

TITLE III—OPERATION AND MAINTENANCE

Subtitle A—Authorization of Appropriations

Authorization of appropriations (sec. 301)

The committee recommends a provision that would authorize the appropriations for operation and maintenance activities at the levels identified in section 4301 of division D of this Act.

Subtitle B—Energy and Environment

Further improvements to energy security and resilience (sec. 311)

The committee recommends a provision that would make further improvements to energy security and resilience within the Department of Defense by ensuring mission assurance is prioritized in energy policy and management. Additionally, the provision would require the development of goals and metrics to assess progress when implementing energy resilience projects.

Funding of study and assessment of health implications of per- and polyfluoroalkyl substances contamination in drinking water by Agency for Toxic Substances and Disease Registry (sec. 312)

The committee recommends a provision that would amend section 316(a) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91) to allow funds to be transferred to the Secretary of Health and Human Services for the study and assessment of health implications of per- and polyfluoroalkyl substances.

Military Mission Sustainment Siting Clearinghouse (sec. 313)

The committee recommends a provision that would amend section 183a of title 10, United States Code, to clarify that the Military Mission Sustainment Siting Clearinghouse shall be organized under the Under Secretary of Defense for Acquisition and Sustainment. Additionally, this provision encourages the Military Mission Sustainment Siting Clearinghouse to prioritize pilot safety when evaluating energy projects. The committee understands the immense workload of the clearinghouse and therefore, recommends a \$1.0 million funding increase for the Clearinghouse office as specified in the funding tables.

Operational energy policy (sec. 314)

The committee recommends a provision that would amend section 2926 of title 10, United States Code, to provide a comprehensive operational energy policy and to promote the development and

acquisition of equipment that enhances energy security and energy resilience.

Funding treatment of perfluorooctane sulfonic acid and perfluorooctanoic acid at State-owned and operated National Guard installations (sec. 315)

The committee recommends a provision that would authorize the Secretary of Defense to treat perfluorooctane sulfonic acid and perfluorooctanoic acid in drinking water at State-owned and operated National Guard installations with several limitations. The provision would also authorize the National Guard access to environmental restoration funds.

The committee notes that this provision does not reflect any intent of serve as a statement on government liability. This is a process for funding to address a very specific and severe health concern. The committee takes no stance on pending court cases between the federal government and state and local municipalities. The committee hopes that the lessons learned from this incident by all parties involved will prevent such an event from occurring in the future.

Subtitle C—Reports

Reports on readiness (sec. 321)

The committee recommends a provision that would modify the Quarterly Readiness Report to Congress (QRRC) to establish a tracking mechanism for the number of monthly C-level upgrades or downgrades by a unit commander. The provision would also separate the annex on operational contract support and make it a standalone annual report in order to decrease the delivery time of the QRRC.

Report on cold weather capabilities and readiness of United States Armed Forces (sec. 322)

The committee recommends a provision that would direct the Secretary of Defense to submit to the congressional defense committees a report on the current cold weather capabilities and readiness of the United States Armed Forces not later than 180 days after the date of the enactment of this Act.

Subtitle D—Other Matters

Pilot programs on integration of military information support and civil affairs activities (sec. 331)

The committee recommends a provision that would authorize the commanders of the geographic combatant commands and U.S. Special Operations Command to carry out pilot programs for the integration of military information support and civil affairs activities in support of the theater campaign plans of such combatant command.

The committee believes that Department of Defense civil affairs and military information support activities are complementary and are important tools to support the military objectives of the combatant commands. These efforts can be better leveraged to provide

whole of government solutions to a rapidly evolving global security environment.

The committee also notes that the process for funding the execution of military information support and civil affairs activities often does not align with operational timelines or involves fiscal authorities that are misaligned to the purpose of the activity. The fiscal authority provided under this pilot program would provide a flexible and more appropriate means for funding military information support and civil affairs activities while also incentivizing whole of government solutions in support of U.S. messaging and stabilization objectives.

Reporting on future years budgeting by subactivity group (sec. 332)

The committee recommends a provision that would direct the Secretary of Defense and the secretaries of the military departments to include in their OP-5 Justification Books the amount for each subactivity group as detailed in the Department of Defense's future years defense program.

The committee notes that other Justification Books, such as those for Procurement and Research, Development, Testing, and Evaluation, currently contain this information.

Restriction on upgrades to aviation demonstration team aircraft (sec. 333)

The committee recommends a provision that would prohibit the Secretary of Defense from upgrading the type, model, or series of aircraft used by a military service for its fixed wing aviation demonstration teams, including the Blue Angels and Thunderbirds aircraft, until the Service's active and reserve duty squadrons and weapons training schools have replaced 100 percent of the existing type, model, and series of aircraft unless the Secretary grants a waiver to upgrade for the purposes of pilot safety.

U.S. Special Operations Command civilian personnel (sec. 334)

The committee recommends a provision that would require that, of the funds authorized in Operation & Maintenance, Defense-wide for U.S. Special Operations Command civilian personnel, not less than \$6.2 million shall be used to fund the detail of civilian personnel to the office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict (ASD SOLIC) to support the Secretariat for Special Operations.

The committee remains concerned that current civilian manpower within the ASD SOLIC is not sufficient to fulfill the "service secretary-like" responsibilities for the advocacy and oversight of special operations forces mandated by section 922 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). According to a report required by section 1074 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), an independent manpower study by the U.S. Army Manpower Analysis Agency determined that a total of 64 civilian personnel could be required to execute the "service secretary-like" responsibilities required of the ASD SOLIC by law. According to the same re-

port, only 14 personnel are currently assisting the ASD SOLIC for the fulfillment of these responsibilities.

The committee is concerned that the number of civilian personnel assigned to U.S. Special Operations Command (SOCOM) continues to grow, including a planned increase of 128 civilian personnel in fiscal year 2019. The committee notes that the establishment of the ASD SOLIC Secretariat for Special Operations should result in administrative and oversight efficiencies and the transfer of functions that are more appropriately conducted by the ASD SOLIC. This provision is intended to facilitate the transfer of no fewer than 50 civilian personnel from SOCOM to the ASD SOLIC for support of the Secretariat for Special Operations.

Limitation on availability of funds for service-specific Defense Readiness Reporting Systems (sec. 335)

The committee recommends a provision that would restrict the Department of Defense funds to operate service-specific Defense Readiness Reporting Systems (DRRS) until the Secretary of Defense submits a resource and funding plan to eliminate service-specific DRRS.

The committee notes that according to chapter 2 of title 10, United States Code, as amended by the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Public Law 105–261), DRRS was to be “applied uniformly throughout the Department of Defense.” The committee is concerned that the military readiness are not adhering to the prescribed law by having separate readiness reporting systems, even though they all bear the same name. The committee notes that since each service, with the exception of the Air Force, operates its own system separate from the Office of the Secretary of Defense and Joint Staff, it is difficult and time consuming to capture a real-time, accurate readiness rating.

Repurposing and reuse of surplus Army firearms (sec. 336)

The committee recommends a provision that would amend section 348(b) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91) by inserting “shredded or” before “melted and repurposed”.

The committee notes the provision would grant the Army flexibility to better control costs when conducting scheduled demilitarizing of surplus firearms.

Limitation on availability of funds for establishment of additional specialized undergraduate pilot training facility (sec. 337)

The committee recommends a provision that would limit funds to establish a new specialized undergraduate pilot training location until the Secretary of the Air Force submits a prescribed certification. The provision would also require the Secretary of the Air Force to submit a report on specialized undergraduate pilot training production, resourcing, and locations.

**Scope of authority for restoration of land due to mishap
(sec. 338)**

The committee recommends a provision that would amend section 2691 of title 10, United States Code, to clarify vehicle crashes must meet the regulations of the Federal department with administrative jurisdictions of the affected land.

**Redesignation of the Utah Test and Training Range (UTTR)
(sec. 339)**

The committee recommends a provision that would allow the Utah Test and Training Range located in northwestern Utah and eastern Nevada to be redesignated.

Subtitle E—Logistics and Sustainment

**Limitation on modifications to Navy Facilities Sustainment,
Restoration, and Modernization (FSRM) structure and
mechanism (sec. 351)**

The committee recommends a provision that would prohibit the Secretary of the Navy from making any modifications to the existing Navy Facilities Sustainment, Restoration, and Modernization (FSRM) structure until 90 days after providing notice of the proposed FSRM modification to the congressional defense committees.

Budget Items

United States Southern Command unfunded priorities increase

The budget request included \$51.3 billion in Operation and Maintenance, Army (OMA), of which \$1.3 billion was for SAG 411 Security Programs.

The committee notes that United States Southern Command (SOUTHCOM) identified intelligence, surveillance, and reconnaissance as an unfunded priority.

Accordingly, the committee recommends an increase in OMA of \$14.3 million for SAG 411 Security Programs for SOUTHCOM airborne intelligence, surveillance, and reconnaissance.

Army marketing and advertising reduction

The budget request included \$42.0 billion in the Operation and Maintenance, Army (OMA), of which \$698.9 million was for SAG 331 Recruiting and Advertising.

The committee continues to be concerned with the Army's lack of oversight and inability to track performance metrics in its recruiting, marketing, and advertising efforts. The committee is also concerned by the lack of contracting professionals employed by the Army Marketing and Research Group and expects the Army to take appropriate accountability measures on those contracts that were awarded inappropriately. The committee notes the requested resources could be better aligned for other readiness priorities.

Accordingly, the committee recommends a decrease of \$200.0 million in OMA to SAG 331 Recruiting and Advertising.

Army Operation and Maintenance budget request for civilian pay

The budget request included \$51.3 billion for Operation and Maintenance, Army.

The Office of Inspector General released a study in March 2018 that found the Army has under executed its civilian pay budget for the last 3 fiscal years, mainly due to the Army's non-compliance with Office of Management and Budget (OMB) and Office of the Secretary of Defense guidance.

Specifically, the Inspector General found that the adjustments applied to the basic compensation calculation were normally not permitted by OMB policy and overtime was not included in the Army budget request. Additionally, army officials utilized excess civilian compensation to pay for underfunded non-pay operating expenses, intentionally not hiring up to the Army's civilian personnel authorizations.

The Army under-executed the civilian pay requested in the fiscal year 2017 President's Budget by \$481.5 million, which was the most the Army has under-executed in the last 3 years.

Accordingly, the committee recommends a decrease of \$200.0 million to Operation and Maintenance, Army.

United States Southern Command unfunded priorities increase for sensor integration

The budget request included \$56.8 billion in Operation and Maintenance, Navy (OMN), of which \$1.4 billion was for SAG 1C1C Combat Communications and Electronic Warfare.

The committee notes that United States Southern Command (SOUTHCOM) identified intelligence, surveillance, and reconnaissance as an unfunded priority.

Accordingly, the committee recommends an increase in OMN of \$1.7 million for SAG 1C1C Combat Communications and Electronic Warfare for SOUTHCOM airborne intelligence, surveillance, and reconnaissance.

Enterprise information reduction

The budget request included \$49.0 billion in Operation and Maintenance, Navy, of which \$921.9 million was for SAG BSIT Enterprise Information.

Accordingly, the committee recommends a decrease of \$45.0 million to SAG BSIT Enterprise Information for a general reduction.

Navy facilities, sustainment, restoration, and modernization increase

The budget request included \$49.0 billion in Operation and Maintenance, Navy (OMN), of which \$2.0 billion was for SAG BSM1 Sustainment, Restoration, and Modernization.

The committee notes the importance of maintaining the crucial facilities that support the warfighter both in the United States and overseas. The committee believes facilities, sustainment, restoration, and modernization (FSRM) funding is crucial to rebuilding and maintaining readiness.

