

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

Use of operational energy cost savings of Department of Defense (sec. 311)

The committee recommends a provision that would amend section 2912 of title 10, United States Code, to require that operational energy cost savings realized by the Department of Defense be used for the implementation of additional operational energy cost saving methods.

Use of proceeds from sales of electrical energy generated from geothermal resources (sec. 312)

The committee recommends a provision that would amend section 2916(b) of title 10, United States Code, to provide the Department of Defense more flexibility when using geothermal revenue.

Energy resilience programs and activities (sec. 313)

The committee recommends a provision that would make technical corrections to the Annual Energy Management and Resilience Report, would require a report on funding levels for certain energy program offices, and would establish targets for reduction in water use.

Native American Indian lands environmental mitigation program (sec. 314)

The committee recommends a provision, as requested by the Department of Defense (DOD), that would amend chapter 160 of title 10, United States Code, to allow the Secretary of Defense to establish a program to mitigate the environmental impacts of DOD activities on Native American Indian lands.

Reimbursement of Environmental Protection Agency for certain costs in connection with the Twin Cities Army Ammunition Plant, Minnesota (sec. 315)

The committee recommends a provision that would allow the Secretary of Defense to reimburse the Environmental Protection Agency for remedial actions performed at the Twin Cities Army Ammunition Plant (TCAAP). The committee understands that this au-

thority will be used to satisfy the interagency agreement for the TCAPP.

Prohibition on use of perfluoroalkyl substances and polyfluoroalkyl substances for land-based applications of firefighting foam (sec. 316)

The committee recommends a provision that would prohibit the Department of Defense from procuring firefighting foam that contains perfluoroalkyl and polyfluoroalkyl substances after October 1, 2022.

Transfer authority for funding of study and assessment on health implications of per- and polyfluoroalkyl substances contamination in drinking water by Agency for Toxic Substances and Disease Registry (sec. 317)

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 extend the authority of the Secretary of Defense to transfer funds to the Secretary of Health and Human Services for the study and assessment of the health implications of per- and polyfluoroalkyl substances.

Cooperative agreements with States to address contamination by perfluoroalkyl and polyfluoroalkyl substances (sec. 318)

The committee recommends a provision that would encourage the Secretary of Defense to work expeditiously to finalize a cooperative agreement upon request from the governor of a State if there is suspected contamination from perfluoroalkyl and polyfluoroalkyl substances. If an agreement is not finalized or amended within 1 year, the Secretary of Defense is required to submit a report to the appropriate congressional committees.

Modification of Department of Defense environmental restoration authorities to include Federal Government facilities used by National Guard (sec. 319)

The committee recommends a provision that would establish environmental restoration accounts for the Army National Guard and the Air National Guard.

Budgeting of Department of Defense relating to extreme weather (sec. 320)

The committee recommends a provision that would require the Secretary of Defense to include a dedicated budget line item for adaptation to and mitigation of effects of extreme weather on military networks, systems, installations, facilities, and other assets and capabilities of the Department of Defense in the annual budget submission of the President.

Pilot program for availability of working-capital funds for increased combat capability through energy optimization (sec. 321)

The committee recommends a provision that would allow the Secretary of Defense and the military departments to use the working

capital fund established pursuant to section 2208 of title 10, United States Code, to conduct a pilot program for energy optimization initiatives. Further, this provision would require the Secretary of Defense to submit an annual report to the congressional defense committees on the use of the authority during the preceding fiscal year. The annual report would be required to be submitted not later than 60 days after the President's budget is submitted to the Congress.

Report on efforts to reduce high energy intensity at military installations (sec. 322)

The committee recommends a provision that would require the Under Secretary of Defense for Acquisition and Sustainment to submit a report on efforts to achieve cost savings at military installations with high energy intensity to the congressional defense committees not later than September 1, 2020.

Technical and grammatical corrections and repeal of obsolete provisions relating to energy (sec. 323)

The committee recommends a provision that would provide technical corrections to title 10, United States Code.

Subtitle C—Logistics and Sustainment

Requirement for memoranda of understanding between the Air Force and the Navy regarding depot maintenance (sec. 331)

The committee recommends a provision that would require a joint memorandum of understanding in such cases where one military service would provide depot maintenance for an air platform of another military service. The memorandum would address the requirements and oversight responsibilities for administration, supply, and maintenance and would be executed by officials of both services in a grade of O-7 or higher with responsibilities for administration, supply, and maintenance.

The committee wants to ensure that the different maintenance practices required by the Navy and the Air Force are well-understood by both services.

Modification to limitation on length of overseas forward deployment of naval vessels (sec. 332)

The committee recommends a provision that would amend section 323 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115-232) relating to the limitation on length of overseas forward deployment of naval vessels.

Subtitle D—Reports

Report on modernization of Joint Pacific Alaska Range Complex (sec. 341)

The committee recommends a provision that would require the Secretary of the Air Force to submit to the congressional defense committees a report on the long-term modernization of the Joint Pacific Alaska Range Complex.

Subtitle E—Other Matters

Strategy to improve infrastructure of certain depots of the Department of Defense (sec. 351)

The committee recommends a provision that would require the Secretary of Defense to deliver a comprehensive strategy to the congressional defense committees, no later than October 1, 2020, for improving the depot infrastructure of the military departments with the objective of ensuring that the depots have the capacity and capability to support the readiness and material availability goals of current and future weapon systems of the Department of Defense. The provision would require that the strategy include a review of the current conditions and performance of each depot, a business-case analysis comparing the minimum investment necessary required under section 2476 of title 10, United States Code, with the actual investment needed to execute the planned mission and a plan to improve the conditions and performance utilizing this data.

The provision would also require the Comptroller General of the United States to review and submit to the congressional defense committees, no later than January 1, 2021, a report on the extent to which the submitted strategy meets the requirements set forth. The committee notes that, although section 2476e of title 10, United States Code, established minimum investment requirements for the military departments' depots, the committee is aware that recent reporting by the Comptroller General indicates that the condition of depot facilities is poor and the age of depot equipment is often past its expected useful life. The intent of section 2476e was to require a minimum level of investment to ensure that the military depots would receive adequate investment in facilities, equipment, and processes. The committee is concerned, however, that this requirement may not be adequate to maintain the organic industrial base infrastructure over its useful life.

Limitation on use of funds regarding the basing of KC-46A aircraft outside the continental United States (sec. 352)

The committee recommends a provision that would limit Air Force funds until the Secretary of the Air Force submits to the Congress a report on the projected plan and timeline for strategic basing of the KC-46A aircraft outside the continental United States.

Prevention of encroachment on military training routes and military operations areas (sec. 353)

The committee recommends a provision that would require projects to file 1 year before construction if they are proposed within wide area surveillance over-the-horizon radar. Additionally, the provision allows the governor of a State to recommend geographical areas of concern to the Secretary of Defense.

Expansion and enhancement of authorities on transfer and adoption of military animals (sec. 354)

The committee recommends a provision that would amend section 2583 of title 10, United States Code, to require veterinary

screening and care for military working dogs prior to retirement or transfer to law enforcement agencies. The provision would also, as requested by the Department of Defense, extend transfer and adoption authorities to Department-owned mules and donkeys, in order to provide consistency for use of the word “transfer” throughout this section of law.

Limitation on contracting relating to Defense Personal Property Program (sec. 355)

The committee recommends a provision that would prohibit the Secretary of Defense from entering into or awarding any contract for the Defense Personal Property Program (DP3) any sooner than 60 days after the Comptroller General of the United States delivers a report to Congress, previously directed, on DP3. The provision would allow the Secretary of Defense to review and evaluate any solicited or unsolicited proposal intended to improve DP3.

The committee notes the concerns and frustration of servicemembers across the Department of Defense with the delivery of services under the current DP3 structure. The committee understands that U.S. Transportation Command (TRANSCOM) has efforts underway to improve servicemember experiences for the 2019 and 2020 peak moving seasons and develop a long-term solution for managing the DP3 system through a single contractor. While the committee is encouraged by TRANSCOM’s desire to improve the program’s delivery of services to servicemembers, the committee believes that both TRANSCOM and the Congress need additional information before making a determination on the best path forward.

Prohibition on subjective upgrades by commanders of unit ratings in monthly readiness reporting on military units (sec. 356)

The committee recommends a provision that would prohibit the commander of a military unit who is responsible for monthly reporting of readiness from making any subjective upgrade of the overall rating of the unit. The provision would also include a waiver authority if the first flag or general officer above the reporting unit in the chain of command approves of the upgrade. Finally, the provision would require that any such waiver, and subsequent upgrades, be included in the Quarterly Readiness Report to Congress.

The committee notes that too often certain military services have abused the flexible authority of subjective upgrades, with the Department of Defense and the Congress lacking a truly accurate portrayal of unit readiness as a result.

