



NGAUS



LEGISLATIVE REPORT

Fiscal Year 2019 National Defense Authorization Act
(H.R. 5515, as amended)

As of August 14, 2018

OVERVIEW

On August 13, 2018, President Donald Trump signed into law **H.R. 5515**, the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019.* The U.S. House of Representatives passed the bill on July 26, while the U.S. Senate passed it on August 1.

The FY19 NDAA authorizes **\$708.1 billion** in total defense spending. The legislation authorizes **\$639.1 billion** in base and discretionary funding for the Department of Defense (DoD), which is \$49.6 billion above FY18 funding levels, and **\$68.5 billion** in Overseas Contingency Operations (OCO) funding. The legislation also authorizes increased funding above FY18 levels for Army National Guard Operations and Maintenance, as well as Air National Guard end strength.

LEGISLATIVE CYCLE TIMELINE

Defense Authorizations

House Committee NDAA	House-passed NDAA	Senate Committee NDAA	Senate-passed NDAA	Conference Committee	Signed Into Law
✓	✓	✓	✓	✓	▲ Current Point

Defense Appropriations

House Committee Approps.	House-passed Approps. Bill	Senate Committee Approps.	Senate-passed Approps. Bill	Conference Committee	Signed Into Law
✓	✓	✓	▲ Current Point		

BILL HIGHLIGHTS

General Provisions

- Authorizes a **2.6 percent** pay raise for military personnel
- Prohibits a new round of Base Realignment and Closure (BRAC) (SEC. 2703)

Army National Guard

- Authorizes **\$452.6 million** for new build AH-64 Apache helicopters for the Army (SEC. 4101), includes:
 - \$168.0 million for 6 AH-64Es to address Army National Guard shortfalls
- Authorizes **\$753.2 million** for remanufactured AH-64 Apache helicopters for the Army (SEC. 4101)
- Authorizes **\$1.0 billion** for UH-60M Black Hawk helicopters for the Army (SEC. 4101), includes:
 - \$85.0 million for 5 additional UH-60Ms for the Army National Guard
- Authorizes **\$146.1 million** for modernized UH-60 Black Hawk helicopters for the Army (SEC. 4101)

* Policies and funding levels cited in this document are authorizations. Policies cited here are final, but final FY19 funding levels will be determined by separate appropriations legislation.

- Authorizes an additional **\$25.0 million** for Army National Guard High Mobility Multipurpose Wheeled Vehicle (HMMWV) modernization (SEC. 4101)
 - First time program included in NDAA
- Authorizes **\$202.1 million** in Army National Guard military construction (MILCON) funding, includes funding for projects in 10 states (SEC. 2601)

Air National Guard

- Authorizes continued C-130J multi-year procurement authority for the Air Force (SEC. 142)
- Authorizes **\$151.0 million** for C-130H modernization (SEC. 4101), includes:
 - \$55.0 million for NP2000 propellers
 - \$74.0 million for T-56 3.5 engine upgrades
- Authorizes **\$163.7 million** for A-10 Thunderbolt modernization for the Air Force and Air National Guard (SEC. 4101), includes:
 - \$65.0 million for additional A-10 wing replacements
- Authorizes **\$67.2 million** for F-15C Eagle Passive Active Warning and Survivability System (EPAWSS) kits (SEC. 4101)
- Limits retirement of Joint Surveillance Target Attack Radar Systems (JSTARS) until the Air Force declares initial operational capability of Increment 2 of the Advanced Battle-Management System (ABMS) (SEC. 147)
- Authorizes **\$11.0 million** for Air National Guard PFOS/PFOA remediation (SEC. 4301)
- Authorizes **\$191.1 million** in Air National Guard military construction (MILCON) funding, includes funding for projects in 10 states (SEC. 2604)

Joint-Personnel Provisions

- Authorizes the Secretary of the Army or Air Force to adjust the effective date of promotion for National Guard officers experiencing undue delays through no fault of their own (SEC. 518)
 - House Report Language mandated the Army and Air Force report on National Guard federal recognition processes, wait times, and suggested efficiencies to Congress by 1 December 2018
- Authorizes High Deployment Allowance accrual for all Reserve Component servicemembers (SEC. 602) and non-reduction in pay for Reserve Component servicemembers, who are also federal employees, under 12304b orders (SEC. 605)
- Authorizes **\$137.1 million** for the National Guard Counterdrug program (SEC. 4501)
- Requires the Secretary of Defense and Secretary of Homeland Security to report on Reserve Component cyber civil support teams (SEC. 1653)

- Authorizes DoD transfer of equipment and facilities to the National Guard to carry out the National Guard Youth Challenge program (SEC. 519)
- Authorizes an additional **\$15.0 million** for STARBASE (SEC. 4301)

To view the full text of the final FY19 NDAA and the Joint Explanatory Statement authored by the NDAA Conference Committee, please visit:

<https://www.congress.gov/115/crpt/hrpt874/CRPT-115hrpt874.pdf>

FY19 NATIONAL GUARD ACCOUNTS OVERVIEW

Army National Guard*

Account	FY18 Levels	FY19 Request	FY19 HASC NDAA	FY19 House NDAA	FY19 HAC Mark	FY19 House Approps.	FY19 SASC NDAA	FY19 Senate NDAA	FY19 SAC Mark	FY19 Senate Approps.	Final NDAA Levels	Change From FY18	Final Levels
End Strength	343,500	343,500	343,500	343,500	343,500	343,500	343,500	343,500	343,500		343,500		
AGR	30,155	30,595	30,595	30,595			30,155	30,155			30,595		
Dual Status Techs.	26,817	25,431	22,294	22,294			22,294	22,294			22,294		
ADOS	17,000	17,000	17,000	17,000			17,000	17,000			17,000		
Summary Base Funds	\$15,548,796	\$16,143,640			\$15,919,556	\$15,919,556			\$15,911,940				
Personnel	\$8,264,626	\$8,744,345			\$8,589,785	\$8,589,785			\$8,650,645				
O&M	\$7,284,170	\$7,399,295	\$7,469,295	\$7,469,295	\$7,329,771	\$7,329,771	\$7,399,295	\$7,399,295	\$7,261,295		\$7,434,295		
MILCON	\$220,652	\$180,122	\$191,122	\$191,122	\$180,122	\$180,122	\$306,122	\$306,122	\$190,122	\$190,122	\$202,122		
NGREA	\$429,000				\$421,000	\$421,000			\$291,500				
Summary OCO Funds	\$292,700	\$306,012			\$306,012	\$306,012			\$306,012				
Personnel OCO	\$184,589	\$195,283			\$195,283	\$195,283			\$195,283				
O&M OCO	\$108,111	\$110,729	\$110,729	\$110,729	\$110,729	\$110,729	\$110,729	\$110,729	\$110,729		\$110,729		

Air National Guard*

Account	FY18 Levels	FY19 Request	FY19 HASC NDAA	FY19 House NDAA	FY19 HAC Mark	FY19 House Approps.	FY19 SASC NDAA	FY19 Senate NDAA	FY19 SAC Mark	FY19 Senate Approps.	Final NDAA Levels	Change From FY18	Final Levels
End Strength	106,600	107,100	107,100	107,100	107,100	107,100	106,600	106,600	106,600		107,100		
AGR	16,260	19,861	19,861	19,861			19,450	19,450			19,861		
Dual Status Techs.	21,893	18,969	18,969	18,969			18,969	18,969			15,861		
ADOS	16,000	16,000	16,000	16,000			16,000	16,000			16,000		
Summary Base Funds	\$10,309,615	\$10,153,002			\$10,145,402	\$10,145,402			\$10,152,477				
Personnel	\$3,408,817	\$3,725,380			\$3,707,240	\$3,707,240			\$3,718,780				
O&M	\$6,900,798	\$6,427,622	\$6,451,522	\$6,451,522	\$6,438,162	\$6,438,162	\$6,440,222	\$6,440,222	\$6,433,297		\$6,424,122		
MILCON	\$171,491	\$129,126	\$191,126	\$191,126	\$129,126	\$129,126	\$183,126	\$183,126	\$139,126	\$139,126	\$191,126		
NGREA	\$429,000				\$421,000	\$421,000			\$291,500				
Summary OCO Funds	\$20,404	\$21,330			\$21,330	\$21,330			\$21,330				
Personnel OCO	\$5,004	\$5,460			\$5,460	\$5,460			\$5,460				
O&M OCO	\$15,400	\$15,870	\$15,870	\$15,870	\$15,870	\$15,870	\$15,870	\$15,870	\$15,870		\$15,870		

*All Dollars in Thousands

FY19 NATIONAL GUARD MILITARY CONSTRUCTION
Army National Guard*

Account			FY18 Levels	FY19 Request	FY19 HASC NDAA	FY19 House NDAA	FY19 HAC Mark	FY19 House Approps.	FY19 SASC NDAA	FY19 Senate NDAA	FY19 SAC Mark	FY19 Senate Approps.	Final NDAA Levels	Change From FY18	Final Levels
Total MILCON Funding			\$220,652	\$180,122	\$191,122	\$191,122	\$180,122	\$180,122	\$306,122	\$306,122	\$190,122	\$190,122	\$202,122		
MILCON By State	Location	Project	FY19 Request	FY19 HASC NDAA	FY19 House NDAA	FY19 HAC Mark	FY19 House Approps.	FY19 SASC NDAA	FY19 Senate NDAA	FY19 SAC Mark	FY19 Senate Approps.	Final NDAA Levels	Change From FY18	Final Levels	
Alaska	Joint Base Elmendorf-Richardson	US Property/ Fiscal Office Building	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000		
Illinois	Marseilles	Automated Record Fire Range	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000		
Montana	Malta	National Guard Readiness Center	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		
Nevada	North Las Vegas	National Guard Readiness Center	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000		
New Hampshire	Pembroke	National Guard Readiness Center	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000		
North Dakota	Fargo	National Guard Readiness Center	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000		
Ohio	Camp Ravenna	Automated Multi-Purpose Machine Gun Range	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400	\$7,400		
Oklahoma	Lexington	Aircraft Vehicle Storage Building	N/A	\$11,000	\$11,000	N/A	N/A	\$11,000	\$11,000	N/A	N/A	\$11,000	\$11,000		
Oregon	Boardman	Tactical UAV Hangar	N/A	N/A	N/A	N/A	N/A	\$11,000	\$11,000	N/A	N/A	\$11,000	\$11,000		
South Dakota	Rapid City	National Guard Readiness Center	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		
Texas	Houston	Aircraft Storage	N/A	N/A	N/A	N/A	N/A	\$15,000	\$15,000	N/A	N/A	\$15,000	\$15,000		
Virginia	Sandston	Army Aviation Support Facility	N/A	N/A	N/A	N/A	N/A	\$89,000	\$89,000	N/A	N/A	\$89,000	\$89,000		
Worldwide/Various		Minor Construction	\$18,100	\$18,100	\$18,100	\$18,100	\$18,100	\$18,100	\$18,100	\$28,100	\$28,100	\$18,100	\$18,100		
		Planning & Design	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	\$16,622	

**All Dollars in Thousands*

Air National Guard*

Account			FY18 Levels	FY19 Request	FY19 HASC NDAA	FY19 House NDAA	FY19 HAC Mark	FY19 House Approps.	FY19 SASC NDAA	FY19 Senate NDAA	FY19 SAC Mark	FY19 Senate Approps.	Final NDAA Levels	Change From FY18	Final Levels
MILCON By State	Location	Project	FY19 Request	FY19 HASC NDAA	FY19 House NDAA	FY19 HAC Mark	FY19 House Approps.	FY19 SASC NDAA	FY19 Senate NDAA	FY19 SAC Mark	FY19 Senate Approps.	Final NDAA Levels	Change From FY18	Final Levels	
Total MILCON Funding			\$171,491	\$129,126	\$191,126	\$191,126	\$129,126	\$129,126	\$183,126	\$183,126	\$139,126	\$139,126	\$191,126		
California	Channel Islands ANG Station	C-130J Flight Simulator	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000		
Hawaii	Joint Base Pearl Harbor	F-22 LO/CRF B3408 Addition	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000		
Illinois	Peoria International Airport	New Fire Crash/Rescue Station	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000		
Louisiana	Joint Reserve Base New Orleans	NORTHCOM Projects	\$15,000	\$39,000	\$39,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$39,000		
Minnesota	Duluth International Airport	Small Arms Range	N/A	\$8,000	\$8,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$8,000		
Montana	Great Falls International Airport	Aircraft Apron	N/A	\$9,000	\$9,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$9,000		
New York	Francis Gabreski Airport	Security/Comms. Training Facility	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000		
Ohio	Mansfield Lahm Airport	Replace Fire Station	N/A	\$13,000	\$13,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$13,000		
	Rickenbacker International Airport	Small Arms Range	N/A	\$8,000	\$8,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$8,000		
Pennsylvania	Fort Indiantown Gap Station	Replace Ops. Training/Dining Hall	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000		
Puerto Rico	Luis Munoz IAP (Hurricane Maria Repair)	Comms. Facility	N/A	N/A	N/A	N/A	N/A	\$15,000	\$15,000	N/A	N/A	N/A	N/A		
		Maintenance Hangar	N/A	N/A	N/A	N/A	N/A	\$35,000	\$35,000	N/A	N/A	N/A	N/A		
Virginia	Joint Base Langley-Eustis	CYBER Operations Facility	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000		
Worldwide/Various		Minor Construction	\$23,626	\$23,626	\$23,626	\$23,626	\$23,626	\$23,626	\$23,626	\$23,626	\$33,626	\$33,626	\$23,626		
		Planning & Design	\$18,500	\$18,500	\$18,500	\$18,500	\$18,500	\$18,500	\$22,500	\$22,500	\$18,500	\$18,500	\$18,500	\$18,500	

**All Dollars in Thousands*

LEGISLATIVE PROVISIONS

SEC. 111. National Guard and Reserve Component Equipment Report.

Section 10541(b) of title 10, United States Code, is amended by adding at the end the following new paragraph:

“(10) A joint assessment by the Chief of Staff of the Army and the Chief of the National Guard Bureau on the efforts of the Army to achieve parity among the active component, the Army Reserve, and the Army National Guard with respect to equipment and capabilities. Each assessment shall include a comparison of the inventory of high priority items of equipment available to each component of the Army described in preceding sentence, including:

- (A) AH-64 Attack Helicopters;
- (B) UH-60 Black Hawk Utility Helicopters;
- (C) Abrams Main Battle Tanks;
- (D) Bradley Infantry Fighting Vehicles;
- (E) Stryker Combat Vehicles; and
- (F) any other items of equipment identified as high priority by the Chief of Staff of the Army or the Chief of the National Guard Bureau.”

