

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 pro-

curement 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 Ma-

rine 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 expendi-

ture 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 po-

tential 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 overdyeing 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 overdyed technologies and processes, and a business case analysis of fielding these overdyed 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 Mmunition 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

a 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, molybendum, 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:

Service	FY 2018 Authorized	FY 2019		Change from	
		Request	Committee Recommendation	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

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
OPERATION & MAINTENANCE, ARMY				
OPERATING FORCES				
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

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
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	1,054,140
	Realignment of FSRM funds to new RM and Demo lines		[1,054,140]	
112	FACILITIES DEMOLITION	215,210	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
	SUBTOTAL OPERATING FORCES	25,905,788	-1,898,041	24,007,747
MOBILIZATION				
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
	SUBTOTAL MOBILIZATION	952,179	158,753	1,110,932

	TRAINING AND RECRUITING		
250	OFFICER ACQUISITION	135,832	135,832
260	RECRUIT TRAINING	54,819	54,819
270	ONE STATION UNIT TRAINING	69,599	69,599
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
	SUBTOTAL TRAINING AND RECRUITING	5,141,369	5,141,369
	ADMIN & SRWIDE ACTIVITIES		
390	SERVICEWIDE TRANSPORTATION	588,047	588,047
	Realign OCO requirements from Base to OCO	-151,600	-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

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
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
	SUBTOTAL ADMIN & SRYWIDE ACTIVITIES	10,009,981	-141,600	9,868,381
	UNDISTRIBUTED			
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]	
	SUBTOTAL UNDISTRIBUTED		-894,500	-894,500
	TOTAL OPERATION & MAINTENANCE, ARMY	42,009,317	-2,775,388	39,233,929
	OPERATION & MAINTENANCE, ARMY RES			
	OPERATING FORCES			
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				
	Sustainment recovery				[-71,593]
					[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
	Realignment of FSRM funds to new RM and Demo lines				[22,417]
110	MANAGEMENT AND OPERATIONAL HEADQUARTERS	22,175			22,175
	SUBTOTAL OPERATING FORCES	2,797,361			2,827,361
	ADMIN & SRVWD ACTIVITIES				
120	SERVICEWIDE TRANSPORTATION	11,832			11,832
130	ADMINISTRATION	18,218			18,218
140	SERVICEWIDE COMMUNICATIONS	25,069			25,069
150	MANPOWER MANAGEMENT	6,248			6,248
160	RECRUITING AND ADVERTISING	58,181			58,181
	SUBTOTAL ADMIN & SRVWD ACTIVITIES	119,548			119,548
	TOTAL OPERATION & MAINTENANCE, ARMY RES	2,916,909			2,946,909
	OPERATION & MAINTENANCE, ARNG				
	OPERATING FORCES				
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			888,760
					-31,187

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		[-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
	SUBTOTAL OPERATING FORCES	6,964,850	70,000	7,034,850
	ADMIN & SRVWD ACTIVITIES			
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
	SUBTOTAL ADMIN & SRVWD ACTIVITIES	434,445		434,445
	TOTAL OPERATION & MAINTENANCE, ARNG	7,399,295	70,000	7,469,295
	OPERATION & MAINTENANCE, NAVY			
	OPERATING FORCES			
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	1,291,156	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
	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]	
	Capacity Output Level 3 Funding		[20,000]	
	Project oversight (Unjustified Growth)		[-85,420]	
	Realignment of FSRM funds to new RM and Demo lines		[-363,747]	

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
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
	SUBTOTAL OPERATING FORCES	41,725,992	254,722	41,980,714
	MOBILIZATION			
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
	SUBTOTAL MOBILIZATION	1,165,532	-531,752	633,780
	TRAINING AND RECRUITING			
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
	SUBTOTAL TRAINING AND RECRUITING	1,995,288	1,995,288
	ADMIN & SRVWD ACTIVITIES		
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
	SUBTOTAL ADMIN & SRVWD ACTIVITIES	4,116,821	4,116,821
	UNDISTRIBUTED		
770	UNDISTRIBUTED	-398,100	-398,100
	Foreign Currency adjustments	[-55,100]	
	Historical unobligated balances	[-343,000]	
	SUBTOTAL UNDISTRIBUTED	-398,100	-398,100
	TOTAL OPERATION & MAINTENANCE, NAVY	49,003,633	48,330,203
	OPERATION & MAINTENANCE, MARINE CORPS		
	OPERATING FORCES		
010	OPERATIONAL FORCES	873,320	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

