

**H.R. 4310—FY13 NATIONAL DEFENSE
AUTHORIZATION BILL**

**SUBCOMMITTEE ON TACTICAL AIR AND LAND
FORCES**

TITLE I PROCUREMENT

**TITLE II RESEARCH, DEVELOPMENT, TEST, AND
EVALUATION**

**TITLE XV AUTHORIZATION OF ADDITIONAL
APPROPRIATIONS FOR OVERSEAS
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DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE I—PROCUREMENT

LEGISLATIVE PROVISIONS

SUBTITLE B—ARMY PROGRAMS

Section 111—Multiyear Procurement Authority for Army CH-47F Helicopters

This section would authorize the Secretary of the Army to enter into one or more multiyear procurement contracts in accordance with section 2306b of title 10, United States Code, for up to 5 years for CH-47F helicopters.

SUBTITLE C—NAVY PROGRAMS

Section 123—Extension of Multiyear Procurement Authority for F/A-18E, F/A-18F, and EA-18G Aircraft

This section would amend section 128 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84), as amended by the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 (Public Law 111-238), to authorize the Secretary of the Navy to add a fifth production year to the multiyear procurement contract for F/A-18E, F/A-18F, and EA-18G aircraft.

Section 124—Multiyear Procurement Authority for V-22 Joint Aircraft Program

This section would authorize the Secretary of the Navy to enter into a multiyear contract, beginning with the fiscal year 2013 program year, for the procurement of V-22 aircraft for the Department of the Navy, the Department of the Air Force, and U.S. Special Operations Command. This section would also require that the V-22 multiyear contract provide that any obligation of the United States to make a payment under the contract for a fiscal year, after fiscal year 2013, be subject to the availability of appropriations for that purpose for such later fiscal year.

SUBTITLE E—JOINT AND MULTISERVICE MATTERS

Section 141—Limitation on Availability of Funds for Retirement of RQ-4 Global Hawk Block 30 Unmanned Aircraft Systems

This section would limit the use of funds to retire Global Hawk Block 30 Unmanned Aircraft Systems and require the Secretary of the Air Force to take all actions necessary to maintain RQ-4 Block 30 Global Hawk operational capability through December 31, 2014.

TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

LEGISLATIVE PROVISIONS

SUBTITLE B—PROGRAM REQUIREMENTS, RESTRICTIONS, AND LIMITATIONS

Section 214—Limitation on Availability of Funds for Future Ground Moving Target Indicator Capability of the Air Force

This section would restrict the obligation and expenditure of Air Force research, development, test and evaluation funds for any activity, including pre-milestone A activities, to initiate a new start acquisition program to provide the Air Force with a manned ground moving target capability or dismount moving target capability until a period of 90 days has elapsed following the date on which the Secretary of the Air Force submits a report on the plan for manned future ground moving target and dismount moving target indicator capabilities of the Air Force. The report required in this section shall include: the plan to maintain onboard command and control capability that is equal or better than such capability provided by the E-8C joint surveillance target attack radar program; each analysis of alternatives completed during fiscal year 2012 regarding future manned ground moving target indicator capability or dismounted moving target indicator capability; an analysis of each alternative considered, including cost and a description of how such programs would affect potential growth of mission systems; a description of potential operational and sustainment cost savings realized by the Air Force using a platform that is derived from a commercial aircraft and in operation by the Department of Defense as of the date of the report; the plan by the Secretary of Defense to retire or replace E-8C joint surveillance target attack radar aircraft; and any other matter the Secretary considers appropriate. This section would permit the Secretary to waive the restriction on the obligation and expenditure of funds for this purpose if they determine such a waiver is required to meet an urgent operational need or other emergency contingency requirement directly related to ongoing combat operations, and notifies the congressional defense committees of the determination.