Extension of temporary installation reutilization authority for arsenals, depots, and plants (sec. 357)

The committee recommends a provision that would amend section 345(d) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 10 U.S.C. 2667 note) by striking “September 30, 2020” and inserting “September 30, 2025.”

The committee notes that the permissive authority that would be extended under this provision allows to the Secretary of the Army to authorize leases and contracts for up to 25 years under section

2667 of title 10, United States Code, if the Secretary determines that a lease or contract will promote the national defense by maintaining the viability of an arsenal, depot, plant, or military installation on which such facility is located. The committee further notes that any lease is subject to a 90-day hold period for the purposes of review by the Army real property manager.

Clarification of food ingredient requirements for food or beverages provided by the Department of Defense (sec. 358)

The committee recommends a provision that would require the Secretary of Defense to publish a notice of proposed action before making any final rule, statement, or determination on the limitation or prohibition of a food or beverage ingredient provided by the Department of Defense (DOD).

The committee notes that the Department of Defense and the Defense Logistics Agency (DLA) are engaging with private industry regarding decisions made that impact food supply chains. In order to assess the impact of these decisions on farms, vendors, suppliers, and supply chain activities, the committee directs the Comptroller General of the United States to evaluate the current DOD/DLA joint subsistence policy board, DOD menu standards, and DLA's process map designed to ensure industry engagement. The committee further directs the Comptroller General to provide a briefing to the committee on the preliminary observations of this review, not later than February 1, 2020, and to submit a report on a date agreed to at the time of the briefing.

Technical correction to deadline for transition to Defense Readiness Reporting System Strategic (sec. 359)

The committee recommends a provision that would amend section 358(c) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115–232) by striking “October 1, 2019” and replacing it with “October 1, 2020.”

The committee notes that the original provision required the Services to complete a transition to the Defense Readiness Reporting System Strategic no later than October 1, 2019. The technical correction to October 1, 2020 adjusts the deadline to conform with the report language and original intent.

Budget Items

Multi-Domain Task Force for the Indo-Pacific region

The budget request included \$417.1 million in Operation and Maintenance, Army (OMA), for SAG 122 Land Forces System Readiness.

The committee recommends an increase of \$29.2 million in OMA for SAG 122 in support of exercises and experimentation, wargaming, concept development, and other activities associated with the Multi-Domain Task Force for the Indo-Pacific region. This increase would support essential capabilities for Multi-Domain Operations-Pacific as described in the Chief of Staff of the Army's unfunded priorities list.

The committee supports the efforts of the Army and U.S. Indo-Pacific Command to develop capabilities and operational concepts to maintain or restore the comparative military advantage of the United States in the Indo-Pacific region and to reduce the risk of executing contingency plans of the Department of Defense. As it develops, the Multi-Domain Task Force will have significant implications for force posture, force structure, and procurement priorities. Going forward, the committee urges the Department of the Army and U.S. Indo-Pacific Command to keep the committee fully apprised of developments relating to activities associated with the Multi-Domain Task Force.

Army Base Operations Support under execution

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA), of which \$0.0 million was for SAG 131 Base Operations Support. The committee notes that the budget request included a transfer of \$8.0 billion from base to overseas contingency operations for SAG 131 Base Operations Support.

The committee notes according to analysis conducted by the Government Accountability Office, Base Operations Support has historically under executed.

Accordingly, the committee recommends a decrease of \$46.0 million in OMA to SAG 131 Base Operations Support.

Army savings from revised housing cost share

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA), of which \$0.0 million was for SAG 131 Base Operations Support. The committee notes that the budget request included a transfer of \$8.0 billion from base to overseas contingency operations for SAG 131 Base Operations Support.

The committee notes that this Act contains a provision that would amend the 5 percent cost share requirement for the Services to 2 percent with the additional 3 percent left to the discretion of the Secretary of the relevant military department on a project by project basis.

Accordingly, the committee recommends a decrease of \$50.4 million in OMA for SAG 131 Base Operations Support.

C4I life-cycle replacement at Joint Intelligence Operations Center Europe Analytic Center

The budget request included \$146.4 million in Operation and Maintenance, Army (OMA), for SAG 142 US European Command. The committee recommends an increase of \$7.8 million in OMA for SAG 142 to support life-cycle replacement of command, control, communication, computer, and intelligence systems and infrastructure at the Joint Intelligence Operations Center Europe Analytic Center at RAF Molesworth, United Kingdom.

Army advertising and recruiting budget decrease

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA), of which \$716.1 million was for SAG 331 Recruiting and Advertising.

The committee notes that the Army requested \$73.2 million in addition to its baseline advertising budget of \$256.5 million and

\$36.9 million in addition to its baseline recruiting budget of \$349.9 million. The committee further notes that the request represents a 28.5 percent increase to advertising and a 10.5 percent increase to recruiting. When compared to its end strength increases over the future years defense program, the committee believes that this request is ahead of need.

Accordingly, the committee recommends a decrease of \$80.0 million in OMA to SAG 331 Recruiting and Advertising. The committee notes that the specific decreases recommended are \$70.0 million for advertising and \$10.0 for recruiting.

Army Other Personnel Support under execution

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA), of which \$391.9 million was for SAG 434 Other Personnel Support.

The committee notes according to analysis conducted by the Government Accountability Office, Other Personnel Support has historically under executed.

Accordingly, the committee recommends a decrease of \$28.0 million in OMA to SAG 434 Other Personnel Support.

Army Claims Activities under execution

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA), of which \$198.8 million was for SAG 436 Army Claims Activities.

The committee notes according to analysis conducted by the Government Accountability Office, Army Claims Activities has historically under executed.

Accordingly, the committee recommends a decrease of \$15.0 million in OMA to SAG 436 Army Claims Activities.

Cyber operations-peculiar capabilities—Army

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA).

Elsewhere in this Act, the committee recommended a provision that would allow the Secretaries of the military departments to use money authorized for appropriation for Operation and Maintenance (O&M) up to \$3.0 million to develop cyber operations-peculiar capabilities. The provision would allow the Department of Defense to use its O&M funds for the rapid creation, testing, fielding, and operation of cyber capabilities that would be developed and used within the 1-year appropriation period.

Accordingly, the committee recommends an undistributed increase of \$3.0 million in OMA for cyber operations-peculiar capabilities.

Family housing pilot program

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA).

The committee notes that in title XXX in this Act, the committee recommends a provision that would require the Secretary of the Army to carry out a pilot program to build and monitor the use of not fewer than five single family homes for members of the Army and their families.

Accordingly, the committee recommends an undistributed increase of \$1.0 million to OMA for the single family home pilot program.

Terminal High Altitude Area Defense Army sustainment

The budget request included \$22.8 billion in Operation and Maintenance, Army (OMA), of which no funds were for Terminal High Altitude Area Defense (THAAD) sustainment.

Elsewhere in this report, the committee has stated its views regarding the transition of the THAAD program from the Missile Defense Agency to the Department of the Army.

Therefore, the committee recommends an undistributed increase of \$99.8 million in OMA for THAAD sustainment.

Army National Guard facilities sustainment disaster recovery increase

The budget request included \$3.3 billion in Operation and Maintenance, Army National Guard (OMARNG), of which \$1.1 billion was for SAG 132 Facilities Sustainment, Restoration & Modernization.

The committee notes that the Army National Guard has increasing facilities sustainment costs due to the catastrophic flooding in Nebraska impacting Camp Ashland and other guard equities.

Accordingly, the committee recommends an increase of \$7.2 million in OMARNG for SAG 132 Facilities Sustainment, Restoration & Modernization for disaster recovery.

Army National Guard recruiting and advertising decrease

The budget request included \$3.3 billion in Operation and Maintenance, Army National Guard (OMARNG), of which \$250.4 million was for SAG 434 Other Personnel Support.

The committee notes that the Army National Guard requested \$3.5 million in addition to its baseline marketing budget of \$77.5 million and \$3.5 million in addition to its baseline recruiting budget of \$7.9 million. The committee further notes that the request represents a 4.5 percent increase to marketing and a 44.3 percent increase to recruiting. When compared to its end strength increases over the future years defense program, the committee believes that this request is ahead of need.

Accordingly, the committee recommends a decrease of \$3.0 million in OMARNG for SAG 434. The committee notes that the specific decreases recommended are \$1.5 million for marketing and \$1.5 million for recruiting.

Navy depot maintenance unfunded requirement increase

The budget request included \$53.0 billion in Operation and Maintenance, Navy (OMN), of which \$0.0 billion was for SAG 1B4B Ship Depot Maintenance. The committee notes that the budget request included a transfer of \$8.0 billion from base to overseas contingency operations for SAG 1B4B Ship Depot Maintenance.