The amendment made by subsection (a) shall apply with respect to reports required to be submitted under section 10541 of title 10, United States Code, after the date of the enactment of this Act.

SEC. 142. Multiyear Procurement Authority for C-130J Aircraft Program.

Subject to section 2306b of title 10, United States Code, the Secretary of the Air Force may enter into one or more multiyear contracts, beginning with the fiscal year 2019 program year, for the procurement of:

- (1) C-130J aircraft for the Air Force; and
- (2) C-130J aircraft for the Navy and the Marine Corps pursuant to the agreement described in subsection (b).

The agreement described in this subsection is the agreement between the Secretary of the Navy and the Secretary of the Air Force under which the Secretary of the Air Force acts as the executive agent for the Department of the Navy for purposes of procuring C-130J aircraft for such Department.

The Secretary of the Air Force may enter into one or more contracts for advance procurement associated with the C-130J aircraft, including economic order quantity, for which authorization to enter into a multiyear procurement contract is provided under subsection (a).

A contract entered into under subsection (a) shall provide that any obligation of the United States to make a payment under the contract for a fiscal year after fiscal year 2019 is subject to the availability of appropriations for that purpose for such later fiscal year.

The multiyear contract authority under subsection (a) includes C-130J aircraft for which funds were appropriated for fiscal year 2018.

SEC. 147. Limitation on Availability of Funds for Retirement of E-8 JSTARS Aircraft.

Except as provided in subsection (b), none of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 or any subsequent fiscal year for the Air Force may be

obligated or expended to retire, or prepare to retire, any E-8 Joint Surveillance Target Attack Radar System aircraft until the date on which the Secretary of the Defense certifies to the congressional defense committees that Increment 2 of the Advanced Battle-Management System of the Air Force has declared initial operational capability as defined in the Capability Development Document for the System.

The limitation in subsection (a) shall not apply to individual E-8C Joint Surveillance Target Attack Radar System aircraft that the Secretary of the Air Force determines, on a case-by-case basis, to be no longer mission capable because of mishaps, other damage, or being uneconomical to repair.

SEC. 153. Certification on Inclusion of Technology to Minimize Physiological Episodes in Certain Aircraft.

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

The Secretary concerned may waive the requirement of subsection (a) if the Secretary:

- (1) determines the waiver is required in the interest of national security; and
- (2) not later than 15 days before entering into a contract for the procurement of a covered aircraft, notifies the congressional defense committees of the rationale for the waiver.

SEC. 243. Report on Efforts of the Air Force to Mitigate Physiological Episodes Affecting Aircraft Crewmembers.

Not later than March 1, 2019, the Secretary of the Air Force shall submit to the congressional defense committees a report on all efforts of the Air Force to reduce the occurrence of, and mitigate the risk posed by, physiological episodes affecting crewmembers of covered aircraft.

The report required under subsection (a) shall include:

- (1) information on the rate of physiological episodes affecting crewmembers of covered aircraft;
- (2) a description of the specific actions carried out by the Air Force to address such episodes, including a description of any upgrades or other modifications made to covered aircraft to address such episodes;
- (3) schedules and cost estimates for any upgrades or modifications identified under paragraph (3); and
- (4) an explanation of any organizational or other changes to the Air Force carried out to address such physiological episodes.

In this section, the term “covered aircraft” means:

- (1) F-35A aircraft of the Air Force;
- (2) T-6A aircraft of the Air Force; and
- (3) any other aircraft of the Air Force as determined by the Secretary of the Air Force.

SEC. 248. Report on Active Protection Systems for Armored Combat and Tactical Vehicles.

Not later than 60 days after the date of the enactment of this Act, the Secretary of the Army shall submit to the Committees on Armed Services of the Senate and the House of Representatives a report on technologies related to active protection systems (APS) for armored combat and tactical vehicles.

The report required by subsection (a) shall include the following:

- (1) With respect to the active protection systems that the Army has recently tested on the M1A2 Abrams, the M2A3 Bradley, and the STRYKER, the following:
 - (A) An assessment of the effectiveness of such systems.
 - (B) Plans of the Secretary to further test such systems.
 - (C) Proposals for future development of such systems.
 - (D) A timeline for fielding such systems.
- (2) Plans for how the Army will incorporate active protection systems into new armored combat and tactical vehicle designs, such as Mobile Protection Firepower (MPF), Armored Multi-Purpose Vehicle (AMPV), and Next Generation Combat Vehicle (NGCV).

SEC. 249. Next Generation Combat Vehicle.

The Secretary of the Army shall take appropriate actions to ensure that all necessary resources are planned and programmed for accelerated prototyping, component development, testing, or acquisition for the Next Generation Combat Vehicle (NGCV).

Not later than March 1, 2019, the Secretary shall submit to the Committees on Armed Services of the Senate and the House of Representatives a report on the development of the Next Generation Combat Vehicle, including:

- (A) The report required by paragraph (1) shall include a thorough analysis of the requirements of the Next Generation Combat Vehicle.
- (B) In carrying out subparagraph (A), the Secretary shall ensure that the requirements are relevant to the most recently published National Defense Strategy.
- (C) The Secretary shall ensure that the analysis includes consideration of threats and terrain.
- (D) The Secretary shall ensure that the analysis includes consideration of the latest enabling component technologies developed by the Tank Automotive, Research, Development, Engineering Center of the Army that have the potential to dramatically change basic combat vehicle design and improve lethality, protection, mobility, range, and sustainment.

Of the funds authorized to be appropriated for fiscal year 2019 by section 201 and available for research, development, testing, and evaluation, Army, for the Next Generation Combat Vehicle, not more than 90 percent may be obligated or expended until the Secretary submits the report required by subsection (b).

SEC. 252. Improvement of the Air Force Supply Chain.

The Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics may use funds described in subsection (b) as follows:

- (1) For nontraditional technologies and sustainment practices (such as additive manufacturing, artificial intelligence, predictive maintenance, and other software-intensive and software-defined capabilities) to:
 - (A) increase the availability of aircraft to the Air Force; and
 - (B) decrease backlogs and lead times for the production of parts for such aircraft.

- (2) To advance the qualification, certification, and integration of additive manufacturing into the Air Force supply chain.
- (3) To otherwise identify and reduce supply chain risk for the Air Force.
- (4) To define workforce development requirements and training for personnel who implement and support additive manufacturing for the Air Force at the warfighter, end-item designer and equipment operator, and acquisition officer levels.

Of the amounts authorized to be appropriated for fiscal year 2019 by section 201 for research, development, test, and evaluation for the Air Force and available for Tech Transition Program (Program Element (0604858F)), up to \$42,800,000 may be available as described in subsection (a).

SEC. 315. Funding of Study and Assessment of Health Implications of Per- and Poly-fluoroalkyl Substances Contamination in Drinking Water by Agency for Toxic Substances and Disease Registry. Paragraph (2) of section 316(a) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) is amended:

- (A) The study and assessment performed pursuant to this section may be paid for using funds authorized to be appropriated to the Department of Defense under the heading “Operation and Maintenance, Defense-Wide.”
- (B) (i) Of the amounts authorized to be appropriated for the Department of Defense for fiscal year 2018, not more than \$10,000,000 shall be transferred by the Secretary of Defense, without regard to section 2215 of title 10, United States Code, to the Secretary of Health and Human Services to pay for the study and assessment required by this section.
(ii) Without regard to section 2215 of title 10, United States Code, the Secretary of Defense may transfer not more than \$10,000,000 a year during fiscal years 2019 and 2020 to the Secretary of Health and Human Services to pay for the study and assessment required by this section.
- (C) Amounts transferred to the Secretary of Health and Human Services shall be used to carry out the study and assessment under this section through contracts, cooperative agreements, or grants. In addition, such funds may be transferred by the Secretary of Health and Human Services to other accounts of the Department for the purposes of carrying out this section.
- (D) The transfer authority provided under this paragraph is in addition to any other transfer authority available to the Department of Defense.

Not later than 180 days after the date on which the Administrator of the Environmental Protection Agency establishes a maximum contaminant level for per- and polyfluoroalkyl substances (PFAS) contamination in drinking water in a national primary drinking water regulation under section 1412 of the Safe Drinking Water Act (42 U.S.C. 300g-1), the Secretary of Defense shall submit to the congressional defense committees a report containing a plan to:

- (1) assess any contamination at Department of Defense installations and surrounding communities that may have occurred from PFAS usage by the Department of Defense;
- (2) identify any remediation actions the Department plans to undertake using the maximum contaminant level established by the Environmental Protection Agency;
- (3) provide an estimate of the cost of such remediation and a schedule for accomplishing such remediation; and
- (4) provide an assessment of past expenditures by local water authorities to address contamination before the Environmental Protection Agency established a maximum contaminant level and an estimate of the cost to reimburse communities that remediated water to a level not greater than such level.

The Secretary of Defense shall conduct an assessment of the human health implications of PFAS exposure. Such assessment shall include:

- (1) a meta-analysis that considers the current scientific evidence base linking the health effects of PFAS on individuals who served as members of the Armed Forces and were exposed to PFAS at military installations;
- (2) an estimate of the number of members of the Armed Forces and veterans who may have been exposed to PFAS while serving in the Armed Forces;
- (3) the development of a process that would facilitate the transfer between the Department of Defense and the Department of Veterans Affairs of health information of individuals who served in the Armed Forces and may have been exposed to PFAS during such service; and
- (4) a description of the amount of funding that would be required to administer a potential registry of individuals who may have been exposed to PFAS while serving in the Armed Forces.

SEC. 336. Report on Depot-level Maintenance and Repair.

The Secretary of Defense, in consultation with the heads of each of the military departments and the Chairman of the Joint Chiefs of Staff, shall submit to the congressional defense committees a report on labor hours and depot maintenance, which shall include:

- (1) the amount of public and private funding of depot-level maintenance and repair (as defined in section 2460 of title 10 United States Code) for the Department of Defense, Army, Navy, Marine Corps, Air Force, Special Operations Command, and any other unified command identified by the Secretary, expressed by commodity group by percentage and actual numbers in terms of dollars and direct labor hours;
- (2) within each category of depot level maintenance and repair for each entities, the amount of the subset of depot maintenance workload that meets the description under section 2464 of title 10, United States Code, that is performed in the public and private sectors by direct labor hours and by dollars;
- (3) of the subset referred to in paragraph (2), the amount of depot maintenance workload performed in the public and private sector by direct labor hour and by dollars for each entity that would otherwise be considered core workload under such section 2464, but is not considered core because a weapon system or equipment has not been declared a program of record; and
- (4) the projections for the upcoming future years defense program, including the distinction between the Navy and the Marine Corps for the Department of the Navy, as well as any unified command, including the Special Operations Command.

SEC. 339. Report on Specialized Undergraduate Pilot Training Production, Resourcing, and Locations.

Not later than March 1, 2019, the Secretary of the Air Force shall submit to the congressional defense committees a report on existing Specialized Undergraduate Pilot Training (SUPT) production, resourcing, and locations.

The report required under subsection (a) shall include the following elements:

- (1) A description of the strategy of the Air Force for utilizing existing SUPT locations to produce the number of pilots the Air Force requires.
- (2) The number of pilots that each SUPT location has graduated, by year, over the previous 5 fiscal years.
- (3) The forecast number of pilots that each SUPT location will produce for fiscal year 2019.

- (4) The maximum production capacity of each SUPT location.
- (5) The extent to which existing SUPT installations are operating at maximum capacity in terms of pilot production.
- (6) A cost estimate of the resources required for each SUPT location to reach maximum production capacity.
- (7) A determination as to whether increasing production capacity at existing SUPT locations will satisfy the Air Force's SUPT requirement.
- (8) A timeline and cost estimation of establishing a new SUPT location.
- (9) A discussion of whether the Air Force plans to operate existing SUPT installations at maximum capacity over the future years defense program.
- (10) A business case analysis comparing the establishment of a new SUPT location to increasing production capacity at existing SUPT locations.

SEC. 359. Prioritization of Environmental Impacts for Facilities Sustainment, Restoration, and Modernization Demolition.

The Secretary of Defense shall establish prioritization metrics for facilities deemed eligible for demolition within the Facilities Sustainment, Restoration, and Modernization (FSRM) process. Those metrics shall include full spectrum readiness and environmental impacts, including the removal of contamination.

SEC. 411. End Strengths for Selected Reserve.

The Armed Forces are authorized strengths for Selected Reserve personnel of the reserve components as of September 30, 2019, as follows:

- (1) The Army National Guard of the United States, 343,500.
- (5) The Air National Guard of the United States, 107,100.

The end strengths prescribed by subsection (a) for the Selected Reserve of any reserve component shall be proportionately reduced by:

- (1) the total authorized strength of units organized to serve as units of the Selected Reserve of such component which are on active duty (other than for training) at the end of the fiscal year; and
- (2) the total number of individual members not in units organized to serve as units of the Selected Reserve of such component who are on active duty (other than for training or for unsatisfactory participation in training) without their consent at the end of the fiscal year.

Whenever units or individual members of the Selected Reserve of any reserve component are released from active duty during any fiscal year, the end strength prescribed for such fiscal year for the Selected Reserve of such reserve component shall be increased proportionately by the total authorized strengths of such units and by the total number of such individual members.

SEC. 412. End Strengths for Reserves on Active Duty in Support of the Reserves.

Within the end strengths prescribed in section 411(a), the reserve components of the Armed Forces are authorized, as of September 30, 2019, the following number of Reserves to be serving on full-time active duty or full-time duty, in the case of members of the National Guard, for the purpose of organizing, administering, recruiting, instructing, or training the reserve components:

- (1) The Army National Guard of the United States, 30,595.
- (5) The Air National Guard of the United States, 19,861.

SEC. 413. End Strengths for Military Technicians (Dual Status).

The minimum number of military technicians (dual status) as of the last day of fiscal year 2019 for the reserve components of the Army and the Air Force (notwithstanding section 129 of title 10, United States Code) shall be the following:

- (1) For the Army National Guard of the United States, 22,294.
- (3) For the Air National Guard of the United States, 15,861.

SEC. 414. Maximum Number of Reserve Personnel Authorized to be on Active Duty for Operational Support.

During fiscal year 2019, the maximum number of members of the reserve components of the Armed Forces who may be serving at any time on full-time operational support duty under section 115(b) of title 10, United States Code, is the following:

- (1) The Army National Guard of the United States, 17,000.
- (5) The Air National Guard of the United States, 16,000.

SEC. 513. Authority to Designate Certain Reserve Officers as Not to be Considered for Selected for Promotion.

