

**H.R. 4435—FY15 NATIONAL DEFENSE
AUTHORIZATION BILL**

**SUBCOMMITTEE ON TACTICAL AIR
AND LAND FORCES**

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DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE I—PROCUREMENT

LEGISLATIVE PROVISIONS

SUBTITLE B—ARMY PROGRAMS

Section 111—Limitation on Availability of Funds for Airborne Reconnaissance Low Aircraft

This section would limit the obligation or expenditure of funds for the communications intelligence subsystem of the airborne reconnaissance low program until the Secretary of the Army submits a report to the congressional defense committees on the plan to integrate such subsystem into the signals intelligence modernization plan of the Army.

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

Section 141—Comptroller General Report on F-35 Aircraft Acquisition Program

This section would require the Comptroller General of the United States to review the F-35 acquisition program, and to submit a report not later than April 15, 2015, and each year thereafter until the F-35 acquisition program enters full rate production. Each report would include the extent to which the F-35 aircraft acquisition program is meeting cost, schedule and performance goals; the progress and results of developmental and operational testing; the progress of the procurement and manufacturing of the F-35 aircraft; and an assessment of any plans or efforts of the Secretary of Defense to improve the efficiency of the procurement and manufacturing of the F-35 aircraft.

TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

LEGISLATIVE PROVISIONS

SUBTITLE B—PROGRAM REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS

Section 212—Limitation on Availability of Funds for Armored Multi-Purpose Vehicle Program

This section would limit obligation or expenditure of funds to not more than 80 percent for the Armored Multi-Purpose Vehicle (AMPV) program until the Secretary of the Army submits a report to the congressional defense committees on the Army's plan to eventually replace all M-113 Armored Personal Carriers (APC) within Echelons-Above-Brigade (EAB) formations.

The committee notes that in 2007, the Army identified the M-113 APC for replacement due to its inadequate survivability and force protection. The committee further notes that in the committee report (H. Rept. 112-78) accompanying the National Defense Authorization Act for Fiscal Year 2012 and in the committee report (H. Rept. 112-479) accompanying the National Defense Authorization Act for Fiscal Year 2013, the committee provided numerous options for consideration by the Army to accelerate the AMPV program. The committee understands that the Army has released a Request for Proposal for the Echelons-Below-Brigade (EBB) requirement which is focused on survivability shortfalls within the Armor Brigade Combat Team. The committee continues to support the AMPV program and expects

the Army to conduct the competition in accordance with Federal Acquisition Regulations.

However, the committee is concerned that although the Army's current plan addresses a critical shortfall within EBB formations, there is currently no plan to address the survivability shortfalls within Echelons-Above-Brigade formations. The committee understands that there are approximately 2,000 M-113's within existing EAB formations.

In addition, the committee notes that on at least one occasion, an Armor Brigade Combat Team (ABCT) deployed to the Republic of Iraq with Stryker Medical Evacuation Vehicles. Therefore, this section would also require the Secretary of the Army to include as part of the report, an assessment for the feasibility of incorporating medical wheeled variants within the ABCT.

TITLE X—GENERAL PROVISIONS

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SUBTITLE G—OTHER MATTERS

Section 1065—Unmanned Aircraft Systems and National Airspace

This section would allow the Secretary of Defense to enter into a memorandum of understanding with a non-Department of Defense entity that is engaged in the test range program authorized under section 332(c) of the Federal Aviation Administration Modernization and Reform Act of 2012 (Public Law 112-95). Such entity would be allowed access to non-regulatory special use airspace if such access is used by the entity as part of such test range program and does not interfere with the activities of the Secretary or otherwise interrupt or delay missions or training of the Department of Defense.

TITLE XV—AUTHORIZATION OF ADDITIONAL APPROPRIATIONS FOR OVERSEAS CONTINGENCY OPERATIONS

LEGISLATIVE PROVISIONS

SUBTITLE C—LIMITATIONS, REPORTS, AND OTHER MATTERS

Section 1522—Use of and Transfer of Funds from Joint Improvised Explosive Device Defeat Fund

This section would authorize various transfer authorities, reporting requirements, and other associated activities for the Joint Improvised Explosive Device (IED) Defeat Fund, as managed by the Joint IED Defeat organization.