The committee notes that the Chief of Naval Operations' unfunded priority list included depot maintenance that directly impacts readiness through both submarine and ship maintenance.

Accordingly, the committee recommends an increase of \$814.0 million in OMN for SAG 1B4B to improve both submarine and ship maintenance.

Posture site assessments in the Indo-Pacific region

The budget request included \$25.9 billion in Operation and Maintenance, Navy (OMN), of which \$94.0 million was for SAG 1CCM Combatant Commanders Direct Mission Support.

The committee notes the National Defense Strategy's emphasis on evolving United States force posture to meet the challenges of strategic competition. In particular, the National Defense Strategy prioritizes forward force maneuver, posture resilience, and resilient and agile logistics. The committee is concerned with the insufficient pace of the transition from large, centralized, and unhardened infrastructure to smaller, dispersed, resilient, and adaptive basing in the Indo-Pacific region. Accelerating this transition and reducing the risk of executing Department of Defense contingency plans will require support site assessments, planning and design, and follow-on military construction investments.

Therefore, the committee recommends an increase of \$5.0 million in OMN for SAG 1CCM to support the conduct of posture site assessments in the Indo-Pacific region.

Navy housing cost share

The budget request included \$25.9 billion in Operation and Maintenance, Navy (OMN), of which \$0.0 billion was for SAG BSS1 Base Operating Support. The committee notes that the budget request included a transfer of \$4.4 billion from base to overseas contingency operations for SAG BSS1 Base Operating Support.

The committee notes that this Act contains a provision that would amend the 5 percent cost share requirement for the Services to 2 percent with the additional 3 percent left to the discretion of the Secretary of the relevant military department on a project by project basis. The committee further notes that the Navy did not request this funding in its base request and instead treated this cost share mandate as an unfunded requirement.

Accordingly, the committee recommends an increase of \$18.8 million in OMN for SAG BSS1 Base Operating Support.

Navy advertising reduction

The budget request included \$25.9 billion in Operation and Maintenance, Navy (OMN), of which \$209.3 million was for SAG 3C1L Recruiting and Advertising.

The committee notes that the Navy requested \$27.9 million in addition to its baseline advertising budget of \$183.4 million. The committee further notes that the request represents a 15.2 percent increase to advertising. When compared to its end strength increases over the future years defense program, the committee believes that this request is ahead of need.

Accordingly, the committee recommends a decrease of \$20.0 million in OMN for SAG 3C1L Recruiting and Advertising.

Navy administration decrease

The budget request included \$25.9 billion in Operation and Maintenance, Navy (OMN), of which \$1.1 billion was for SAG 4A1M Administration.

The committee recommends a decrease of \$1.0 million in OMN for SAG 4A1M.

Navy audit reduction

The budget request included \$25.9 billion in Operation and Maintenance, Navy (OMN), of which \$1.1 billion was for SAG 4A1M Administration.

The committee notes that within this request was an increase of \$158.4 million for audit efforts, which has a baseline of \$370.9 million. The committee notes that the Department of Defense has reported to the committee that the Navy is ranked last among 27 organizations within the DOD for progress in achieving a clean audit. While the committee notes the importance of the audit to making the Department of Defense more efficient, the committee believes that this increase is unjustified.

Accordingly, the committee recommends a decrease of \$50.0 million in OMN for SAG 4A1M for Navy audit efforts.

Resilient Energy Program Office

The budget request included \$25.9 billion in the Operation and Maintenance, Navy (OMN), of which \$485.3 million was for SAG 4B2N Planning, Engineering, and Program Support.

The committee continues to strongly support the Navy's Resilient Energy Program Office (REPO), which has successfully executed over 49 energy resilience projects leveraging non-Department of Defense funding in Texas, Tennessee, Mississippi, Florida, North Carolina, Virginia, Georgia, South Carolina, Arizona, Nevada, California, Maryland, New Jersey, New York, Connecticut, Rhode Island, Washington, Hawaii, Italy, and Japan. However, the committee understands that some fiscal year 2020 projects are at risk due to lack of funding in Texas, North Carolina, and several other states.

Accordingly, the committee recommends an increase of \$5.0 million in OMN for SAG 4B2N for the REPO office to ensure that all fiscal year 2020 projects are executed.

Cyber operations-peculiar capabilities—Navy

The budget request included \$25.9 billion in Operation and Maintenance, Navy (OMN).

Elsewhere in this Act, the committee recommended a provision that would allow the Secretaries of the military departments to use money authorized for appropriation for Operation and Maintenance (O&M) up to \$3.0 million to develop cyber operations—peculiar capabilities. The provision would allow the Department of Defense to use its O&M funds for the rapid creation, testing, fielding, and operation of cyber capabilities that would be developed and used within the 1-year appropriation period.

Accordingly, the committee recommends an undistributed increase of \$3.0 million in OMN for cyber operations—peculiar capabilities.

Cyber operations—peculiar capabilities—Marine Corps

The budget request included \$3.9 billion in Operation and Maintenance, Marine Corps (OMMC).

Elsewhere in this Act, the committee recommended a provision that would allow the Secretaries of the military departments to use money authorized for appropriation for Operation and Maintenance (O&M) up to \$3.0 million to develop cyber operations—peculiar capabilities. The provision would allow the Department of Defense to use its O&M funds for the rapid creation, testing, fielding, and operation of cyber capabilities that would be developed and used within the 1-year appropriation period.

Accordingly, the committee recommends an undistributed increase of \$3.0 million in OMMC for cyber operations—peculiar capabilities.

Air Force savings from revised housing cost share

The budget request included \$21.2 billion in Operation and Maintenance, Air Force (OMAF), of which \$0.0 million was for SAG 011Z Base Support. The committee notes that the budget request included a transfer of \$7.2 billion from base to overseas contingency operations for SAG 011Z Base Support.

The committee notes that this Act contains a provision that would amend the 5 percent cost share requirement for the Services to 2 percent with the additional 3 percent left to the discretion of the Secretary of the relevant military department on a project by project basis.

Accordingly, the committee recommends a decrease of \$32.4 million in OMAF for SAG 011Z Base Support.

US CYBERCOM

The budget request included \$323.1 million in Operation and Maintenance, Air Force (OMAF), for SAG 015E US CYBERCOM.

The committee is aware of the growing capabilities needed to counter adversaries in the cyberspace domain as highlighted in the National Defense Strategy. The committee recognizes the need to improve the capabilities of Cyber National Mission Force and therefore supports the request of U.S. Cyber Command (CYBERCOM) to re-align certain funds to support the Cyber National Mission Force Capability Acceleration Plan. The committee also supports CYBERCOM's request to increase funding for the Cyber National Mission Force Mobile and Modular Hunt Forward Kit and the ETERNALDARKNESS program.

Therefore, the committee recommends an increase of \$1.5 million to accelerate the development of Cyber National Mission Force capabilities, an increase of \$5.3 million for the Cyber National Mission Force Mobile and Modular Hunt Forward Kit, and an increase of \$18.0 million for ETERNALDARKNESS in OMAF for SAG 015E.

Air Force advertising reduction

The budget request included \$21.2 billion in Operation and Maintenance, Air Force (OMAF), of which \$167.7 million was for SAG 033A Recruiting and Advertising.

The committee notes that the Air Force requested \$9.1 million in addition to its baseline advertising budget of \$96.7 million. The

committee further notes that the request represents a 9.4 percent increase to advertising. When compared to its end strength increases over the future years defense program, the committee believes that this request is ahead of need.

Accordingly, the committee recommends a decrease in OMAF of \$6.0 million for SAG 033A for Recruiting and Advertising.

Cyber operations—peculiar capabilities—Air Force

The budget request included \$21.2 billion in Operation and Maintenance, Air Force (OMAF).

Elsewhere in this Act, the committee recommended a provision that would allow the Secretaries of the military departments to use money authorized for appropriation for Operation and Maintenance (O&M) up to \$3.0 million to develop cyber operations—peculiar capabilities. The provision would allow the Department of Defense to use its O&M funds for the rapid creation, testing, fielding, and operation of cyber capabilities that would be developed and used within the 1-year appropriation period.

Accordingly, the committee recommends an undistributed increase of \$3.0 million in OMAF for cyber operations—peculiar capabilities.

Innovative Readiness Training increase

The budget request included \$37.4 billion in Operation and Maintenance, Defense-Wide (OMDW), of which \$165.7 million was for SAG 4GT3 Civil Military Programs.

The committee notes that \$15.7 million of the request for Civil Military Programs was for Innovative Readiness Training (IRT). The committee is aware that the Armed Forces continue to face readiness challenges due to budgetary constraints. The committee continues to recognize the value of IRT, which affords to the Armed Forces the most realistic joint training opportunities for National Guard, Reserve, and Active-Duty members.