Section 14301 of title 10, United States Code, as amended by section 505, is further amended by adding at the end the following new subsection:

“(k) CERTAIN OFFICERS NOT TO BE CONSIDERED FOR SELECTION FOR PROMOTION. The Secretary of the military department concerned may provide that an officer who is in an active status, but is in a duty status in which the only points the officer accrues under section 12732(a)(2) of this title are pursuant to subparagraph (C)(i) of that section (relating to membership in a reserve component), shall not be considered for selection for promotion until completion of two years of service in such duty status. Any such officer may remain on the reserve active-status list.”

SEC. 515. Authorized Strength and Distribution In Grade.

Section 12011(a) of title 10, United States Code is amended by striking those parts of the table pertaining to the Air National Guard and inserting the following:

“Air National Guard:

	<u>Major</u>	<u>Lieutenant Colonel</u>	<u>Colonel</u>
10,000.....	763	745	333
12,000.....	915	923	377
14,000.....	1,065	1,057	402
16,000.....	1,211	1,185	426
18,000.....	1,347	1,313	450
20,000.....	1,463	1,440	468
22,000.....	1,606	1,569	494
24,000.....	1,739	1,697	517
26,000.....	1,872	1,825	539
28,000.....	2,005	1,954	562
30,000.....	2,138	2,082	585
32,000.....	2,271	2,210	608
34,000.....	2,404	2,338	630

36,000.....	2,537	2,466	653
38,000.....	2,670	2,595	676
40,000.....	2,803	2,723	698.”

Section 12012(a) of title 10, United States Code is amended by striking those parts of the table pertaining to the Air National Guard and inserting the following:

“Air National Guard:

	<u>E-8</u>	<u>E-9</u>
10,000.....	1,350	550
12,000.....	1,466	594
14,000.....	1,582	636
16,000.....	1,698	676
18,000.....	1,814	714
20,000.....	1,930	752
22,000.....	2,046	790
24,000.....	2,162	828
26,000.....	2,278	866
28,000.....	2,394	904
30,000.....	2,510	942
32,000.....	2,626	980
34,000.....	2,742	1,018
36,000.....	2,858	1,056
38,000.....	2,974	1,094
40,000.....	3,090	1,132.”

SEC. 516. Repeal of Prohibition on Service on Army Reserve Forces Policy Committee by Members on Active Duty.

Section 10302 of title 10, United States Code, is amended (1) in subsection (b), by striking “not on active duty” each place it appears; and (2) in subsection (c), (A) by inserting “of the reserve components” after “among the members;” and (B) by striking “not on active duty.”

SEC. 517. Expansion of Personnel Subject to Authority of Chief of the National Guard Bureau in the Execution of Functions and Missions of the National Guard Bureau.

Section 10508(b)(1) of title 10, United States Code, is amended by striking “sections 2103,” and all that follows through “of title 32,” and inserting “sections 2102, 2103, 2105, and 3101 of title 5, subchapter IV of chapter 53 of title 5, or section 328 of title 32.”

SEC. 518. Authority to Adjust Effective Date of Promotion in the Event of Undue Delay in Extending Federal Recognition of Promotion.

Section 14308(f) of title 10, United States Code, is amended (1) by inserting “(1)” before “The effective date of promotion;” and (2) by adding at the end the following new paragraph:

“(2) If the Secretary concerned determines that there was an undue delay in extending Federal recognition in the next higher grade in the Army National Guard or the Air National Guard to a reserve commissioned officer of the Army or the Air Force, and the delay was not attributable to the action (or inaction) of such officer, the effective date of the promotion concerned under

paragraph (1) may be adjusted to a date determined by the Secretary concerned, but not earlier than the effective date of the State promotion.”

The amendments made by subsection (a) shall take effect on the date of the enactment of this Act, and shall apply with respect to promotions of officers whose State effective date is on or after that date.

SEC. 519. National Guard Youth Challenge Program.

Section 509(h) of title 32, United States Code, is amended (1) by re-designating paragraph (2) as paragraph (3); and (2) by inserting after paragraph (1) the following new paragraph:

“(2) Equipment and facilities of the Department of Defense may be used by the National Guard for purposes of carrying out the Program.”

SEC. 520. Extension of Authority for Pilot Program on use of Retired Senior Enlisted Members of the Army National Guard as Army National Guard Recruiters.

Section 514 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) is amended (1) in subsection (d), by striking “2020” and inserting “2021;” and (2) in subsection (f), by striking “2019” and inserting “2020.”

SEC. 556. Program to Assist Members of the Armed Forces in Obtaining Professional Credentials.

Section 2015(a) of title 10, United States Code, is amended by striking “related to military training” and all that follows through the period at the end of paragraph (2) and inserting “that translate into civilian occupations.”

SEC. 557. Enhancement of Authorities in Connection with Junior Reserve Officers Training Corps Programs.

This section would amend chapter 102 of title 10, United States Code, by requiring the Secretary of Defense to offer to convert closing JROTC detachments into National Defense Cadet Corps organizations. This provision would also provide flexibility to service secretaries in setting JROTC instructor hiring and compensation policy. Additionally, the provision would require the Secretary of Defense to standardize JROTC detachment data collection methods and policy across the military departments.

SEC. 602. Eligibility of Reserve Component Members for High-Deployment Allowance for Lengthy or Numerous Deployments and Frequent Mobilizations.

Section 436(a)(2)(C)(ii) of title 37, United States Code, is amended by inserting “section 12304b of title 10 or” after “under” the first place it appears.

SEC. 605. Eligibility of Reserve Component Members for Non-reduction in Pay while Serving in the Uniformed Services or National Guard.

Section 5538(a) of title 5, United States Code, is amended in the matter preceding paragraph (1) by inserting “section 12304b of title 10 or” after “under.”

SEC. 611. One-Year Extension of Certain Expiring Bonus and Special Pay Authorities.

Section 910(g) of title 37, United States Code, relating to income replacement payments for reserve component members experiencing extended and frequent mobilization for active duty service, is amended by striking “December 31, 2018” and inserting “December 31, 2019.”

The following sections of title 10, United States Code, are amended by striking “December 31, 2018” and inserting “December 31, 2019:”

- (1) Section 2130a(a)(1), relating to nurse officer candidate accession program.
- (2) Section 16302(d), relating to repayment of education loans for certain health professionals who serve in the Selected Reserve.

Section 333(i) of title 37, United States Code, is amended by striking “December 31, 2018” and inserting “December 31, 2019.”

The following sections of title 37, United States Code, are amended by striking “December 31, 2018” and inserting “December 31, 2019:”

- (1) Section 331(h), relating to general bonus authority for enlisted members.
- (2) Section 332(g), relating to general bonus authority for officers.
- (3) Section 334(i), relating to special aviation incentive pay and bonus authorities for officers.
- (4) Section 335(k), relating to special bonus and incentive pay authorities for officers in health professions.
- (5) Section 336(g), relating to contracting bonus for cadets and midshipmen enrolled in the Senior Reserve Officers’ Training Corps.
- (6) Section 351(h), relating to hazardous duty pay.
- (7) Section 352(g), relating to assignment pay or special duty pay.
- (8) Section 353(i), relating to skill incentive pay or proficiency bonus.
- (9) Section 355(h), relating to retention incentives for members qualified in critical military skills or assigned to high priority units.

Section 403(b)(7)(E) of title 37, United States Code, is amended by striking “December 31, 2018” and inserting “December 31, 2019.”

SEC. 701. Cessation of Requirement for Mental Health Assessment of Members after Redeployment from a Contingency Operation upon Discharge or Release from the Armed Forces.

This section would amend section 1074m of title 10, United States Code, to eliminate the requirement to provide a mental health assessment (MHA) to a servicemember after redeployment if the individual has been discharged from military service. The conferees note that, under current law, there is no requirement to provide an MHA to a servicemember 90 to 180 days after redeployment if the individual has been discharged; however, the cessation of the requirement to provide an MHA after a member has been discharged does not currently apply to MHAs required at 180 days to 18 months after redeployment and 18 months to 30 months after redeployment.

SEC. 1063. Report on Capabilities and Capacities of Armored Brigade Combat Teams.

Not later than 60 days after the date of the enactment of this Act, the Secretary of the Army shall submit to the congressional defense committees a report on the capabilities and capacities of Armored Brigade Combat Teams.

The report required under subsection (a) shall include the following:

- (1) A description of the total number of Armored Brigade Combat Teams required to support the National Defense Strategy.
- (2) A description of the manner in which the Army plans to equip and field future Armored Brigade Combat Teams.

- (3) A description of the total number of mechanized infantry companies required in support of the Armored Brigade Combat Teams.
- (4) A description of steps being taken to improve the number and quality of live-fire gunnery exercises executed each year, including improving execution of battalion and brigade-level combined arms live-fire exercises both at home station and at the Combat Training Centers.
- (5) A description of training being conducted to train Armored Brigade Combat Teams in combined arms for air defense and to counter unmanned aerial vehicles with organic weapons and tactics.
- (6) A plan to improve personnel preparedness by the reduction of non-deployable soldiers and improvements in combat vehicle crew stability and material readiness of key combat systems.
- (7) A description of deficiencies in repair parts and number of qualified mechanics, and a plan to correct such deficiencies.
- (8) A plan for the modernization of the Armored Brigade Combat Teams.

SEC. 1087. National Commission on Military Aviation Safety.

This section establishes a National Commission on Military Aviation to study the significant increases in military aviation disasters from 2013-2018.

SEC. 1210. Modification to Department of Defense State Partnership Program.

This section would amend section 341(b)(2) of title 10, United States Code, to prohibit State Partnership Program assistance activities with countries that have committed “gross violations of human rights.”

SEC. 1403. Drug Interdiction and Counter-drug Activities, Defense-wide.

Funds are hereby authorized to be appropriated for the Department of Defense for fiscal year 2019 for expenses, not otherwise provided for, for Drug Interdiction and Counter-Drug Activities, Defense-wide, as specified in the funding table in section 4501.

SEC. 1507. Drug Interdiction and Counter-drug Activities, Defense-wide (OCO).

Funds are hereby authorized to be appropriated for the Department of Defense for fiscal year 2019 for expenses, not otherwise provided for, for Drug Interdiction and Counter-Drug Activities, Defense-wide, as specified in the funding table in section 4502.

SEC. 1634. Amendments to Pilot Program regarding Cyber Vulnerabilities of Department of Defense critical infrastructure.

This section would amend section 1650 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) to incorporate the Defense Digital Service into pilot program authorities for identifying innovative methodologies and engineering approaches to evaluate vulnerabilities of Department of Defense critical infrastructure. The provision would also extend deadlines associated with the program.

SEC. 1649. Pilot Program on Modeling and Simulation in Support of Military Homeland Defense Operations in Connection with Cyber Attacks on Critical Infrastructure.

This section would require the Assistant Secretary of Defense for Homeland Defense and Global Security to carry out a pilot program on modeling and simulation in support of military homeland defense operations. The pilot program would be based on the results and lessons learned from ongoing research exercises involving local government, industry, and military responses to combined natural disasters and cyber attacks on critical infrastructure. The provision would authorize \$10.0 million for this pilot.

SEC. 1650. Pilot Program Authority to Enhance Cybersecurity and Resiliency of Critical Infrastructure.

The Secretary of Defense, in coordination with the Secretary of Homeland Security, is authorized to provide, detail, or assign technical personnel to the Department of Homeland Security on a non-reimbursable basis to enhance cybersecurity cooperation, collaboration, and unity of Government efforts.

The authority under subsection (a) shall be limited in any fiscal year to the provision of not more than 50 technical cybersecurity personnel from the Department of Defense to the Department of Homeland Security, including the national cybersecurity and communications integration center (NCCIC) of the Department, or other locations as agreed upon by the Secretary of Defense and the Secretary of Homeland Security.

The authority under subsection (a) may not negatively impact the primary missions of the Department of Defense or the Department of Homeland Security. The Secretary of Defense and the Secretary of Homeland Security shall establish procedures to carry out subsection (a), including procedures relating to the protection of and safeguards for maintenance of information held by the NCCIC regarding United States persons. Nothing in this subsection may be construed as providing authority to the Secretary of Defense to establish procedures regarding the NCCIC with respect to any matter outside the scope of this section.

Nothing in this section may be construed to limit the authority of an Executive department, military department, or independent establishment to provide any appropriate support, including cybersecurity support, or to provide, detail, or assign personnel, under any other law, rule, or regulation.

SEC. 1651. Pilot Program on Regional Cybersecurity Training Center for the Army National Guard.

The Secretary of the Army may carry out a pilot program under which the Secretary establishes a National Guard training center to provide collaborative interagency education and training for members of the Army National Guard.

If the Secretary carries out the pilot program under subsection (a), the Secretary should ensure that the training center established under such subsection:

- (A) educates and trains members of the Army National Guard quickly and efficiently by concurrently training cyber protection teams and cyber network defense teams on a common standard in order to defend:
 - (i) the information network of the Department of Defense in a State environment;
 - (ii) while acting under title 10, United States Code, the information networks of State governments; and
 - (iii) critical infrastructure;

- (B) fosters interagency cooperation by:
 - (i) co-locating members of the Army National Guard with personnel of departments and agencies of the Federal Government and State governments; and
 - (ii) providing an environment to develop interagency relationship to coordinate responses and recovery efforts during and following a cyber attack;

- (C) collaborates with academic institutions to develop and implement curriculum for interagency education and training within the classroom; and
- (D) coordinates with the Persistent Cyber Training Environment of the Army Cyber Command in devising and implementing interagency education and training using physical and information technology infrastructure.

If the Secretary carries out the pilot program under subsection (a), the Secretary should ensure that the pilot program includes the following activities:

- (1) Providing joint education and training and accelerating training certifications for working in a cyber range.
- (2) Integrating education and training between the National Guard, law enforcement, and emergency medical and fire first responders.
- (3) Providing a program to continuously train the cyber network defense teams to not only defend the information network of the Department of Defense, but to also provide education and training on how to use defense capabilities of the team in a State environment.
- (4) Developing curriculum and educating the National Guard on the different missions carried out under titles 10 and 32, United States Code, in order to enhance interagency coordination and create a common operating picture.

SEC. 1653. Study and Report on Reserve Component Cyber Civil Support Teams.