BILL LANGUAGE

1 **Subtitle B—Army Programs**

2 **SEC. 111. [Log 53937] LIMITATION ON AVAILABILITY OF**
3 **FUNDS FOR AIRBORNE RECONNAISSANCE**
4 **LOW AIRCRAFT.**

5 None of the funds authorized to be appropriated by
6 this Act or otherwise made available for fiscal year 2015
7 for aircraft procurement, Army, for the modernization of
8 the communications intelligence subsystem of airborne re-
9 connaissance low aircraft may be obligated or expended
10 until the Secretary of the Army submits to the congres-
11 sional defense committees a report that—

12 (1) specifies which such subsystem will be used
13 to modernize such aircraft;

14 (2) explains how such subsystem was selected;

15 (3) identifies the alternatives to such subsystem
16 that the Secretary considered during such selection;
17 and

18 (4) details how such subsystem will be inte-
19 grated into the signals intelligence modernization
20 plan of the Army.

1 **Subtitle E—Defense-wide, Joint,**
2 **and Multiservice Matters**

3 **SEC. 141.[Log 53611] COMPTROLLER GENERAL REPORT ON**
4 **F-35 AIRCRAFT ACQUISITION PROGRAM.**

5 (a) ANNUAL REPORT.—Not later than April 15,
6 2015, and each year thereafter until the F-35 aircraft ac-
7 quisition program enters into full-rate production, the
8 Comptroller General of the United States shall submit to
9 the congressional defense committees a report reviewing
10 such program.

11 (b) MATTERS INCLUDED.—Each report under sub-
12 section (a) shall include the following:

13 (1) The extent to which the F-35 aircraft ac-
14 quisition program is meeting cost, schedule, and per-
15 formance goals.

16 (2) The progress and results of developmental
17 and operational testing.

18 (3) The progress of the procurement and manu-
19 facturing of F-35 aircraft.

20 (4) An assessment of any plans or efforts of the
21 Secretary of Defense to improve the efficiency of the
22 procurement and manufacturing of F-35 aircraft.

1 **SEC. 212.[Log 53787] LIMITATION ON AVAILABILITY OF**
2 **FUNDS FOR ARMORED MULTI-PURPOSE VEHI-**
3 **CLE PROGRAM.**

4 (a) LIMITATION.—Of the funds authorized to be ap-
5 propriated by this Act or otherwise made available for fis-
6 cal year 2015 for research, development, test, and evalua-
7 tion, Army, for the armored multi-purpose vehicle pro-
8 gram, not more than 80 percent may be obligated or ex-
9 pended until the date on which the Secretary of the Army
10 submits to the congressional defense committees the re-
11 port under subsection (b)(1).

12 (b) REPORT.—

13 (1) IN GENERAL.—Not later than March 1,
14 2015, the Secretary of the Army shall submit to the
15 congressional defense committee a report on the ar-
16 mored multi-purpose vehicle program.

17 (2) MATTERS INCLUDED.—The report under
18 paragraph (1) shall include the following:

19 (A) An identification of the existing capa-
20 bility gaps of the M-113 family of vehicles as-
21 signed, as of the date of the report, to units
22 outside of combat brigades.

23 (B) An identification of the mission roles
24 that are in common between—

25 (i) such vehicles assigned to units out-
26 side of combat brigades; and

1 (ii) the vehicles examined in the
2 armor brigade combat team during the ar-
3 mored multi-purpose vehicle analysis of al-
4 ternatives.

5 (C) The estimated timeline and the rough
6 order of magnitude of funding requirements as-
7 sociated with complete M-113 family of vehicles
8 divestiture within the units outside of combat
9 brigades and the risk associated with delaying
10 the replacement of such vehicles.

11 (D) A description of the requirements for
12 force protection, mobility, and size, weight,
13 power, and cooling capacity for the mission
14 roles of M-113 family of vehicles assigned to
15 units outside of combat brigades.

16 (E) A discussion of the mission roles of the
17 M-113 family of vehicles assigned to units out-
18 side of combat brigades that are comparable to
19 the mission roles of the M-113 family of vehi-
20 cles assigned to armor brigade combat teams.

21 (F) A discussion of whether a one-for-one
22 replacement of the M-113 family of vehicles as-
23 signed to units outside of combat brigades is
24 likely.

1 (G) With respect to mission roles, a discus-
2 sion of any substantive distinctions that exist in
3 the capabilities of the M-113 family of vehicles
4 that are needed based on the level of the unit
5 to which the vehicle is assigned (not including
6 combat brigades).

7 (H) A discussion of the relative priority of
8 fielding among the mission roles.

9 (I) An assessment for the feasibility of in-
10 corporating medical wheeled variants within the
11 armor brigade combat teams.