Section 215—Limitation on Availability of Funds for Milestone A Activities for the MQ-18 Unmanned Aircraft System

This section would limit the use of funds for milestone A activities for the MQ-18 Medium Range Multi-Purpose Vertical Take-off and Landing Unmanned Aircraft System (UAS) until the Chairman of the Joint Requirements Oversight Council certifies that the MQ-18 UAS is required to meet a capability in the Department of Defense manned and unmanned medium-altitude intelligence, surveillance, and reconnaissance force structure and that an existing UAS cannot meet the required capability or be modified to meet the required capability. This section would also define milestone A as the distribution of request for proposals, selection of technology demonstration contractors, and/or technology development.

SUBTITLE D—REPORTS

Section 241—Study on Electronic Warfare Capabilities of the Marine Corps

This section would require that the Commandant of the Marine Corps to conduct a study on the future capabilities of the Marine Corps with respect to electronic warfare, and to submit a report to the congressional defense committees

not later than 90 days after the date of the enactment of this Act which would include: a detailed plan for EA-6B Prowler aircraft squadrons; a solution for the replacement of the EA-6B aircraft; concepts of operation for future air-ground task force electronic warfare capabilities of the Marine Corps; and any other issues that the Commandant determines to be appropriate.

TITLE XV—AUTHORIZATION OF ADDITIONAL APPROPRIATIONS FOR OVERSEAS CONTINGENCY OPERATIONS

LEGISLATIVE PROVISIONS

SUBTITLE C—LIMITATIONS AND OTHER MATTERS

Section 1531—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 Defeat Fund.

BILL LANGUAGE

Titles 1, 2, & 15

1 **Subtitle B—Army Programs**

2 **SEC. 111 [Log #14684]. MULTIYEAR PROCUREMENT AUTHOR-**
3 **ITY FOR ARMY CH-47 HELICOPTERS.**

4 (a) AUTHORITY FOR MULTIYEAR PROCUREMENT.—

5 In accordance with section 2306b of title 10, United
6 States Code, the Secretary of the Army may enter into
7 a multiyear contract, beginning with the fiscal year 2013
8 program year, for the procurement of airframes for CH-
9 47F helicopters.

10 (b) CONDITION FOR OUT-YEAR CONTRACT PAY-
11 MENTS.—A contract entered into under subsection (a)
12 shall provide that any obligation of the United States to
13 make a payment under the contract for a fiscal year after
14 fiscal year 2013 is subject to the availability of appropria-
15 tions for that purpose for such later fiscal year.

1 **SEC. 123 [Log #15725]. EXTENSION OF MULTIYEAR PRO-**
2 **CUREMENT AUTHORITY FOR F/A-18E, F/A-18F,**
3 **AND EA-18G AIRCRAFT.**

4 Section 128 of the National Defense Authorization
5 Act for Fiscal Year 2010 (Public Law 111–84; 123 Stat.
6 2217), as amended by Public Law 111–238 (124 Stat.
7 2500), is amended by adding at the end the following new
8 subsection:

9 “(f) EXTENSION OF MULTIYEAR AUTHORITY.—Not-
10 withstanding section 2306b of title 10, United States
11 Code, the Secretary of the Navy may modify a multiyear
12 contract entered into under subsection (a) to add a fifth
13 production year to such contract.”.

1 **SEC. 124 [Log #15726]. MULTIYEAR PROCUREMENT AUTHOR-**
2 **ITY FOR V-22 JOINT AIRCRAFT PROGRAM.**

3 (a) AUTHORITY FOR MULTIYEAR PROCUREMENT.—

4 In accordance with section 2306b of title 10, United
5 States Code, the Secretary of the Navy may enter into
6 a multiyear contract, beginning with the fiscal year 2013
7 program year, for the procurement of V-22 aircraft for
8 the Department of the Navy, the Department of the Air
9 Force, and the United States Special Operations Com-
10 mand.

11 (b) CONDITION FOR OUT-YEAR CONTRACT PAY-
12 MENTS.—A contract entered into under subsection (a)
13 shall provide that any obligation of the United States to
14 make a payment under the contract for a fiscal year after
15 fiscal year 2013 is subject to the availability of appropria-
16 tions for that purpose for such later fiscal year.