The Secretaries concerned shall conduct a study on the feasibility and advisability of the establishment of reserve component cyber civil support teams for each State. The study shall include the following:

- (1) An examination of the potential ability of the teams referred to in such subsection to respond to an attack, natural disaster, or other large-scale incident affecting computer networks, electronics, or cyber capabilities, including an analysis of the following:
 - (A) The command structure and lines of authority for such teams.
 - (B) The operational capabilities of such teams.
 - (C) The legal authorities available to and constraints placed on such teams.
 - (D) The amount of funding and other resources that would be required by the Department of Defense to organize, train, and equip such teams.
- (2) An analysis of the current use of reserve and active duty components in the Department of Defense and an explanation of how the establishment of such teams may affect the ability of the Department of Defense to:
 - (A) organize, train, equip, and employ the Cyber Mission Force, and other organic cyber forces; and
 - (B) perform the national defense missions and defense support to civil authorities for cyber incident response.
- (3) An explanation of how the establishment of such teams may affect the ability of the Department of Homeland Security to:
 - (A) organize, train, equip, and employ cyber incident response teams; and
 - (B) perform civilian cyber response missions.

- (4) An explanation as to how the establishment of such teams would fit into the current missions of the Department of Defense and the Department of Homeland Security.
- (5) An analysis of current and projected State civilian and private sector cyber response capabilities and services, including an identification of any gaps in such capabilities and services, and including an analysis of the following:
 - (A) Whether such teams would be, on a risk- and cost-adjusted basis, of use for each State.
 - (B) How the establishment of such teams may impact Federal, State, and private sector resourcing for State civilian and private sector cyber response capabilities and services.
- (6) An identification of the potential role of such teams with respect to the principles and processes set forth in Presidential Policy Directive 20 (United States Cyber Operations Policy), Presidential Policy Directive 21 (Critical Infrastructure Security and Resilience), and Presidential Policy Directive 41 (United States Cyber Incident Coordination).
- (7) An explanation of how such teams may interact with other organizations and elements of the Federal Government that have responsibilities under the Presidential Policy Directives referred to in paragraph (6).
- (8) Any effects on the privacy and civil liberties of United States persons that may result from the establishment of such teams.
- (9) Any other considerations determined to be relevant by the Secretaries concerned.

Not later than 180 days after the date of the enactment of this Act, the Secretaries concerned shall submit to the appropriate congressional committees a report that includes:

- (1) the results of the study conducted under subsection (a), including an explanation of each element described in subsection (b); and
- (2) the final determination of the Secretaries with respect to the feasibility and advisability of establishing reserve component cyber civil support teams for each State.

SEC. 2601. Authorized Army National Guard Construction and Land Acquisition Projects.

Using amounts appropriated pursuant to the authorization of appropriations in section 2606 and available for the National Guard and Reserve as specified in the funding table in section 4601, the Secretary of the Army may acquire real property and carry out military construction projects for the Army National Guard locations inside the United States.

SEC. 2604. Authorized Air National Guard Construction and Land Acquisition Projects.

Using amounts appropriated pursuant to the authorization of appropriations in section 2606 and available for the National Guard and Reserve as specified in the funding table in section 4601, the Secretary of the Air Force may acquire real property and carry out military construction projects for the Air National Guard locations inside the United States.

SEC. 2703. Prohibition on Conducting Additional Base Realignment and Closure (BRAC) round.

Nothing in this Act shall be construed to authorize an additional Base Realignment and Closure (BRAC) round.

SEC. 2827. Clarification to include National Guard Installations in Readiness and Environmental Protection Integration Program.

It is the sense of Congress that (1) State-owned National Guard installations have always qualified as military installations under section 2684a of title 10, United States Code; and (2) State-owned National Guard installations should continue to qualify as military installations under section 2684a of that title.

Section 2684a(a) of title 10, United States Code, is amended by inserting “as well as a State-owned National Guard installation,” after “military installation.” The amendment made by paragraph (1) shall take effect as of December 2, 2002.

U.S. HOUSE OF REPRESENTATIVES REPORT LANGUAGE

Apache attack helicopters

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

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

Light utility helicopter

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

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

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

The committee is aware the Army has recently validated a new specification for an improved thermal-acoustic blanket for CH-47 helicopters, which does not appear to be reflected in the logistics and material databases and support system. By greatly improving capabilities over current blankets, including dry/wet weight, air permeability, thermal and acoustic insulation, and durability the Army has developed a cost-effective way to significantly reduce operational and maintenance costs for the

heavy lift fleet. The committee commends the Army for this effort, and directs the Secretary of the Army to provide a briefing to the Armed Services Committees of the House of Representatives and Senate no later than September 28, 2018 detailing plans to outfit all current and future CH-47s with this enhanced capability and the status of the material and logistics supply chain's incorporation of this new specification. The briefing should include a schedule for fielding blankets for the current fleet and the status of inserting the new specification into CH-47 block II production.

Unmanned aerial system units for Army National Guard

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

Armored brigade combat team modernization

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

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

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

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

Stryker upgrades

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

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

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

Tactical network modernization

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

Tactical wheeled vehicle industrial base sustainment

The committee is aware that the Army's Future Years Defense Program (FYDP) projections for the family of medium tactical vehicles (FMTVs) and the family of heavy tactical vehicles (FHTVs) Recapitalization program in the budget request are significantly lower than corresponding fiscal year 2018 FYDP projections. The committee is concerned that a drastic, unexpected decrease in FYDP procurement projections for these critical vehicle programs could have significant impacts to the medium and heavy tactical wheeled vehicle defense industrial base. The committee notes with concern that this could put at risk the TWV industrial base's ability to provide surge capacity in an emergency. The committee encourages the Secretary of the Army to develop procurement plans for tactical

wheeled vehicles and corresponding recapitalization programs that do not place unreasonable pressure on the tactical wheeled vehicle industrial base, nor undermine its capacity for surge production.

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

A-10 Replacement Wings

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

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

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

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

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

Air Force enlisted pilot implementation initiatives

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

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

C-130H modernization efforts

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

C-130H propulsion systems upgrade

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

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

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

F-15C Eagle Passive Active Warning and Survivability System

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

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

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

Future sustainment of remotely piloted aircraft tactical intelligence and strike capabilities

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

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

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

Total Force C-17 Fleet Management Plan

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

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

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

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

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

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

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

Future Vertical Lift

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

The committee notes that the Army leads the Department of Defense's rotorcraft technology portfolio, which needs additional research and development funding to regain America's world leadership in rotorcraft innovation. Because of America's eroding lead in rotorcraft capability, the committee encourages the Department to explore opportunities to accelerate the FVL program in order to meet national security challenges. The committee expects the Department to maximize full and open competition in doing so.

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

F-15 ALQ-128 electronic warfare warning set

The budget request contained \$192.9 million in PE 27134F for development of F-15 systems, but included no funds for development of the ALQ-128 electronic warfare warning set (EWWS). The ALQ-128 EWWS is a countermeasures receiver used on the F-15C, D, and E aircraft. The ALQ-128, used in concert with other systems, provides active jamming against enemy radar threats.

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

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

Supply of Aviation Parts and Spares

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

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

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

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

- (1) the extent to which the Department of Defense has identified the current capacity of training range infrastructure to meet the military services' demand for range access;
- (2) the extent to which the Department of Defense has evaluated the training range infrastructure to determine whether it is sufficient to conduct training against near-peer adversary capabilities; and

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

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

Air Refueling Capability and Capacity

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

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

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

Briefing on Commissioning Production of Senior Reserve Officer Training Corps

The committee is concerned about the number of Senior Reserve Officer Training Corps (ROTC) units that are not meeting established commissioning production requirements for each of the services. Therefore, the committee directs the Secretary of Defense, in coordination with the Secretaries of the military services, to provide a briefing to the House Committee on Armed Services not later than April 1, 2019, on the performance of the Senior Reserve Officer Training Corps. Such briefing shall describe each of the following:

- (1) annual production requirement and production attainment for each ROTC host unit, to include a breakdown of demographics;
- (2) listing of units that have not met the standards set forth in Department of Defense Instruction 1215.08, for the past 5 years;

- (3) listing of the units that did not meet the standard in the past 5 years that are now compliant; and
- (4) list of units each service intends to disestablish or reduce in scope, but is not authorized to do so.

Report on Processes for Federal Recognition of Promotion of Commissioned National Guard Officers

The committee is concerned that delays in federal recognition of National Guard promotions may be increasing and that these lengthy delays result in National Guard officers being deployed and doing the work of the rank to which they are being promoted while receiving the pay of their current rank. The committee notes that such delays deprive National Guard members of the pay to which they are entitled, reduce their time in rank, and may pose retention problems by giving National Guard members an incentive to leave military service.

Therefore the committee directs the Secretary of the Army and the Secretary of the Air Force to each undertake a comprehensive review of the policies and procedures of the Department of the Army and the Department Air Force, as applicable, for the Federal recognition of promotions of commissioned officers of the Army National Guard and the Air National Guard, as the case may be, and to report the results of this review to the congressional defense committees by December 1, 2018. The report shall:

- (1) describe the average time between receipt by the military department concerned of scrolls (as defined in Department of Defense Instruction 1310.02) indicating the promotion of commissioned officers in the National Guard and their publication during the five-year period ending on the date of the House passage of the National Defense Authorization Act for Fiscal Year 2019;
- (2) describe and assess various approaches for streamlining the process by which the military department concerned approves Federal recognition scrolls, including through:
 - (A) additional automation;
 - (B) reduction in required steps; or
 - (C) delegation of authority to conduct required reviews; and
 - (D) make recommendations for legislative or administration action to implement an approach under paragraph (2) if the Secretary concerned considers such approach feasible, advisable, and appropriate.

Direct Report Language on National Guard Mental Health

The Committee remains concerned about the high rate of suicides in the reserve component and specifically, within the Army National Guard. The Committee is aware of numerous efforts by the Chief of the National Guard Bureau to increase access and resources for Guardsmen to receive behavioral health treatment and support. The Committee also supports the establishment of a more integrated and holistic approach to resilience and fitness across the National Guard to better assess and improve the operational readiness of Guardsmen by carrying out pilot programs as required. Therefore, the Committee directs the Chief of the National Guard Bureau to provide a report to the House Committee on Armed Services not later than 1 March 2019, on the effectiveness of National Guard Bureau behavioral health programs like resiliency, suicide prevention, and other mental health outreach efforts.

Mental Health Care in the Military Health System

The committee commends the Department of Defense and military services' significant efforts over the past decade to aggressively improve treatment of traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), chronic traumatic encephalopathy (CTE), and other mental health issues. The

committee also recognizes the importance of research and innovation being made in the treatment of brain disease and the need to improve collaboration between the Department of Defense, the National Institutes of Health, the Department of Veterans Affairs, and medical research translation offices at major universities. As the Military Health System transitions the operations of the military treatment facilities (MTF) from the military services to the Defense Health Agency, the committee notes this area of research and treatment needs aggressive oversight.

Therefore, the committee directs the Secretary of Defense, in coordination with the Secretaries of the military departments, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives not later than April 1, 2019, on the plan for the Military Health System to provide mental health care services as part of the transition of the MTFs. This report shall include an assessment of how mental health care providers will be arranged within the command structure of the Defense Health Agency, how mental health care policy and processes will be managed within the Defense Health Agency to deliver mental health care services to members of the Armed Forces and covered beneficiaries; the ability of each service Surgeon General to maintain the readiness of the military health workforce to deliver mental health care services operationally in support of deployed forces. In addition, this report shall include a plan to accelerate innovation and delivery of treatments for TBI, CTE and PTSD to members of the Armed Forces and covered beneficiaries through improved coordination of behavioral health research and development efforts across the federal government, academic institutions, and industry; inclusion of evidence-based suicide prevention programs; promotion of acquisition strategies that utilize other transaction authorities to accelerate development and delivery of promising breakthrough therapies for TBI, CTE and PTSD; facilitation of public-private investment partnerships to pursue psychiatric and brain disease treatments; and plans to expeditiously field Food and Drug Administration--cleared pharmaceuticals and medical devices that provide clinicians with therapeutics and tools for rapid, accurate assessments of TBI and PTSD.

Assessment of Air National Guard and Air Force Reserve Involuntary Mobilization Plans to Support Special Operations Activities

During review of the fiscal year 2019 President's budget request and related activities in support of Air Force Special Operations Command (AFSOC), the committee determined that a small number of Air National Guard units and all Air Force Reserve Command units that support AFSOC missions and force presentation requirements do not possess a current, validated involuntary mobilization plan that complies with various Department of Defense, Department of the Air Force, and Special Operations Command instructions or policies. The committee is concerned that without sufficient and validated involuntary mobilization plans that detail how the Air National Guard and the Air Force Reserve Command intend to support AFSOC as operational reserve units, should the need arise for Special Operations Command to fully mobilize forces in support of global special operations activities, the Air National Guard and Air Force Reserve Command may lack the capability and capacity to support the mission.

Therefore, the committee directs the Comptroller General of the United States to provide a briefing to the House Committee on Armed Services not later than March 1, 2019, that assesses involuntary mobilization plans for Air National Guard and Air Force Reserve Command units that support Air Force Special Operations missions and activities. The Comptroller General should assess, at a minimum:

- (1) the existence and recency of an involuntary mobilization plan;
- (2) the sufficiency and validity of the plan as compared to a unit's Designed Operational Capability statement, authorized and assigned manpower levels, authorized and assigned equipment, facilities, and support functions necessary to execute the plan;

- (3) comparison with existing Department of Defense policy and regulations governing mobilization-to-dwell and deployment-to-dwell goals and objectives;
- (4) any discrepancies, shortfalls, or gaps associated with the aforementioned areas of assessment; and
- (5) any additional information the Comptroller General would find useful to support the briefing.

Civil Support Team Information Management System

The committee is aware that the National Guard Bureau Weapons of Mass Destruction Civil Support Teams (CST) currently field the CST Information Management System (CIMS). CIMS provides a common operation picture and promotes information sharing and real-time collaboration. CIMS also supports the CST mission of assisting and advising first responders and facilitating communications with other Federal resources in an emergency.

The committee encourages the expansion of CIMS to establish an enterprise-wide capable tool, commonly referred to as the National Guard Chemical, Biological, Radiological, and Nuclear Response Enterprise Information Management System 2018+ (NG CIMS 2018+). The committee believes that expansion will increase the capabilities of the CIMS to support other National Guard Bureau forces, such as the Chemical, Biological, Radiological, Nuclear, and High-Explosive Enhanced Response Force Package and Homeland Defense Response Force units.

The committee notes that the timeline the Department of Defense previously presented to the committee in their September 8, 2015, report "Civil Support Team Information Management System" has been delayed. The committee, therefore, directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by October 1, 2018, on the plan for the development of NG CIMS 2018+, including a description of timelines, milestones, fielding, and completion dates.