The committee understands that IRT offers complex and challenging training opportunities for domestic and international crises. The committee is also aware that 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 all use IRT.

Accordingly, the committee recommends an increase of \$14.3 million in OMDW for SAG 4GT3 for IRT.

STARBASE program

The budget request included \$34.7 billion for Operation and Maintenance, Defense-wide (OMDW), of which \$165.7 million was for SAG 4GT3 Civil Military Programs.

The committee notes that the Science and Technology Academies Reinforcing Basic Aviation and Space Exploration (STARBASE) program is a highly effective program that improves the knowledge and skills of students in kindergarten through 12th grade in science, technology, engineering, and mathematics. Therefore, the committee recommends an increase of \$15.0 million for SAG 4GT3 Civil Military Programs for the STARBASE program.

Defense Information Systems Agency MilCloud

The budget request included \$2.0 billion in OMA for SAG 4GT9 Defense Information Systems Agency.

The committee recommends a reduction of \$5.0 million for SAG 4GT9 for MilCloud.

Sharkseer transfer

The budget request included \$601.2 million in Operation and Maintenance, Defense-wide(OMDW), SAG 4GU9 Defense Information Systems Agency—Cyber.

The committee included a provision in the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115–232) that required the Secretary of Defense to transfer the operations and maintenance for the Sharkseer cybersecurity program from the National Security Agency to the Defense Information Systems Agency.

Therefore, the committee recommends an increase of \$35.1 million in OMDW, SAG 4GU9 for the Sharkseer program.

Assessment, monitoring, and evaluation

The budget request includes \$697.0 million in Operation and Maintenance, Defense-Wide (OMDW), for SAG 4GTD Defense Security Cooperation Agency, of which \$9.1 million is for assessment, monitoring, and evaluation (AM&E).

The committee notes that section 383 of title 10, United States Code, requires the Secretary of Defense to maintain an AM&E program of the security cooperation programs and activities of the Department of Defense (DOD). This requirement was included as an integral component of the security cooperation reforms contained in the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328) to ensure that the DOD allocates sufficient emphasis and resourcing to developing and implementing an AM&E program that is rigorous and comprehensive, that provides for the continuous review of security cooperation programs from inception to completion, and that measures outcomes against clearly defined objectives. DOD's progress to date in developing the organizational capacity and expertise to conduct AM&E across the security cooperation enterprise is wholly inadequate. The committee notes that the Defense Security Cooperation Agency's fiscal year 2020 base and overseas contingency operations budget request for its security cooperation account, the Indo-Pacific Maritime Security Initiative, and the Ukraine Security Assistance Initiative—all programs largely focused on providing equipment and training to tactical and operational-level forces of foreign partners—is approximately \$1.6 billion while its budget request for AM&E is \$9.1 million.

Therefore, the committee recommends an increase of \$11.0 million in OMDW for SAG 4GTD for AM&E.

Defense Security Cooperation Agency

The budget request included \$697.0 million in Operation and Maintenance, Defense-Wide (OMDW), for SAG 4GTD Defense Security Cooperation Agency, of which \$397.0 million is for the security cooperation account.

The committee notes that the reforms to the Department of Defense's (DOD) security cooperation enterprise required by the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) sought to rationalize and streamline the authorities and associated funding available for security cooperation and enhance the effectiveness of DOD planning, execution, and oversight. Additionally, that law emphasized the critical importance of non-material solutions to the effectiveness of DOD security cooperation efforts, namely through an increased emphasis on building the institutional capacity of foreign partners to more competently manage and sustain their own forces and the equipment and related assistance provided by the United States. The reforms also highlighted the need to mature the DOD security cooperation workforce and the development and implementation of a rigorous assessment, monitoring, and evaluation (AM&E) program to ensure that DOD programs are appropriately scoped and meeting clearly defined objectives.

However, while funding for DSCA's security cooperation account—which is primarily used to provide equipment and training to foreign partners to build capacity at the tactical and operational levels—has grown from approximately \$895 million in fiscal year 2018 for base and OCO to the \$1.2 billion requested for fiscal year 2020 for base and OCO, the DOD continues to insufficiently prioritize and resource congressionally-mandated efforts relating to DOD security cooperation workforce development, AM&E, and institutional capacity building. The committee believes that this imbalance inhibits appropriate security cooperation program design, execution, and oversight, which could lead to suboptimal outcomes and wasted taxpayer dollars.

Accordingly, the committee recommends a decrease of \$11.0 million in OMDW for SAG 4GTD for the security cooperation account.

Consolidated adjudication facility

The budget requested included \$889.7 million in Operations and Maintenance, Defense-wide (OMDW), for SAG 4GTE Defense Security Service.

The committee recommends an increase of \$10.0 million for the Consolidated Adjudication Facility of the Defense Counterintelligence and Security Agency, for a total of \$899.7 million in OMDW for SAG 4GTE Defense Security Service.

Impact aid

The budget request included \$45.8 billion in Operation and Maintenance, Defense-wide (OMDW), of which \$2.9 billion was for SAG 4GTJ 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

Terminal High Altitude Area Defense Missile Defense Agency sustainment

The budget request included \$37.4 billion in Operation and Maintenance, Defense-wide (OMDW), of which \$522.5 million was for SAG011A Missile Defense Agency (MDA).

Elsewhere in this report, the committee has stated its views regarding the transition of the Terminal High Altitude Area Defense program from the MDA to the Department of the Army.

Therefore, the committee recommends a decrease of \$99.8 million in OMDW for SAG011A MDA.

Bien Hoa dioxin cleanup

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense, of which no funds were proposed for Bien Hoa dioxin cleanup in Vietnam.

Accordingly, the committee recommends an increase of \$15.0 million in OMDW for SAG 4GTN for Bien Hoa dioxin cleanup.

Centers for Disease Control and Prevention nation-wide human health assessment

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense, of which no funds were proposed for the ongoing Centers for Disease Control and Prevention (CDC) Nation-wide human health assessment related to contaminated sources of drinking water from per- and poly-fluoroalkyl substances.

The committee continues to strongly support the ongoing human health assessment. Accordingly, the committee recommends an increase of \$10.0 million in OMDW for SAG 4GTN for the ongoing CDC assessment.

Department of Defense Emerging Contaminants increase

The budget request included \$1.6 billion in the Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense, of which no funds were for the 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 the DOD has not allocated enough resources to the office given its workload and the likelihood that the 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 in OMDW for SAG 4GTN for the DOD Emerging Contaminants.

Industrial Policy program support

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Sec-

retary of Defense, including funds for Industrial Policy program support.

The committee notes that the September 2018 Department of Defense report titled “Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States” includes numerous recommendations for addressing risks in the industrial base.

Therefore, the committee recommends an increase of \$15.0 million in OMDW for SAG 4GTN to fund Industrial Policy program support to facilitate the acquisition of tools and performance of analysis needed to address industrial base risks.

Improvement of occupational license portability for military spouses through interstate compacts

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense.

The committee remains concerned about the lack of portability of employment licenses and credentials across State lines, which hinders military spouse employment. Due to the delays and expense involved in re-licensure and re-credentialing, many military spouses decide not to practice their professions. This becomes a financial and career choice issue for military families, impacting servicemembers’ desire to stay in the military.

Accordingly, the committee recommends an increase of \$4.0 million in OMDW for SAG 4GTN, for the activities outlined in title V of this Act. The relevant provision would require the Secretary of Defense to enter into a cooperative agreement with the Council of State Governments to assist with the funding and development of interstate compacts on licensed occupations.

National Commission on Military Aviation Safety

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense.

Elsewhere in this Act, the committee is recommending a provision that extends the term for the National Commission on Military Aviation Safety. The committee notes that this extension will require additional funding.

Accordingly, the committee recommends an increase of \$3.0 million in OMDW for SAG 4GTN for the National Commission on Military Aviation Safety.

Supplemental funding for the National Commission on Military, National, and Public Service

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense.

As required by law, the National Commission on Military, National, and Public Service is expected to deliver its final report in the spring of 2020. This unique commission will make important recommendations that, if realized, could affect every American. Due to the breadth of the Commission’s mandate and the extensive outreach required to engage with Americans across the country,

the commission may exceed its original funding authorization by a modest amount.

Therefore, the committee recommends an increase of \$1.0 million in OMDW for SAG 4GTN to provide supplemental funding for the National Commission on Military, National, and Public Service.

Readiness and Environmental Protection Initiative

The budget request included \$1.6 billion in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTN Office of the Secretary of Defense, 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 long-term threat to readiness and to the viability of military installations, ranges, and airspace throughout the country. The REPI involves partnerships between the Department of Defense (DOD), State and local governments, and conservation organizations to share the costs of acquiring proactive easements from willing landowners.