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
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
	SUBTOTAL OPERATING FORCES	5,547,397	121,700	5,669,097
TRAINING AND RECRUITING				
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
	SUBTOTAL TRAINING AND RECRUITING	818,144		818,144

160	ADMIN & SRVWD ACTIVITIES			
170	SERVICEWIDE TRANSPORTATION	29,735	29,735	29,735
225	ADMINISTRATION	386,375	386,375	386,375
	CLASSIFIED PROGRAMS	50,859	50,859	50,859
	SUBTOTAL ADMIN & SRVWD ACTIVITIES	466,969	466,969	466,969
230	UNDISTRIBUTED			
	UNDISTRIBUTED	-43,600	-43,600	-43,600
	Foreign Currency adjustments	[-13,600]		
	Historical unobligated balances	[-30,000]		
	SUBTOTAL UNDISTRIBUTED	-43,600		-43,600
	TOTAL OPERATION & MAINTENANCE, MARINE CORPS	6,832,510	78,100	6,910,610

010	OPERATION & MAINTENANCE, NAVY RES			
020	OPERATING FORCES			
030	MISSION AND OTHER FLIGHT OPERATIONS	569,584	569,584	569,584
040	INTERMEDIATE MAINTENANCE	6,902	6,902	6,902
050	AIRCRAFT DEPOT MAINTENANCE	109,776	109,776	109,776
060	AIRCRAFT DEPOT OPERATIONS SUPPORT	538	538	538
070	AVIATION LOGISTICS	18,888	18,888	18,888
080	SHIP OPERATIONS SUPPORT & TRAINING	574	574	574
090	COMBAT COMMUNICATIONS	17,561	17,561	17,561
100	COMBAT SUPPORT FORCES	121,070	121,070	121,070
110	CYBERSPACE ACTIVITIES	337	337	337
	ENTERPRISE INFORMATION	23,964	23,964	23,964
	FACILITIES SUSTAINMENT	36,356	36,356	41,151
	Realignment of FSRM funds to new RM and Demo lines		4,795	4,795
	Sustainment recovery		[-5,205]	[-5,205]
111	FACILITIES RESTORATION & MODERNIZATION	3,205	3,205	3,205
112	Realignment of FSRM funds to new RM and Demo lines		[-10,000]	[-10,000]
	FACILITIES DEMOLITION		2,000	2,000

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
120	Realignment of FSRM funds to new RM and Demo lines		[2,000]	
	BASE OPERATING SUPPORT	103,562		103,562
	SUBTOTAL OPERATING FORCES	1,009,112	10,000	1,019,112
	ADMIN & SRWD ACTIVITIES			
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
	SUBTOTAL ADMIN & SRWD ACTIVITIES	17,894		17,894
	TOTAL OPERATION & MAINTENANCE, NAVY RES	1,027,006	10,000	1,037,006
	OPERATION & MAINTENANCE, MC RESERVE			
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
	SUBTOTAL OPERATING FORCES	260,394	16,700	277,094
050	ADMIN & SRWD ACTIVITIES			
	ADMINISTRATION	11,176		11,176

	SUBTOTAL ADMIN & SRVWD ACTIVITIES	11,176	11,176
	TOTAL OPERATION & MAINTENANCE, MC RESERVE	271,570	288,270
	OPERATION & MAINTENANCE, AIR FORCE		
	OPERATING FORCES		
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	3,596,330
	Readiness restoration		84,500
	Restoration of U-2 Tail #80-1099		[46,500]
	FACILITIES SUSTAINMENT	2,892,705	2,621,824
	85% Sustainment		[38,000]
	Capability Output Level 3 Funding		[-270,881]
	Realignment of FSRM funds to new RM and Demo lines		[152,000]
	Realignment of FSRM funds to new RM and Demo lines		[23,000]
	Realignment of FSRM funds to new RM and Demo lines		[-445,881]
051	FACILITIES RESTORATION & MODERNIZATION		420,861
	Realignment of FSRM funds to new RM and Demo lines		[420,861]
052	FACILITIES DEMOLITION		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	7,687,884
	Readiness restoration		74,800
	FLYING HOUR PROGRAM		[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

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
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
	SUBTOTAL OPERATING FORCES	33,797,280	376,300	34,173,580
	MOBILIZATION			
230	AIRLIFT OPERATIONS	1,307,695		1,307,695
240	MOBILIZATION PREPAREDNESS	144,417		144,417
	SUBTOTAL MOBILIZATION	1,452,112		1,452,112
	TRAINING AND RECRUITING			
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
	SUBTOTAL TRAINING AND RECRUITING	2,178,214		2,178,214