MQ-9 Enterprise Supporting Air Combat Command and Air Force Special Operations Command Activities

After a detailed review, the committee has determined that a system to manage and develop MQ-9 specific remotely piloted aircraft (RPA) aircrews does not exist between Air Force Special Operations Command (AFSOC), Air Combat Command (ACC), and the Air Force Personnel Center. The committee is concerned that ACC is the Air Force's primary entity responsible for managing, assigning, and transitioning MQ-9 aircrews for AFSOC and that AFSOC may not have the visibility it needs into ACC "talent management" processes to sufficiently support AFSOC future planning and normalization of operations tempo. Moreover, the role of the Air Force Personnel Center's in managing and career-shaping MQ-9 aircrews is unclear.

Therefore, the committee directs the Commander of ACC, in coordination with the Commander of AFSOC and the Commander of the Air Force Personnel Center, to provide a briefing to the House Committee on Armed Services not later than October 19, 2018, on how MQ-9 aircrews are assigned, managed, and developed among ACC and AFSOC. The briefing should also include an update regarding the Air Force's MQ-9 Culture and Process Improvement Program activities for each command, and each command's progress for acquiring the necessary manpower authorizations, and actual assigned manpower, to achieve deployment to dwell operations tempo to comply with Department of Defense policies.

National Guard Access to Department of Defense Owned Unmanned Aircraft Systems

The committee notes that section 1084 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) required that not later than 1 year after the date of the enactment of Public Law 115-91, the Secretary of Defense, in coordination with the Chief of the National Guard Bureau, the

Commander, U.S. Northern Command, and the Commander, U.S. Pacific Command, complete an efficiency and effectiveness review of the governance structure, coordination processes, documentation, and timing requirements stipulated in Department of Defense policy memorandum 15-002, "Guidance for the Domestic Use of Unmanned Aircraft Systems (UAS)." In addition, not later than 30 days after the policy review is completed, the Secretary of Defense is required to submit the results of the review to the congressional defense committees. The committee expects that during the policy review, Department of Defense officials will implement a processing timeline for reviewing National Guard UAS utilization requests that appropriately balances reviewing the request for compliance with established policy and reviewing the request in a timely manner that coincides with the responsiveness, urgency, and operational planning factors dictated by the specific mission the UAS capability is being requested to support.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than 30 days after the policy review required by section 1084 of Public Law 115-91 is completed. The briefing should include information related to the processing timeline that the Secretary established during the policy review and how the timeline will be implemented.

Report on NORTHCOM Response to Hurricane Maria

In 2017, the United States witnessed Hurricane Maria, which had a devastating impact on Puerto Rico and required a Federal Government response. Therefore, the committee directs the Secretary of Defense, in collaboration with the Secretary of Homeland Security and the Federal Emergency Management Agency Administrator, to submit a report by December 1, 2018 on the ongoing U.S. Government recovery effort of Hurricane Maria. The report shall include the following elements: (a) statistics on ongoing power outages; (b) the number of deaths in each U.S. state or territory affected; (c) measures to improve hurricane emergency response plans for insular areas and/or territories of the United States.

National Guard and Reserve Component Equipment Account

The budget request for Overseas Contingency Operations (OCO) contained no funding for a National Guard and Reserve Component equipment account. Elsewhere as reflected in division D of this Act, the committee notes that the base budget request contained \$3.4 billion for procurement of National Guard and Reserve Component equipment and \$219.9 million in the OCO request for Army National Guard and Army Reserve other procurement programs.

The committee remains concerned about the availability of equipment needed to sustain and modernize the National Guard and Reserve Components as an operational reserve and for their domestic support missions. The committee notes that National Guard and Reserve Components are often reliant upon overused and outdated equipment, creating a widening capability gap with the Active Component, and have been unable to maintain pace with rapid technological change. The committee believes additional funds are required to address identified equipment shortfalls and improve compatibility with Active Components. The committee expects these funds to be used for the purposes of, but not limited to, the procurement of rotorcraft; avionics and radar upgrades for legacy strike fighter aircraft to include Navy Reserve F-18 strike fighters; wheeled and tracked combat vehicles; tactical wheeled vehicles; ammunition; small arms; tactical radios (to include single channel ground and airborne radio systems); UH-72A Lakota survivability upgrades; UH-60 disaster response equipment, such as rescue hoists, water buckets, and radios; non-system training devices; vehicle convoy operations trainers; unstabilized gunnery trainers and virtual convoy operations trainers; sense and avoid system upgrades for unmanned air systems; and explosive ordnance disposal man-portable

robots & lightweight X-ray systems and other unfunded procurement items for the National Guard and Reserve Components.

The committee recommends additional funding for a National Guard and Reserve Component equipment account within the Overseas Contingency Operations budget request. The committee also recommends \$3.4 billion, the full amount of the base budget request, for National Guard and Reserve Component equipment and also recommends \$219.9 million in the OCO request for Army National Guard and Army Reserve.

Cyber Scholarship Program

The budget request contained \$7.9 million in PE 33140D8Z, for the defense-wide Information Security Systems Program.

Section 1649 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) amended chapter 112 of title 10, United States Code, to establish the Department of Defense Cyber Scholarship Program. The committee believes the Cyber Scholarship program may alleviate the challenges the Department of Defense is experiencing in recruiting and retaining cybersecurity personnel. Additionally, the committee believes that providing additional opportunities under the program will be beneficial in addressing Department requirements for a qualified cyber workforce, especially if the Department focuses on educating the public and relevant academic institutions about this program. The committee also believes that Reserve Officer Training Corps (ROTC) programs at universities that offer degrees in cyber studies and related fields provide an opportunity to leverage and expand partnerships to assist in closing the gap of trained cyber warriors in the military.

Therefore, the committee recommends \$17.9 million, an increase of \$10.0 million, in PE 33140D8Z. Further, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by February 1, 2019, on the implementation and utilization of the Cyber Scholarship Program, to include efforts to educate the public and focus on institutions with high-quality computer science, engineering, and cybersecurity programs, including historically black colleges and universities, and minority-serving institutions. The briefing should also include implementation and utilization of efforts to leverage ROTC at institutions with cyber studies as a way to expand the pool of talented technical applicants.

Incremental Funding of Military Construction Projects

As noted elsewhere in this report, the committee continues to believe in the value and appropriateness of incrementally authorizing appropriations for certain military construction projects. The committee notes that the Office of Management and Budget has directed the Department of Defense to not plan, program, or request incremental funded projects. However, the committee believes that allowing the Department to seek incremental funding for certain projects ensures more stability and predictability in the planning process, reduces acquisition costs, and enables the Department to execute more work in place on other infrastructure requirements in the fiscal year. Furthermore, the committee believes that incremental funding of large and complex military construction projects ensures continuous oversight and opportunities to adjust the authorization of appropriation level for projects should issues arise or requirements change over the course of construction. To date, the committee is not aware of any example where a military construction project has been left with inadequate funding or has not been executable as a result of an incremental funding approach. The committee expects the Secretary of Defense and the Director of the Office of Management and Budget to work with the House Committee on Armed Services, and the other appropriate congressional oversight committees, to develop a framework that enables the planning, programming, budgeting, and execution of incrementally funded military construction projects.

Review of National Guard Capabilities in Support of Incident Awareness and Assessment Mission Operations

The committee notes there is inconsistency among National Guard and Department of the Air Force officials in expressing what type of capabilities and which platforms are required to support the Incident Awareness and Assessment (IAA) mission of the National Guard. The committee requires clarification regarding the National Guard's current and future capability and capacity requirements to execute the IAA mission in support of Domestic Operations (DOMOPS) when National Guard personnel are on duty or mobilized under title 32, United States Code, authority, and in support of Defense Support to Civil Authorities (DSCA) when National Guard personnel are on duty or mobilized under title 10, United States Code, authority. The committee believes it is critical for the Department of Defense to maintain a sufficient capability, capacity, and responsiveness among the Active and Reserve components of the Department when supporting missions related to homeland defense and responding to natural disasters or declared emergencies.

Therefore, the committee directs the Chief, National Guard Bureau, in coordination with the Commander, U.S. Northern Command, the Director, Air National Guard, and the Director, Army National Guard, to provide a report to the congressional defense committees by October 1, 2018, that provides an Incident Awareness and Assessment capability and capacity roadmap for the National Guard covering the 2019 to 2023 Future Years Defense Program (FYDP). The report should describe, at a minimum:

- (1) the validated capability and capacity requirements defining the IAA mission in support of U.S. Northern Command, State Governors, and other Government agencies;
- (2) the specific platforms and quantities of platforms the National Guard will leverage, maintain, or procure to support IAA capability and capacity requirements;
- (3) a schedule depicting specific platforms that will be procured, maintained, or divested in support of IAA capabilities and capacity over the covered time period;
- (4) a schedule depicting specific platforms and associated modernization and upgrades that will be accomplished over the covered time period;
- (5) the required funding needed and currently programmed in the FYDP to support individual platforms within the IAA portfolio of capabilities; and
- (6) any capability or capacity gaps or shortfalls that are identified over the covered time period.

U.S. SENATE REPORT LANGUAGE

Armored Multi-Purpose Vehicle

The budget request included of \$480.0 million in line number 2 of Weapons and Tracked Combat Vehicles, Army (W&TCV) for the procurement of 131 Armored Multi-Purpose Vehicles (AMPV). The committee recognizes the importance of the Army's efforts to modernize and to be better prepared to execute the National Defense Strategy. The Army has made clear its modernization priorities in order to rapidly build capabilities needed for combined arms maneuver against a peer adversary. The committee understands that the AMPV program continues to work through performance challenges of key components. Therefore, the committee recommends a decrease of \$100.0 million in line number 2 W&TCV for the procurement of the AMPV.

Stryker modification

The budget request included \$287.5 million in line number 4 of Weapons and Tracked Combat Vehicles, Army (WTCV), for Stryker modifications. The Army has requested a transfer of \$149.4 from line number 4 to line number 5 of WTCV for Stryker upgrades. Therefore, the committee recommends a decrease of \$149.4 million in line number 4 of WTCV.

Stryker upgrade

The budget request included \$21.9 million in line number 5 of Weapons and Tracked Combat Vehicles, Army (WTCV), for Stryker upgrades. The Army has requested a transfer of \$149.4 from line number 4 to line number 5 of WTCV for Stryker upgrades. Therefore, the committee recommends an increase of \$149.4 million in line number 5 of WTCV.

Bradley Program (Modifications)

The budget request included \$625.0 million in line number 6 of Weapons and Tracked Combat Vehicles, Army (W&TCV), for the procurement of Bradley fighting vehicles. The committee recognizes the importance of the Army's efforts to modernize and to be better prepared to execute the National Defense Strategy. The Army has made clear its modernization priorities in order to rapidly build capabilities needed for combined arms maneuver against a peer adversary. Therefore, the committee recommends a decrease of \$324.0 million in line number 6 W&TCV for the procurement of the Bradley.

F-35A Joint Strike Fighter

The budget request included \$4.3 billion in line number 1 of Aircraft Procurement, Air Force (APAF), for procurement of 48 F-35A aircraft. The committee supports the F-35 Joint Strike Fighter and delivery of its unique capabilities to our warfighters as quickly as reasonably possible. However, the committee remains concerned with the state of the F-35 sustainment enterprise and its ability to bear the rapidly increasing demands upon it efficiently and affordably. The committee believes the enterprise is behind, particularly in regards to spare parts and depot component repair capacity. If the program does not allow the sustainment enterprise to catch up to the currently fielded and soon to be fielded aircraft, sustainment capability will continue to fall farther and further behind its needed capability and capacity, which will ultimately reduce the number of aircraft the Department of Defense is able to procure, sustain, and upgrade. The committee believes it is prudent to establish a solid sustainment base before the steep ramp of production aircraft overwhelms the enterprise's ability to sustain them. Elsewhere in this legislation, the committee seeks to increase funding for F-35 spares, modifications, and depot repair capability. Accordingly, the committee recommends an increase of \$25.0 million for depot repair capability standup and a decrease of \$92.5 million, or one aircraft, for a total decrease of \$67.5 million in line number 1 of APAF.

KC-46A Pegasus

The budget request included \$2.6 billion in line number 4 of Aircraft Procurement, Air Force (APAF), for procurement of 15 KC-46 tanker aircraft. The committee remains supportive of the KC-46 tanker but continues to be frustrated by the repeated delays to achieving required certification and unforeseen technical challenges that continue to plague the program. Over the seven years since the program contract was awarded in February 2011, key schedule dates have slipped later and later, in some cases more than three years. The Government Accountability Office (GAO) published a report on April 18, 2018, "KC-46 Modernization: Program Cost is Stable, but Schedule May Be Further Delayed," which states that "the program updated its delivery schedule in 2017 to allow Boeing to delay delivery of the first 18 fully capable aircraft from August 2017 to October 2018/14 months. A schedule risk assessment, as well as GAO's analysis, however projects that deliveries could slip to May 2019, 21 months from the original schedule, if risks are not mitigated." With military certification testing, receiver certification, and resolution of Category 1 discrepancies still to be completed, the committee remains unconvinced that there will not be further delays to the program. While attention has been focused on the delivery of the first aircraft, the committee notes that first delivery is simply the first step to bringing capability to the warfighter. Successful completion of full receiver aircraft certification, Initial Operational Test and Evaluation, delivery of the required assets available (to include wing air refueling pod sets), and a positive full rate production decision will be the true guideposts. Additionally, while the committee understands the need to be flexible as a program

encounters delays, the committee is disappointed the Air Force has, on more than one occasion, changed the criteria the contractor needs to meet before first delivery. The committee expects the Air Force to hold the contractor to the contracted agreements, and should the contract be breached, pursue appropriate consideration. Meanwhile, production of aircraft continues apace, with nearly 40 aircraft in some phase of production or modification. As the April 18, 2018, GAO report notes, “Based on the updated schedule, Boeing will be producing 49 aircraft, or about 27 percent of the total aircraft the Air Force will buy, before developmental testing is complete.” While the contractor is responsible for paying for any required modifications, the concurrency of production and development will impact delivering capability to the Air Force. Additionally, the Government Accountability Office identified \$102.7 million of funding for KC-46 interim contractor support that is early to need. Therefore, the committee recommends a decrease of \$145.2 million, or one KC-46 aircraft, and \$102.7 million for interim contractor support for a total decrease of \$247.9 million in line number 4 of APAF.