1 **Subtitle E—Joint and Multiservice**
2 **Matters**

3 **SEC. 141. [Log #14683] LIMITATION ON AVAILABILITY OF**
4 **FUNDS FOR RETIREMENT OF RQ-4 GLOBAL**
5 **HAWK UNMANNED AIRCRAFT SYSTEMS.**

6 (a) **LIMITATION.**—None of the funds authorized to
7 be appropriated by this Act or otherwise made available
8 for fiscal year 2013 for the Department of Defense may
9 be obligated or expended to retire, prepare to retire, or
10 place in storage an RQ-4 Block 30 Global Hawk un-
11 manned aircraft system.

12 (b) **MAINTAINED LEVELS.**—During the period pre-
13 ceding December 31, 2014, in supporting the operational
14 requirements of the combatant commands, the Secretary
15 of the Air Force shall maintain the operational capability
16 of each RQ-4 Block 30 Global Hawk unmanned aircraft
17 system belonging to the Air Force or delivered to the Air
18 Force during such period.

1 **SEC. 214 [Log #27281]. LIMITATION ON AVAILABILITY OF**
2 **FUNDS FOR FUTURE MANNED GROUND MOV-**
3 **ING TARGET INDICATOR CAPABILITY OF THE**
4 **AIR FORCE.**

5 (a) LIMITATION.—None of the funds authorized to
6 be appropriated by this Act or otherwise made available
7 for fiscal year 2013 for research, development, test, and
8 evaluation, Air Force, may be obligated or expended for
9 any activity, including pre-Milestone A activities, to ini-
10 tiate a new start acquisition program to provide the Air
11 Force with a manned ground moving target indicator ca-
12 pability or dismount moving target indicator capability
13 until a period of 90 days has elapsed following the date
14 on which the Secretary of the Air Force submits the report
15 under subsection (b)(1).

16 (b) REPORT.—

17 (1) IN GENERAL.—The Secretary of the Air
18 Force shall submit to the congressional defense com-
19 mittees a report on the plan of the future manned
20 ground moving target and dismount moving target
21 indicator capabilities of the Air Force.

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

24 (A) The plan to maintain onboard com-
25 mand and control capability that is equal to or
26 better than such capability provided by the E—

1 8C joint surveillance target attack radar pro-
2 gram.

3 (B) Each analysis of alternatives com-
4 pleted during fiscal year 2012 regarding future
5 manned ground moving target indicator capa-
6 bility or dismounted moving target indicator ca-
7 pability.

8 (C) With respect to each new program
9 analyzed in an analysis of alternatives described
10 in subparagraph (B)—

11 (i) the development, procurement, and
12 sustainment cost estimates for such pro-
13 gram; and

14 (ii) a description of how such program
15 will affect the potential growth of future
16 manned ground moving target indicator
17 capability or dismounted moving target in-
18 dicator capability.

19 (D) A description of potential operational
20 and sustainment cost savings realized by the
21 Air Force using a platform that is—

22 (i) derived from commercial aircraft;
23 and

24 (ii) in operation by the Department of
25 Defense as of the date of the report.

1 (E) The plan by the Secretary of Defense
2 to retire or replace E-8C joint surveillance tar-
3 get attack radar aircraft.

4 (F) Any other matter the Secretary con-
5 siders appropriate.

6 (c) WAIVER.—The Secretary may waive the limita-
7 tion in subsection (a) if the Secretary—

8 (1) determines that such waiver is required to
9 meet an urgent operational need or other emergency
10 contingency requirement directly related to ongoing
11 combat operations; and

12 (2) notifies the congressional defense commit-
13 tees of such determination.