Accordingly, the committee recommends an increase of \$406.0 million to SAG BSM1 for FSRM.

F-35 depot component repair capability

The budget request included \$42.1 billion in Operation & Maintenance, Air Force (OMAF), of which \$758.2 million was for SAG 11A Air Operations, Primary Combat Forces and Support.

The committee remains concerned by the Not Mission Capable—Supply (NMC-S) rates of the F-35 Joint Strike Fighter. In part, the high NMC-S rates are due to a lack of adequate repair capacity. As the Government Accountability Office (GAO) noted in a report published on October 26, 2017, titled “F-35 Aircraft Sustainment: DOD Needs to Address Challenges Affecting Readiness and Cost Transparency” (GAO-18-75), “DOD does not have enough capacity to repair F-35 aircraft parts because the establishment of repair capabilities at the military depots is 6 years behind schedule” (page 12). The report goes on to say, “Program officials in part attributed these delays to the military services not providing enough funding for depot requirements; however, service officials told us the program office did not clearly identify some depot requirements in a timely manner necessary for the services to fund those requirements” (page 13).

Despite the clear and obvious shortcomings in F-35 sustainment, the committee is not convinced that the program office and the Services are adequately addressing the problems, including providing adequate funding to stand up depot component repair capabilities and purchase the necessary lay-in material, both of which are years behind schedule.

Therefore, the committee recommends an increase of \$25.0 million in OMAF to SAG 11A Air Operations, Primary Combat Forces and Support for the stand up of depot component repair capabilities.

Air Force demolition increases

The budget request included \$42.0 billion in Operation and Maintenance, Air Force (OMAF), of which \$2.9 billion was for SAG 11R Real Property Maintenance. The budget request also included \$3.3 billion in Operation and Maintenance, Air Force Reserve (OMAFR), of which \$120.7 million was for SAG 11R Real Property Maintenance.

The committee notes the importance of Department of Defense infrastructure to supporting operational readiness. The committee is concerned, however, that the Department is not allocating proper resources for demolishing older buildings that are not in use but still require crucial resources to maintain.

Accordingly, the committee recommends increases of \$25.0 million to SAG 11R in OMAF for demolition and \$2.8 million to SAG 11R in OMAFR for demolition.

Joint Surveillance Target Attack Radar System weapons system sustainment

The budget request included \$42.1 billion in Operation & Maintenance, Air Force (OMAF), of which \$3.8 billion was for SAG 11W Air Operations, Contractor Logistics Support and System Support. The

budget request included the retirement of three E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. Else-

where in this Act, the committee recommends a provision that would prohibit the retirement of any E-8C JSTARS aircraft.

Therefore, the committee recommends an increase of \$95.9 million in OMAF to SAG 11W Air Operations, Contractor Logistics Support and System Support to restore reductions associated with the divestment of three E-8C JSTARS aircraft.

Air Force weapon system sustainment increases

The budget request included \$42.0 billion in Operation and Maintenance, Air Force (OMAF), of which \$3.8 billion was for SAG 11W Contractor Logistics Support and System Support. The budget request also included \$3.3 billion in Operation and Maintenance, Air Force Reserve (OMAFR), of which \$241.2 million was for SAG 11W Contractor Logistics Support and System Support.

The committee notes the importance of weapon system sustainment (WSS) to ensure the Air Force's crucial weapon systems that support the warfighter are at the highest readiness rating possible. The committee notes that the Air Force has additional execution capability to bring WSS to 100 percent for the active component and 91 percent for the reserve component.

Accordingly, the committee recommends increases of \$550.0 million to SAG 11W Contractor Logistics Support and System Support OMAF for WSS and \$52.0 million to SAG 11W Contractor Logistics Support and System Support in OMAFR for WSS.

Joint Surveillance Target Attack Radar System flight hours

The budget request included \$42.1 billion in Operation & Maintenance, Air Force (OMAF), of which \$4.4 billion was for SAG 11Y Air Operations, Flying Hour Program.

The budget request included the retirement of three E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. Elsewhere in this Act, the committee recommends a provision that would prohibit the retirement of any E-8C JSTARS aircraft.

Therefore, the committee recommends an increase of \$50.0 million in OMAF to SAG 11Y Air Operations, Flying Hour Program to restore flying hour reductions associated with the divestment of three E-8C JSTARS aircraft.

Deployable airbase systems

The budget request included \$42.1 billion in Operation and Maintenance, Air Force.

As part of its strategic approach for addressing long-term strategic competition with China and Russia, the National Defense Strategy calls for building a more lethal force, including investments in forward force maneuver, posture resilience, and resilient and agile logistics. The objectives of these investments are to ensure that U.S. forces can “deploy, survive, operate, maneuver, and regenerate in all domains while under attack” and conduct “logistics sustainment while under persistent multi-domain attack.” Meeting these objectives will require a transition “from large, centralized, unhardened infrastructure to smaller, dispersed, resilient, adaptive basing that include active and passive defenses” as well as an emphasis on “prepositioned forward stocks and munitions,

strategic mobility assets,” and “distributed logistics and maintenance.”

Consistent with the priorities set forth in the National Defense Strategy, the committee has fully supported resiliency efforts such as the prepositioning of European contingency air operations set deployable airbase Systems, which is part of the European Deterrence Initiative, to complement and enhance the theater-wide response capability of the U.S. Air Force in Europe.

However, the committee is concerned that the appropriate level of investment in similar resiliency efforts in the Indo-Pacific region has not materialized. U.S. force posture in the Indo-Pacific region remains heavily concentrated in Northeast Asia within range of China’s advanced arsenal of ballistic and cruise missiles, posing a significant risk to forward-stationed forces, to the ability of the joint force to execute the contingency plans of the Department of Defense, and to the credibility of U.S. deterrence in the Indo-Pacific region.

As a result, Admiral Harry Harris, Commander, U.S. Pacific Command (PACOM), identified force posture initiatives focused on resiliency as critical requirements in his letter to the committee of February 22, 2018, concerning PACOM’s unfunded priority list and in his testimony to the committee on March 15, 2018.

Therefore, the committee supports the procurement of seven deployable airbase systems in fiscal year 2019 to be prepositioned forward in the PACOM area of responsibility in order to support the priorities of the National Defense Strategy and PACOM’s “resiliency” and “agile logistics” force posture initiatives, as well as to enhance the credible combat power of U.S. forces in the Indo-Pacific region.

Accordingly, the committee recommends an increase of \$156.8 million in Operation and Maintenance, Air Force.

Joint Surveillance Target Attack Radar System personnel

The budget request included \$6.4 billion in Operation & Maintenance, Air National Guard (OMANG), of which \$2.6 billion was for SAG 11F Aircraft Operations.

The budget request included the retirement of three E–8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. Included in the divestment is a cost of \$1.6 million and 16 Full Time Employees. Elsewhere in this Act, the committee recommends a provision that would prohibit the retirement of any E–8C JSTARS aircraft.

Therefore, the committee recommends an increase of \$1.6 million in OMANG to SAG 11F Aircraft Operations to restore the cuts associated with the divestment of three E–8C JSTARS aircraft.

Air National Guard increase per- and polyfluoroalkyl substance environmental restoration funding transfer

The budget request included \$6.4 billion in Operation and Maintenance, Air National Guard (OMANG), of which \$988.3 million was for SAG 11Z Base Support.

The committee continues to support the Air Force’s environmental services efforts to remediate and cleanup per- and polyfluoroalkyl substances (PFAS).

Accordingly, as requested by the Air Force, the committee recommends an increase of \$11.0 million in OMANG to SAG 11Z for environmental compliance to remediate and cleanup PFAS.

The committee notes a matching amount of \$11.0 million will be decreased in the tables from Environmental Restoration, Air Force SAG 42G to reflect the transfer.

Plan for incorporating logistics sustainment under attack into war games

The budget request included \$28.6 million in Operations and Maintenance, Defense-Wide (OMDW) for SAG 1PL1 Joint Chiefs of Staff.

The committee recognizes that the National Defense Strategy's focus on near-peer adversaries fundamentally challenges long-held assumptions around uncontested logistics sustainment. The committee urges the Department of Defense to incorporate appropriate and realistic assumptions around logistics and transportation into operational war gaming.

The committee encourages the Secretary of Defense, in coordination with the Chairman of the Joint Chiefs of Staff, to integrate contested logistics and offset technologies into exercises carried out by the military departments. These exercises should include an identification of common assumptions for logistics sustainment based on joint and individual recommendations of United States Transportation Command and of the military departments. It is also important to include a method for capturing lessons learned and providing feedback to the Joint Staff and military departments following the completion of these exercises. Where possible, the committee encourages the inclusion of commercial sector partners critical to logistics and sustainment in these wargames.

Further, the committee is supportive of the Department of Defense's plans to hold a joint table-top exercise to specifically evaluate the effects of energy denial on the generation, deployment, employment, and sustainment of combat forces. This joint table-top exercise for a scenario in the Pacific theater will be designed to thoroughly examine multiple seams and the challenges associated with delivery of energy over the last tactical mile. Given the fact that power and energy are increasingly essential to the employment of military capabilities, and new technologies identified in the National Defense Strategy, the committee recognizes and strongly supports the Department's efforts to plan this exercise and strongly encourages the Department to continue to comprehensively assess the impacts of operating in an energy denied or restricted environment.

Accordingly, the committee recommends an increase of \$2.5 million in OMDW to SAG 1PL1 Joint Chiefs of Staff.

Defense Security Service

The budget request includes \$789.2 million in Operations and Maintenance, Defense-wide, for the Defense Security Service (DSS). The committee notes that DSS has identified shortfalls in critical positions that are focused on the protection of classified information, technologies, and material in the hands of cleared industry.

Accordingly, the committee recommends an increase of \$18.6 million in Operations and Maintenance, Defense-wide, for 129 additional civilian full time equivalent positions to support DSS efforts to protect classified information, technologies, and material in the hands of cleared industry.

Personnel security background investigations

The budget request includes \$789.2 million in Operations and Maintenance, Defense-wide (OMDW), for SAG 4GTE Defense Security Service (DSS).

The committee notes that the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91) directed DSS to undertake an additional mission of background investigations and personnel security for Department of Defense personnel. This transition will require dedicated resources to ensure the smooth transfer of responsibilities, and to bridge the gap between the Department of Defense and the National Background Investigations Bureau as the transfer takes place. The addition of this mission will levy an additional duty on an already heavily-taxed Defense Security Service, with broad responsibilities across the defense industrial base.

Accordingly, the committee recommends an increase of \$45.0 million to OMDW, for SAG 4GTE to support DSS efforts to establish these capabilities, which may be deployed toward transition-focused workforce or developing supporting analytic tools, as approved by the security executive agent, as necessary.

Funding for impact aid

The budget request included \$2.89 billion in the Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTJ) for the operations of the Department of Defense Education Activity. The amount authorized to be appropriated for OMDW includes the following changes from the budget request. The provisions underlying these changes in funding levels are discussed in greater detail in title V of this committee report.

[Changes in millions of dollars]

Impact aid for schools with military dependent students	+40.0
Impact aid for children with severe disabilities	+10.0
Total	+50.0

Center for Disease Control study increase

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN).

The National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91), required the Office of the Secretary of Defense to conduct a Center for Disease Control (CDC) nationwide health study on per- and polyfluoroalkyl contamination in drinking water.

Accordingly, the committee recommends an increase of \$10.0 million in OMDW to SAG 4GTN Office of the Secretary of Defense to continue the CDC health study.

Department of Defense Siting Clearinghouse increase

The budget request included \$1.5 billion in the Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which \$1.6 million was for the Department of Defense (DOD) Siting Clearinghouse.

