passage of the committee mark for the 57<sup>th</sup> National Defense Authorization Act. However, I dissent with this bill's change in the command and control in the most challenging area, the Indo-Asia-Pacific.

Let there be no question, we are all saddened and distressed by the deaths of our sailors who were on the USS Fitzgerald and the USS John McCain. This resulted with the Comprehensive Review of Recent Surface Force Incidents (CR) by Admiral Philip S. Davidson for the Chief of Naval Operations. Admiral Davison has been recently confirmed as the new Commander of Pacific Command (PACOM). The Secretary of the Navy subsequently tasked Michael Bayer and Admiral Roughead (Ret. and former CNO) with a Strategic Readiness Review (SRR) of tragic incidents involving the 7<sup>th</sup> Fleet. The SRR independently examined the findings of the CR and concurred in most part with one exception being the establishment of "a single Echelon II" to determine the readiness of the force structure.

The SRR stated clearly that it does not concur with the recommendation to "[e]stablish a single Echelon II higher headquarters responsible for the readiness generation of all Navy forces." It instead made recommendations that would "meet the same objective, while retaining separate fleet responsibilities and authorities for managing readiness in the east and west coast fleets."

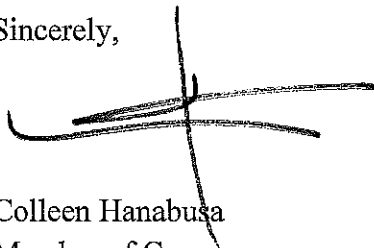
It is important to note that in April of 2018 as part of his confirmation hearing, Admiral Davidson states that "[he] would not support any changes to command and control of Naval Forces in the Pacific that would limit the speed, flexibility, and agility of a response or place into question U.S. resolve and commitment to the Indo-Pacific."

The amendment I offered identified as "Hanabusa 301" did exactly what the SRR recommended. The amendment provided that "the Secretary of the Navy may not make available for tasking by an operational commander any vessel, including any forward deployed naval vessel, until the Commander of Surface Forces Atlantic submits to the Commander of the United States Fleet Forces Command or the Commander of Surface Forces Pacific submits to the Commander of the United States Pacific Fleet, as appropriate based on the region to which such vessel is proposed to be tasked, certification that such surface vessel is properly manned, trained, and equipped."

In the present geopolitical climate that the United States of America and its military finds itself in, no area presents the threats to our democracy as the Indo-Asia-Pacific region. The PACOM AOR is just about fifty-five percent of this earth's surface. The actions of North Korea, China, and Russia have caused us all to have heightened concerns.

The initial language, which gave to the Asia-Pacific Region its command and control structure was called the "Inouye Amendment" and has existed since May of 2005. There is no one who is as respected or decorated as Senator Daniel K. Inouye. He clearly understood what was needed for the U.S. to meet the challenges that the PACOM AOR would present. My amendment brings into line the need for the speed, flexibility and agility that this region requires, while also addressing command and control structure improvements recommended by the CR and SRR- a position clearly advocated by the new PACOM Commander. I look forward to working with this committee to ensure that the necessary tools and command and control structure is in place to ensure the success of the new PACOM Commander in the largest AOR of this military.

Sincerely,

A handwritten signature in black ink, appearing to read "Colleen Hanabusa". The signature is stylized with a vertical line crossing through the middle of the name.

Colleen Hanabusa  
Member of Congress

**Congress of the United States**  
**Washington, DC 20515**

**Dissenting Views**

**Section 312 of H.R. 5515: National Defense Authorization Act for Fiscal Year 2019**

Section 312 of the National Defense Authorization Act would amend the Marine Mammal Protection Act to require the Department of Defense to obtain authorizations from the National Marine Fisheries Service (NMFS) every ten years, instead of the current five-year requirement, for activities that can harm marine mammals.

Section 312 is not required for military readiness and national security, yet it will weaken essential protections for whales, dolphins, and other marine mammals.