MQ-9

The budget request included \$221.7 million in line number 17 of Aircraft Procurement, Air Force (APAF), for procurement of 29 MQ-9 aircraft. The committee understands the Air Force is moving toward establishing an Advanced Battle Management System concept. As part of this effort, the Air Force intends to emplace a Ground Moving Target Indicator (GMTI) capability on a number of its MQ-9 Reaper fleet to provide GMTI in low-threat areas. The committee is supportive of providing more capabilities to its MQ-9 fleet and of executing operations in permissive environments in a more fiscally efficient manner. However, the committee is concerned that the Air Force’s plan to use MQ-9s for GMTI missions without increasing capacity will overtask an already heavily utilized asset. Accordingly, the committee recommends an increase of \$120.0 million in line 17 of APAF for six additional MQ-9 aircraft in order to accelerate the Air Force’s Advanced Battle Management System.

A-10 replacement wing program

The budget request included \$109.1 million in line number 23 of Aircraft Procurement, Air Force (APAF), for modifications to the A-10 aircraft, including \$79.2 million for the wing replacement program. The committee recommends an increase of \$65.0 million in line number 23 of APAF for the A-10 wing replacement program.

C-130 propulsion upgrade

The budget request included \$22.1 million in line number 50 of Aircraft Procurement, Air Force (APAF), for modifications to the legacy C-130 and Special Mission C-130 aircraft. The committee notes that the budget request did not include any funding for the C-130H T56 Series 3.5 Engine Enhancement Packages (EEPs) in this or any other line. The committee has been encouraged by the results of the Air Force’s testing of the T56 Series 3.5 engine upgrade and the resulting performance and fuel efficiency gains it brings. Therefore, the committee recommends an increase of \$74.0 million in line number 50 of APAF for C-130H T56 Series 3.5 EEPs.

Joint Surveillance Target Attack Radar System

The budget request included \$22.9 million in line number 59 of Aircraft Procurement, Air Force (APAF), for modifications to the E-8C Joint Surveillance Target Attack Radar System (JSTARS). The committee understands the Air Force is seeking to retire three JSTARS aircraft in fiscal year 2019, forgo recapitalizing the JSTARS fleet, and move towards an Advanced Battle Management System (ABMS). The committee supports the Air Force’s move toward establishing advanced capabilities and concepts of operations to enhance effectiveness in any potential conflict with a peer or near-peer adversary. However, the committee is concerned that the Air Force is divesting proven capability before its planned replacement is matured, let alone fielded. The committee is particularly concerned that the Air Force’s plan to divest the JSTARS fleet by the mid-2020s will leave a significant capability gap in

the mid- to late-2020s should implementation of ABMS be delayed or prove unfeasible. The committee believes the JSTARS aircraft remains a critical capability for our warfighters in the near- to mid-term. In order to ensure its relevance and effectiveness as an interim capability as the Air Force transitions to an ABMS, JSTARS requires upgrades, including to its central computer. Therefore, the committee recommends an increase of \$25.0 million in line 59 of APAF for JSTARS central computer upgrade design.

B-2 modernization programs

The committee is aware that, as noted in the Department of Defense's fiscal year 2018 budget request, "modern communications are key enablers for the B-2 in the anti-access/area denial battlespace and directly enhance lethality and force multiplication." The committee notes that the Department did not request any funding in its fiscal year 2019 budget for the B-2 Advanced Extremely High Frequency (AEHF) Satellite Communications program and has not proposed an alternative secure communications solution to replace the current communications suite.

The B-2 is currently the only stealth, long-range, penetrating bomber in the Air Force inventory. While the committee fully supports the recapitalization of the bomber fleet with at least 100 next-generation B-21 bombers, the committee is concerned about capability and capacity gaps in the near-to-mid-term.

Therefore, the committee directs the Secretary of the Air Force to submit a report to the congressional defense committees by February 28, 2019, on potential line-of-sight and beyond line-of-sight communications upgrades for the B-2 that would provide the capabilities required for the B-2 to perform its critical strike missions in anti-access/area denial environments.

Additionally, the report should consider solutions that would enable automated transfer of data to the B-2 and enable the aircraft to operate in a networked fashion with other elements of the long-range strike family of systems and other Air Force and Joint systems. The report should provide estimated modernization costs and timelines, consider opportunities to exploit capabilities developed for other programs, and take into account timelines for introduction of future systems that will provide similar capabilities.

Continued F-15 C/D fleet modernization

The committee is aware that the U.S. Air Force is undertaking a review of its aircraft force mix and structure, including the appropriate balance between 4th and 5th generation aircraft in the Active-Duty and reserve force, and that the Air Force expects to complete that review in August 2018. Therefore, the committee requests a briefing on the results of this review no later than September 1, 2018.

The committee remains concerned that retiring entire fighter fleets, like the F-15C, without acquiring sufficient replacement aircraft, will drive the number of fighter aircraft below the levels required by the National Defense Strategy and below the floor established by Section 131 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91). Until the Air Force makes a final determination on the future of the F-15C/D fleet, the committee encourages the Air Force to continue investment in the modernization of the F-15 C/D, including the Active Electronically Scanned Array (AESA) radar, the Electronic Warning Warfare System (EWWS), and the Eagle Passive Active Warning and Survivability System (EPAWSS), which provides radar warning, geo-location, situational awareness, and self-protection solutions to detect and defeat surface and airborne threats in contested environments. The committee notes the Air Force has funded procurement of EPAWSS for its F-15E fleet and the necessary research and development to outfit the F-15C/D fleet.

HH-60 Combat Rescue Helicopter program

Air Force combat rescue forces and assets are among the most deployed in the Department of Defense, and the heroic efforts of Air Force combat rescue airmen and women have resulted in over 12,000 U.S. and allied lives saved, often under harrowing conditions. These demanding conditions have exacted a significant toll on this force, which has suffered significant combat losses of aircraft and personnel. The HH-60W Combat Rescue Helicopter (CRH) will replace the Air Force's rapidly aging HH-60G Pavehawk helicopters to continue to perform these critical combat search and rescue and personnel recovery operations. The current Air Force program of record is for a minimum of 112 HH-60W CRH aircraft. The committee notes that numerous force structure studies have documented the need for between 141 (USAF CSAR-X Analysis of Alternatives) and 171 (Joint Forces Command Joint CSAR Study) aircraft to meet the rescue requirement demands. Therefore, the committee supports 112 as the minimum number of HH-60W CRH aircraft to support the validated requirement.

Report on Air Force plan for fighter aircraft

The committee understands that Air Combat Command is developing a Fighter Roadmap which will detail the Air Force's plans for the fighter aircraft fleet.

The Secretary of the Air Force shall provide a report to the Committees on Armed Services of the Senate and House of Representatives on the Air Combat Command Fighter Roadmap. The report shall describe the Air Force's plans for the fourth-generation fighter fleet and plans for converting fighter units to the F-35. To the extent feasible, the report should discuss the criteria to be used for future basing operations of F-35 aircraft.

Army Next Generation Combat Vehicle Prototype

The budget request included \$10.2 billion for Research, Development, Test, and Evaluation (RDT&E), Army, of which \$119.7 million was for PE 63005A Combat Vehicle and Automotive Advanced Technology. The committee recognizes the importance of the Army's efforts to expedite critical capabilities through rapid prototyping to meet the needs of combatant commanders. The committee believes that the Army must rapidly develop a prototype next generation combat vehicle to replace the aging Bradley fighting vehicle. The committee notes that the Army's Tank Automotive Research Development and Engineering Center (TARDEC) has done significant market surveys of the world's best modern component technologies, fabricated a prototype hull, and produced a virtual design concept. The committee believes that the TARDEC should be given all needed funding and authorities to continue this prototyping effort with technology developers, operational users, testers, and commercial sector partners. The committee recommends an increase of \$70.0 million, for a total of \$189.7 million, in RDT&E, Army, PE 63005A, for the Combat Vehicle and Automotive Advanced Technology to prototype the next generation combat vehicle.

Air Force supply chain innovation

The budget request included \$40.2 billion in Research, Development, Test and Evaluation (RDT&E), Air Force, of which \$1.2 billion was for PE 64858F technology transition. The committee is supportive of the Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics' initiative to focus resources on increasing innovation within the Air Force's supply chain. Though constituting approximately 70% of the Air Force's budget, sustainment receives few resources for new technology development—predictive analytics, agile manufacturing, digital engineering, and artificial intelligence—to drive down costs. Given current aircraft availability shortfalls, the committee urges the Air Force to focus on the consolidation of technology development, applications to current availability challenges, and transitioning to the depots, all while developing and equipping the sustainment workforce. Accordingly, the committee recommends an increase of \$42.8 million, for a total of \$1.4 billion, in RDT&E, Air Force, PE 64858F, for Air Force supply chain innovation.

Advanced Battle Management System

The budget request included \$40.2 billion in Research, Development, Test, and Evaluation (RDT&E), Air Force, of which \$207.7 million was for PE 64281F Tactical Data Networks Enterprise. As part of its movement towards an Advanced Battle Management System, the Air Force has indicated the need to increase the capability of its communications and data links. The committee strongly supports efforts to increase the capability of our information links. The committee also strongly supports efforts to accelerate capabilities that will make our forces more relevant and effective at deterring, and, if necessary, defeating a peer adversary. Therefore, the committee recommends an increase of \$50.0 million, for a total of \$257.7 million, in RDT&E, Air Force, PE 64281F, for Agile Communications, High Capacity Backbone and Link 16 Enhancements in order to accelerate the Advanced Battle Management System.

JSTARS recap radar

The budget request included \$40.2 billion in Research, Development, Test, and Evaluation (RDT&E), Air Force, of which \$0.0 was for PE 37581F for the JSTARS Recapitalization. The committee is concerned that the Air Force's decision to cancel the JSTARS Recapitalization program leaves in limbo the continued development of the Recap radar, for which the Air Force has spent years and millions of dollars bringing to its current maturity. The committee supports the Air Force's move to an Advanced Battle Management System but is apprehensive about the Air Force's proposal to divest existing capability in the current JSTARS aircraft while its plan for future capability remains aspirational. The risk, if not likelihood, of a significant capability gap warrants mitigation. As the Air Force evolves its view of what the Advanced Battle Management System entails and begins to bring capability online, the committee believes that it is prudent to continue development of the Recap radar to explore further potential uses and provide the Air Force with options. Therefore, the committee recommends an increase of \$50.0 million, for a total of \$50.0 million, in RDT&E, Air Force, PE 37581F, for continued Ground Moving Target Indicator radar development.

Active Protection System for Abrams, Bradley, Stryker

The committee notes that the Army's M1 Abrams Tank will be upgraded with the Trophy Active Protection System (APS), which has already been used in battle to protect the Israel Defense Forces Merkava tanks.

The National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) provided \$138.7 million in funding for one brigade in Europe and another \$171.0 million in an unfunded requirement for more APSs that could be used for Trophy for the Korean theater. The budget request included \$617.5 million that would support funding the procurement of 282 APSs and countermeasures for the Abrams tanks.

The Committee strongly supports the President's Budget Request for APS for Abrams, Bradley, and Stryker.

Advanced countermeasure dispenser system for 4th generation/legacy aircraft

The committee is aware that potential adversaries are making significant improvements in their ability to detect, target, and engage U.S. tactical aircraft across the infrared (IR) and radio frequency (RF) spectrum. Fourth-generation, "legacy aircraft," particularly vulnerable and, as they will form a significant portion of our tactical aircraft inventory for decades to come, their survivability will be increasingly challenged.

Legacy aircraft must include the ability to counter these emerging threats through readily-available and quickly-integrated means, including advance IR/RF expendable countermeasures and more capable dispensing systems.

Therefore, the committee strongly supports investment to sustain the survivability of our 4th generation tactical aircraft, including advanced countermeasures and their associated dispensing systems.

Improved Turbine Engine Program

The committee commends the Army for moving forward with research and development for the Improved Turbine Engine Program (ITEP). The committee notes the importance of this critical program, which is intended to develop a more fuel-efficient and powerful engine for the current UH-60 Black Hawk and AH-64 Apache helicopter fleets. This new engine will substantially increase operational capabilities by increasing range and improving fuel efficiency, while reducing the logistics footprint, resulting in dramatically reduced operating and support costs.

Given the positive progress of this key program, the committee fully supports ITEP in fiscal year 2019.

Joint Surveillance Target Attack Radar System weapons system sustainment

The budget request included \$42.1 billion in Operation & Maintenance, Air Force (OMAF), of which \$3.8 billion was for SAG 11W Air Operations, Contractor Logistics Support and System Support. The budget request included the retirement of three E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. Elsewhere in this Act, the committee recommends a provision that would prohibit the retirement of any E-8C JSTARS aircraft. Therefore, the committee recommends an increase of \$95.9 million in OMAF to SAG 11W Air Operations, Contractor Logistics Support and System Support to restore reductions associated with the divestment of three E-8C JSTARS aircraft.

Joint Surveillance Target Attack Radar System flight hours

The budget request included \$42.1 billion in Operation & Maintenance, Air Force (OMAF), of which \$4.4 billion was for SAG 11Y Air Operations, Flying Hour Program. The budget request included the retirement of three E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. Elsewhere in this Act, the committee recommends a provision that would prohibit the retirement of any E-8C JSTARS aircraft. Therefore, the committee recommends an increase of \$50.0 million in OMAF to SAG 11Y Air Operations, Flying Hour Program to restore flying hour reductions associated with the divestment of three E-8C JSTARS aircraft.

Joint Surveillance Target Attack Radar System personnel

The budget request included \$6.4 billion in Operation & Maintenance, Air National Guard (OMANG), of which \$2.6 billion was for SAG 11F Aircraft Operations. The budget request included the retirement of three E-8C Joint Surveillance Target Attack Radar System (JSTARS) aircraft. Included in the divestment is a cost of \$1.6 million and 16 Full Time Employees. Elsewhere in this Act, the committee recommends a provision that would prohibit the retirement of any E-8C JSTARS aircraft. Therefore, the committee recommends an increase of \$1.6 million in OMANG to SAG 11F Aircraft Operations to restore the cuts associated with the divestment of three E-8C JSTARS aircraft.

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

The budget request included \$6.4 billion in Operation and Maintenance, Air National Guard (OMANG), of which \$988.3 million was for SAG 11Z Base Support. The committee continues to support the Air Force's environmental services efforts to remediate and cleanup per- and polyfluoroalkyl substances (PFAS). Accordingly, as requested by the Air Force, the committee recommends an increase of \$11.0

million in OMANG to SAG 11Z for environmental compliance to remediate and cleanup PFAS. The committee notes a matching amount of \$11.0 million will be decreased in the tables from Environmental Restoration, Air Force SAG 42G to reflect the transfer.