1 **SEC. 1065. [Log 53384] UNMANNED AIRCRAFT SYSTEMS AND**
2 **NATIONAL AIRSPACE.**

3 (a) MEMORANDA OF UNDERSTANDING.—Notwith-
4 standing any other provision of law, the Secretary of De-
5 fense may enter into a memorandum of understanding
6 with a non-Department of Defense entity that is engaged
7 in the test range program authorized under section 332(c)
8 of the FAA Modernization and Reform Act of 2012 (49
9 U.S.C. 40101 note) to allow such entity to access non-
10 regulatory special use airspace if such access—

11 (1) is used by the entity as part of such test
12 range program; and

13 (2) does not interfere with the activities of the
14 Secretary or otherwise interrupt or delay missions or
15 training of the Department of Defense.

16 (b) ESTABLISHED PROCEDURES.—The Secretary
17 shall carry out subsection (a) using the established proce-
18 dures of the Department of Defense with respect to enter-
19 ing into a memorandum of understanding.

20 (c) CONSTRUCTION.—A memorandum of under-
21 standing entered into under subsection (a) between the
22 Secretary and a non-Department of Defense entity shall
23 not be construed as establishing the Secretary as a part-
24 ner, proponent, or team member of such entity in the test
25 range program specified in such subsection.

1 **SEC. 1522 [Log 53097]. USE OF AND TRANSFER OF FUNDS**
2 **FROM JOINT IMPROVISED EXPLOSIVE DE-**
3 **VICE DEFEAT FUND.**

4 Subsections (b) and (c) of section 1514 of the John
5 Warner National Defense Authorization Act for Fiscal
6 Year 2007 (Public Law 109–364; 120 Stat. 2439), as in
7 effect before the amendments made by section 1503 of the
8 Duncan Hunter National Defense Authorization Act for
9 Fiscal Year 2009 (Public Law 110–417; 122 Stat. 4649),
10 shall apply to the funds made available to the Department
11 of Defense for the Joint Improvised Explosive Device De-
12 feat Fund for fiscal year 2015.

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DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE I—PROCUREMENT

AIRCRAFT PROCUREMENT, ARMY

Items of Special Interest

Armed aerial scout strategy

The committee notes that because of sequestration and limited resources, the Army has announced the Aviation Restructure Initiative (ARI) which retires older platforms and defers the armed reconnaissance requirement for a replacement to the current OH-58 Kiowa series helicopter. The committee understands that as a result of the ARI, the Army will utilize AH-64 Apache helicopters, teamed with the Shadow Unmanned Aerial Systems, as an interim solution to meet the armed reconnaissance mission. However, the committee is concerned that the Army's plan does not address how the Army intends to eventually meet the enduring requirement for a manned armed scout helicopter.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than February 15, 2015, that includes a description of the interim Apache scout implementation plan, as well as the concept for what a follow-on plan and necessary resources would be required to replace the interim solution with a platform that fully meets the validated requirement.

Army Intelligence, Surveillance, and Reconnaissance aircraft

The committee is aware of the Department of the Army's Aerial Intelligence, Surveillance, and Reconnaissance (ISR) 2020 vision. The committee recognizes that there are a variety of platforms and capabilities, both Government and contractor owned, that are being transitioned from a wartime environment to a

more stable strategic posture, but the committee is concerned that the Army has not clearly identified the current and future capacity and capability requirements for Aerial ISR. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by December 1, 2014, on the Army's Aerial ISR requirements and how those requirements will be addressed in the future.

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

Items of Special Interest

Transmission industrial base

The committee notes that the Army commissioned a comprehensive assessment of the combat vehicle industrial base to better understand the issues and challenges facing the vendor industrial base. The first phase of the assessment, which was completed last year, identified combat vehicle transmissions as a significant area of concern. The assessment concluded that combat vehicle transmissions are unique in that they not only provide power to combat vehicles but also control braking and steering. In other words, combat vehicle transmissions are entirely different than commercial transmissions, such as those that power the military's tactical wheeled vehicle fleet. Although it has not been provided the Army's final report, the committee understands the assessment and recommends mitigation measures for the tracked combat vehicle transmission industrial base.

The committee notes that although the Army has terminated the Ground Combat Vehicle program, the Army has several tracked vehicle programs in development or production. These include the Armored Multi-purpose Vehicle (AMPV) program, the Paladin Integrated Management (PIM) program, M88 recovery vehicle program and major upgrades called "Engineering Change Proposals" (ECP) for both the Abrams tank and Bradley fighting vehicle. All of these vehicles are eligible for upgraded or improved transmissions. The committee understands there are only a few companies that produce transmissions for tracked combat vehicles within the United States. Based on the results of the Army's assessment, the committee is concerned about the future viability of transmissions for tracked combat vehicles based on low production rates and projected levels of funding in the out years that may not support minimum sustaining rates of production. The committee believes it may be necessary to consider consolidation of production capabilities through a partnership with existing suppliers.