The committee continues to support the mission of the office. However, the committee is also concerned that DOD has not allocated sufficient resources to the office given its workload and high number of projects.

Accordingly, the committee recommends an increase of \$1.0 million to SAG 4GTN for the DOD Siting Clearinghouse. The committee encourages the Clearinghouse to make pilot safety a top priority and to continue to ensure that construction projects do not significantly compromise flight operations without appropriate mitigating action.

Defense Environmental International Cooperation program increase

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which no funds were for the Defense Environmental International Cooperation (DEIC) program.

The committee continues to note that the Army National Guard and other military units are frequently called upon to respond to humanitarian assistance and disaster relief (HA/DR) crises around the world. The DEIC program enables the Army National Guard to share best practices and lessons learned from its own HA/DR missions with U.S. allies. This important program promotes and develops allied HA/DR capability for a relatively small amount of money. For example, given current readiness challenges within the United States Southern Command and its limited bandwidth to respond to HA/DR missions, the Army National Guard has used the DEIC program to provide training and capability development to countries within the region to remove debris and otherwise respond in the event of an earthquake or hurricane. The committee continues to support the DEIC program and disagrees with DOD's intent to terminate a low-cost and useful training program for the Army National Guard.

Accordingly, the committee recommends an increase of \$1.0 million to SAG 4GTN for DEIC.

Department of Defense emerging contaminants increase

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which \$964,000 was for Department of Defense (DOD) emerging contaminants.

The committee continues to support the mission of the office to study, analyze and evaluate threats to warfighters and their families. However, the committee is also concerned that DOD has not allocated enough resources to the office given its workload and the likelihood that DOD will have to address an increasing number of emerging contaminants in the future—for example, 1,4 Dioxane, Perfluorohexane sulfonic acid, and 1,2,3-Trichloropropane—much

like it has with per- and polyfluoroalkyl substances in sources of drinking water.

Accordingly, the committee recommends an increase of \$1.0 million to SAG 4GTN for the DOD emerging contaminants.

Department of Defense environmental resiliency increase

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which only \$743,000 was for Department of Defense (DOD) environmental resiliency efforts.

The committee continues to support the mission of the office to study, analyze, evaluate, and provide technical support to warfighters and installations as environmental challenges continue to cost DOD significant resources and readiness. However, the committee is also concerned that DOD has not allocated enough resources to the office given its workload and the likelihood that DOD will have to address environmental resilience challenges.

Accordingly, the committee recommends an increase of \$1.0 million to SAG 4GTN for DOD environmental resiliency efforts.

Department of Defense rewards program reduction

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which \$3.5 million was for the Department of Defense (DOD) rewards program.

The committee continues to be concerned that the DOD rewards program has been hampered by historical under-execution.

Accordingly, the committee recommends a decrease of \$3.0 million to SAG 4GTN for the DOD rewards program.

Readiness and Environmental Protection Initiative

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which \$75.0 million was for the Readiness and Environmental Protection Initiative (REPI).

The committee notes that encroachment resulting from incompatible development and loss of habitat continues to pose a major long-term threat to readiness and to the viability of military installations, ranges, and airspace throughout the country. REPI involves partnerships between the Department of Defense (DOD), state and local governments, and conservation organizations to share the costs of acquiring protective easements from willing landowners.

The committee continues to support the mission of REPI and believes the program has proven to be highly effective in addressing encroachment. The committee supports the Department's evaluation of REPI to "protect mission capability by cost-sharing the long-term protection of high-value habitat and limiting incompatible land uses around DOD ranges and installations" and "help avoid more expensive costs, such as the need for training workarounds or segmentation and future military construction to modify or relocate training assets to less-restricted locations," as stated in the President's 2019 budget.

However, the committee is concerned that the Department continues to underfund REPI despite its success to date and the high

degree of leverage from partner contributions. Additionally, the Department has expressed concerns about the growing need to protect key installations, ranges, and airspace, yet has failed to match those concerns with adequate resources.

Accordingly, the committee recommends an increase of \$25.0 million to SAG 4GTN for REPI and strongly encourages the Department to reflect in future REPI budget requests the urgency of the problem of encroachment and the success REPI has provided in addressing that problem.

Air Force decrease per- and polyfluoroalkyl substance environmental restoration funding transfer

The budget request included \$296.8 million in Environmental Restoration, Air Force. The committee continues to support the Air Force's environmental services efforts to remediate and cleanup per- and polyfluoroalkyl substances (PFAS).

Accordingly, as requested by the Air Force, the committee recommends a decrease of \$11.0 million in Environmental Restoration, Air Force to SAG 042G for environmental compliance to remediate and cleanup PFAS.

The committee notes a matching amount of \$11.0 million will be increased in the tables to Air National Guard SAG 11Z Base Support to reflect the transfer.

Foreign currency fluctuations

The budget request included \$199.5 billion for Operation and Maintenance.

The committee believes that when foreign currency fluctuation (FCF) rates are determined by the Department of Defense, the balance of the FCF funds should be considered. Accordingly, the committee recommends an undistributed decrease of \$267.0 million for FCF.

Junior Reserve Officers' Training Corps increase

The budget request included \$80.2 billion in Operations and Maintenance, Defense-wide, of which \$138.3 million was for Junior Reserve Officers' Training Corps (JROTC).

The committee believes JROTC programs are an important program for the nation and have been historically underfunded by the Department of Defense.

Accordingly, the committee recommends an increase of \$5.48 million in Operations and Maintenance, Defense-wide for Junior Reserve Officers' Training Corps programs.

Air Force Per- and Polyfluoroalkyl substances cleanup

The budget request did not include funding in Undistributed Operation and Maintenance.

Accordingly, the committee recommends an increase of \$10.0 million to Undistributed Operation and Maintenance, Air Force for the cleanup of Per- and Polyfluoroalkyl substances at certain National Guard locations.

Air National Guard Per- and Polyfluoroalkyl substances cleanup

The budget request did not include funding in Undistributed Operation and Maintenance.

Accordingly, the committee recommends an increase of \$15.0 million to Undistributed Operation and Maintenance, Air National Guard for the cleanup of Per- and Polyfluoroalkyl substances at certain National Guard locations.

Army Per- and Polyfluoroalkyl substances cleanup

The budget request did not include funding in Undistributed Operation and Maintenance.

Accordingly, the committee recommends an increase of \$10.0 million to Undistributed Operation and Maintenance, Army for the cleanup of Per- and Polyfluoroalkyl substances at certain National Guard locations.

Navy Per- and Polyfluoroalkyl substances cleanup

The budget request did not include funding in Undistributed Operation and Maintenance.

Accordingly, the committee recommends an increase of \$10.0 million to Undistributed Operation and Maintenance, Navy for the cleanup of Per- and Polyfluoroalkyl substances at certain National Guard locations.

Items of Special Interest**Air Force runway infrastructure**

The committee believes that the Air Force's physical runway infrastructure is an essential component of the readiness of U.S. operational and strategic forces. The committee believes that the maintenance of such assets is critical to launching aircraft quickly and effectively across a variety of mission areas. The committee is concerned by multiple examples where the Air Force has yet to or is addressing these requirements without urgency.

In particular, the committee notes the continued operation of Offutt Air Force Base, the 55th Air Wing, and the operations at U.S. Strategic Command are essential to America's continued national security. As such, the committee believes the current effort to design and execute a planned repair or rebuild of the runway is critical, and should be executed with the utmost speed, resourcing, and diligence. In addition, the committee notes the Little Rock Air Force Base provides a unique and crucial capability, serving as the nation's tactical airlift "Center of Excellence." The continued successful operation of Little Rock Air Force Base is contingent on having a fully functioning runway, and the committee similarly highlights the importance of its expeditious completion.

The committee is concerned the Air Force lacks an overall runway infrastructure plan to address its ongoing runway maintenance issues, and if it is not addressed, failing runways will lead to a direct impact on operational readiness.

Accordingly, the committee directs the Secretary of the Air Force to conduct an assessment and provide a briefing to the congressional defense committees no later than February 1, 2019, detailing

the operational requirements for Air Force airfields in addition to the state of airfields where runway degradation currently poses a threat to operations, as well as installations where such degradation threatens operations in the five and ten year time frames. The briefing shall include the operational requirement for airfields, an assessment of the impact to operations, cost to repair, cost to replace, remaining useful life, and narrative on the required daily maintenance to ensure the runway is acceptable for full operations at the installation, and any challenges with infrastructure acquisition methods and processes. The briefing shall also include the operational impact if the respective runway became inoperable due to a major degradation incident, such as a crack or fracture resulting from lack of maintenance and repair. Finally, the briefing shall include a plan to address any shortfalls associated with the Air Force's runway infrastructure.

If required, a classified annex may accompany the unclassified briefing.

All services marketing audit

The committee notes the importance of effective marketing and recruiting efforts to ensure adequate end strength and technical capabilities of the military services. The committee notes that in 2016, the U.S. Army Audit Agency (AAA) began two internal audits of the Army Marketing and Research Group (AMRG), both of which recently concluded. The committee understands that the audits indicate that the AMRG wasted a significant amount of money on ineffective marketing programs.

Given the results of the AAA audits of the AMRG, the committee is concerned that similar problems may exist in the other Services' marketing organizations. Accordingly, the committee directs the Secretary of the Navy to engage the Naval Audit Service and the Secretary of the Air Force to engage the Air Force Audit Agency to undertake similar individual audits of the Navy, Marine Corps, and Air Force marketing groups and submit a report to the congressional defense committees not later than February 1, 2019. At a minimum, the report shall include: (1) The effectiveness of advertising programs in the different Services at recruiting and retaining candidates; (2) An analysis of how efficiently the Services' advertising organizations spend their money; (3) Any best practices that can be shared between the Services to ensure better advertising practices; and (4) Any additional areas of concern that the auditing agencies deem appropriate.

Additionally, the committee directs the Comptroller General of the United States to conduct a review of the final audits upon their release and submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than April 1, 2019.

Ammunition plant reform and stockpile of explosives

The committee is concerned that modernization project delays at Holston Army Ammunition Plant may have created a temporary over reliance on foreign sources for trinitrotoluene (TNT) as it relates to ammunition and munitions production. The committee strongly encourages the Department to begin domestic production

of insensitive munitions explosives (IMX) as soon as possible in order to improve the posture of the ammunition production industrial base and restore war reserve stockpiles. Additionally, the committee encourages the Department to explore any appropriate use of the Defense Production Act as it relates to any strategic stockpiling of TNT and IMX.

The committee commends the Department of the Army on its continued efforts to make the organic Government Owned Contractor Operated ammunition production facilities more competitive, efficient, and cost-effective through constant reforms. While progress has been made, there are still areas upon which costs and process can be improved through further reform in order to reduce overhead. The committee encourages the Department to continue to work with industry for further and appropriate reforms. For example, the committee notes that all Armament Retooling and Manufacturing Support contracts are not identical with respect to how revenues are treated at different facilities. The committee encourages the Department to standardize such contracts to the maximum extent practicable.

Accordingly, the committee directs the Secretary of the Army to submit a report to the congressional defense committees no later than September 1, 2018, on initiatives the Department plans to take in order to make ammunition production facilities more competitive and efficient.

Arctic search and rescue

The committee is aware that growing international interest and changing environmental conditions in the Arctic have led to increased commercial and governmental activity in the High North. With this steady surge, the committee remains concerned by the limited capabilities of the United States to conduct search-and-rescue operations throughout the Arctic region. The committee notes that the Department of Defense's Report to Congress on Strategy to Protect United States National Security Interests in the Arctic Region, a report required in section 1068 of the National Defense Authorization Act for Fiscal Year 2016 (Public-Law 114-92), identified the need for additional personnel recovery capability in this region. Specifically, the report calls for "forward-deployed/based assets in a sustainable location and/or rapidly deployable air drop response/sustainment packages suitable to remote land, cold water, or ice pack operating environments."