Enacted 45 years ago with strong bipartisan support, the MMPA protects marine mammals from “take,” meaning human activities that “hunt, harass, capture, or kill” these iconic species of ocean wildlife. The law applies in U.S. waters and to U.S. citizens and conveyances on the high seas. Due to the protections provided by this bedrock conservation statute, no marine mammals in U.S. waters have subsequently gone extinct, and some species that once suffered severe declines have increased in numbers.

The Department of Defense is required under the MMPA to obtain authorizations from the NMFS every five years for activities that can harm marine mammals, most notably the Navy’s use of sonar and underwater explosives for training and military readiness purposes. The purpose of these authorizations is to ensure that the activities conducted by the Navy do not undermine the health of marine mammal populations, and to establish mitigation measures to achieve the “least practicable adverse impact” on the affected species.

The law requires frequent reviews because marine mammals—especially whales, dolphins, and porpoises, which live exclusively in the ocean—are difficult to study and monitor in the wild. These animals live for decades, reproduce slowly, and often range over great distances. A 2007 study by NMFS biologists found that scientists would be unlikely to detect precipitous declines in most of the country’s marine mammal populations at current levels of monitoring.

Section 312 would extend the authorization period for Department of Defense activities from five years to 10 years under the MMPA, curtailing critical oversight of the Navy’s impacts, which are already considerable. During its most recent round of environmental reviews, the Navy has estimated that over five years it would kill more than 250 whales and other marine mammals, cause permanent injury to another 3,000, and disrupt foraging and other vital behaviors more than 30 million times.

The Navy has conducted ground-breaking research on marine mammals and acoustics in recent years to comply with the MMPA. This research has helped ensure that the best-available-science is used to review Navy activities and improve mitigation of harm to marine mammals. These

research activities and mitigation measures should be increased and strengthened, rather than weakened or removed.

The MMPA already contains ample accommodations for national security. It was amended in 2003 to limit mitigation of military readiness activities to what is “practicable,” taking into account personnel safety, practicability of implementation, and effects on military readiness. The Navy’s requests for authorization to harm marine mammals have never been rejected. Furthermore, the MMPA provides a two-year exemption from compliance that the Secretary of Defense can invoke, at his discretion, for national security purposes, and can renew for subsequent two-year intervals as needed.

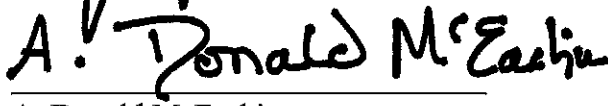
We are, as you know, deeply committed to our nation’s national security. We also believe it is necessary and achievable to protect our natural heritage, and therefore we oppose the inclusion of Section 312 in the FY19 National Defense Authorization Act.

Sincerely,



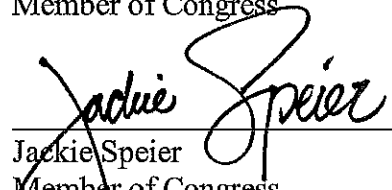
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Jimmy Panetta  
Member of Congress




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A. Donald McEachin  
Member of Congress




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Jackie Speier  
Member of Congress



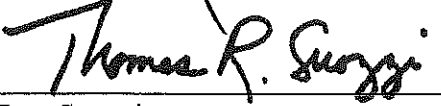
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Anthony G. Brown  
Member of Congress



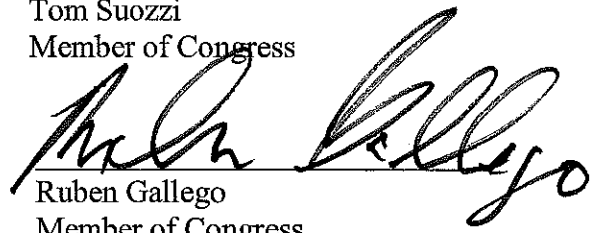
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Colleen Hanabusa  
Member of Congress



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Tom Suozzi  
Member of Congress



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Ruben Gallego  
Member of Congress