The committee continues to support the mission of the REPI and believes that the program has proven to be highly effective in addressing encroachment. The committee supports REPI's mission 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 to "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."

However, the committee is concerned that the DOD continues to underfund the REPI despite its success to date and the high degree of leverage from partner contributions. 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 in OMDW for SAG 4GTN for the REPI and strongly encourages the Department to reflect in future REPI budget requests the urgency of the problem of encroachment and the success the REPI has achieved in addressing this problem.

Defense Digital Service expert civilians

The budget request included \$324.0 million in Operation and Maintenance, Defense-wide (OMDW), for SAG 4GTQ Washington Headquarters Services.

The committee recognizes the importance of the Defense Digital Service in helping the Department of Defense to build, buy, and deploy technology and digital services.

Accordingly, the committee recommends an increase of \$5.0 million in OMA for SAG 4GTQ Washington Headquarters Services for the Defense Digital Service.

Sharkseer transfer

The budget request included \$15.7 billion in Operation and Maintenance, Defense-wide (OMDW), SAG 9999 Classified Programs.

The committee included a provision in the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115–232) that required the Secretary of Defense to transfer the operations and maintenance for the Sharkseer cybersecurity program from the National Security Agency to the Defense Information Systems Agency.

Therefore, the committee recommends a decrease of \$35.1 million in OMDW, SAG 9999 for the Sharkseer program.

Foreign currency fluctuation reduction

The budget request included \$158.1 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 \$607.0 million for FCF.

Junior Reserve Officers' Training Corps increase

The budget request included \$292.8 billion in total Operations and Maintenance funding, of which \$316.3 million was for Junior Reserve Officers' Training Corps (JROTC).

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

Accordingly, the committee recommends an increase of \$25.0 million in Operations and Maintenance, to be allocated to the Services for Junior Reserve Officers' Training Corps programs.

Printing inefficiency reduction

The budget request included \$158.1 billion for Operation and Maintenance.

The committee notes that a recent Government Accountability Report found numerous inefficiencies in the printing operating of the Department of Defense.

Accordingly, the committee recommends an undistributed decrease of \$8.0 million for printing inefficiencies.

Transfer of OCO to Base account

The budget request included \$123.9 billion for Operation and Maintenance in base funding. The committee notes that the President's budget request included \$97.9 billion in the Overseas Contingency Operations (OCO) account for activities that are traditionally funded out of base accounts. The committee believes that OCO for Base funding should be transferred into the base accounts.

Accordingly, the committee recommends an increase of \$81.3 billion to Operation and Maintenance base funding.

Items of Special Interest

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 believes the capabilities of the United States to conduct search and rescue operations throughout the Arctic needs to be commensurate for the activity in the 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 by 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 and only dedicated response force with the refueling capability to respond to a search and rescue incident in the Arctic. The committee notes that the unit currently possesses 2 air-dropped, palletized Arctic Sustainment Packages to enable the survival of 50 individuals for 3 or more days in extreme Arctic conditions.

Accordingly, the committee encourages the Department of Defense to review how additional resources could benefit search and rescue operations throughout the Arctic region.

Army Training Next virtual reality pilot program

The committee recognizes the advantages of augmenting rotary wing initial entry aviator training with virtual reality flight capabilities. The United States Army Aviation Center of Excellence is executing a series of pilot programs to validate the effectiveness and potential cost savings of virtual flight training throughout fiscal year 2019. The committee is encouraged by the Army's adoption of this training approach, which will increase frequency and repetitions of basic flight maneuvers using a low-cost commercial off-the-shelf virtual training solution.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the committee no later than January 1, 2020, comparing the results of the three pilot programs to the traditional training curriculum and detailing the results of the three separate iterations with an emphasis on student proficiency, comprehension, progress, and cost avoidance.

Battle Record Information Core Environment (BRICE) maintenance application

The committee is encouraged by the Air Force's Battle Record Information Core Environment program (BRICE), which was developed in partnership with industry and validated to the National Security Agency's National Information Assurance Partnership standard. This has enabled BRICE to become the Department of Defense's (DOD) first connected mobile application authorized for mission-enabling tasks to be performed with DOD controlled unclassified information leveraging both cloud (United States Air Force Cloud Computing Environment) and legacy mainframe systems. The limited introduction of BRICE to the Air Force Reserve Center aircraft maintenance community at Davis Monthan AFB has resulted in time savings per maintenance action, improved

data accuracy, and increased efficiency in repairs and maintenance on A-10 aircraft. The committee is encouraged by the Air Force's BRICE program and its mission to increase flight readiness while driving down the cost of maintaining the fleet of A-10 aircraft. The committee recommends that the Air Force examine opportunities to expand the BRICE iOS app to all Active-Duty and reserve maintainers that support the A-10 and the F-16 fleets.

Cold spray technology

The committee recognizes the advancements of cold spray technologies and the need to accelerate the delivery of technical capabilities to impact the warfighter and to advance dominant technologies in a timely manner. The committee notes that the use of cold spray technologies in certain applications during the production, repair, and maintenance process may lead to significant cost savings for the Department of Defense. The committee strongly recommends continued development and use of this technology across the Services to include science and technology, manufacturing, and procurement programs.

Comptroller General review of Department of Defense utility resilience planning to support cybersecurity threats

The committee recognizes that on-base utilities systems within the Department of Defense (DOD) are increasingly being connected to the internet. The benefits of such connection could include improved utilities efficiencies and the collection of more near-real-time data for improved utilities management. At the same time, the connectivity could expose DOD utilities systems to cyber threats that could undermine installation mission capability. Accordingly, the committee directs the Comptroller General of the United States to evaluate: (1) To what extent have the military departments implemented a DOD instruction to enhance the cybersecurity of industrial control systems and what, if anything, remains incomplete as of the time of the start of this review; (2) What challenges have the military departments encountered in implementing DOD Instruction 8510.01 and how effectively have the challenges been overcome; (3) How effectively have the military departments implemented industry leading practices to enhance utilities industrial control systems cybersecurity; and (4) How effectively do the military departments conduct tests of the cybersecurity of industrial control systems and implement improvements to security to counter any identified weaknesses.

The committee further directs the Comptroller General of the United States to provide a briefing on the preliminary findings to the congressional defense committees not later than March 1, 2020, with a final report to be provided at a mutually agreed upon time.

Comptroller General review of mobility in contested environments

The committee recognizes that the United States has the most advanced military equipment and the best-trained troops in the world. The committee notes, however, that military strength means little if the United States cannot deploy and sustain its forces wherever they are needed. Moving U.S. troops and military cargo

is the role of strategic mobility-airlift to fly cargo and personnel, sealift to steam cargo and equipment from the United States, and ships or warehouses based abroad that pre-position key equipment and sustainment supplies. The committee understands that future military conflicts are increasingly likely to occur in an environment contested across all domains, subsequently restricting freedom of mobility assets and putting these forces at risk. Operational plans must reflect the anticipated attrition of both combat and mobility assets and associated personnel. The committee notes that the Department of Defense is in the process of a critical examination of how it executes mobility in contested environments, but it remains concerned that strategic mobility requirements may not be fully addressed.

Accordingly, the committee directs the Comptroller General of the United States to submit a report to the congressional defense committees to address the following: (1) How are strategic mobility mission requirements evolving, and what implications, if any, are there for strategic mobility force structure; (2) What challenges does the Department face in protecting strategic mobility forces, and what impact, if any, do these have on maintaining needed warfighting capabilities and readiness; (3) To what extent has the Department developed mitigation plans to address any challenges and risk areas, to include relevant training, exercises, and concept development; and (4) Any other related matters deemed appropriate in order to provide a comprehensive examination of mobility in contested environments.

The committee further directs the Comptroller General to provide a preliminary classified briefing to the Senate Armed Services Committee not later than February 1, 2020, with the report to be submitted at a date to be determined at the time of the briefing.

Corrosion prevention briefing

The committee is aware of the significant problem caused by corrosion, which can lead to costly repairs and decreased readiness of military forces. The committee notes that according to a 2016 Department of Defense report, corrosion costs in 2016 alone were \$20.6 billion, and the Government Accountability Office has produced numerous report citing the direct correlation between corrosion and readiness. The committee believes that, to most effectively meet mission-critical demands for military painter training at bases across the United States, which directly impacts corrosion, the Department could establish a competitive bidding process for a National Center for Military Painter Training and Applied Research. The committee believes that such a program could enable the Department to maximize readiness, safety, and cost savings through corrosion prevention and control by meeting the demand for trained military painters, growing partnerships in the military paint industry, and expanding the role of technology in painter training and certification.