The committee notes the Deputy Assistant Secretary of Defense for Manufacturing and Industrial Base Policy continues to direct a sector-by-sector, tier-by-tier review of the defense industrial base and includes findings from that review in the annual Industrial Base Capabilities Report to Congress, which is required by section 2504 of title 10, United States Code. However, the last annual report, delivered to Congress in October 2013, did not specifically address the committee's concerns related to combat vehicle transmissions.

Therefore, the committee directs the Secretary of the Army to provide a report to the congressional defense committees not later than February 15, 2015, on the combat vehicle transmission industrial base. The report should not continue to summarize the challenges confronting the U.S. tracked vehicle transmission industrial base, but should instead detail specific mitigation measures and their implementation. Specifically, the report should include the Army's plans and potential funding profile that would be necessary to procure new or improved combat vehicle transmissions for the AMPV, PIM, M88 and Abrams and Bradley ECP programs, to include the opportunity to exploit new technologies such as electric drives. In addition, the report should include an assessment of the potential to begin a 2-year pilot combat vehicle transmission program that would address the feasibility of consolidating production capabilities through a partnership with existing and potential suppliers.

OTHER PROCUREMENT, ARMY

Items of Special Interest

Mine-resistant ambush-protected vehicles

The budget request contained \$14.7 million for mine-resistant ambush-protected (MRAP) vehicle modifications.

The committee recognizes that mine-resistant ambush-protected vehicles were rapidly procured to address critical warfighter requirements in the Islamic Republic of Afghanistan and the Republic of Iraq. The committee notes these vehicles proved invaluable at protecting military service personnel from improvised explosive devices, and saved lives. The committee understands that current MRAP vehicle quantities exceed future requirements set forth by the military services. The committee recognizes the military services have carefully considered current and future requirements, as well as their ability to man, equip, train, and sustain MRAP vehicles to determine which vehicles should be retained as part of their enduring capability of protected mobility, route clearance, and Explosive Ordnance Disposal platforms. The committee understands the military services will retain the most capable MRAP vehicles to meet military operational and training needs.

The committee notes that approximately 13,000 excess MRAP vehicles will first be offered to other U.S. Government entities and then to potential foreign military sales (FMS) or excess defense article (EDA) customers. The committee understands that if there are no U.S. Government, FMS, or EDA claimants, the vehicles will follow approved disposition procedures for demilitarization.

The committee believes there may be some operational value in using MRAP vehicles as mobile command posts at echelons above brigade. Therefore, the committee directs the Chief of Staff of the Army to provide a briefing to the congressional defense committees not later than February 13, 2015, on the advisability and feasibility of using MRAP vehicles as part of current mobile command post modernization strategies. The briefing should include the following:

(1) An assessment of the potential cost savings, manpower requirement reductions, and other associated operations and maintenance savings;

(2) The status and results of vehicle testing to meet the goals of mobile command post modernization;

(3) An assessment of the current status of command vehicle configurations, including age of the vehicles, number of vehicles required, manpower requirements per command post, and guidance on active fielding timelines for replacement vehicles; and

(4) The suitability, cost, and cost avoidance available through adaptive reuse of existing vehicles, including the MRAP vehicle.

Replacement of Enhanced Position Location Reporting system

The committee notes that the Army currently has a mix of brigade combat teams (BCTs) with different tactical communications architectures, with most Army BCTs equipped with the Blue Force Tracker system. Some Army units, and elements of the Navy, the Marine Corps, and the Air Force still use the Enhanced Position Location Reporting system (EPLRS) for certain communications functions. In addition, some allied nations also use EPLRS. The committee understands that the Army intends to retire the remaining EPLRS systems it uses between fiscal years 2014-17.

Overall, the committee supports the Army's plan to modernize its tactical communications network. However, the committee is concerned about the potential impact the retirement of the EPLRS system may have on the Army's ability to operate effectively in joint and combined operations. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than October 1, 2014, on the details of the Army's plan to retire the EPLRS system. The briefing should address any potential joint or combined operational issues with other military services and allied nations that may result from the Army retiring the system while it remains in use. In addition, the briefing should be coordinated with the appropriate Joint Staff offices that oversee requirements in the area of tactical communications.