430	ADMIN & SRVWD ACTIVITIES		
	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
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
	SUBTOTAL ADMIN & SRVWD ACTIVITIES	4,632,962	4,632,962

550	UNDISTRIBUTED		
	UNDISTRIBUTED	-455,200	-455,200
	Foreign Currency adjustments	[-104,500]	
	Historical unobligated balances	[-350,700]	
	SUBTOTAL UNDISTRIBUTED	-455,200	-455,200

TOTAL OPERATION & MAINTENANCE, AIR FORCE **42,060,568**

	OPERATION & MAINTENANCE, AF RESERVE		
	OPERATING FORCES		
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	347,476
	Readiness restoration	1,900	
	FACILITIES SUSTAINMENT	[1,900]	
040	Realignment of FSRM funds to new RM and Demo lines	2,367	123,103
	Sustainment recovery	[-27,633]	
	FACILITIES RESTORATION & MODERNIZATION	[30,000]	
041	Realignment of FSRM funds to new RM and Demo lines	27,633	27,633
050	CONTRACTOR LOGISTICS SUPPORT AND SYSTEM SUPPORT	[27,633]	
	Readiness restoration	18,700	259,939
		[18,700]	

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
060	BASE SUPPORT	385,922		385,922
	SUBTOTAL OPERATING FORCES	3,152,279	50,600	3,202,879
	ADMINISTRATION AND SERVICEWIDE ACTIVITIES			
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
	SUBTOTAL ADMINISTRATION AND SERVICEWIDE ACTIVITIES	107,955		107,955
	TOTAL OPERATION & MAINTENANCE, AF RESERVE	3,260,234	50,600	3,310,834
	OPERATION & MAINTENANCE, ANG			
	OPERATING FORCES			
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		289,700
	Realignment of FSRM funds to new RM and Demo lines		-14,092	
	Sustainment recovery		[-34,092]	
	Facilities Restoration & Modernization		[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		1,064,759
	Readiness restoration		3,000	
	Readiness restoration		[3,000]	

060	BASE SUPPORT	988,333	900	989,233
	Readiness restoration		[900]	
	SUBTOTAL OPERATING FORCES	6,345,376	23,900	6,369,276
	ADMINISTRATION AND SERVICE-WIDE ACTIVITIES			
070	ADMINISTRATION	45,711		45,711
080	RECRUITING AND ADVERTISING	36,535		36,535
	SUBTOTAL ADMINISTRATION AND SERVICE-WIDE ACTIVITIES	82,246		82,246
	TOTAL OPERATION & MAINTENANCE, ANG	6,427,622	23,900	6,451,522
	OPERATION AND MAINTENANCE, DEFENSE-WIDE OPERATING FORCES			
010	JOINT CHIEFS OF STAFF	430,215		430,215
020	JOINT CHIEFS OF STAFF—CE2TZ	602,186		602,186
040	SPECIAL OPERATIONS COMMAND/OPERATING FORCES	5,389,250		5,215,250
	Civilian pay ahead of need		-174,000	
	Communications		[-20,000]	
	DCGS-SOF		[-10,000]	
	MC-12 ahead of need		[-33,300]	
	Program decrease		[-100,000]	
	SUBTOTAL OPERATING FORCES	6,421,651	-174,000	6,247,651
	TRAINING AND RECRUITING			
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
	SUBTOTAL TRAINING AND RECRUITING	648,749	-9,100	639,649
	ADMIN & SRWIDE ACTIVITIES			
080	CIVIL MILITARY PROGRAMS	166,131	20,000	186,131

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
100	STARBASE		[20,000]	
	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		34,951
	Efficiencies within the 4th estate		-1,700	
230	DEFENSE THREAT REDUCTION AGENCY	553,329	[-1,700]	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