1 **SEC. 215 [Log #14685]. LIMITATION ON AVAILABILITY OF**
2 **FUNDS FOR MILESTONE A ACTIVITIES FOR**
3 **THE MQ-18 UNMANNED AIRCRAFT SYSTEM.**

4 (a) LIMITATION.—None of the funds authorized to
5 be appropriated by this Act or otherwise made available
6 for fiscal year 2013 for research, development, test, and
7 evaluation, Army, may be obligated or expended for Mile-
8 stone A activities with respect to the MQ-18 medium-
9 range multi-purpose vertical take-off and landing un-
10 manned aircraft system until—

11 (1) the Chairman of the Joint Requirements
12 Oversight Council certifies in writing to the appro-
13 priate congressional committees that—

14 (A) such system is required to meet a ca-
15 pability in the manned and unmanned medium-
16 altitude intelligence, surveillance, and recon-
17 naissance force structure of the Department of
18 Defense; and

19 (B) an existing unmanned aircraft system
20 cannot meet such capability or be modified to
21 meet such capability; and

22 (2) a period of 30 days has elapsed following
23 the date on which the Chairman submits the certifi-
24 cation under paragraph (1).

25 (b) DEFINITIONS.—In this section:

1 (1) The term “appropriate congressional com-
2 mittees” means—

3 (A) the Committee on Armed Services, the
4 Committee on Appropriations, and the Perma-
5 nent Select Committee on Intelligence of the
6 House of Representatives; and

7 (B) the Committee on Armed Services, the
8 Committee on Appropriations, and the Select
9 Committee on Intelligence of the Senate.

10 (2) The term “Milestone A activities” means,
11 with respect to an acquisition program of the De-
12 partment of Defense—

13 (A) the distribution of request for pro-
14 posals;

15 (B) the selection of technology demonstra-
16 tion contractors; and

17 (C) technology development.

1 **Subtitle D—Reports**

2 **SEC. 241 [Log #23078]. STUDY ON ELECTRONIC WARFARE**

3 **CAPABILITIES OF THE MARINE CORPS.**

4 (a) STUDY.—The Commandant of the Marine Corps
5 shall conduct a study on the future capabilities of the Ma-
6 rine Corps with respect to electronic warfare.

7 (b) REPORT.—

8 (1) IN GENERAL.—Not later than 90 days after
9 the date of the enactment of this Act, the Com-
10 mandant shall submit to the congressional defense
11 committees a report on the study conducted under
12 subsection (a).

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

15 (A) A detailed plan for EA-6B Prowler
16 aircraft squadrons.

17 (B) A solution for the replacement of such
18 aircraft.

19 (C) Concepts of operation for future air-
20 ground task force electronic warfare capabilities
21 of the Marine Corps.

22 (D) Any other issues that the Com-
23 mandant determines appropriate.

1 **Subtitle C—Limitations and Other**
2 **Matters**

3 **SEC. 1531. [LOG ID 15714] JOINT IMPROVISED EXPLOSIVE**
4 **DEVICE DEFEAT FUND.**

5 (a) USE AND TRANSFER OF FUNDS.—Subsections
6 (b) and (c) of section 1514 of the John Warner National
7 Defense Authorization Act for Fiscal Year 2007 (Public
8 Law 109–364; 120 Stat. 2439), as in effect before the
9 amendments made by section 1503 of the Duncan Hunter
10 National Defense Authorization Act for Fiscal Year 2009
11 (Public Law 110–417; 122 Stat. 4649), shall apply to the
12 funds made available to the Department of Defense for
13 the Joint Improvised Explosive Device Defeat Fund for
14 fiscal year 2013. In providing prior notice to the congres-
15 sional defense committees of the obligation of funds from
16 the Joint Improvised Explosive Device Defeat Fund for
17 such fiscal year, as required by paragraph (4) of such sub-
18 section (c), the Secretary of Defense shall include the mar-
19 ket research or associated analysis of alternatives con-
20 ducted in the process of taking action to initiate any
21 project for which the total obligation of funds from the
22 Fund will exceed \$10,000,000.

23 (b) MONTHLY OBLIGATIONS AND EXPENDITURE RE-
24 PORTS.—Not later than 15 days after the end of each
25 month of fiscal year 2013, the Secretary of Defense shall

1 provide to the congressional defense committees a report
2 on the Joint Improvised Explosive Device Defeat Fund ex-
3 plaining monthly commitments, obligations, and expendi-
4 tures by line of action.