Accordingly, the committee directs the Department to provide a briefing, no later than November 1, 2019, to the congressional defense committees on the following: (1) A list of facilities, labs, and universities focused on corrosion prevention, to include a description of work for each location; (2) Current funding sources for each

location; (3) Return on investment, if applicable, for each location; and (4) A determination by the Department if a National Center for Military Painter Training and Applied Research could benefit the Department, and, if so, the cost, steps, and process required to create and establish such a center.

Data collection and reporting to validation of small arms simulation readiness improvements and resourcing planning

The committee continues to recognize that substantial value can be gained through small arms simulation training systems that use biometrics, advanced human performance techniques, and robust data collection and reporting to maximize and verify improved lethality and readiness requirements. The committee particularly notes the importance of next generation internet technology-based systems capable of automatically collecting and reporting on hundreds of points of trainee data, such as shooter baselines, rounds fired, target engagement, live-fire readiness, and qualification standards outcomes. Some of these systems also use algorithms to determine remediation requirements.

The committee believes that this type of data collection and analysis is essential to validating that the appropriate military servicemembers are receiving the lethality and warfighter readiness training that they require and to driving more data-informed resourcing determinations during the planning, programming, and budgeting process. The committee is concerned, however, that there continues to be a reliance across the Services on legacy small arms training systems and programs of record that are not capable of, or are not required to, deliver advanced human performance, biometrics, and overall trainee data collection and reporting capabilities, making it difficult to validate a system's true training effectiveness, its cost savings (in ammunition, reduced training time, travel, and range safety), and overall justification for system sustainment and budget submissions.

Accordingly, the committee directs each of the Secretaries of the military departments to provide a report, no later than February 1, 2020, detailing plans to ensure that all existing and new small arms training systems, or training-as-a-service contracts, are capable of delivering advanced human performance techniques, biometrics, and robust shooter data collection, to include descriptions of how these data will be used to: (1) Validate each system's effectiveness in delivering readiness, lethality requirements, and measurable live fire qualification improvements; and (2) Drive more informed determinations for training and readiness resourcing across the planning, programming, budget, and execution process.

Defense energy resilience tools for project development

The committee is encouraged by the progress made by the Office of the Secretary of Defense and the Secretaries of the military departments to standardize tools to encourage the implementation of policies that accelerate energy resilience project development, such as the Massachusetts Institute of Technology, Lincoln Laboratories (MIT-LL) life-cycle cost analysis tool. The tool allows the Department of Defense to align its mission requirements with cost effec-

tive energy resilience solutions and to meet National Defense Strategy objectives. The committee notes that senior leaders across the Department have stated that the Department is developing and implementing this life-cycle cost analysis tool for use across the enterprise.

Accordingly, the committee directs the Secretary of Defense to provide an implementation plan for the MIT-LL life cycle cost analysis tool to ensure the effective adoption of mission-based decision-making and for the successful implementation of energy resilience projects across the Department of Defense. At a minimum, the committee directs that the Department provide the list of military installations that have and will implement the life-cycle cost analysis tool, along with the funding required by fiscal year to implement the tool's adoption and use. This plan shall include the necessary partnerships needed to develop, implement, and integrate the life-cycle cost analysis tool in the most cost-effective manner. The Secretary shall provide this plan to the Senate Armed Services Committee no later than February 1, 2020.

Development and fielding of expeditionary energy technology in the Department of Defense

The committee acknowledges the significant logistical burden that fossil fuel generators place on expeditionary forces operating at home and abroad. Further, the committee understands the necessity of increasing agility in the future operating environment by reducing the logistical footprint required to sustain forces. Therefore, the committee encourages the Department of Defense to invest broadly in emerging technology to harness, integrate, and store energy from multiple energy sources to extend the operational reach of Active-Duty, reserve, and National Guard forces.

Encroachment on military installations

The committee notes that the Military Aviation and Installation Assurance Siting Clearinghouse was established years ago to deconflict and strike a balance with potential encroachment from energy projects near military installations while assuring that military operations and training continue unabated and with minimal impact. The committee strongly encourages the Clearinghouse to continue to ensure mission compatibility and appropriately collaborate with individual military installations, States, and developers on any mitigation measures. Lastly, the committee encourages the Clearinghouse to consider future military requirements when reviewing and approving any energy projects to ensure that such projects are consistent with the National Defense Strategy.

Extended funding obligation period for private contracted ship maintenance

The committee notes that the administration submitted a legislative proposal that would enable the Navy to conduct a ship depot maintenance pilot program to evaluate the benefits of an extended funding obligation period for private contracted ship maintenance.

This pilot program would include an extension of the obligation period of fiscal year 2020 funding for private contracted ship maintenance through September 30, 2021.

The committee supports the inclusion of this administration legislative proposal in the Defense Appropriations Act for Fiscal Year 2020.

The committee believes that the pilot program would demonstrate that the performance of lengthy maintenance availabilities, which often cross fiscal years, improves with additional flexibility to more efficiently employ funds appropriated by the Congress, before, during, and after scheduled maintenance availabilities.

Improving Navy radar training and readiness

The committee is aware that the Navy currently lacks schoolhouse radar training assets for three ship classes, resulting in no hands-on training for sailors destined for these ships before reporting aboard ship. The committee notes the criticality of radar to a ship's defensive capabilities and that a lack of training has the potential to impact both overall readiness and combat capability of the fleet. The committee believes that sailors will be best positioned to operate, maintain, and fully utilize the capabilities of the radar with enhanced hands-on training prior to reporting aboard ship.

Accordingly, the committee directs the Secretary of the Navy to provide a report to the congressional defense committees no later than February 1, 2020, with a plan to determine what schoolhouse training assets are required for all ship radar systems to include what resources would be required. The report shall include at a minimum a complete listing of all Navy radar systems, land-based assets used to train sailors on those radar systems, radar systems that do not currently have land-based radar training assets, and a timeline to acquire missing land-based radar training assets.

Improving oversight of pilots in non-operational staff positions

The committee has been concerned about the Air Force's ability to sustain the required numbers of aviators in the face of competing demands for their services, including increased demand for aviators in remotely piloted aircraft (RPA) operating units and continued demand for rated officers in non-flying positions. The committee commends the Government Accountability Office (GAO) for its report, published in February 2019, titled "Unmanned Aerial Systems: Air Force Pilot Promotion Rates Have Increased but Oversight Process of Some Positions Could Be Enhanced" (GAO-19-155).

In the report, the GAO observed that "[t]he Air Force has not reviewed its oversight process to ensure that it is efficiently managing its non-operational staff positions that require aviator expertise. Air Force officials explained that over the last 10 years, the Air Force reduced the number of squadrons but had not reviewed the number of non-operational staff positions. Similarly, the Air Force has had no widely accessible oversight process to monitor whether it had established an accurate number of non-operational staff positions required to support the new RPA career field." As a result, the committee believes that, at a minimum, the Air Force must regularly review justifications for non-operational staff posi-

tions requiring pilot expertise as part of a broader strategy to address the pilot shortage.

Therefore, the committee directs the Secretary of the Air Force to establish a mechanism to review the justifications for non-operational staff positions requiring pilot expertise at regular intervals and to report to the committee by September 30, 2020, on the mechanism to be established to accomplish these periodic reviews. The Secretary's review and report shall include evaluation of the mix of positions requiring pilot expertise as well as the mix of operational positions and support positions required to support operations.

Liability exposure for electric companies during national emergencies

The committee understands that the Department of Defense's (DOD) Mission Assurance Strategy emphasizes the importance of grid-provided power and the ability of DOD installations to execute their full range of missions. The committee is concerned that in the event of intentional or unintentional power outages, DOD installations may not be currently structured to have assured access to such energy as needed to implement the National Defense Strategy. Accordingly, the committee strongly encourages the DOD, in coordination with other federal agencies, to work with the Congress to find a solution.

Lightweight ammunition

The committee is aware of continued progress in reducing weight for vehicle, helicopter, and soldier platforms through the development and qualification of polymer ammunition and polymer link systems. These developments support urgent requirements in reducing the weight burden on all weapon systems and, in particular, helicopter systems. Further, the committee understands that, over the last several years, initial polymer ammunition and polymer links have been qualified, fielded, and combat proven. There remains a continued urgent need for further polymer ammunition and polymer link weight reduction. As such, the committee recommends continued support to develop and qualify further weight savings in polymer ammunition and polymer link systems.

Marine Depot Maintenance Command facilities review

The committee notes the organic industrial base serves as the backbone of our Nation's military readiness. Specific to the Marine Corps, the committee notes that the Marine Corps' Marine Depot Maintenance Command (MDMC), comprised of Production Plant Albany and Production Plant Barstow, provides worldwide expeditionary logistics support to the Fleet Marine Force, other forces, and agencies. The committee understands that the MDMC is responsible for the maintenance, repair, and overhaul of ground equipment that keeps the Nation's fighting forces' weapon systems in a constant state of readiness.