AIRCRAFT PROCUREMENT, NAVY

Items of Special Interest

H-1 engine program upgrade

The budget request contained \$45.0 million for H-1 upgrades, but included no funding to upgrade the AH-1Z's legacy T700-401 engine to the T700-401C configuration.

The T700-401C engine is used in the Marine Corps' AH-1Z and UH-1Y helicopters, has unique parts and provides improved power compared to the older T700-401 engine. The committee notes that the Marine Corps plans to procure 189

AH-1Z helicopters, and understands that 36 of those aircraft are not currently planned to be upgraded with T700-401C engines. The committee further understands that having 2 different engines for the fleet of 180 AH-1Zs will result in a reduction of available helicopters since the T700-401 engine is becoming increasingly obsolete.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services not later than September 19, 2014, on the Marine Corps' plan for either upgrading the 36 AH-1Z helicopters to the T700-401C engine configuration, or how the Marine Corps plans to incorporate the 36 AH-1Z helicopters with the T700-401 engine into the AH-1Z fleet with maintenance and logistic support.

MV-22 carrier onboard delivery

The committee understands that the Department of the Navy has conducted an assessment of whether the MV-22 could be used to replace the C-2A Greyhound aircraft currently performing the carrier onboard delivery (COD) mission for the Department of the Navy. The committee further understands that the MV-22's unique combination of speed, range, and vertical agility creates possibilities for transforming the way that carrier onboard delivery is accomplished.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services not later than October 24, 2014, on the Department of the Navy's assessment of the MV-22 to perform the COD mission, any analysis of alternatives accomplished to replace the C-2A aircraft, key performance parameters required of a C-2A replacement aircraft, health and status of the C-2A fleet, and the current schedule to procure a C-2A Greyhound replacement aircraft.

AIRCRAFT PROCUREMENT, AIR FORCE

Items of Special Interest

F-16 modernization

The budget request contained \$133.1 million in PE 27133F for development of F-16 capabilities, but contained no funds for the development of the combat avionics programmed extension suite (CAPES), development of the computer modular receiver exciter (C-MoRE), or for development of the scalable agile beam radar (SABR) upgrade.

CAPES would upgrade the F-16 blocks 40, 42, 50, and 52 with a new active electronically-scanned array (AESA) radar, a new electronic warfare system, an integrated broadcast system, and a center display unit. The CAPES upgrade would increase the F-16's survivability against emerging threats. C-MoRE is a reliability improvement demonstration program for the APG-68(V1) radar of the Air National Guard's F-16 block 30 aircraft fleet that would demonstrate an electronic system

upgrade while retaining the radar's mechanically-scanned array. SABR is an F-16 radar modernization program that would replace the mechanically-scanned array with an AESA radar that would enhance F-16 mission capabilities, provide improved electronic protection, and provide a three-fold increase in radar reliability.

The committee notes that the budget request proposes the cancellation of CAPES. While the committee is disappointed that CAPES could not be funded, it understands that difficult choices were required due to budget reductions. The committee understands that the Department of the Air Force is reviewing future F-16 capability upgrade options for fiscal year 2016, and believes that the Department of the Air Force may have more affordable options to improve the capability of the F-16 fleet. Accordingly, the committee encourages the Department of the Air Force to consider both the C-MoRE and the SABR upgrade.

The committee further notes that the Department of the Air Force's 976-aircraft F-16 fleet is 50 percent of the Department's fighter force, and that the F-16 block 40, 42, 50, and 52 fleets are likely to remain in the Department's inventory for the next 15 to 20 years. The committee believes that capability upgrades to the F-16 fleet are vitally important to address future threats. Therefore, the committee directs the Secretary of the Air Force to provide a report to the congressional defense committees not later than February 16, 2015, that describes the plan for capability upgrades to the F-16 fleet including costs by year and by appropriation, risks of not upgrading the F-16 block 40, 42, 50, and 52 fleets with the CAPES upgrade, and the effect of the cancellation of CAPES on the Air National Guard's F-16 fleet.

Spare engine requirements and inventory for F-15E and F-16 aircraft

The committee is aware that the Air Force has established a requirement for 25 additional spare engines for its F-15E and F-16 aircraft fleets, as validated by the Propulsion Requirements Study (PRS). The committee believes that, given the key role that the F-15 and F-16 aircraft will play in meeting fighter requirements until the F-35 aircraft is fielded in sufficient numbers, the extension of the F-15 and F-16 fleets will require a reliable base of spare engines. The committee is concerned, however, that while the Department of the Air Force has identified this requirement, it has not yet taken action to fulfill it. In addition, the committee understands that the F-100 production line is currently planned to terminate at the end of 2016 based on current orders.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by October 1, 2014, which details the Department of the Air Force's plan to address the unfulfilled requirement for F-15 and F-16 spare engines.