The committee understands that the 176th Wing of the Alaska National Guard is the closest dedicated response force with the only refueling capability to respond to a search-and-rescue incident in the Arctic. The unit currently possesses two air-dropped, palletized Arctic Sustainment Packages (ASPs) to enable the survival of 50 individuals for 3 or more days in extreme Arctic conditions. The ASP is rapidly deployable over varied terrain, and allows personnel to survive and operate in the High North. Each ASP requires considerable resources for sustainability, demanding 500 man-hours to re-pack ASPs after testing and to continually keep contents viable. In light of the increased activity in this region, the committee believes that this capability could benefit from addi-

tional sustainment funding to maintain the two existing ASPs, and encourages the Secretary of Defense to prioritize its resourcing.

Assessment of assigning a Security Force Assistance Brigade to U.S. Africa Command

The committee understands that the Army intends to establish six Security Force Assistance Brigades (SFAB) for the purpose of providing geographic combatant commanders with a capability to train, advise, and assist foreign security partners. The committee notes that U.S. Africa Command does not currently have assigned forces to support requirements within its area of responsibility and relies on forces allocated through the Global Force Management process.

As such, the committee directs the Secretary of Defense, no later than 90 days after the date of the enactment of this Act, to submit to the congressional defense committees an assessment of the advisability and feasibility of assigning an SFAB on an enduring basis to U.S. Africa Command for the purpose of supporting the security cooperation activities of the Command. The assessment shall also include a comparison of the relative merits of utilizing an SFAB to support security cooperation activities as compared to other conventional Army units, including a Brigade Combat Team, and Special Operations Forces.

Assessment of Department of Defense installation management

The committee notes that the Department of Defense (DOD) maintains over 550,000 facilities on about 28 million acres with an estimated plant replacement value of about \$830.0 billion. The committee understands that the Government Accountability Office (GAO) has had DOD's defense support infrastructure portfolio on its high-risk list since 1997 due in part to the large financial commitment needed to maintain this vast portfolio, and DOD's continuing holding of unneeded real property assets and chronic underfunding of facilities sustainment.

The committee is concerned with the financial commitment needed to maintain all of these facilities when DOD believes so many are excess to need. Prior GAO reports raise questions about the effectiveness of DOD's real property assets management. The report from GAO entitled, "Excess Facilities: DOD Needs More Complete Information and a Strategy to Guide its Disposal Efforts" (GAO-11-814) found DOD had utilization rate data for only 46 percent of its facilities and no strategy for disposing of excess facilities after the fiscal year 2013 end of its demolition program. GAO also found that DOD was considering a broader approach to facilities management, including consolidation where possible. Yet in the September 2014 report, "Defense Infrastructure: DOD Needs to Improve Its Efforts to Identify Unutilized and Underutilized Facilities" (GAO-14-538), GAO reported that DOD had only improved its facilities utilization data from 46 percent of facilities to 53 percent.

Knowing the utilization of existing facilities is an important prerequisite to effective consolidation. In the June 2015 report "Underutilized Facilities: DOD and GSA Information Sharing May Enhance Opportunities to Use Space at Military Installations" (GAO-

15–346), GAO reported that neither DOD nor the General Services Administration had a process by which federal agencies could be housed in excess DOD space, a practice that permits the host installation to avoid the utilities and maintenance costs they would have otherwise incurred in maintaining these vacant facilities, thus freeing up funds for maintaining facilities actually being used by DOD organizations. In the March 2016 report, “Defense Infrastructure: More Accurate Data Would Allow DOD to Improve the Tracking, Management, and Security of Its Leased Facilities” (GAO–16–101), GAO found that DOD is continuing to lease commercial administrative space within 50 miles of installations identified for force structure reductions three years earlier.

Until 2011, GAO cited chronic underfunding of facilities sustainment as a reason for defense support infrastructure’s inclusion on the high-risk list. At that time, GAO concluded that DOD had increased sustainment investment sufficiently and accordingly removed sustainment from the high-risk list. However, since then, DOD has reported it is again underfunding sustainment, raising questions about the mission capability of some of its facilities since such underfunding can lead to facilities not being in good working order and to life, health, and safety concerns.

The committee believes it is critical that DOD make cost effective decisions about how to manage this large facilities portfolio including excess facilities by appropriately targeting sustainment funds and disposing of or effectively reusing excess facilities where possible. Moreover, nothing prevents DOD from disposing of some excess facilities using authorities it already has. Even in the absence of a Base Realignment and Closure (BRAC) round, DOD should effectively use all available and existing authorities to appropriately manage this facilities portfolio.

Accordingly, the committee directs the Assistant Secretary of Defense for Energy, Installations, and Environment to provide a report to the Committees on Armed Services of the Senate and the House of Representatives with the President’s fiscal year 2020 budget submission. The Secretary’s report should address, but not be limited to the following: (1) What progress, if any, the military departments have made since the 2013 planned end of the demolition program in disposing of excess facilities and by what means other than BRAC; (2) How the military services prioritize facilities for disposal and the Services’ plans for disposal other than through BRAC through the end of the current future years defense program; (3) How DOD and the military services target facilities maintenance funds to ensure the highest priority facilities are properly maintained over excess facilities; (4) DOD’s and the military services’ long term strategy for ensuring that excess property is disposed other than through BRAC and how facilities maintenance funds can be more effectively used; (5) What progress, if any, the military services have made in moving from leased space to excess owned space on installations and otherwise granting space to non-DOD tenants when such tenancy is consistent with the installation’s military mission.

The committee further directs the Assistant Secretary of Defense for Energy, Installations, and Environment to brief the congress-

sional defense committees on the findings of the report not later than January 30, 2019.

Assessment of hybrid electric drive performance

The committee notes the Navy's operational energy program includes the installation of a Hybrid Electric Drive (HED) propulsion system on the USS *Truxton*. The committee understands the Navy anticipates the USS *Truxton* installation of the HED should pay for itself in 6 to 13 years.

The committee is interested in how the Navy will test, evaluate, and measure the at-sea performance and effectiveness of the HED on USS *Truxton*. If the Navy intends to make an informed decision about whether to program future HED installations, the committee believes the Navy must ensure such decisions are based on rigorous analysis of quantitative data collected from the USS *Truxton*.

Accordingly, the committee directs the Secretary of the Navy to conduct a comprehensive test and evaluation assessment of the HED installation on the USS *Truxton*. The assessment may include a classified annex. The assessment shall include, but not be limited to: (1) The HED system use and related effects monitoring using the Navy Energy Usage System; (2) Daily operational reports (e.g., OPREP-5) related to HED and its performance; (3) A comparison of two DDG-51 class ships (HED and non-HED) while the ships are executing similar mission sets, both training cycle and deployment (preferably a DDG flight IIA within the same strike group or other task group); (4) Metrics that quantitatively evaluate and compare transit operations, training operations, presence operations, operational missions, enhanced mission effectiveness, reduced logistical burdens and mission risk, and increased capability and resilience; (5) An analysis of operating costs compared to ships in the same class without HED for the same time period; (6) Updated investment planned for HED in the future years defense program; and (7) Any other elements the Secretary deems appropriate.

The assessment shall be conducted with a report delivered to the Committees on Armed Services of the Senate and the House of Representatives and the Comptroller General of the United States no later than January 1, 2020. The report shall describe the findings of each of the seven prescribed assessment areas. Within 60 days after receiving the plan, the Comptroller General shall submit to the Committees on Armed Services of the Senate and House of Representatives an evaluation of the report and assessment.

Battery storage and safety programs clarification

The committee strongly supports the continuation of funding to the Department of Navy and the Office of Naval Research in the advancement of its battery storage and safety programs to support force protection and applied research. The committee notes that for the purposes of clarifying the term "battery storage and safety", the committee means those battery storage and safety technologies and advancements which provide energy resilience to the Department of Defense. The committee also notes that in section 101, title 10, United States Code, the term "energy resilience" means the ability to avoid, prepare for, minimize, adapt to, and recover from anticipated and unanticipated energy disruptions in order to ensure en-

ergy availability and reliability sufficient to provide for mission assurance and readiness, and other mission essential operations related to readiness, and to execute or rapidly reestablish mission essential requirements.

Battery storage technology

The committee recognizes that battery storage technology is a vital component in micro-grid resiliency and energy security and independence. The committee seeks further information regarding the Department of Energy's advanced research and development efforts to isolate and protect domestic micro-grids from potential cyber-attacks through self-sustaining energy infrastructure. The Department of Energy has recognized the importance of shielding the nation's critical energy infrastructure from cyber-attacks. Emerging hybrid technologies are being used to develop micro-grids that can insulate targeted areas from cyber threats. The committee recognizes that integrating battery storage as an alternative for high-voltage transmission lines enhances the ability for Department of Defense facilities to access a consistent energy source and continue operations.

Briefing on Agency for Toxic Substances and Disease Registry PFAS report

The committee understands that the Department of Health and Human Services (HHS) Agency for Toxic Substances and Disease Registry (ATSDR) is in the process of completing toxicological profiles for perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorononanoic acid (PFNA) and perfluorohexane sulfonic acid (PFHxS) in drinking water, pursuant to 42 U.S.C. § 9601 et seq. The contamination of the water supply resulting from the leeching of these chemicals used in the military's firefighting foam in ground water impacts the readiness of our troops and the health of our active duty and reserve service members and their families. In order to address the readiness issues associated with this contamination, the committee requests a briefing on this ATSDR report within thirty days.

Building energy resilience on military installations

The committee strongly supports recent efforts by the Army to increase its energy resilience with a 50 megawatt multi-fuel generation facility on Schofield Barracks. The committee notes the facility will be able to provide the Army the first right to power, a black start capability, and 100 percent of its operational requirements for Schofield Barracks, Wheeler Army Airfield and Field Station Kunia in the event of an intentional or unintentional power outage. Notably, the power plant will have a minimum five days of fuel on site and a 30 day fuel supply available on the island of Oahu. Not only do these kind of cooperative agreements provide the Army the ability to improve its installations without any capital investments of its own, they also provide a combat capability that improves readiness.

Due to its strategic location, the power facility remains above the tsunami strike zone which not only directly benefits the Army, but also will enhance the grid resilience and provide an energy security

benefit to the local community and medical services. Notably, it is the only current baseload power generation facility on the island of Oahu that is located above a tsunami strike zone. Another notable and successful Army example of building energy resilience on its military installations, is Fort Drum, home of the 10th Mountain Division, which now has the ability to power its installation for over a month off the grid in the event of an outage. The committee strongly encourages the Department of Defense to pursue similar cooperative agreements, particularly in locations that face high-costs of energy like Alaska and Hawaii.

The committee particularly encourages distributed energy projects that are strategically located in order to provide energy security and resilience to military installations. The use of non-Department or third party financing mechanisms, such as power purchase agreements and energy savings performance contracts, to pursue such large-scale energy resilience projects is strongly encouraged.

Comptroller General review of Defense-wide Working Capital Fund overhead charges and fees

The Defense-wide Working Capital Fund (DWWCF) is the working capital fund managed by the defense agencies, and consists of six activity groups. Three of these activity groups are operated by the Defense Logistics Agency (DLA), two by the Defense Information Systems Agency, and one by the Defense Finance and Accounting Service. These defense agencies use the DWWCF cash balance to cover costs for providing services and purchasing various commodities. The DWWCF is reimbursed through charges to customers, including overhead and other fees.