Defense Environmental International Cooperation program increase

The budget request included \$1.5 billion in Operation and Maintenance, Defense-wide (OMDW) for the Office of the Secretary of Defense (SAG 4GTN), of which no funds were for the Defense Environmental International Cooperation (DEIC) program. The committee continues to note that the Army National Guard and other military units are frequently called upon to respond to humanitarian assistance and disaster relief (HA/DR) crises around the world. The DEIC program enables the Army National Guard to share best practices and lessons learned from its own HA/DR missions with U.S. allies. This important program promotes and develops allied HA/DR capability for a relatively small amount of money. For example, given current readiness challenges within the United States Southern Command and its limited bandwidth to respond to HA/DR missions, the Army National Guard has used the DEIC program to provide training and capability development to countries within the region to remove debris and otherwise respond in the event of an earthquake or hurricane. The committee continues to support the DEIC program and disagrees with DOD's intent to terminate a low-cost and useful training program for the Army National Guard. Accordingly, the committee recommends an increase of \$1.0 million to SAG 4GTN for DEIC.

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

The budget request included \$296.8 million in Environmental Restoration, Air Force. The committee continues to support the Air Force's environmental services efforts to remediate and cleanup per- and polyfluoroalkyl substances (PFAS). Accordingly, as requested by the Air Force, the committee recommends a decrease of \$11.0 million in Environmental Restoration, Air Force to SAG 042G for environmental compliance to remediate and cleanup PFAS. The committee notes a matching amount of \$11.0 million will be increased in the tables to Air National Guard SAG 11Z Base Support to reflect the transfer.

Junior Reserve Officers' Training Corps increase

The budget request included \$80.2 billion in Operations and Maintenance, Defense-wide, of which \$138.3 million was for Junior Reserve Officers' Training Corps (JROTC). The committee believes JROTC programs are an important program for the nation and have been historically underfunded by the Department of Defense. Accordingly, the committee recommends an increase of \$5.48 million in Operations and Maintenance, Defense-wide for Junior Reserve Officers' Training Corps programs.

Air National Guard Per- and Polyfluoroalkyl substances cleanup

The budget request did not include funding in Undistributed Operation and Maintenance. Accordingly, the committee recommends an increase of \$15.0 million to Undistributed Operation and Maintenance, Air National Guard for the cleanup of Per- and Polyfluoroalkyl substances at certain National Guard locations.

Air Force runway infrastructure

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

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

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

Accordingly, the committee directs the Secretary of the Air Force to conduct an assessment and provide a briefing to the congressional defense committees no later than February 1, 2019, detailing the operational requirements for Air Force airfields in addition to the state of airfields where runway degradation currently poses a threat to operations, as well as installations where such degradation threatens operations in the five and ten year time frames. The briefing shall include the operational requirement for airfields, an assessment of the impact to operations, cost to repair, cost to replace, remaining useful life, and narrative on the required daily maintenance to ensure the runway is acceptable for full operations at the installation, and any challenges with infrastructure acquisition methods and processes. The briefing shall also include the operational impact if the respective runway became inoperable due to a major degradation incident, such as a crack or fracture resulting from lack of maintenance and repair. Finally, the briefing shall include a plan to address any shortfalls associated with the Air Force's runway infrastructure.

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

Arctic search and rescue

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

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

Briefing on Agency for Toxic Substances and Disease Registry PFAS report

The committee understands that the Department of Health and Human Services (HHS) Agency for Toxic Substances and Disease Registry (ATSDR) is in the process of completing toxicological profiles for perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorononanoic acid (PFNA) and perfluorohexane sulfonic acid (PFHxS) in drinking water, pursuant to 42 U.S.C. § 9601 et seq. The contamination of the water supply resulting from the leeching of these chemicals used in the military's firefighting foam in ground water impacts the readiness of our troops and the health of our active duty and reserve service members and their families. In order to address the readiness issues associated with this contamination, the committee requests a briefing on this ATSDR report within 30 days.

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

The committee notes that the current depot maintenance program for the joint surveillance target attack radar system (JSTARS), currently conducted by a private contractor, has experienced significant delays in maintenance cycles. Contracted maintenance has also failed to meet the Air Force's requirement to have no more than three aircraft in depot to meet operational needs. The contractor averaged six aircraft in depot during calendar year 2017. The Air Force was unable to perform 179 sorties from November 2016 to October 2017, including 8,500 Ready Aircrew Program events, which reduced combat effectiveness. This diminished the Air Force's ability to meet combatant command (COCOM) mission requirements and Global Response Force taskings. In addition, the committee is concerned that the Air Force was unable to support seven sorties in support of COCOMs, and the Joint Staff denied requests for JSTARS support due to low aircraft availability. As a result of low aircraft availability forecast, the total Global Force Management Allocation Plan offering was reduced for fiscal year 2018.

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

Development of future fluorine-free fire fighting foams

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

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

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

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

Encouraging the use of the Innovative Readiness Training program

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

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

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

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

Comptroller General report on Department of Defense original appointment and scrolling processes

As the committee continues to look for opportunities to make military personnel management policy more adaptable, the ability of the military to quickly and repeatedly transition servicemembers between the active and reserve components is an important step toward building a true continuum of service. The committee understands that under current policy and practice, transferring an officer from one component to another can take up to 4 months. This extended timeline is likely a contributing factor in declining reserve component affiliation rates and the limited numbers of reserve component officers able to return to the active component.

The committee also understands the current original appointment policy contributes significantly to delays in processing original appointments and promotions for both the active and reserve component. In particular, military department officials have repeatedly stated concerns related to the “scrolling” process used to process officer original appointments. This process may also affect the time required to gain federal recognition of National Guard promotions. Despite the recurring concerns, Department of Defense (DOD) and military officials have been unable to articulate aspects of the current process that may be accelerated either by policy or legislative changes.

Therefore, the committee directs the Comptroller General of the United States to conduct a review of DOD's original appointment process and to provide preliminary observations to the Committees on Armed Services of the Senate and the House of Representatives by the end of February 2019. At that time, a final product due date will be determined. The review shall include:

- (1) An explanation of current original appointment processes within all relevant organizations, including the military departments, National Guard Bureau, Office of the Secretary of Defense, the White House Military Office, and the Senate;
- (2) An explanation of the necessity for hard copy scroll documents; and
- (3) A discussion of opportunities to accelerate the original appointment process.

Improvements to licensure and credentialing for military spouses

The committee remains concerned about the employment difficulties military spouses face as a result of the rigors and requirements of military life. Whether their 1st or 20th move, many military spouses repeatedly encounter a costly and lengthy process to meet the professional licensure and credentialing requirements of their new State before they can seek meaningful employment in their chosen field.

Depending on the profession and the requirements in each State, military spouses can spend upwards of thousands of dollars to become credentialed or licensed every time they relocate. This cost alone may make it prohibitive for military spouses to continue or pursue their own careers. For many, it is not only the cost, but the time involved. A 2-year assignment does not give a military spouse much time to find a job if the licensing process in a given State takes 12 months.

In the Blue Star Families Military Family Lifestyle Survey from 2017, 28 percent of military spouses reported they were unemployed and actively seeking work while 55 percent of employed military spouses stated they were underemployed. When compared to the current national unemployment rate of 4.1 percent, it is clear that military spouses experience greater impediments when seeking full-time employment than their civilian counterparts.

While Department of Labor (DOL) and Department of Defense (DOD) resources exist to aid military spouses in finding employment or obtaining licensure and credentials after a move, the committee believes that States are less engaged with their military spouse populations than they should be and are often unaware of the employment hardships military spouses endure. The committee believes that States would benefit from better understanding the significant and unique economic benefits military spouses bring to local communities, which might incentivize States to remove credentialing and licensure barriers faced by military spouses.

The DOL and DOD resources, CareerOneStop and Military OneSource respectively, offer varying and disparate levels of information on the States' requirements for credentials and licensure. CareerOneStop provides more helpful information, while Military OneSource offers a more user-friendly experience. On both web sites, information appears incomplete and outdated. With military families moving every few years, having easily accessible, accurate, and current information on military spouse employment might make the difference between a single-income military family and a dual-income one.

The committee notes there is unfortunately no one-stop resource for military spouses to find the information each State requires on professional credentials and licensure, and therefore directs the Secretary of Defense, in consultation and coordination with the Secretary of Labor, to update the Military OneSource spouse licensure map on its internet web site and to provide a certification letter to the Committees on Armed Services of the Senate and the House of Representatives that the

information on the web site is current, accurate, and complete for each State and each profession requiring licensure or certification. Further, the committee directs that this web site be reviewed and updated periodically to ensure its continuing accuracy and usefulness to military families.

Additionally, the committee directs the Secretary of Defense, in consultation with the Secretary of Labor and the National Governors Association, to review existing obstacles to greater military spouse licensure and credentialing portability across the States and to consider solutions to increase such portability and the feasibility of these solutions. The Secretary shall submit a report to the Committees on Armed Services of the Senate and the House of Representatives by no later than March 1, 2019, on the results of this review. The report, at a minimum, shall include:

- (1) An analysis of the prevalence of military spouses in each State, which would include the total number of military spouses and the percentage of the overall population in the State that are military spouses;
- (2) The estimated impact of employment of military spouses on State economies;
- (3) An assessment of the economic impact of establishing licensing compacts or occupational licensing boards to reduce occupational licensing burdens and to remove certification impediments for military spouses;
- (4) A summary of economic and other benefits to States relating to increasing occupational licensing reciprocity for military spouses; and
- (5) A summary of industry association and local business views with respect to the facilitation of greater credentialing and licensure portability for military spouses.

National Guard Federal promotion delays

The committee recognizes that soldiers and airmen in the National Guard are unique because their appointments and promotion to a higher rank are governed by their states and are subsequently reviewed and approved for Federal recognition by the Federal Government. The committee continues to believe that a thorough review of officer character and conduct is necessary, but is concerned about reports that bureaucratic obstacles in the scrolling process are unduly slowing Federal recognition of National Guard promotions.

Delays in Federal recognition can have negative consequences for National Guard officers, who often assume a more senior role while waiting for their promotion to be federally recognized, still receiving the pay and benefits of a more junior grade. Delays impact time in grade, or can result in officers being assigned to lesser positions than they are qualified to perform. It also means that National Guard officers may not be assigned to positions of additional responsibility, such as command, when working hand-in-hand with their Active-Duty counterparts on a Federal mission.

Therefore, the committee has included a provision that would provide service secretaries with discretion to adjust the date of rank of National Guard officers when promotions are unduly delayed. The committee urges the service secretaries to use this authority to expeditiously identify and proactively address National Guard officers whose promotions have been unfairly subjected to bureaucratic delay.

National Guard mental health pilot program

The committee remains concerned with the high suicide rate present in the National Guard and endorses efforts by the Chief of the National Guard Bureau to increase access and resources for behavioral health treatment and support for members of the National Guard. The committee is supportive of the efforts taken by the Chief of the National Guard Bureau to establish the National Guard Warrior Resilience and Fitness Program, an integrated approach to using embedded behavioral

health models to leverage enhanced screening tools and predictive analytics to identify mental health risk and provide early, targeted intervention. Not later than December 1, 2018, the Chief of the National Guard Bureau shall provide a letter report to the Committees on Armed Services of the Senate and the House of Representatives on the Warrior Resilience and Fitness Program, including its impact on readiness, resiliency, and suicide prevention.

Reimbursement for certain costs incurred by states during domestic emergencies

The committee recognizes that the National Guard is an essential force providing effective emergency response capabilities in the Homeland. However, during some complex emergency responses, states are forced to assume fiscal risk that can jeopardize their ability to accomplish the emergency response deployment, and further place individual servicemembers in conditions of compromised individual protection, family protection, and compensation.

The committee notes that a mechanism exists in current law where the Federal Government can reimburse a state that orders its National Guard to State Active Duty to respond to certain domestic emergencies. The committee understands that when the Federal Emergency Management Agency (FEMA) is authorized to reimburse states for National Guard utilization during a domestic emergency, such reimbursement may take over a year to reach the state. The committee further notes that exceedingly long periods for reimbursement reduces states' ability to respond to follow-on domestic emergencies or ones of extended duration. For extended duration emergencies, such as those suffered by states during the 2017 hurricane season, funding requirements can extend beyond the current state fiscal year. The committee also notes that states acting under the Emergency Management Assistance Compact to provide mutual aid to another state during a domestic emergency must obligate their own funds to do so. These states are especially harmed by long reimbursement timelines. Finally, the committee understands these delays in reimbursement can harm military readiness.

Therefore, no later than 180 days after the enactment of this Act, the committee directs the Assistant Secretary of Defense for Homeland Defense and Global Security, in consultation with FEMA and the states, to report to the congressional defense committees on suggested ways to expedite the reimbursement process. The consultations should include consideration of the process for requesting specific orders status, the average time for the Federal Government to answer a request from a state, and the criteria required to approve the request.

Use of reserve personnel for the Cyber Mission Force

As the military departments continue to formalize their contribution to the U.S. Cyber Command Cyber Mission Force by acquiring, training, and managing personnel with cyber-related capabilities, the committee encourages creative utilization of personnel who serve in the reserve component. The private sector requirement for relevant cyber knowledge and experience continues to grow, which means the reserve component may be the ideal source of personnel who possess the skills necessary to bolster the Cyber Mission Force.

The committee encourages service secretaries to use all personnel authorities at their disposal to attract and retain personnel for the Cyber Mission Force. In particular, the committee is interested in novel approaches to the use of the reserve component for this vital mission. As innovative personnel policies are developed, the committee urges service secretaries to identify legal constraints and to propose changes to current law to improve the military's ability to make itself an attractive employer for the nation's cyber workforce.

Emerging technologies to mitigate and prevent traumatic brain injury

The committee applauds the Department of Defense for its ongoing efforts to develop mitigation/prevention strategies for traumatic brain injuries (TBI). These efforts include exploration of emerging technologies that show promise in greatly reducing the occurrence of TBI. The committee understands that Walter Reed National Military Medical Center has successfully tested various innovative technologies to prevent TBI. To the committee's knowledge, however, these efforts have not yet led to the rapid fielding of these new technologies in military training or combat environments.

Therefore, the committee strongly urges the Secretary of Defense to establish an inter-service work group to develop a joint strategy to identify material solutions to mitigate and prevent TBI. The committee believes that this strategy should include a detailed review of the recent findings from successful testing of emerging technologies, followed by development of a comprehensive plan for rapidly identifying, testing, and fielding new technologies to mitigate and prevent TBI.