OTHER PROCUREMENT, AIR FORCE

Items of Special Interest

Emergency Airfield Lighting System

The committee notes that the Department of the Air Force awarded a small-business set-aside contract to develop the Emergency Airfield Light System II (EALS II), but subsequently canceled the program after a successful 2013 operational utility evaluation where only minor deficiencies were found. The committee believes that the capability of the EALS II will be a lasting requirement and is concerned that the costs associated with a new development effort for a system with comparable requirements to EALS II may have significant schedule and cost risks. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than July 30, 2014, on the decision not to proceed with EALS II production. The briefing should include the Air Force's current plan to meet requirements for emergency airfield lighting and the projected funding required through fiscal year 2019.

TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, ARMY

Items of Special Interest

Dual mode tactical missiles

The committee continues to recommend that the Department of Defense pursue an all-weather, moving target-capable tactical missile that could be integrated on different military platforms. While the committee understands that certain capabilities, such as a single mode seeker missile, are appropriate when prosecuting certain targets, the committee is concerned that current capabilities may have difficulties defeating other targets in a cost-efficient and precise manner, while also ensuring low collateral damage.

The committee is particularly interested in capabilities to counter high-speed, erratically maneuvering targets on land and at sea, as well as understanding how dual mode missiles could be used in counterterrorism (CT) operations. The committee notes the use of dual mode missiles, to include allied missile programs, could potentially close existing operational gaps, reduce the risk of collateral damage, and may result in cost savings relative to current Tactics, Techniques, and Procedures used as part of current direct action CT operations. The committee is aware of the recent integration and successful testing of a fully operational dual mode missile off an MQ-9 Reaper unmanned aerial vehicle system for the United Kingdom Ministry of Defense. The committee notes the Royal Air Force has used this dual mode missile extensively in overseas contingency operations and have reported positive feedback. Further, the committee is also aware that the Secretary of the Navy is funding an initial analysis of dual mode missile integration on the F/A-18 Super Hornet aircraft, and that initial feedback has been positive.

The committee directs the Secretary of the Defense to provide a briefing to the House Committee on Armed Services by February 15, 2015, on the capabilities of existing U.S. and allied missile programs which utilize dual mode seeker technology. The briefing should also include an assessment of the applicability of current dual-mode missiles within the Nation's counterterrorism efforts, including against high-speed, rapidly moving targets on land and sea, as well as an update of U.S. and allied efforts to integrate dual-mode missile technologies onto the MQ-9 Reaper weapon system.

Fabric-based respiratory protective equipment

The committee notes that in the committee report (H. Rept. 113-102) accompanying the National Defense Authorization Act for Fiscal Year 2014, the committee directed the Secretary of the Army to submit a report to the congressional defense committees by February 15, 2014, evaluating the potential utility of fabric-based solutions to address soldier and civilian personnel exposure to inhaled hazards, including sand, dust, smoke, and pollutants, such as diesel exhaust and lead. The committee is concerned that the Secretary of the Army has failed to deliver this report to the congressional defense committees. Further, the committee understands that no substantive evaluation of potential protective technologies has taken place. The committee has been informed by the Program Executive Office-Soldier that the proper entity to evaluate fabric-based solutions is the U.S. Army Natick Soldier Research, Development, and Engineering Center (NSRDEC) in Natick, Massachusetts. The committee understands that NSRDEC has technical and scientific expertise in the areas of environmental protection, protective clothing, multi-functional textiles, materials, and fibers.

Therefore, the committee directs the Secretary of the Army to submit a report to the congressional defense committees not later than December 1, 2014, containing NSRDEC's evaluation of the capabilities of known fabric-based solutions to mitigate soldier exposure to the inhalation of sand, dust, smoke, and pollutants.

Improved Turbine Engine Program

The committee continues to support the budget request for the Improved Turbine Engine Program (ITEP). ITEP is a competitive acquisition that is based on current research efforts and is designed to develop a more fuel efficient and powerful engine for the current Black Hawk and Apache helicopter fleets. The committee notes the benefits of improved fuel efficiencies through lower, specific fuel consumption that ITEP brings to the battlefield. In addition, the committee encourages the Army to consider maintenance and sustainment costs for ITEP and specifically, how these calculations would drive affordability of the program.