The Department of Defense (DOD) manages working capital funds, which were established to satisfy recurring DOD requirements using a businesslike buyer-and-seller approach. According to DOD's Financial Management Regulation, the goal of the DWWCF is to remain revenue-neutral, allowing the fund to break even over time. As of the end of fiscal year 2017, the DWWCF held a cash balance of about \$3.0 billion.

The committee is interested in understanding the activities funded through the DWWCF, how rate structures are determined, and options for achieving efficiencies.

Accordingly, the committee directs the Comptroller General of the United States to evaluate: (1) The activities the defense agencies fund through overhead charges and fees collected from customers, and how these activities differ from those funded through annual appropriations; (2) Methods used to determine the rate structure of overhead charges and fees; and (3) Options, if any, that DOD has considered to adjust its approach to managing overhead charges and fees to achieve greater efficiencies or reduce costs.

The committee further directs the Comptroller General of the United States to brief the Committee on Armed Services of the Senate not later than April 15, 2019, with a final report to follow.

Congressional notification of incidents

The committee is concerned that the Office of the Secretary of Defense and the military departments have not promptly and con-

sistently notified the committee of the occurrence of significant incidents and accidents. While certain military departments have routinely sent timely notifications to the committee, there has often been a lack of even basic information communicated when troubling events have occurred.

Accordingly, the committee directs the Department to establish a rigorous, well-defined process and system to provide notifications to the committee for basic and initial reporting of incidents such as, but not limited to: class A and B mishaps for aircraft, ships and submarines, training casualties and accidents, safety stand downs and operational pauses, relief of command, significant explosions and fires at installations, and significant security barrier breaches.

Corrosion prevention and oversight

The committee established Office of Corrosion Policy and Oversight (CPO) in part to unify and strengthen Department of Defense (DOD) efforts to address corrosion and its impacts on our military weapon systems and infrastructure. Prior to CPO, DOD corrosion prevention and control efforts were ineffective, inefficient and lacked coordination across the military services. The critical role CPO serves in this regard is essential as DOD strives to restore full spectrum readiness and sustain its weapons and installations. The committee strongly supports DOD's March 2018 assessment that reaffirms the value of CPO and strongly recommends that "the CPO office be retained in order to continue an impressive legacy of nearly 15 years of achieving significant cost savings and improvements in the availability of department-wide weapons systems, equipment and infrastructure, while enabling and partnering with the services and industry to continually improve corrosion reduction efforts."

The committee notes that DOD's report and recommendation make apparent that the authorities accorded CPO remain valid. For example, in the assessment, DOD cites that CPO has achieved a \$2.0 billion reduction in the annual cost of corrosion, increased the average availability of aircraft, ships and ground vehicles by 10 percent, decreased the overall percentage of corrosion-related maintenance by 4 percent, all while reducing duplication and bureaucracy throughout DOD.

The committee is nevertheless concerned that efforts to reorganize some DOD activities and considerations to restructure CPO put at risk the office's ability to sustain and build upon its impressive record of success. Were the status of the office to significantly erode, DOD would likely revert back to the fragmented and ineffective approach to corrosion reduction that prompted the creation of CPO in the first place.

Accordingly, the committee directs the Comptroller General of United States to conduct a thorough review of the restructured CPO and submit to the committees on Armed Services of the Senate and the House of Representatives a report no later than December 1, 2018 that evaluates the extent the restructure aligns with the original intent of section 2228, title 10, United States Code, to make certain that the restructured CPO has the ability to operate across Department-wide activities such as research and development, operation and maintenance, sustainment and acquisi-

tion for weapon systems and infrastructure, as well as to serve as an overarching facilitator and integrator across the various military departments. Additionally, the report will evaluate the extent to which the restructure will allow CPO to sustain and build upon its successes in cost reduction, increases in asset availability, and reduction in duplication of critical corrosion prevention and mitigation activities.

Cost benefit analysis of alternative-fueled vehicles and infrastructure

The committee notes that the Department of Defense (DOD) maintains an inventory of 177,000 owned and leased nontactical vehicles, including passenger, trucks and other vehicles, at a cost of \$874.0 million per year, and that increased use of alternative fueled vehicles (AFVs) would reduce petroleum consumption and costs. The committee also notes that AFVs by definition have a wide range of fuel sources from natural gas, hydrogen, coal, ethanol and electricity. Energy Savings Performance Contracts (ESPCs) are one mechanism to allow the purchase or lease of non-tactical AFVs and associated fueling and charging infrastructure. ESPCs are third-party financed contracts to achieve energy savings and benefits ancillary to that purpose, such as reduced operation and maintenance costs. While ESPC authority under 42 U.S.C. 8287 is currently limited to energy savings measures applied to federal buildings and facilities, the committee notes that such authority could also be applied to AFVs and associated infrastructure. Therefore, the committee directs the Director, Cost Assessment and Program Evaluation to conduct an independent cost-benefit analysis on the business case for entering into ESPC agreements to support the use of AFVs and the fueling or charging infrastructure necessary for alternative fueled vehicles, and to provide a briefing on the results of that analysis within 180 days after the date of enactment of this Act.

Cost benefit analysis on conducting organic depot level maintenance on the joint surveillance target attack radar system

The committee notes that the current depot maintenance program for the joint surveillance target attack radar system (JSTARS), currently conducted by a private contractor, has experienced significant delays in maintenance cycles. Contracted maintenance has also failed to meet the Air Force's requirement to have no more than three aircraft in depot to meet operational needs. The contractor averaged six aircraft in depot during calendar year 2017. The Air Force was unable to perform 179 sorties from November 2016 to October 2017, including 8,500 Ready Aircrew Program events, which reduced combat effectiveness. This diminished the Air Force's ability to meet combatant command (COCOM) mission requirements and Global Response Force taskings. In addition, the committee is concerned that the Air Force was unable to support seven sorties in support of COCOMs, and the Joint Staff denied requests for JSTARS support due to low aircraft availability. As a result of low aircraft availability forecast, the total Global Force

Management Allocation Plan offering was reduced for fiscal year 2018.

The committee believes that cost and maintenance efficiencies could be achieved by returning depot maintenance responsibilities to the Air Force organic industrial base. Therefore, the committee directs the Secretary of the Air Force to submit to the congressional defense committees a report that describes and assesses the costs and benefits to the Air Force of conducting depot-level maintenance on the JSTARS platform at an organic depot in comparison to a private contractor, no later than September 30, 2018.

Depot best practices

The committee notes that the Government Accountability Office has issued several reports on challenges experienced at the organic maintenance depots, including challenges pertaining to deteriorating equipment and facility condition, filling critical personnel skills, meeting service repair needs, and excesses in carryover of workload. These problems can lead to delays in the maintenance of weapon systems that ultimately affect readiness by impeding the services' ability to conduct training and provide forces to perform missions around the world. Despite these challenges, it is not clear the extent to which the Department of Defense (DOD) is assessing and, to the extent possible, mitigating the risk of maintenance delays when identifying its depot workload requirements.

The committee further notes that while DOD has developed some initiatives that are intended to help improve its depot operations, such as the Navy's Shipyard Optimization Plan and the DOD Maintenance Executive Steering Committee, it is not clear if DOD is effectively sharing and implementing best practices and lessons learned identified by its individual depots. Therefore, section 346 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91), directed the Secretary of Defense to submit to the congressional defense committees a "comprehensive plan for the sharing of best practices for depot-level maintenance among the military services." The committee received the Secretary's letter response pursuant to the requirement on March 26, 2018. The committee finds that while the response describes the existence of several groups, committees, and activities related to the "enterprise governance framework of joint collaboration," the response does not include a comprehensive plan for sharing of best practices for depot-level maintenance as required by section 346.

Accordingly, the committee directs the Comptroller General of the United States to submit a report or reports to the congressional defense committees, addressing: (1) To what extent are DOD and the services sharing and implementing best practices and lessons learned at individual depots with other depots; (2) To what extent have specific weapon systems repair activities gained benefits from implementation of such best practices or lessons learned; (3) To what extent have DOD and the services identified and quantified the key factors that influence whether depots complete their weapon system maintenance mission on time and shared these factors among themselves; (4) To what extent do DOD and the services make sure that depot workload requirements are generating required depot capability and capacity e.g., skilled personnel, suffi-

ciency in facilities and equipment, assured availability of supplies and materials or other relevant factors and, as appropriate, share best practices and lessons learned among themselves; (5) To what extent do DOD and the services identify risk to meeting anticipated depot workload timeframes, develop mitigation strategies to address that risk, and, as appropriate, share their risk management strategies among themselves.

The Comptroller General may also include other related matters as deemed appropriate in order to provide a comprehensive examination. The committee further directs the Comptroller General to provide a preliminary briefing to the congressional defense committees on the Comptroller General's evaluation not later than April 30, 2019, with a report or reports to follow.

Development of future fluorine-free fire fighting foams

The committee is strongly supportive of the Department of Defense's (DOD) plans to develop future fluorine-free fire fighting foams (F6). Once again this year, the committee has increased funding for both the Strategic Environment Research and Development Program (SERDP) and the Environment Security Technology Certification Program (ESTCP), largely in part to develop, demonstrate, and validate a fluorine-free surfactant that still meets military specification (MILSPEC) F-24385 and mimics the fluorocarbon surfactant performance attributes of aqueous film forming foam (AF3).

While AF3 performs well against fires, highly fluorinated chemicals are highly persistent long after their use and have been associated with serious health problems, such as cancer, liver and thyroid disease, and immune system and development effects, particularly in the case of per- and polyfluoroalkyl substances (PFAS). The dangers of PFAS also prompted this committee to authorize DOD and the Centers for Disease Control and Prevention to conduct a nation-wide human health survey on the effects of PFAS in sources of drinking water.

The committee is encouraged by and supportive of DOD efforts to reduce the use of AF3 and substitute with a perfluorooctane sulfonate-free firefighting foam C6. However, even short-chain C6 may pose the same health risks as AF3 since it has been documented that C6 can pass through granulated activated charcoal water filters.

Accordingly, the committee strongly encourages DOD to use funding increases in SERDP and ESTCP to develop, demonstrate, validate and field F6. Notably, multiple countries, including NATO allies, use fluorine-free firefighting foam at airports, as well as the oil and gas industry. DOD has made encouraging progress to date, for example, the Naval Research Laboratory has full strength basic tested and continues to test samples of non-Fluorine foam that have been identified by industry, such as silicon and oxygen combinations. Lastly, the committee strongly encourages the Department of the Navy to amend MILSPEC F-24385 to no longer require fluorine in AF3 and F6, as appropriate.

Employment of Special Operations Forces

The committee has great interest in actions by the Department of Defense to respond to the priorities identified in the National Defense Strategy (NDS) and how they impact the readiness and employment of Special Operations Forces (SOF). In particular, the committee notes the important role of SOF in supporting counterterrorism and counterinsurgency operations around the world. Almost 17 years since the terrorist attacks of September 11, 2001, SOF remain in high demand by Geographic Combatant Commanders and, as a result, continue to face high operational and personnel tempo. In response to the stress on the force, the committee notes that U.S. Special Operations Command is undertaking initiatives to bring SOF into compliance with Secretary of Defense directed deployment to dwell goals.

The committee notes that Department of Defense has a limited number of SOF personnel and believes that an appropriately trained and prepared SOF force of sufficient size must be ready and available for contingency operations that may involve a near-peer competitor as identified in the NDS. Therefore, the committee strongly urges the Department to review how it currently employs SOF in response to Geographic Combatant Commander requirements to ensure sufficient numbers of SOF are appropriately trained and ready to respond to contingencies across the spectrum of conflict, including with a near-peer competitor.