SUMMARY OF DIRECTIVE REPORT LANGUAGE

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DIRECTIVE REPORT LANGUAGE

Titles 1 & 2

DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE I—PROCUREMENT

AIRCRAFT PROCUREMENT, ARMY

Items of Special Interest

UH-72A Lakota Helicopter

The committees notes that the UH-72A Lakota Helicopter has proven to be a capable multi-role aircraft used in support of the Army National Guard's unique set of missions including, boarder security, disaster response, medical evacuation, and troop transport. The committee is aware that the Army has completed a survivability analysis and initial cost assessment on modifications that, if made, would allow the UH-72 to operate in non-permissive environments. The results of the analysis indicate that the UH-72A could be an effective and cost-efficient option to be used in support of additional operations in the continental United States (CONUS) and outside the continental United States (OCONUS), and in combat zones in support of contingency operations. The committee believes that further assessment should be conducted to evaluate potential courses of action for expanding the operational spectrum for the utilization of the LUH-72A.

Therefore, the committee directs the Secretary of Defense, in coordination with the Secretaries of the military departments, to include the Chief of the National Guard Bureau, to submit a report to the congressional defense committees by February 15, 2013, that identifies where the UH-72A could provide operational efficiencies in support of permissive and non-permissive CONUS, OCONUS, and contingency missions. The report should include, at a minimum, a cost assessment that includes the costs associated with integrating aircraft survivability systems, testing costs to qualify the aircraft to operate in non-permissive environments, and costs associated with sustaining the aircraft in non-permissive environments.

WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

Items of Special Interest

Heavy Brigade Combat Team force structure and industrial base

The committee notes that the Army has announced that it will decrease end strength over the next 5 years. The decrease in end strength has forced the Army to also announce plans to eliminate at least eight active component Brigade Combat Teams (BCT), reducing the total number from 45 to 37. The active Army has 17 Heavy BCTs (HBCT), 20 Infantry BCTs, and 8 Stryker BCTs. The Army has stated that at least two of the eight BCTs eliminated will be HBCTs. The committee notes

that the HBCT, which is comprised of Abrams tanks and Bradley fighting vehicles, is the only full-spectrum force in the Army's force structure. With regard to the future utility of heavy forces, the committee notes a Rand Corporation report from 2010 that concluded, "Heavy forces—based on tanks and infantry fighting vehicles—are key elements of any force that will fight hybrid enemies that have a modicum of training, organization, and advanced weapons. Light and medium forces can complement heavy forces, particularly in urban and other complex terrain; they do not provide the survivability, lethality, or mobility inherent in heavy forces. Quite simply, heavy forces reduce operational risks and minimize friendly casualties."

The committee is concerned that the Army may eliminate too many HBCTs based on resource constraints rather than meeting the needs of combatant commanders. The committee understands the Army is currently conducting a force structure and BCT mix analysis, however, it does not believe the results will be available in time to inform the committee. The committee also understands the Army is considering adding a third maneuver battalion back into the Heavy and Infantry BCTs which may also impact the total amount of BCTs. The committee is supportive of all BCTs having a third maneuver battalion and notes that the committee opposed the Army's original decision of two maneuver battalions per BCT in the committee report (H. Rept. 109-452) accompanying the John Warner National Defense Authorization Act for Fiscal Year 2007.

In addition to the mix of BCTs, the committee is also concerned about the Army's proposal to let the HBCT vehicle production lines go "cold" for 3-to-4 years, beginning in fiscal year 2013, and the associated impact this decision will have on the industrial base at both the prime contractor and vendor level. The HBCT industrial base is not dependent upon one platform. The committee believes insufficient information is available to the Army and Congress to make an informed decision on what the potential risks would be of closing HBCT production lines. The committee needs to understand the ramifications to the future HBCT industrial base capabilities regarding the Abrams tank, Bradley fighting vehicle, Paladin howitzer, Hercules recovery vehicle, Armored Multi-Purpose Vehicle, and the Ground Combat Vehicle. The committee needs to be informed of the Army's projected requirements in fiscal year 2017 to maintain a public and private work force to sustain the current level of HBCTs, and what capabilities the Army will need in the future to produce new platforms. The committee also believes that Foreign Military Sales (FMS) may help to mitigate some of the risk to the industrial base, but believes FMS alone will not be enough to ensure that the HBCT industrial base is maintained at viable levels in the near term. In the absence of a force mix BCT analysis, and a detailed quantitative analysis of the impacts to the HBCT industrial base, the committee recommends adjustments to the Army's budget request elsewhere in this report.