The committee notes that the facilities at Production Plant Albany average 26 years, which hinders its ability to adopt and sustain innovative processes and equipment solutions, thereby hampering its overall effectiveness and hurting the overall readiness of

the Marine Corps. For example, the committee understands that automation and robotics in the blast and paint processes would greatly improve throughput but the current facilities will not support the technology. The committee further notes that welding operations need welding positions to increase safety, efficiency, and quality but the facilities do not have sufficient space and overhead clearance.

Accordingly, the committee directs the Secretary of the Navy to review the current facilities of the MDMC and provide a briefing to the congressional defense committees, not later than February 1, 2020, on how the facilities at Production Plant Albany and Production Plant Barstow impact the Marine Corps' ability to adopt and sustain innovative process and equipment solutions. The briefing shall include cost estimates and timelines for improving throughput and increasing efficiency with items such as but not limited to automation, robotics, and welding positions.

National Guard Unit equipped flying squadrons

The committee recognizes that the Air National Guard enterprise is based on established capstone principles that notionally set the foundational framework for mission allocation in the 54 states and territories. One of those Capstone Principles is to allocate at least one unit-equipped wing and flying squadron to each State. New Mexico is one of three states—the others being Virginia and Washington—that have an operational flying mission, but, due to the classic associate construct, it lacks ownership of aircraft. Therefore, the committee directs the Secretary of the Air Force, in consultation with the Chief of the National Guard Bureau, to report to the committee within 60 days of the date of the enactment of this Act to present additional options for achieving an operational flying mission in each State.

Prepositioned Assets in the Indo-Pacific Region

The committee understands that the Department of Defense (DOD) positions billions of dollars' worth of assets, including combat vehicles, rations, medical supplies, and repair parts, at strategic locations around the world to use during early phases of operations. In the 2018 National Defense Strategy, the DOD acknowledged an increasingly complex global security environment, characterized by the re-emergence of long-term, strategic competition among nations such as China and Russia. In addition, the strategy emphasized the need for investments to prioritize prepositioned stocks in order to enable resilient and agile logistics during initial operations. In February 2019, the Commander of U.S. Indo-Pacific Command (INDOPACOM) called China and Russia—with their expanding and modernizing militaries—key threats to the region. For many years, the Government Accountability Office has identified the potential for duplication among the Services' prepositioned stock programs due to limited joint oversight and fragmented management within the DOD. Further, the committee has had an ongoing interest in DOD's strategy and oversight of its prepositioning programs.

Accordingly, given these issues and the National Defense Strategy's priorities, the committee directs the Comptroller General of

the United States to evaluate the following: (1) What types of equipment and materiel does the DOD preposition in the Pacific region and what is the condition of these assets; (2) To what extent has DOD assessed its strategy for prepositioning assets in the Pacific region based on the 2018 National Defense Strategy; (3) To what extent do the Services coordinate their prepositioning programs in the Pacific region in order to achieve efficiencies and reduce unnecessary duplication; (4) What challenges, if any, does DOD face in prepositioning assets in the Pacific region; (5) What do the Services' operational and logistics concepts mean for future prepositioning requirements; (6) What types of equipment is necessary and at what locations; and (7) Are future plans being coordinated by the Services and informed by INDOPACOM contingency plans?

The committee further directs the Comptroller General to provide a briefing to the committee on the preliminary observations of this review, not later than February 1, 2020, and to submit a report on a date agreed to at the time of the briefing.

Preservation of the Force and Families initiative

The committee notes that nearly 2 decades of continuous combat operations and the associated effects of an extraordinarily high operational tempo in physically and mentally demanding environments has placed enormous stress on our special operations forces (SOF) and their families. In response to the unique requirements of SOF, U.S. Special Operations Command (SOCOM) established the Preservation of the Force and Families (POTFF) initiative in order to provide holistic physiological, psychological, family, and spiritual performance support programs at all echelons of SOCOM and the SOF components. The committee strongly supports the POTFF program and believes that it is integral for ensuring the readiness, health, and mission effectiveness of SOF while also providing SOF families with support to deal with the unique challenges that they face, including unpredictable training and deployment cycles. The committee encourages SOCOM to continue to prioritize the POTFF program and seek innovative opportunities to ensure POTFF remains effective and responsive to the needs of SOF and their families.

Public-to-public partnerships briefing requirement

The committee recognizes the Department of Defense's continuing efforts to control costs and increase reliability in its installation utility systems. Whether through energy savings performance contracts, utility energy savings contracts, or some other contract vehicle, the committee commends the Department for leveraging private partnerships to reduce costs and enhance installation resiliency.

The committee notes with interest that the Department commissioned a report in 2016 on the use of public-to-public partnerships by military installations. Such partnerships, including intergovernmental service agreements, may be one approach to sustaining operations and services for military installations. The committee believes that public-to-public partnerships should continue to be a

tool for the Services to increase installation readiness and resiliency and to enhance military families' quality of life.

The committee recommends that the Department work with State and local communities to lower barriers that inhibit consideration or implementation of public-to-public partnerships. The committee is interested in novel approaches to installation readiness and resiliency and is willing to consider providing new authorities to support such efforts. Therefore, the committee directs the Department to provide a briefing to the congressional defense committees, not later than December 1, 2019, on current public-to-public partnerships. The briefing shall include at a minimum the number of public-to-public partnerships in place, the estimated cost savings such partnerships provide, barriers preventing broader use of such partnerships, and partnerships that are currently under consideration.

Recycled content in clothing items

The committee commends the Department of Defense (DOD) on its most recent update to DOD Instruction 4105.11, "Procurement of Sustainable Goods and Services," dated August 31, 2018. Further, the committee supports the DOD's efforts to give preference to the procurement of sustainable goods and recycled content products. These efforts were highlighted in the DOD's October 2012 Report to Congress on the Preference for Uniforms, Organizational Clothing, and Personal Equipment that Contain Recycled Materials, a report required by the Senate report accompanying S. 1253 (S. Rept. 112-26) of the National Defense Authorization Act for Fiscal Year 2012. This report cited four military clothing items that, at the time, used recycled materials, including the Protective Combat Uniform for the Special Forces, the Third Generation Extended Cold Weather Clothing System, underwear, and the Army fleece jacket. Accordingly, the committee directs the Secretary of Defense to submit a report to the congressional defense committees, not later than February 1, 2020, on the feasibility of incorporating more recycled content products into these clothing items and other environmental protection clothing items.

Report on future Combat Search and Rescue in support of National Defense Strategy

The committee acknowledges that the Air Force is the only service with a Combat Search and Rescue (CSAR) capability to provide to a Joint Force Commander and is concerned with maintaining this critical mission in the face of great power competition. Therefore, the committee directs the Chief of Staff of the Air Force to complete a comprehensive study on the future combat search and rescue mission in the near peer threat environment expected in the 2030s. Prior to any realignment of rescue assets and by September 30, 2020, the Chief of Staff of the Air Force shall present the findings and recommendations of the study to the congressional defense committees. This study shall address:

- (1) The evolving threat environment and its significance to the CSAR mission;
- (2) The optimal organizational responsibility for CSAR and components of a task force;

(3) Alternative solutions to maintaining the social contract with isolated personnel (IP) that a rescue force is available to return the IP to friendly forces;

(4) Title 10 service responsibilities and joint force mission sets, to include command and control, planning and execution, and IP recovery; and

(5) Any other matters that the Chief of Staff deems relevant.

Report on guidelines for maintenance and preservation of Department of Defense historic aircraft and spacecraft

The committee is concerned that the Department of Defense lacks clear and consistent guidelines for maintaining and disposing historic aircraft and spacecraft. The national collection of historic military aircraft and spacecraft is an important asset that helps honor our veterans and educates the public about key milestones in American history and military technology. However, there have been recent instances of historical aircraft being destroyed or sold for scrap without opportunity for the Department or an aviation museum to consider their preservation. It is in the best interest of the public to ensure that the Department has a clear process to determine disposition of historic aircraft and spacecraft given their historical value.

Therefore, the committee directs the Secretary of Defense to conduct a study that reviews the existing process for retiring and disposing historical military aircraft and spacecraft. The study shall also recommend a strategy with clear and consistent guidelines for the preservation, restoration, or disposition of historic aircraft and spacecraft. In addition, the study shall consider the merits of creating a review board comprised of representatives from service aviation museums and other public aircraft museums to ensure that deliberations relating to historic aircraft and spacecraft are inclusive of various perspectives. The Secretary shall present the results of the study in a report to the congressional defense committees no later than February 1, 2020.