Encouraging the use of the Innovative Readiness Training program

The committee is aware that readiness challenges continue to face the Armed Forces due to budgetary constraints. The committee continues to recognize the value of the Innovative Readiness Training (IRT) program, which allows the Armed Forces the most realistic, joint training opportunities for National Guard, Reserve, and Active Duty members.

The committee values the IRT program for its low cost and high benefit to achieving measurable military readiness. The committee strongly encourages the Department of Defense to increase utilization of IRT projects to provide mission-essential training, prioritizing programs that directly support the most challenging and relevant training opportunities and increasing program outreach toward identifying quality training opportunities in the most logistically challenging geographical areas. Examples of IRT activities include, but are not limited to, constructing rural roads and airplane runways, small building, and warehouse construction in remote areas, transportation of medical supplies, and military readiness training in the areas of engineering, health care, and transportation for under-served communities.

The committee understands the IRT program offers complex and challenging training opportunities for domestic and international crises. The committee is also aware that states that utilize the IRT program include Alaska, Arizona, Arkansas, California, Colorado, Hawaii, Indiana, Kentucky, Louisiana, Maine, Minnesota, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, South Dakota, Texas, Virginia, West Virginia, and Wyoming.

The committee strongly encourages the Department of Defense to continue to fully utilize IRT programs that provide hands-on and mission-essential training and that are available to active, reserve and National Guard forces.

Establishment of the energy resilience project development and implementation office

The committee is encouraged by the progress the Department of Defense has made to promote energy resilience, efficiency, and distributed energy across its military installations with limited resources and personnel to accomplish these priorities. However, the committee recognizes that vulnerabilities to energy supplied to military installations and operations place our national security at risk. Further, senior Department officials continue to express concern to the committee on the ability of the Department to keep pace with these threats and accelerate energy resilience project development due to resource constraints, the inability to retain and recruit qualified energy and technical professionals, and potential flexibility in existing authorities.

The committee strongly supports efforts by the military departments and defense agencies to increase its energy resilience with targeted and prioritized decisions to procure or upgrade infrastructure, distribution systems, equipment, fuel, and energy generation facilities. Further, the committee strongly supports the department's alternative financing pursuits and notes that it is uniquely positioned to develop energy resilience projects on its military installations to remediate risks from commercial electric and fuel grid disruptions. Not only do alternative financing agreements provide the department the ability to improve its installations without any capital investments of its own, they also provide a combat capability that improve the department's national security and readiness posture. The committee notes that these public and private sector partnerships are essential to advance the department's national security strategy, and that these partnerships should support integration of a defense workforce with science, technology, engineering, economic, and financial backgrounds to communicate with the private sector.

Accordingly, the committee directs the Secretary of Defense to work with the secretaries of the military departments, along with the defense agencies, to conduct an investigation for a central office to accelerate energy resilience project development and implementation. The Secretary should consider equitable representation from the military departments and defense agencies during the review, and consult with the services and defense agencies when providing a recommendation. The review should include, at a minimum, the following: (1) A review of lessons learned from existing service execution offices such as the Navy's Resilient Energy Program Office, the Army's Office of Energy Initiatives, and the Air Force's Office of Energy Assurance; (2) Personnel skills, manning, and resources needed to establish the office; (3) The appropriate organizational reporting structure of such an office; (4) Strategy, mission, and performance goals the office would pursue (to include the scope of projects considered and funding strategy considerations); (5) Recruitment, retention, and training strategy; and (6) Legislative au-

thorities and other recommendations to consider for the establishment of an office to accelerate energy resilience project development. Lastly, the Secretary shall brief the committee on the results of its review not later than March 1, 2019.

Establishment of the occupational group for federal energy managers

The committee is encouraged by the progress the Department of Defense has made to promote energy resilience, efficiency, and distributed energy across its military installations with limited resources and personnel to accomplish these priorities. However, the committee recognizes that vulnerabilities to energy supplied to military installations and operations place our national security at risk. Further, senior Department officials and personnel on military installations continue to express concern to the committee on the ability of the Department to keep pace with these threats due to the inability to retain and recruit qualified energy management professionals with the appropriate technical skills.

Accordingly, the committee directs the Secretary of Defense to work with the Office of Personnel Management to establish an occupational group for energy management in its Handbook of Occupational Groups to ensure legislative requirements for energy efficiency, distributed energy, and energy resilience are met. At a minimum, the energy management occupational group shall allow the Department to meet Title 10 energy requirements, and those energy requirements found in Department of Defense Directives and Instructions. The Occupational Group shall include grades from GS-1 to GS-15, or equivalent graded positions. Lastly, the Secretary shall brief the committee on its progress not later than March 1, 2019.

Guidance on utility privatization contracts

The committee supports the conveyance of utility systems to private entities and is aware of the increased energy resilience and reliability that has resulted at installations where this has occurred, but notes that restrictions on operation and maintenance funds have slowed progress on critical projects that are required to increase energy resilience and reliability. The committee is also aware of efforts undertaken by the Army to encourage Army commands to use available operation and maintenance funds for utility infrastructure improvements associated with privatized utility systems, and encourages the Department of Defense and the other services to provide similar guidance to clarify and better leverage operation and maintenance funds for utility improvements with utilities privatization contracts to meet energy resilience and installation readiness requirements.

High purity aluminum

The committee recognizes the importance of high purity aluminum (HPA) to meet national security requirements of manufacturing and weapon system performance. HPA plays a critical role in defense platforms such as in the bulkheads for the F-35 and the advanced armor for the Joint Light Tactical Vehicle. HPA is also used to make alloys that are used in other defense and space plat-

forms. The demand for HPA is expected to continue to increase as the Department of Defense ramps up production on key next generation air and ground platforms and the need for weight reduction remains a key requirement. The committee understands that the United States currently has only two domestic producers of HPA and relies on imports from Russia, the Middle East, and elsewhere to meet demand.

Accordingly, the committee encourages the Secretary of Defense to take affirmative steps to maintain secure sources of supply for HPA and to consider investing in appropriate improvements to make the production of domestic HPA more efficient and available than through the traditional smelting process.

High-energy intensity report

The committee notes that the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328) required the then-Under Secretary of Defense for Acquisition, Technology, and Logistics, in consultation with the assistant secretaries responsible for energy, installations, and environment of the military services, to submit a report on efforts to achieve cost savings at military installations with high levels of energy intensity. The committee notes that this report is now over six months overdue. The committee continues to believe that energy costs in areas of high-energy intensity is a critical issue that should be addressed. Accordingly, the committee encourages the Under Secretary of Acquisition and Sustainment to promptly complete the report and submit it to the congressional defense committees.

High-pressure cold spray repair

The committee is aware that the Department of Defense is using high-pressure cold spray repair, a solid-state metal additive manufacturing technology that is capable of reapplying metal to highly worn or corroded metal surfaces without damaging the base metal. The committee understands this technology would restore the strength and serviceability of parts that previously would require replacement. The committee notes this technology could enable more cost-effective and timely maintenance and has been used by the Department of the Navy to achieve cost savings for the repair of critical components. Therefore, the committee encourages the Secretary of the Navy to expand the use of this technology for the development of new repair processes for additional Navy components.

Leveraging non-Department funds to address infrastructure maintenance backlogs and project delays

The committee is strongly encouraged by the Department of Defense (DOD) and its efforts to improve energy resilience and security infrastructure on its installations. For example, DOD has turned to the use of energy savings performance contracts (ESPCs) as one means to leverage private sector financing and investments which are paid back over time by DOD through measured and verified energy-related savings. The committee strongly encourages DOD to incorporate energy resilience and security measures into

its projects and contracts pursued through non-Department funding.

The committee also recognizes that DOD has historically prioritized resources for its operations and weapons modernization over its facilities sustainment restoration and modernization (FSRM) accounts, which has resulted in a significant infrastructure maintenance backlog, including older and deteriorating facilities, which in turn degrades readiness and quality of life for warfighters.

In order to reduce the deferred maintenance backlog, increase the magnitude of capital improvements, costs savings, and cost avoidance for DOD, the committee strongly encourages the Department and its military installations to leverage its FSRM accounts, in combination with third-party and non-Department funding sources and financed energy savings projects, to maximize energy infrastructure investments through mechanisms like ESPCs and utility energy service contracts (UESC). As such, FSRM funds should be used for one-time payments upon the award of new ESPC and UESC projects and as partial payments for recurring operation and maintenance activities.

Additionally, the committee remains concerned that DOD has failed to streamline delays encountered during the ESPC, UESC, and power purchase agreement processes, which could otherwise assist in decreasing the infrastructure maintenance backlog and increase installation resilience that is critical to mission assurance.

Accordingly, the committee directs the Secretary of Defense to establish a policy to better leverage non-Department funding to address its infrastructure maintenance backlog and energy resilience requirements, including setting a Department performance contracting goal along with a tracking system to identify and address project phase bottlenecks, with a timeline goal of 18 months from notice of opportunity to notice of intent to award. The Secretary shall brief the committee on its progress no later than March 1, 2019.

Light emitting diodes for aviation applications

The committee is aware of ongoing efforts by the Services and the Defense Logistics Agency to increase the utilization of light emitting diodes (LED) for aviation applications, both through retrofitting existing aircraft and requiring LEDs for exterior and interior use on new designs. In addition to their long life, high reliability, and reduced energy consumption, LEDs reduce glare and interference with night vision equipment. Most commercial airplanes use LEDs for navigation, position, beacon, anti-collision, cabin, and cargo lighting. Accordingly, the committee encourages the services to retrofit LEDs onto existing aircraft when they undergo modification and maintenance. The committee also encourages the services to establish LED requirements for ongoing aviation development and acquisitions, such as the Long Range Strike Bomber and unmanned aerial vehicles.

M240 medium machine gun modernization

The committee is concerned the Army may be assuming too much risk in the small arms industrial base with respect to the

family of M240 medium machine guns. Current funding profiles could lead to a potential production line shutdown. The shutdown of existing production lines could create significant operational impacts if requirements change. The committee notes that the budget request included \$2.1 million for M240 production; however, no funding is projected for new production in fiscal year 2020 or fiscal year 2021.

The committee encourages the Army to closely monitor this critical industrial base and work with the original equipment manufacturer to develop courses of action to ensure the production line remains viable and capable of supporting potential increased requirements. The committee directs the Secretary of the Army to provide a briefing to the committee by September 28, 2018. This briefing shall include, at a minimum: (1) The projected service life of the current M240 inventory; (2) The Army's plan and schedule to replace the current M240 inventory either with newer M240 models or an entirely new system; (3) How the Army will address increased requirements caused by growth in end strength and combat formations; (4) Relevant cost analysis for restarting the M240 production line after a period of dormancy; and (5) A description of the capacity challenges and minimum sustaining production rates with regard to the original equipment manufacturer.

Additionally, the committee directs the Secretary of the Army to provide a study to the committee by October 1, 2018, on the feasibility of transitioning the existing fleet of M240B medium machine guns to the lighter-weight M240L configuration. This assessment shall take into consideration the estimated costs associated with this transition to include the transition of current inventories of M240Bs to the M240L variant.

Maintaining current balance of government and private contractors under 10 U.S.C. 2466

The committee continues to recognize the importance of section 2466, title 10, United States Code, in its sustainment of our military readiness. The committee continues to view core depot level workload as synonymous with organic workload, and core workload should be accomplished by government employees in facilities owned and operated by the United States. While the committee supports privatization of functions that are not inherently governmental in nature, including some depot maintenance of above core systems, the committee does not support the wholesale privatization of those functions necessary to ensure readiness and to defend the United States and our allies during periods of armed conflict. Depot maintenance is inherently governmental when conducted on mission essential weapons systems used in combat, combat support, combat service support, and combat readiness training.