The committee believes it is important that ITEP transition from Science and Technology to the Preliminary Design phase of Engineering and Manufacturing Development as soon as possible. Providing adequate funding for ITEP to maintain or accelerate the schedule will reduce risk and ensure continued program

advancement and success. The committee encourages the Army to maintain its schedule to control development and program costs, mitigate technical risk, validate performance, and ensure the warfighter receives the best possible solution.

The committee, however, believes that the ITEP Business Case Analysis and Cost Estimate may be outdated and is concerned that it might not sufficiently factor in the total fuel savings or maintenance and logistics cost savings associated with the engine. Therefore, the committee directs the Secretary of the Army to brief the House Committee on Armed Services by December 1, 2014, on a path to update the study.

Lightweight segmented tactical ladders

The committee acknowledges that improved mobility of the soldier increases safety and improves mission capability. The committee is aware that the tactical ladder is an important piece of equipment that is critical to many missions throughout the world. The committee understands that current tactical ladder systems are made from metal or fiberglass, weigh 40 pounds or more, and are often cumbersome to transport, especially on foot. The committee is also aware there may be commercially available, lightweight carbon fiber composite ladders that reduce ladder weight load to 11 pounds or less, while maintaining the strength and durability of heavier ladders. The committee also notes that current telescoping and foldout tactical ladders require a single soldier to carry the entire load, whereas a segmented ladder provides the option for weight distribution among members a group to improving portability.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than December 31, 2014, on the potential benefits of lightweight segmented tactical ladders. The briefing should include an overview of the current military inventory and a review of available carbon fiber commercial ladder options that may reduce weight and provide additional flexibility to soldiers.

Rotorcraft hostile fire protection

The committee is encouraged by the continued effort of the Army and other military services to develop a hostile fire detection and defeat system that will function in the harsh environments produced by rotorcraft operations. In the past, hostile fire detection systems for rotorcraft have been limited to acoustic-based technologies even though rotor noise, wind noise and echoing off of topography restricts the system's accuracy. The committee wants to ensure that the Army is considering advanced technologies, like radar, that will pinpoint and integrate the location of hostile fire into the aircraft's defeat systems for engagement of incoming projectiles. Therefore, the committee directs Secretary of the Army to submit a report to the congressional defense committees by February 9, 2015, that details the Army's efforts to potentially implement a radar, ultra violet and infrared based hostile fire detection and defeat system into existing rotorcraft platforms.

Small Airborne Networking Radio program

The budget request contained no funding for the Small Airborne Networking Radio (SANR).

The committee is aware that the Army has deferred the SANR program indefinitely while moving forward with the less ambitious Small Airborne Link-16 Terminal. The committee is concerned regarding the lack of information from the Army on the future of the SANR program and believes that full integration of the soldier radio waveform, originally intended to be provided by the SANR program, into Army airborne platforms will be essential in the future.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than December 1, 2014, with an update on the status of the SANR program.

UH-72 Helicopter health monitoring system

The committee is aware that the UH-72 Light Utility Helicopter (LUH) is not currently equipped with a health monitoring system. However, the committee has been informed that the commercial variant of the UH-72, the EC-145, is currently being outfitted with a Next Generation Health Monitoring System (NGHMS).

The committee understands that a NGHMS could provide total aircraft monitoring and diagnostics of mechanical and electrical systems within a lightweight distributed architecture consisting of miniature sensors that contain processing and analysis functions operating with non-proprietary data protocols in a secure cloud management infrastructure. NGHMS maintenance intelligence could provide early warning for failing systems that may reduce costly emergency maintenance, improving UH-72 maintenance schedules and fleet readiness.

Therefore, the committee encourages Army Program Executive Officer Aviation and Program Manager Utility Helicopter, to engage in a demonstration of NGHMS on the UH-72. In addition, the committee directs the Secretary of the Army to submit a report to the congressional defense committees by February 15, 2015, that describes the potential for integrating and demonstrating NGHMS on the UH-72 platform. However, the committee expects that if the Army makes the decision to proceed with a program of record that it will be done using full and open competition in accordance with Federal Acquisition Regulations.

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, AIR FORCE

Items of Special Interest

EC-130 Compass Call aircraft replacement program

The committee notes that the current fleet of EC-130H "Compass Call" aircraft are the Air Force's only wide-area, airborne Command and Control

Warfare/Information Operations weapon system, and that the Air Force plans to retire seven Compass Call aircraft in fiscal year 2016. In addition, the committee understands that the Air Force is conducting an analysis of alternatives (AOA) on a follow-on capability to replace the current Compass Call aircraft. The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than June 1, 2015, on the status and content of the AOA.