Report on Perfluorooctane Sulfonate and Perfluorooctanoic Acid contamination on military installations

The committee directs the Secretary of Defense, in coordination with the Commandant of the Coast Guard, to submit to the congressional defense committees, not later than March 1, 2020, a report listing military and Coast Guard installations or facilities potentially germane to the Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid Lifetime Drinking Water (PFOA) Health Advisories established by the Environmental Protection Agency and those whose drinking water supply may exceed the PFOA and PFOS levels recommended in these advisories. The Secretary shall consult with the Administrator of the Environmental Protection Agency and affected States, tribes, and local governments, using information on PFOA and PFOS manufacturing and use.

Report on Special Federal Aviation Regulation waivers for U.S. air carriers and recommendations to expedite re-designation of civil aircraft as state aircraft

The committee is aware that there are cases in which U.S. forces do not have organic capacity to provide for personnel recovery and medical evacuation and are forced to rely on contract aircraft and aircrew to meet this critical mission requirement. The committee encourages the Department of Defense (DOD) to utilize U.S. companies to fill the mission requirement to the maximum extent possible. Additionally, the committee is concerned that the existing process for DOD to obtain Special Federal Aviation Regulation (SFAR) waivers for U.S. air carriers prevents the Department from executing critical missions in a safe, effective, and timely manner.

Therefore, the committee directs the Secretary of Defense to promptly notify the congressional defense committees, beginning on the date of the enactment of this Act, on Special Federal Aviation Regulation (SFAR) waivers requested by the DOD from the Federal Aviation Administration (FAA) that are: (1) Approved; (2) Denied; or (3) Still awaiting action from the FAA 15 days after the original request date. The committee also directs the Secretary to conduct a study on the existing process for DOD's re-designating civil aircraft as state aircraft and, based on the findings, to provide a report to the congressional defense committees, not later than February 1, 2020, with recommendations that would expedite the designation process.

Rotary-wing aviation foreign internal defense

The committee notes that, in 2012, U.S. Special Operations Command (SOCOM) decided to transfer responsibility for the rotary-wing aviation foreign internal defense (RW AvFID) mission from U.S. Air Force Special Operations Command to U.S. Army Special Operations Command (USASOC). At the time, the committee expressed concern about the planned transfer of responsibility and the potential degradation of the quality and availability of special operations-unique RW capabilities to meet the requirements of the geographic combatant commanders, particularly those capabilities resident in the 160th Special Operations Aviation Regiment (SOAR). While the committee understands the importance of training partner nation aviation forces and supports the broader AvFID mission, there remain concerns about whether the current designation of USASOC and, in particular, the use of the 160th SOAR as the principal special operations forces aviation unit for RW AvFID is the most efficient and effective approach to meet related requirements. Therefore, the committee directs the Commander of SOCOM to provide a briefing not later than July 1, 2019, on SOCOM's current approach to the RW AvFID mission. The briefing shall address, at a minimum, the following:

- (1) A description of SOCOM's current RW AvFID requirements;
- (2) A description of any changes to USASOC's organization, manning, and resourcing as a result of its assumption of the RW AvFID mission;
- (3) An assessment of USASOC's operational readiness and ability to meet RW AvFID requirements;

(4) An assessment of the impact of USASOC's assuming the RW AvFID mission on its ability to meet its other non-FID-related RW operational and training requirements;

(5) Any other matters that the Commander deems relevant.

Storm water utilities privatization

The committee has repeatedly expressed its support for the utilities privatization (UP) program, which enhances energy supply, efficiency, reliability, and resilience. Privatization of storm water systems is especially important, particularly in light of recent devastating storms that imperil base infrastructure inland and along the coasts. Despite clear direction from the Congress, elements of the Department have taken positions on storm water privatization that contravene the intent of the Congress and prevent the Services from realizing the financial and readiness benefits of UP. The Army's policy, however, has been a welcome exception to this general recalcitrance. The Army successfully privatized storm water systems at Fort Knox pursuant to section 2688 of title 10, United States Code, in 2004. Because the committee supports a data-driven approach as outlined in the Department's supplemental guidance on UP issued in February 2019, the committee directs the Secretary of the Army to provide a report, no later than March 1, 2020, analyzing the savings and efficiencies that it has realized from the Fort Knox privatization effort. The report shall be submitted in unclassified form and for public distribution, but it may contain a restricted annex.

Study on fire extinguishers

The committee is aware that portable fire extinguishers are essential to the safety of members of the Armed Forces and their families. The committee notes that protection of servicemembers and their families is imperative to the readiness of the force. Every Department of Defense 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 (NFPA) and the International Code Council (ICC) 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 Unified Facilities Criteria (UFC) has the potential to harm force readiness and protection across the Services.

Accordingly, the committee directs the Secretary of Defense to deliver a report to the congressional defense committees, no later than March 1, 2020, on the current fire suppression mechanisms, with emphasis on the need for portable fire extinguishers, employed by the Department. The study should include but not be limited to: (1) A breakdown of all fire codes that the Department follows in accordance with requirements set forth by the national model fire codes developed by the NFPA and the ICC; (2) Any fire codes the Department does not follow with justification for why it is waived; (3) The types of buildings that currently employ both sprinklers and extinguishers; (4) A list of high-risk types of buildings that would benefit from redundant fire suppression that include risks to personnel or egress concerns; (5) Specific to on-base

housing, what, if any, fire extinguishers are supplied for cooking areas by either the Department or private contractors; (6) Recommendations, including a timeline, on how to implement redundant fire suppression mechanisms and what changes to the UFC would be required.

Westover Air Reserve Base—Defense Logistics Agency study of fuel pipeline

The committee is concerned that the Defense Logistics Agency (DLA) has chosen to transition fuel services to Westover Air Reserve Base (ARB) from pipeline services to tank trucks as a delivery method. The DLA solicited a jet fuel requirement and evaluated both the Buckeye pipeline and tank truck services, utilizing a bid evaluation model (BEM) and a mixed integer linear optimization program that evaluates a variety of factors, including product prices, transportation costs, additive costs, and excessive throughput charges. The committee understands that, after utilizing the BEM, the laid-down cost for fuel tank truck services was over 1 cent lower than the laid-down cost for pipeline delivery, and the resultant savings were \$42,000. The committee notes that the DLA claims that the Buckeye jet fuel pipeline to Westover ARB is still available for use in the event of delivery interruptions.

The committee needs to understand the strategic impacts of this action to Department of Defense operators who may rely on this pipeline during surge conditions and contingency operations, especially given that Westover ARB is the largest reserve airbase in the country. Part of its core mission and function is to provide surge capacity to the expeditionary Air Force during any rapid deployment to Europe, the Middle East, and elsewhere. The committee notes that Westover ARB has demonstrated this surge capacity during real world contingencies in the past. The decision to switch from pipeline to truck delivery was based solely on cost, and the savings, while noteworthy, are not significant. The committee is concerned that this action could have profound impacts during an emergency and questions whether the movement from pipeline to fuel trucks may increase risk for rather small cost savings.

Therefore, the committee directs the DLA to provide a report to the congressional defense committees, no later than February 1, 2020, on: (1) How emergency and contingencies were factored into the DLA's analysis; (2) How emergencies and contingencies will be handled when there is a rapid increase in the need for fuel; (3) How quickly the Buckeye pipeline can be activated during an emergency or during any day-to-day disruptions of fuel delivery to Westover; and (4) Whether there would be any cost implications of re-activating the fuel pipeline to Westover ARB.

Women servicemember personal protective equipment

The committee understands that a leading cause of injury among servicemembers is ill-fitting personal protective equipment (PPE) and combat gear and that women disproportionately incur such injuries. The committee further recognizes that properly fitting equipment enhances performance and reduces safety risks. The committee believes that all servicemembers should be properly equipped with correctly fitting PPE and combat gear during train-

ing and deployment, especially given that consistent physical training with PPE used in a combat environment has been demonstrated to decrease the likelihood of injury. Although the committee acknowledges recent progress made by the Services to provide appropriate PPE and combat gear for a variety of body types, the committee directs the Secretary of Defense to identify and address barriers to equipment access and delays in delivery, particularly when servicemembers require custom or nonstandard-size equipment.

Accordingly, the committee encourages the Department to prioritize testing, contracting, procuring, and fielding new PPE—particularly with regard to appropriate sizes for women servicemembers—to ensure operational readiness and safety, which will enhance performance, lethality, and combat readiness while improving gender integration across the Services. The Secretary should in turn encourage the Services to pay particular attention to women-specific body armor, helmets—including those used by tankers and pilots—and coveralls in sizes that fit women mechanics, tankers, and pilots. Additionally, the committee encourages the Services to make available lightweight, adjustable, and modular ruck frames being used by the Marine Corps but not available in other Services. Lastly, the committee believes that the Department should ensure that all equipment is sourced in quantities that allow them to be issued at initial training and used during deployment.