Congressional support of privatization initiatives is based on the achievement of cost savings to the government as a result of a competitive marketplace.

The committee continues to see that competition, rather than privatization, may achieve the greatest degree of potential savings. To preserve our military readiness, the Department of Defense should sustain the organic capability and capacity to maintain and repair mission-essential equipment associated with combat, including new

weapons systems to the greatest extent possible. Finally, to ensure efficient use of organic maintenance and repair capacity, as well as the best value to the taxpayer, we believe the Department of Defense must continue to effectively utilize its logistics facilities.

Marine Corps Base of the Future

As noted by the Marine Corps, the January 2017 tornado resulted in “extensive damage requiring significant repair and construction” at Marine Corps Logistics Base Albany. That challenge prompted an opportunity to identify inadequate command and control, a misaligned workforce, excess infrastructure, and the desire to have an island capability for energy resilience.

In light of the continued deferment of facilities sustainment restoration and modernization funding by the Department, the committee is strongly supportive of the recent efforts by the Marine Corps to hold its inaugural Base of the Future Symposium, which sought collaboration from local communities, private industry, government officials and academia in order to improve installation design and services that are responsive, resilient, and improve process. The committee continues to support the concepts of increasing operational effectiveness, readiness, quality of life, safety and efficiency on installations while pursuing techniques and technologies that leverage data analytics, automation, robotics, and the internet of things.

Marine Corps Policy on flame-resistant uniforms

The committee notes the Marine Corps issues the Enhanced Flame Resistant Combat Ensemble (EFRCE) to deploying Marines and Sailors. The EFRCE is the latest upgrade to the Marine Corps’ Flame-Resistant Combat Ensemble inventory, updating a long-sleeve shirt and trousers with a more durable and better performing flame resistant material that allows the uniform to self-extinguish reducing the incidence and severity of burn injuries.

The committee commends the Marine Corps’ efforts to develop and field high performance flame resistant clothing to deploying Marines. However, the committee is concerned the EFRCE is only issued to select deploying marines and sailors. The committee believes the same high performance and flame-resistant protection capabilities provided by the EFRCE in combat operations could also be applied for domestic training and field exercises in the United States, if deemed operationally relevant.

Accordingly, the committee directs the Secretary of the Navy to provide a briefing to the committee by March 1, 2019, on steps being taken to evaluate the EFRCE and other flame resistant combat uniforms, items to include: (1) A market survey of materials that could be used in a Flame Resistant (FR) Marine Corps Combat Utility Uniform (MCCUU) uniform; (2) A cost benefit analysis of issuing EFRCE or a FR MCCUU at initial entry rather than issuing MCCU at initial entry; (3) The near-term policy for authorizing use in appropriate field exercises and training scenarios at unit commander’s discretion; and (4) The advisability and feasibility of implementing a long-term fielding plan for incorporating the EFRCE and/or other flame resistant combat uniforms as organizational equipment in appropriate units.

Military working dogs

As reflected in the findings of the Department of Defense Inspector General (DODIG) report 2018–81, the committee remains concerned that a lack of guidance remains, particularly for nontraditional military working dog (MWD) programs that are not directly supported by the 341st Training Squadron, 37th Training Wing, at Lackland Air Force Base in Texas. Accordingly, the committee directs the Secretary of the Air Force, in collaboration with the secretaries of the other military departments with MWD assets to fully implement the recommendations from DODIG report 2018–81.

The committee further directs the Secretary of the Air Force, in collaboration with the secretaries of the other military departments with MWD assets, to submit a report not later than 180 days after the enactment of this Act, that examines the status of all MWDs since 2013 and addresses at a minimum, the following: (1) The number of MWDs transferred from overseas to the United States for retirement; (2) The number of MWDs overseas that did not transfer to the United States and their ultimate disposition or destination; (3) The number of MWDs transferred to law enforcement agencies; (4) The number of MWDs dogs that were transferred to one of their handlers; (5) A description of the actions taken by the military to notify current or previous handlers of the opportunity to adopt their MWD; (6) A description of the oversight of the adoption process to ensure that MWDs are placed in appropriate settings; and (7) Examine options and potential costs of assisting those handlers who adopt MWDs with veterinary care for the MWD retirees.

The committee urges the services to have Contractor Working Dog (CWD) assets operate under the same regulations as MWDs and recommends the services ensure such requirements are provided for all future CWD programs.

Navy next generation small arms weapons training and readiness requirements

The committee is concerned that after 5 years, the Navy has not yet developed a next generation, comprehensive strategy to address the significant small arms training shortfalls identified in the 2013 Washington Navy Yard shooting report and subsequent shooting incidences.

As noted in prior National Defense Authorization Acts, the committee understands that the Navy Expeditionary Combat Command (NECC) and the Navy Strategic Systems Program (SSP) have successfully demonstrated an innovative synthetic small arms training approach capable of providing consistent, metrics-based proof of live-fire transfer across various skill levels for individual and crew-served training, while reducing ammunition and training time costs. NECC and SSP's advanced human performance, cognitive, and metrics driven training approach enforces improvements in reaction time, precision under stress, and decision-making skills to aid long-standing Navy challenges in meeting hostile intent determination and escalation of force decisions. Despite the success of these programs, and their alignment with a Department of Defense-wide move toward advanced training approaches that leverage human performance techniques and data collection as key

program requirements, the committee is concerned that other Navy commands continue to rely on legacy simulation systems that are not required to prove their effectiveness, and have not given serious consideration to new, innovative metric-based synthetic training programs capable of achieving, and validating Navy security force and fleet-wide small arms tactical and crew-served readiness improvements.

Accordingly, the committee directs the Secretary of the Navy to provide the committee with a briefing by February 1, 2019 detailing the Navy's comprehensive plan to meet the enhanced small arms training advancements discussed above. The briefing shall include, but not be limited to, how the Navy will: (1) Address afloat and ashore security forces and Navy Installation Command small arms training improvements outlined in the 2013 Washington Navy Yard report; (2) Meet the unique requirements for small arms and improved crew-served weapons training and effectiveness under U.S. Fleet Forces Command, and the Navy Criminal Investigative Service; (3) Meet the key training objectives for hostile intent determination and escalation of force requirements described above; (4) Validate that human performance, readiness metrics, and proof of live-fire transfer will be key capability requirements of the Navy's plan; and (5) Develop an acquisition strategy that requires legacy and future small arms simulation systems to competitively demonstrate their ability to meet rigorous next generation readiness requirements outlined above as a pre-requisite to receiving new or continued funding in fiscal year 2019 and future years.

Operational energy technologies

The committee is aware of a variety of technologies that may improve operational flexibility, enhance logistics, and reduce supply lines for forces operating in deployed environments, to include the ability to convert natural gas to tactical fuels, improve power generation, distribution, and storage in deployed environments, and increase the range and capability of tactical vehicles. The committee is supportive of these efforts and encourages the Department of Defense to transition such natural gas to tactical fuel technologies from the research and development stage in support of operational requirements. Therefore, the committee directs the Secretary of Defense to provide a briefing to the Senate Armed Services Committee, not later than March 1, 2019, that outlines steps the Department is taking, to include resourcing and timelines for maturation of operational energy technologies, to transition such technologies to full scale demonstrations and commercial production.

Paint training programs

The committee believes that maximum efficiency is critical for more than 350 military paint facilities that perform painting and coating operations, including corrosion prevention and control, radar absorption, and camouflage. The committee understands that the Department of Defense's operations require stringent specifications for the coating of each piece of equipment.

The committee understands that paint training programs provide training for military painters and coating operations. The committee notes that paint training programs can save the Department

time and funding resources by using advanced technology and equipment along with hands-on training to effectively apply coatings and reduce waste. Additionally, increasing coating transfer efficiency and preventing corrosion and rework can improve asset readiness. Furthermore, the committee understands that paint training programs consistently update to the latest advancements in coatings, application equipment, and technology. Lastly, the committee notes that the paint training programs have trained hundreds of military and contract painters, serving all of the military departments.

Predicting soil-terrain-atmospheric conditions

The committee is aware of the valuable support the U.S. Army Engineer Research and Development Center-Cold Regions Research and Engineering Laboratory provides in rapidly and accurately predicting key terrestrial properties (e.g. soil/dust, water, snow, vegetation) in forward operating areas and extreme environments. Given the broad spectrum and diversity of these conditions, the committee strongly recommends that the Army accelerate its collection of this data to support the full spectrum of military activities including terrestrial aircraft operations and identifying improvised landing zones, ground mobility, dust emission, and monitoring the availability of vital water resources. The committee also strongly encourages developing new methods of linking variable and frequently changing land surface-atmospheric conditions on the deployment and performance of vital sensor-based tactical systems.

In order to enhance the ability to rapidly and accurately predict the full spectrum of these terrestrial properties, the committee strongly urges the expanded use of remotely collected data, which directly benefits military operations, especially for adaptive and expedient force protection and maneuvers across highly variable terrain in all military operating environments and under variable climate and weather conditions.

Privatization of stormwater conveyance systems

The committee remains concerned with the ability of the Department of Defense's (DOD) infrastructure to handle stormwater at many of its installations. Additionally, the committee is discouraged with DOD's failure to comply with section 2813 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), which stated that it was the sense of Congress that "wastewater" captures stormwater within the definition of section 2688(i) of title 10, United States Code. Not utilizing privatization to repair aging infrastructure at Fort Benning, for example, resulted in \$3.5 million dollars' worth of damage due to catastrophic failures suffered during a December 2015 storm. The committee directs the Department of Defense to provide a report no later than December 1, 2018, on installation storm water conveyance systems and plans on addressing any shortcomings that currently exist.

Report on transportation infrastructure critical to Eastern Range space operations

The committee notes that the Indian River Bridge in Florida is critical to the ability of the Department of Defense to provide space

launch and range operations in support of the nation's objectives. The Indian River Bridge is a federally owned property used by two federal agencies, and the replacement of the bridge requires a joint solution to ensure that the bridge is able to support national security space payloads. The committee also notes that the Secretary of the Air Force, who carries out the preponderance of space activities within the Department, must be included in the development of any solution with respect to the Indian River Bridge to ensure that space launch operations are not affected by the replacement of such bridge.

Accordingly, the committee directs the Secretary of the Air Force, in consultation with the Administrator of the National Aeronautics and Space Administration, to submit to the congressional defense committees no later than October 1, 2018, a report on the transportation infrastructure that is critical to the ability of the Department to use the Eastern Range in Cape Canaveral, Florida, for space launch operations. The report shall include: (1) An identification of Department and non-Department transportation infrastructure supporting the Eastern Range that is critical to Department space operations, including payload processing, delivery, and Department-operated launch capabilities; (2) An assessment of the ability of such transportation infrastructure or alternatives to safely transport all Department mission payloads during the period beginning on the first day of fiscal year 2019 and ending on the last day of fiscal year 2030; (3) An analysis of the impact on Department space launch operations of an inability of such transportation infrastructure to safely transport mission payloads through fiscal year 2030; and (4) A detailed plan to ensure that payload processing, delivery, and Department-operated launch capabilities are unencumbered by a failure in such transportation infrastructure.

The report may contain a classified annex, if deemed appropriate.

Report on universal camouflage inventory and use

The committee supports the Army's transition from Universal Camouflage Pattern (UCP) to Operational Camouflage Pattern (OCP) for soldier combat uniforms and organizational clothing and individual equipment (OCIE). The committee is very supportive of the Air Force's recent decision to replace the Airman Battle Uniform and adopt OCP for all of its combat uniforms. The committee is also aware of a significant current inventory of OCIE in UCP, which includes, but is not limited to, Modular Lightweight Load Carrying Equipment and Improved Outer Tactical Vests.