Accordingly, the committee directs the Secretary of the Army, or his designee, to brief the congressional defense committees within 60 days after the date of the enactment of this Act, on the results of the recent force mix analysis. At

a minimum, the briefing should include the assumptions and scenarios used to determine the type and mix of Brigade Combat Teams, the rationale for the force mix, and the risks involved with the recommended force mix. The committee also directs the Chairman of the Joint Chiefs of Staff, or his designee, to brief the congressional defense committees within 60 days after the date of the enactment of this Act, on how the Army's recent force structure and BCT mix analysis meet the needs of the combatant commanders, and what the Joint Staff believes are the potential risks regarding the adequacy of the force mix, if the assumptions behind the scenarios used do not materialize. In addition, the committee further directs the Secretary of the Army, in coordination with the Chairman of the Joints Chief of Staff, to submit a report to the congressional defense committees to accompany the fiscal year 2014 budget request, on the results and impacts of the force mix analysis.

Paladin integrated management program

The budget request contained \$206.1 million for the Paladin integrated management (PIM) program.

The PIM program is scheduled to receive milestone C authority in June 2013. The current acquisition strategy includes four years of low-rate initial production (LRIP), followed by eight years of full-rate production (FRP). The committee notes that the first FRP is not planned for delivery until fiscal year 2019, which is more than 6 years after the milestone C decision, and the last FRP is not planned for completion until fiscal year 2028. The committee believes this protracted build and fielding schedule will likely add significant cost to the overall program.

Therefore, the committee directs the Secretary of the Army to submit a report to the congressional defense committees within 90 days after the date of the enactment of this Act on various courses of actions for possible acceleration of the PIM program. At a minimum, the report should include the possibility and ramifications of a more realistic production schedule, and the associated funding requirements, that includes moving from 4 years of LRIP down to 2 years, and the acceleration of FRP to less than the planned 8 years of procurement. The report should also identify potential test efficiencies for efforts required, prior to a full-rate production decision, to move the FRP decision sooner than currently planned.

The committee recommends \$206.1 million, the full amount requested, for the PIM program.

Small arms modernization and sustainment

The budget request contained \$4.9 million for M249 squad automatic weapons and modifications, and contained \$6.8 million for M240 medium machine guns and modifications.

The committee understands that small arms modernization is a component of the U.S. Army's continued effort to modernize key weapon systems, including the

M249 squad automatic weapon (SAW) and the M240 medium machine gun. The committee believes the Army has the responsibility to provide the soldier with the best individual and crew-served weapons, and to continuously modernize, adapt, and incrementally improve small arms weapon systems as the threat to deployed military personnel evolves. The committee notes that small arms are key components to the survivability and lethality of the warfighter. The committee is aware that most small arms programs are nearing the end of their procurement objectives. The committee notes the M249 SAW and M240 machine guns will complete procurement in fiscal year 2013, and the committee is concerned about the perceived lack of a long-term sustainment strategy for the small arms industrial base, specifically the light and medium machine gun industrial base.

The committee understands there has been significant investment by industry and the Army in training, infrastructure, and material required to develop and produce the highest quality light and medium machine gun weapon systems. The committee is concerned that any significant break in production could be detrimental to the small arms industrial base, and in turn to the readiness of the military services. The committee needs to better understand the ramifications to the small arms industrial base capabilities across the Future Years Defense Program in light of the constraints of the current fiscal environment. The committee encourages the Secretary of the Army to adequately resource the small arms industrial base in order to prevent any unnecessary breaks in production.