290	Defense Community Infrastructure Program		[100,000]	
	Efficiencies within the 4th estate		[-3,500]	
	OFFICE OF THE SECRETARY OF DEFENSE	1,519,655	11,000	1,530,655
	CDC PPOS/PFOA Health Study Increment		[7,000]	
	Contract support for ACCM oversight as directed by Sec. 1062 of FY17 NDAA		[5,000]	
	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
	SUBTOTAL ADMIN & SRVWIDE ACTIVITIES	29,282,225	-150,925	29,131,300
320	UNDISTRIBUTED			
	Foreign Currency adjustments		-411,800	-411,800
	Historical unobligated balances		[-26,400]	
	SUBTOTAL UNDISTRIBUTED		-411,800	-411,800
	TOTAL OPERATION AND MAINTENANCE, DEFENSE-WIDE	36,352,625	-745,825	35,606,800
010	US COURT OF APPEALS FOR ARMED FORCES, DEF			
	ADMINISTRATION AND ASSOCIATED ACTIVITIES			
	US COURT OF APPEALS FOR THE ARMED FORCES, DEFENSE	14,662		14,662
	SUBTOTAL ADMINISTRATION AND ASSOCIATED ACTIVITIES	14,662		14,662
	TOTAL US COURT OF APPEALS FOR ARMED FORCES, DEF	14,662		14,662
	DOD ACQUISITION WORKFORCE DEVELOPMENT FUND			

SEC. 4301. OPERATION AND MAINTENANCE
(In Thousands of Dollars)

Line	Item	FY 2019 Request	House Change	House Authorized
	ACQUISITION WORKFORCE DEVELOPMENT			
010	ACQ WORKFORCE DEV FD	400,000		400,000
	SUBTOTAL ACQUISITION WORKFORCE DEVELOPMENT	400,000		400,000
	TOTAL DOD ACQUISITION WORKFORCE DEVELOPMENT FUND	400,000		400,000
	OVERSEAS HUMANITARIAN, DISASTER, AND CIVIC AID			
	HUMANITARIAN ASSISTANCE			
010	OVERSEAS HUMANITARIAN, DISASTER AND CIVIC AID	107,663		107,663
	SUBTOTAL HUMANITARIAN ASSISTANCE	107,663		107,663
	TOTAL OVERSEAS HUMANITARIAN, DISASTER, AND CIVIC AID	107,663		107,663
	COOPERATIVE THREAT REDUCTION ACCOUNT			
	FSU THREAT REDUCTION			
010	FORMER SOVIET UNION (FSU) THREAT REDUCTION	335,240		335,240
	SUBTOTAL FSU THREAT REDUCTION	335,240		335,240
	TOTAL COOPERATIVE THREAT REDUCTION ACCOUNT	335,240		335,240
	ENVIRONMENTAL RESTORATION, ARMY			
	DEPARTMENT OF THE ARMY			
060	ENVIRONMENTAL RESTORATION, ARMY	203,449	10,000	213,449
	PFOA/PFOA remediation increase		[10,000]	
	SUBTOTAL DEPARTMENT OF THE ARMY	203,449	10,000	213,449
	TOTAL ENVIRONMENTAL RESTORATION, ARMY	203,449	10,000	213,449

080	ENVIRONMENTAL RESTORATION, NAVY DEPARTMENT OF THE NAVY				
	ENVIRONMENTAL RESTORATION, NAVY	329,253	10,000	339,253	
	PFOS/PFOA remediation increase		[10,000]		
	SUBTOTAL DEPARTMENT OF THE NAVY	329,253	10,000	339,253	
	TOTAL ENVIRONMENTAL RESTORATION, NAVY	329,253	10,000	339,253	
100	ENVIRONMENTAL RESTORATION, AIR FORCE DEPARTMENT OF THE AIR FORCE				
	ENVIRONMENTAL RESTORATION, AIR FORCE	296,808	50,000	346,808	
	PFOS/PFOA remediation increase		[50,000]		
	SUBTOTAL DEPARTMENT OF THE AIR FORCE	296,808	50,000	346,808	
	TOTAL ENVIRONMENTAL RESTORATION, AIR FORCE	296,808	50,000	346,808	
120	ENVIRONMENTAL RESTORATION, DEFENSE DEFENSE-WIDE				
	ENVIRONMENTAL RESTORATION, DEFENSE	8,926		8,926	
	SUBTOTAL DEFENSE-WIDE	8,926		8,926	
	TOTAL ENVIRONMENTAL RESTORATION, DEFENSE	8,926		8,926	
140	ENVIRONMENTAL RESTORATION FORMERLY USED SITES DEFENSE-WIDE				
	ENVIRONMENTAL RESTORATION FORMERLY USED SITES	212,346		212,346	
	SUBTOTAL DEFENSE-WIDE	212,346		212,346	
	TOTAL ENVIRONMENTAL RESTORATION FORMERLY USED SITES	212,346		212,346	
	TOTAL OPERATION & MAINTENANCE	199,469,636	-3,924,243	195,545,393	