The committee understands that the Army Program Manager for Soldier Protection and Individual Equipment (PM SPIE) is currently evaluating overdyed technologies and processes. This evaluation could validate technology and processes for UCP printed products to be altered into a color palette that blends with the new down selected camouflage prints and continues to pass all necessary requirements. The committee believes that these overdyed technologies and processes could save significant resources, possibly up to 70 percent of the current item price, as the Army transitions to OCP.

Accordingly, the committee directs the Secretary of the Army to provide a report to the congressional defense committees no later than August 31, 2018. The report shall include, but is not limited to, defining current efforts underway to repurpose and field UCP clothing and equipment, efforts underway within PM SPIE to evaluate overdyed technologies and processes, and a plan with cost and timelines to field these technologies and processes towards addressing an economically viable drawdown and use of otherwise obsolete OCIE in UCP.

Review of Department of Defense mission assurance program

The committee continues to be supportive of the Department of Defense's (DOD) issued mission assurance policy and strategy. However, the committee is concerned there may not be a robust mission assurance framework to fully consider mission, installation, facility, and infrastructure requirements (e.g. utility, water and wastewater, communication, and transportation systems), when developing critical mission assurance requirements.

The committee is also concerned that information and data sharing challenges persist among installation, facility, infrastructure, and mission personnel on military installations. The committee believes that a more robust and comprehensive mission assurance framework needs to be considered, and that a process to share mission assurance information and data could help inform the development of critical mission requirements that support budgetary decisions.

Prior Government Accountability Office (GAO) reports have identified similar challenges with DOD's identification and prioritization of defense critical infrastructure efforts. In 2008, the GAO identified several management weaknesses in DOD's implementation of the Defense Critical Infrastructure Program (DCIP) to comprehensively account for critical mission requirements (GAO-08-373R, GAO-08-851, and GAO-09-42). For example, the GAO reported that DOD lacks sufficient information to determine the full extent of the risks and vulnerabilities to critical assets. The GAO also identified the lack of infrastructure-related information regarding the networks, assets, points of service, and inter- and intra-dependencies; and, that existing programs did not routinely coordinate or share details of critical mission requirements with complementary DOD mission assurance programs.

Accordingly, the committee directs the Comptroller General of the United States to evaluate DOD's Mission Assurance program. The GAO review should assess the extent to which: (1) DOD fully takes into consideration supporting installation, mission operator, and critical supporting infrastructure (such as utility, water and wastewater, communication, and transportation systems) when developing critical mission assurance requirements; (2) The data management systems, such as the strategic mission assurance data system and mission assurance risk management system, accurately collect and take into account infrastructure-related information regarding the networks, assets, points of service, and inter- and intra-dependencies; (3) Metrics are in place to measure performance of achieving critical mission assurance requirements; (4) Proc-

esses are established to share information and data to inform development of critical mission requirements and budgetary decisions, and the extent to which these processes affected budgetary decisions; and (5) The military services have complied with existing DOD mission assurance requirements and policies.

The committee further directs the Comptroller General of the United States to brief the Committees on Armed Services of the Senate and the House of Representatives not later than March 28, 2019, on preliminary findings of the Comptroller General's evaluation with a report to be completed by July 30, 2019. A classified annex may be provided, as appropriate.

Review of the Navy's shipyard improvement plan

The committee notes that the Navy's four public shipyards are critical to maintaining fleet readiness and supporting ongoing operations involving the Navy's nuclear-powered aircraft carriers and submarines. However, as the Comptroller General reported in 2017, the condition of the Navy's shipyards is poor and they have not been fully meeting the Navy's operational needs. Previous efforts to address these issues have been inadequate, in part because the Navy lacked results-oriented elements. Notably, the Navy presented its Shipyard Optimization Plan in February 2018, which the Navy describes as the first phase of a larger effort. The committee believes the Navy's assessment of public shipyard dry dock capacity is particularly important, as it identifies 67 of 68 deferred maintenance availabilities under the status quo, all of which would be restored upon making the public shipyard dry dock investment recommended by the report.

The committee is encouraged by the Navy's efforts to develop a long-term and comprehensive plan, yet the committee is also concerned about the extent to which the Navy's plan incorporates the recommended elements for effectively managing its shipyard capital investments and fully identifies the funding and authorities needed to eliminate maintenance backlogs.

Accordingly, the committee directs the Comptroller General of the United States to submit a report to the congressional defense committees regarding the Navy's effort to address its public shipyard shortfalls. The report should evaluate the extent to which the Navy's plan: (1) Addresses infrastructure deficiencies needed to support the current and 30-year force structure projections, includes metrics and other results-oriented elements to guide shipyard capital investments and sustain progress in addressing the shipyards' needs; (2) Includes a five-year workload management plan for the entire nuclear maintenance enterprise, both public and private-sector capacities, that limits lost operational days; (3) Identifies the funding and authorities required to eliminate maintenance backlogs and return to predictable, sustainable, and affordable ship maintenance availabilities for the planned navy force structure; and (4) Any other related matters the Comptroller General considers appropriate.

The committee further directs the Comptroller General to brief the Senate Committee on Armed Services not later than March 15, 2019, on preliminary findings of the Comptroller General's evalua-

tion, with the report to follow at a date to be determined at the time of the briefing.

Rough terrain container handler

The committee notes the wide-ranging efforts of the military logistics community to provide vital resources for the warfighter. However, the committee remains concerned by the lack of a comprehensive and appropriately resourced sustainment strategy for RT240 Rough Terrain Container Handler (RTCH) despite the Department of Defense (DOD)'s inventory of over 1,100 RTCHs on hand and the hundreds of thousands ISO containers within the DOD's purview.

The committee is concerned by the age of the RTCH fleet, the rumored overall poor readiness of the systems on hand, and notes that there is not a recapitalization program for these systems, nor a long-term strategy to modernize a fleet that was procured in 1998. The committee believes the Army's lack of a RTCH Service Life Extension Program (SLEP) will lead to further reduced readiness and an eventual budget request to replace the RTCH with new equipment.

Of special concern is the differing paths the Army has taken compared to the Marine Corps, which has initiated a RTCH SLEP beginning in fiscal year 2019. The Marine Corps has requested \$8.1 million beginning in 2019 to begin a multi-year program to execute a SLEP for 117 of their 160 vehicles. The Army has chosen not to follow this model for its almost 1000 vehicles and is instead using an internal Operation and Maintenance, Army fund to perform its own program to sustain the fleet. As the Marine Corps is specifically investing in modern technology to harvest new capabilities and working with industry to speed the process of repairing their war weary systems, there is a clear divergence in the two programs.

Accordingly, the committee directs the Secretary of Army to develop plans to sustain the RTCH fleet, preserve the RTCH industrial base, both within and outside the Army, improve readiness and guarantee RTCH availability for operations into the 2030s. It requests a briefing to the Committee on those plans, and how current RTCH readiness meet U.S. Transportation Command (TRANSCOM) logistics requirements, within 60 days of bill passage.

In addition, since the Army and Marine Corps are pursuing different strategies to sustain this critical operational capability, the committee is interested in the potential impact of the two strategies on sustainment of this \$1.0 billion investment made by DOD over the past two decades. Therefore, the committee directs the Comptroller General of the United States to: (1) Review the readiness and condition of the RTCH fleets in the Army and Marine Corps; (2) Identify, analyze, and compare the Army's and Marine Corps' sustainment strategies for their respective RTCH fleets, including whether these approaches have assessed available modernization capabilities that would enhance joint deployability; (3) Describe and assess any strategic risks associated with the Army's and Marine Corps' approaches to modernizing their respective RTCH fleets to meet TRANSCOM logistics requirements; and (4)

Report on any other related matters the Comptroller General deems appropriate.

The committee directs the Comptroller General to brief the Senate Committee on Armed Services not later than April 1, 2019, on preliminary observations of the Comptroller General's evaluation, with a report to follow at a date to be determined at the time of the briefing.

Surface Deployment and Distribution Command common and logistics broker waiver process

The committee requests that the Secretary of the Army explore a waiver process within the Army Surface Deployment and Distribution Command (SDDC) for Department of Defense transportation officers who utilize the Automated Transportation Request System. This process may include allowing a SDDC registered transportation service provider freight carrier to serve as a common and logistics company or freight broker in such instances when it is determined by the transportation officer that cost and performance are better served by such action.

The committee urges this review in order to ensure that transportation officers are able to utilize those freight carriers best suited to serve the warfighter in terms of performance and cost.

Use of fire extinguishers in Department of Defense facilities and National Model Codes

The committee is aware that portable fire extinguishers are essential to the safety of members of the Armed Forces and their families. The protection of service members and their families is imperative to the readiness of the force. Every Department building should apply building and fire codes that are in line with national model codes and state building and fire codes. The committee notes that National model codes promulgated by the National Fire Protection Association and the International Code Council have been adopted by almost every state in the nation. The committee is concerned that the removal of these devices and subsequent adherence to the change in United Facilities Criteria has the potential to harm force readiness and protection service wide.

The current United Facilities Criteria should be updated to ensure it provides members of the Armed Forces, their families and other Department of Defense personnel with fire protection standards that are met by their civilian counterparts, including requiring portable fire extinguishers on military installations.

Use of Global Combat Support System-Army by deployed units

The committee notes that the Global Combat Support System-Army (GCSS-Army) is a defense business system that is being acquired to replace several separate systems used to manage critical logistics support activities at Army units, such as ordering and tracking supplies, maintaining accountability of organizational equipment, and monitoring unit maintenance. The committee understands that units will use GCSS-Army not only when they are at their home station, but also when they are deployed. In September 2014, the Comptroller General released "DOD Business

Systems Modernization” (GAO-14-470), which reviewed the early implementation of GCSS-Army at selected units and found that it was generally meeting their logistics requirements. At that time, the full system capability had been fielded to very few units, and the units were not deployed when using the system. The committee continues to be interested in the Army’s progress and plans for using GCSS-Army to support military operations.

Water resources for Department of Defense installations

According to the Department of Defense (DOD), near term weather variability such as changes in the number of consecutive days of high or low precipitation as well as increases in the extent and duration of droughts may exacerbate water shortages. DOD has stated that potential effects of water shortages on the Department’s installations include the following: disruption to—and competition for—reliable fresh water supplies; and reduced—or changed—availability and access to water resources to support personnel.

Moreover, increasing demand for water places stress on the finite supplies of water that DOD installations depend on to fulfill their missions and make the management of water resources in the future more challenging if there is competition for fresh water. Drought conditions can impact military training when live fire training must be curtailed to avoid inadvertently starting wildfires. Water scarcity—the increased potential for the reduction in or disruption of an installation’s reliable access to water—has already caused DOD installations in the United States to implement aggressive water conservation and reuse measures. DOD has conducted studies that indicate critical installations could run out of water within two decades.

Accordingly, the committee directs the Comptroller General to conduct a review of the Department’s water resource management practices and the identified or potential impacts from water scarcity and brief the committee no later than January 30, 2019. At a minimum, the review shall answer: (1) How do selected DOD missions and installations rely on water and what are the potential impacts of water scarcity on DOD installations and mission capability; (2) To what extent have DOD installations experienced increasing water scarcity or drought conditions since 2014 and how has DOD mitigated any such impacts; (3) What challenges does DOD face, if any, in mitigating the impacts of water scarcity; and (4) To what extent does DOD ensure that installations take full advantage of all available sources of fresh water and what impediments if any exist that hamper the ability to access fresh water.