In addition, the committee directs the Secretary of the Army to perform an objective assessment of the Army's approach to satisfying light and medium machine gun capability requirements. The assessment should include a review of current and projected lightweight and medium machine gun requirements; assess performance of current systems against requirements; establish acquisition and life-cycle costs; evaluate cost and capability of current development and procurement plans; and consider future requirements and capabilities that can be acquired today, and those which require research and development. The committee further directs the Secretary of the Army to provide a briefing to the congressional defense committees within 180 days after the date of the enactment of this Act on the results of the assessment.

The committee recommends \$4.9 million, the full amount of the request, for M249 squad automatic weapons and modifications, and \$6.8 million, the full amount of the request, for M240 medium machine guns and modifications.

OTHER PROCUREMENT, ARMY

Items of Special Interest

Joint Tactical Radio System Handheld, Manpack, and Small Form Fit radio program

The budget request included \$482.2 million for procurement of Joint Tactical Radio System (JTRS) Handheld, Manpack, and Small Form Fit (HMS) radios.

The committee understands that the JTRS HMS program of record includes full and open competition as part of the program's initial full-rate production. The committee believes that in the interest of increased competition, it is imperative that subsequent full-rate production procurements include a strategy for including any non-program of record vendors that meet appropriate qualification standards in accordance with section 141 of the National Defense Authorization Act for Fiscal Year 2012 (Public Law 112-81). The committee encourages the Army to continue to assess performance requirements. The committee directs the Secretary of the Army to ensure that all qualification standards are documented and approved by the Assistant Secretary of the Army for Acquisition, Logistics, and Technology and available to vendors prior to any additional full-rate procurements. In addition, the committee directs the Secretary of the Army to submit a report by July 31, 2012, on the Army's plan for production competition for each element of the JTRS program.

The committee recommends \$482.2 million, the full amount of the request, for JTRS HMS radios.

Network Integration Exercises

The committee applauds the Army's effort to encourage commercial solutions and innovation through Network Integration Exercises (NIE). The committee encourages the other military services to leverage the information gained from the Army's efforts and consider participating in future NIEs. The committee also believes that as a result of the lessons learned from NIEs, additional improvements in acquisition policy should be made to couple innovative testing with reduced acquisition time frames. Therefore, the committee directs the Secretary of the Army to submit a report to the congressional defense committees by February 15, 2013, that considers potential acquisition strategies for NIE-tested capabilities that allows Army NIE-tested products from non-program of record suppliers to be contracted through full and open competition with the Government in a streamlined manner.

PROCUREMENT, DEFENSE-WIDE

Items of Special Interest

Aircraft Survivability Equipment

The committee is aware that in 2009, in an effort to improve rotor aircraft safety and survivability, the Under Secretary of Defense for Acquisition, Technology, and Logistics issued an Aircraft Survivability Equipment (ASE) Acquisition Directive Memorandum directing the Department of the Navy, as the lead military service for the program, to develop a modular and open operating

system to enable upgrades and platform integration, and thus promote a cost-effective common ASE system and eliminate the need for similar, duplicative systems for each of the military service's rotorcraft inventory.

The committee is encouraged that the military services are coordinating on ASE efforts, but is concerned that duplicate efforts still exist. Therefore, the committee directs the Under Secretary of Defense for Acquisition, Technology, and Logistics to conduct a review of ongoing and planned rotorcraft threat warning and countermeasure programs, and to brief the congressional defense committees by September 30, 2012, on specific steps the Department will take to mitigate or eliminate duplicate, single-service systems.

TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, ARMY

Items of Special Interest

Autonomous Sustainment Cargo Container

The committee recognizes the importance of safely moving containerized supplies from ship-to-shore during contingency operations. The committee has encouraged the development of new robotic concepts for this logistics operation and, in previous years, has supported investments in field-test data for an Autonomous Sustainment Cargo Container (ASCC).