F-35 25mm cannon ammunition

The committee is concerned about the Air Force's plans for evaluating and fielding 25mm cannon ammunition for the F-35 Joint Strike Fighter. Specifically, the committee is concerned about the possibility of a sole-source, foreign-produced solution for some types of 25mm ammunition, potentially at the exclusion of any alternative North American National Technology Industrial Base offerings. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than August 1, 2014, on the Air Force's plans to evaluate, test, and field 25mm cannon ammunition for the Air Force's F-35 fleet.

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

Items of Special Interest

Expeditionary airfield technology

The committee understands that Expeditionary Airfields (EAF) are used by all the military services to support forward deployed air operations, and that EAFs have the capability to support all types of aircraft from all the military services in full spectrum operations. The committee understands the military services may require new EAF technology, an investment that could be critical to enhancing forward deployed military readiness in an expeditionary environment. Therefore, the committee directs the Under Secretary of Defense for Acquisition, Technology, and Logistics to provide a report to the congressional defense committees not later than February 15, 2015, on the following:

- (1) The need for expeditionary airfields in the ongoing threat environment;
- (2) The capacity of existing EAF technology to support additional air assets;
- (3) The efficacy of expeditionary airfields in mobilization and demobilization in theater; and
- (4) The status of development of new matting technology that can support additional weight and accommodate increased thermal load and engine blast from vertical lift aircraft.

Vapor compression cooling systems technology

The committee notes that the majority of Department of Defense electronic systems intended for field use in harsh environments use thermoelectric cooling technology and that this method of cooling is often required in Department of Defense requests for proposals. The committee also notes that vapor compression electronic cooling technology may provide cooling systems that are smaller, more energy efficient, cost effective and reliable than the legacy systems.

Therefore, the committee directs the Secretary of Defense to provide a report to the Committees on Armed Services of the Senate and the House of Representatives not later than June 1, 2015, addressing where vapor compression thermal management systems may best be used in remote or mobile applications to cool electronics. The report should include, at a minimum, the process used to identify specific programs where these thermal management systems could be appropriate and examples of programs using deployed electronics that have effectively used vapor compression thermal management systems.

TITLE III—OPERATION AND MAINTENANCE

ITEMS OF SPECIAL INTEREST

OTHER MATTERS

Army Combat Shirt Fielding Strategy

The committee notes the Army Combat Shirt (ACS) is a field-tested and Army-authorized combat shirt approved for combat operations. The ACS is worn, in most cases, as the base layer for the Army's interceptor body armor system, and provides soldiers with a highly breathable, moisture wicking clothing option with a flame resistance capability.

The committee commends the Army's efforts to develop and field high performance flame resistant clothing to deploying soldiers through the rapid fielding initiative. The committee also notes that the ACS remains coded for wartime use only. The committee believes the same high performance and flame resistant protection capabilities provided by the ACS in combat operations could also be applied for domestic training and field exercises in the United States.

The committee directs the Secretary of the Army, in consultation with the Chief of Staff of the Army, to provide a briefing to the House Committee on Armed Services by October 1, 2014, on steps being taken to evaluate the ACS and other flame resistant combat uniforms items to describe (a) the near-term policy for authorizing use in appropriate field exercises and training scenarios at unit commander's discretion; and (b) the advisability and feasibility of implementing a long-term fielding plan for incorporating the ACS and other flame resistant combat uniforms as organizational equipment in appropriate units and in sizes and designs specific to female soldiers.

TITLE X—GENERAL PROVISIONS

ITEMS OF SPECIAL INTEREST

OTHER MATTERS

Cargo Unmanned Aerial Systems

The committee is aware of ongoing efforts to develop and demonstrate cargo unmanned aerial systems to support logistics, sustainment, and re-supply missions in intra-theater operations where the use of high-value manned aircraft or ground convoys to resupply troops is uneconomical, dangerous or accomplished with difficulty. The committee is also aware that since December 2011, the Department of Defense has been conducting a Military User Assessment (MUA) of unmanned cargo helicopters for supply missions in the Islamic Republic of Afghanistan, and that this MUA was the result of a merit based competitive selection. However, the committee is concerned that a Department of Defense program of record and associated funding has not been established to transition this advanced demonstration program into a fielded program of record. Therefore, the committee encourages the Department to implement a program of record for this unmanned cargo helicopter system as part of the fiscal year 2016 budget submission. In addition, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than October 1, 2014, on its plans to potentially create cargo unmanned aerial systems programs of record.