Mild traumatic brain injury screening tests

The committee remains concerned that servicemembers who have suffered head injuries resulting in concussions or mild traumatic brain injuries (mTBI) may not be receiving the optimal level of available screening. Concussions can result in a prolonged recovery period with individuals reporting persistent symptoms over long periods of time. Individuals exposed to repetitive concussive events, especially those lacking early and accurate screening, are at high risk for long-term negative consequences to brain health, including the development of chronic neuro-degenerative disease. The committee is aware of approaches to screening for concussions and mTBI that assess rapid eye movements. Professional, collegiate, and amateur sports leagues have widely adopted these screening techniques in concussion screening protocols. The committee encourages the Secretary of Defense to assess the feasibility of including eye movement screening tests in the existing mTBI protocols for injured servicemembers.

Procurement of telehealth solutions and services

The committee recognizes the growing importance of telehealth in delivering accessible, quality healthcare to military servicemembers and their families. The committee is concerned that the Department of Defense (DOD) has relied on limited competition awards for telehealth services and has not always implemented the most effective telehealth solutions. The committee expects the DOD to use commercial-off-the-shelf technology solutions and non-developmental items and to limit excessively restrictive specification standards that may restrict or eliminate fair and open competition to provide the most effective telehealth services available.

Business case analysis for the 168th Air Refueling Wing

The committee notes that the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291) required the Secretary of the Air Force to conduct a business case analysis on the creation of an Active Duty association for the 168th Air Refueling Wing. However, the committee notes that since the prescribed analysis was completed in December 2016, two important developments have occurred that were not taken into account. First, consideration of the addition of two F-35A squadrons at Eielson Air Force Base, Alaska, in 2020, and an examination of future shortfalls in air refueling requirements due to such additional aircraft. Second, consideration of the increased operations tempo of the 168th Air Refueling Wing due to increased mission requirements of the North American Aerospace Defense Command. The committee believes that consideration of these two factors could potentially have led to different conclusions in the 2016 analysis.

Therefore, the committee directs the Secretary of the Air Force to update the 2016 business case analysis taking into consideration the aforementioned factors and brief the Committees on Armed Services of the Senate and House of Representatives on its results no later than March 1, 2019.

Chemical, Biological, Radiological, and Nuclear Response Enterprise

A robust Chemical, Biological, Radiological, and Nuclear (CBRN) Response Enterprise is critical to our nation's security. U.S. Northern Command (NORTHCOM) plays an integral part of any domestic CBRN response, and the committee applauds the role the National Guard performs in such a response. The committee also notes the importance of coordinated combined training and operations between the Department of Defense (DOD) and civilian first responders and agencies, including the Department of Homeland Security (DHS).

To further enhance this collaboration, the committee believes DOD and civilian agencies that sponsor first responder training should coordinate such training opportunities at the individual level. As NORTHCOM continues to execute unit-level and enterprise-wide training events, such as through exercises with major metropolitan cities, the Department should consider allowing state and local first responders to participate in CBRN response training programs provided by the individual military services, particularly those supported by Federal Emergency Management Agency (FEMA) grants, such as those offered at the Army's Maneuver Support Center of Excellence (MSCOE), on a space-available basis. This would better integrate NORTHCOM's overall response to a CBRN event. The committee also believes that there are cost efficiencies and improved information-sharing and integration that could result from using existing DOD CBRN training facilities.

Therefore, the committee directs DOD, in coordination with DHS, to develop a plan to expand individual training opportunities on a space-available basis for state and local first responders. This plan should examine and take into consideration:

- (1) Existing DOD programs that provide trained and certified service members to serve in the CBRN Response Enterprise (CRE) including standardized training products and facilities offered by the Army's MSCOE and the Army Chemical, Biological, Radiological, and Nuclear School and their ability to provide courses to non-DOD students that comply with civilian standards and industry best practices;
- (2) Existing programs and training standards set by the National Domestic Preparedness Consortium (NDPC), the Emergency Management Institute (EMI), and the Center for Domestic Preparedness (CDP), a training component of FEMA;
- (3) Any additional or unmet CBRN training requirements that are needed by the National Guard, Department of Homeland Security, other federal agencies, and state and local first responders that can currently be provided by the Department of Defense and military services to better integrate civilian CBRN training; and
- (4) Any other factors the Secretary deems appropriate.

The Department should submit such a plan to the committee no later than March 1, 2019.

Department of Defense efforts to cooperate with Department of Homeland Security Fusion Centers

The committee encourages the Secretary of Defense to consider coordinating with the other relevant Federal Government departments and agencies and each State that has a National Guard with a defensive cyber operations element to establish regionally-focused public-private cooperative agreements or cross-functional taskforces, responsible for the creation of strategies to coordinate and share information among local, regional, and national entities, both public and private, in order to protect vital assets in the cyber realm. This cooperation might leverage divergent skillsets, extant

public-private partnership relationships, and high-performing Federal Government assets in the joint defense of public and private systems. These cross-functional task-forces could comprise National Guard units, Department of Homeland Security (DHS) State and Major Urban Area Fusion Centers, and private sector companies with significant cybersecurity equities and assets—in particular, in critical infrastructure sectors—thereby strengthening active participation and sharing of information, integrating threat mitigation strategies, and growing the cyber network through shared experience.

Pursuant to this kind of coordination, the committee directs the Secretary of Defense to submit a report to the congressional defense committees no later than 180 days after the date of enactment of this Act on opportunities and efforts underway to cooperate with DHS fusion centers and State assets in cybersecurity. This report should relay:

- (1) The extant collaboration between National Guard units, the rest of the public sector, and the private sector in advancing cybersecurity across their aggregated assets;
- (2) Planned cooperation along these lines; and
- (3) The Secretary’s assessment of opportunities in cooperation in red-teaming, incident response, data-sharing, provision of technical expertise, common cybersecurity standards, and attachment to DHS State and Major Urban Area Fusion Centers.

LEGISLATIVE PROVISIONS NOT ADOPTED

Findings and Sense of Congress regarding KC-46 aerial refueling tankers

The House bill contained a provision (sec. 147) that would express the sense of Congress on the KC-46A aircraft.

The Senate amendment contained no similar provision; the House recedes.

The conferees support, once KC-46A aircraft deliveries begin, the acceptance of aircraft by the Air Force as quickly as practicable. Therefore, the conferees direct the Secretary of the Air Force to provide a report to the congressional defense committees, not more than 90 days after the enactment of this Act, describing potential courses of action to enable the Air Force to accept KC-46A aircraft at a rate higher than the planned 3 aircraft per month.

Funding treatment of perfluorooctane sulfonic acid and perfluorooctanoic acid at State-owned and operated National Guard installations

The Senate amendment contained a provision (sec. 315) that would authorize the Secretary of Defense to treat perfluorooctane sulfonic acid and perfluorooctanoic acid (PFOS/PFOA) in drinking water at State-owned and operated National Guard installations with several limitations. The provision would also authorize the National Guard access to environmental restoration funds.

The House bill contained no similar provision; the Senate recedes.

Retention of military technicians who lose dual status under certain circumstances

The House bill contained a provision (sec. 506) that would amend section 10216 of title 10, United States Code, to prevent dual-status military technicians who reach their time-in-service end date from losing their jobs due to separation from military service.

The Senate amendment contained no similar provision; the House recedes.

National Guard Youth Challenge program

The House bill contained a provision (sec. 515) that would amend section 509(k) of title 32, United States Code, to require the Secretary of Defense to evaluate the pilot Jobs Challenge Programs and submit a report of findings and recommendations to Congress not later than 120 days after the end of each fiscal year.

The Senate amendment contained no similar provision; the House recedes.

Use of National Guard in case of a major disaster or request from a State governor

The House bill contained a provision (sec. 517) that would require the President to order members of the National Guard to full-time National Guard duty or Active Guard and Reserve duty if the Governor of the State requests such an order and the President declares that a major disaster exists.

The Senate amendment contained no similar provision; the House recedes.

Funding of National Guard in case of a major disaster or emergency declared under the Stafford Act

The House bill contained an provision (sec. 518) that would amend section 403(c) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707) to authorize the President to make contributions to a State or local government for the purpose of reimbursing the Department of Defense for expenditures that arise from use of members of the National Guard and Reserve to respond to a major disaster declared by the President.

The Senate amendment contained no similar provision; the House recedes.

The conferees note that similar authority to reimburse State or local governments for disaster relief services provided by the Department of Defense already exists under section 5170b of title 42, United States Code.

Pilot program for Explosive Ordnance Disposal-qualified members of the Army National Guard to support civil authorities

The House bill contained a provision (sec. 519) that would authorize the Secretary of the Army to carry out a pilot program under which Explosive Ordnance Disposal-qualified members of the Army National Guard may conduct planning and immediate response defense support to civil authorities.

The Senate amendment contained no similar provision; the House recedes.

Direct employment pilot program for members of the reserve components and veterans

The House bill contained a provision (sec. 556) that would allow the Secretary of Defense to carry out a pilot program that provides enhanced job placement and employment assistance for members of the National Guard and Reserve.

The Senate amendment contained no similar provision; the House recedes.

Cybersecurity educational programs and awareness in Junior Reserve Officers' Training Corps

The House bill contained a provision (sec. 587) that would require the Secretaries of the military departments to encourage the Junior Reserve Officers' Training Corps (JROTC) to include cybersecurity educational programs and awareness in the curriculum of the Corps, including lessons on cyber defense, risks of cybersecurity vulnerabilities in the military, and pursuing studies and careers in cybersecurity and related fields within the Department of Defense.

The Senate amendment contained no similar provision; the House recesses.

The conferees note that numerous JROTC programs are already developing cyber-related educational programs as well as participating in cyber competitions and events. The conferees are supportive of these efforts and encourage service secretaries to search for and develop additional opportunities to provide cyber-related experience to JROTC participants and units.

Assistance of States for deployment-related support of members of the Armed Forces undergoing deployment and their families beyond the Yellow Ribbon Reintegration Program

The House bill contained a provision (sec. 589) that would amend section 582 of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181) to require the Secretary of Defense to provide funding to the States to carry out programs that provide deployment cycle information, services, and referrals to servicemembers, in both the active and reserve components, and their families throughout the deployment cycle.

The Senate amendment contained no similar provision; the House recesses.

Exemption from repayment of voluntary separation pay

The House bill included a provision (sec. 590) that would amend section 1175a(j) of title 10, United States Code, to exempt servicemembers involuntarily recalled to active duty or full-time National Guard duty, and servicemembers who incur a total service-connected disability in the course of such duty from the requirement to repay voluntary separation pay.

The Senate amendment included no similar provision; the House recesses.

Service of wounded warriors as remotely piloted aircraft pilots or remotely piloted aircraft sensor operators in the Air Force

The House bill contained a provision (sec. 591) that would require the Secretary of the Air Force to establish a program under which a qualified wounded warrior who faces retirement or separation from the Armed Forces for physical disability may continue, in lieu of such retirement or separation, to serve in the Armed Forces as a remotely piloted aircraft pilot or remotely piloted aircraft sensor operator in the Air Force.

The Senate amendment contained no similar provision; the House recesses.

Compensation and credit for retired pay purposes for maternity leave taken by members of the reserve components

The House bill contained a provision (sec. 609) that would amend section 206(a) of title 37, United States Code, to authorize compensation to members of the reserve component during periods of maternity leave. The provision would also require the period of maternity leave taken by a member of the reserve component count towards the servicemember's entitlement to retired pay.

The Senate amendment contained no similar provision; the House recesses.

Registry of individuals exposed to per- and polyfluoroalkyl substances on military installations

The Senate amendment contained a provision (sec. 726) that would require the Secretary of Veterans Affairs to establish a registry for individuals who have been exposed to per- and polyfluoroalkyl substances.

The House bill contained no similar provision; the Senate recesses.

Report on readiness of National Guard to respond to natural disasters

The House bill contained a provision (sec. 1092) that would require the Secretary of Defense to submit to the congressional defense committees a report analyzing the readiness of the National Guard and Reserve to respond to natural disasters.

The Senate amendment contained no similar provision; the House recesses.

Sense of Congress on KC-46A aerial refueling tanker emergent requirements

The Senate amendment contained a provision (sec. 5102) that would express the sense of Congress on the KC-46A aircraft.

The House bill contained no similar provision; the Senate recesses.

The conferees agree that:

- (1) The KC-46A will serve as the backbone of the Air Force's critical aerial refueling mission for the next several decades, replacing the aging 1950's-era KC-135 Stratotanker fleet;
- (2) The Air Force has provided funding for numerous military construction projects at installations across the country to prepare for the delivery and bed down of the KC-46A aircraft;
- (3) As the KC-46A program matures and requirements become better defined, additional military construction and facilities, sustainment, restoration and modernization (FRSM) funding is likely to be necessary to properly support the fielding of the aircraft, house additional personnel, and meet unforeseen requirements of the tanker mission; and
- (4) The Secretary of the Air Force should continue to review and validate new emergent requirements and prepare to provide additional military construction and FRSM funding in its budget request for fiscal year 2020 and future years as needed.

Report on Air Force training range requirements to address fifth generation threats

The Senate amendment contained a provision (sec. 5305) that would require the Secretary of the Air Force to submit to the congressional defense committees a report on the needs of the Air Force to ensure pilots can train against the full range of fifth generation threats at training ranges.

The House bill contained no similar provision; the Senate recesses.

The conferees agree on the importance of our training range infrastructure to support training for potential conflict against near-peer adversaries. The conferees note that the report accompanying House Resolution 5515 (Report 115-676) directs the Comptroller General of the United States to report on the Department of Defense's training range requirements, strategy, and investment plan. The conferees direct the Comptroller General to provide the required briefing and report to the Senate Committee on Armed Services as well as the House Committee on Armed Services.

Inclusion of computer programming and cybersecurity in curriculum of Junior Reserve Officers' Training Corps

The House bill contained a provision (sec. 1639) that would amend section 2200c of title 10, United States Code, to include computer programming and cybersecurity in the curriculum of Junior Reserve Officers' Training Corps program.

The Senate amendment contained no similar provision; the House recesses.

Briefing on cyber education and training

The Senate amendment contained a provision (sec. 6604) that would require the Secretary of Defense to brief the congressional defense committees on how the Department of Defense can leverage and partner with universities and industry in cyber education and training.

The House bill contained no similar provision; the Senate recedes.

The conferees direct the Secretary of Defense to brief the congressional defense committees no later than 270 days after the date of the enactment of this Act on how the Department of Defense can partner with and leverage universities and industry in cyber education and training, to include:

- (1) Current partnerships and the Department's ability to expand and leverage such partnerships to improve cyber education and training;
- (2) Existing curricula relating to cyber education and training and recommendations for changes to ensure relevance of such education and training to future threats;
- (3) Joint development of curricula, courseware, and research projects;
- (4) Joint use of instructors and of facilities; and
- (5) Recommendations for legislative or administrative action to improve cyber education and training partnerships.