The committee understands, however, that the Army has stated that it does not have a capability gap in its ability to move containerized cargo from ship to shore that the ASCC would address. Therefore, the committee directs the Secretary of the Army to further assess incorporating the ASCC into the Army's current and near-future logistics operations at the off-shore distances in accordance with Army doctrine (including future sea basing). At a minimum, this analysis should review:

(1) The military utility of using an autonomous cargo container across a range of military operations and in various environments including adverse weather/terrain, hostile asymmetrical warfare, and Humanitarian Assistance/Disaster Relief operations;

(2) How ASCC's capabilities would be incorporated into the Army's logistics operations, from point of supply through delivery to point of need;

(3) The cost estimates to procure, operate, and sustain ASCC in comparison to the lifecycle costs of current manned capabilities; and

(4) If applicable, additional operational and logistics impacts to the Army of incorporating ASCC into its processes.

Additionally, the committee directs the Secretary of the Army to submit a report on the Army's findings to the congressional defense committees within 180 days after the date of the enactment of this Act.

Body armor enhancements and personnel protection equipment for female soldiers

The budget request contained \$32.0 million in PE 63827A for soldier systems-advanced development. Of this amount, \$15.0 million was requested for the development of improved soldier personnel protective equipment efforts. The budget request also contained \$96.4 million in PE 64601A for infantry support weapons. Of this amount, \$11.9 million was requested for the development and testing of prototypes for improved personnel protective equipment.

Section 216 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84) required the Secretary of Defense to establish separate research and development program elements for body armor. The committee notes that while science and technology (S&T) funds and projects for body armor activities have been reasonably robust, there has been no significant advanced component development, prototype development, and system development and demonstration (RDT&E) budget activities from which successful S&T projects could be transitioned. The committee is encouraged by the budget request for fiscal year 2013. The committee expects these RDT&E programs to include: female body armor to ensure the warfighter is equipped with the most current individual protection gear; develop ways to reduce weight with current technologies; and increase investment in promising technologies that would eventually achieve reduced weight and increased protection together, as well as maximize flexibility and modularity. The committee also notes that the tradeoff between protection capabilities and weight is a major cost driver in body armor procurements and that this has become a major source of contention related to the measures of protection body armor must provide. The committee further notes available technology has not been able to keep the system within the user's desired weight without sacrificing performance. The committee expects the Secretary of the Army to adequately resource these RDT&E efforts in order to improve performance and reduce the weight of systems.

The committee is also aware of concerns expressed by female members of the Armed Forces deployed in support of Operation New Dawn (OND) and Operation Enduring Freedom (OEF) that the current interceptor body armor system's design may not be as ergonomically effective for female soldiers. The committee notes that the current counter-insurgency and dismounted operations in support of OND and OEF place female service members in direct combat action with the enemy. The committee understands the U.S. Army is currently pursuing several S&T and RDT&E programs to improve upon organizational clothing and individual equipment (OCIE) for soldiers to include programs specifically tailored for female soldiers. The committee commends the Army for recognizing this issue and encourages the acceleration of these efforts to help determine the most effective OCIE to include body armor and associated components, for military service members. The committee also encourages the Army to continue to improve upon the partnerships and coordination of efforts between the S&T and acquisition OCIE

communities in order to help streamline the transition of technologies into a readily available solution that could be used in the field by the warfighter.

The committee directs the Secretary of the Army to conduct an assessment as to whether there is an operational need to tailor the interceptor body armor systems fielded to female service members specifically for the physiological requirements of women. This assessment should include a comprehensive market survey of commercial body armor system designs specifically tailored for female body types. The committee further directs the Secretary of the Army to provide a briefing to the congressional defense committees within 180 days after the date of the enactment of this Act on the results of the assessment, as well as to provide an update on all other currently funded programs addressing personnel protection equipment for female soldiers.

The committee recommends \$32.0 million, the full amount requested, in PE 63827A for soldier systems-advanced development, and \$96.4 million, the full amount requested, in PE 64601A for infantry weapons program project for development and testing of prototypes for improved personnel protective equipment.

Efforts to improve the sustainment of body armor

The committee notes that the domestic body armor industrial base has expanded significantly since 2003 after procurement objectives were increased significantly to outfit all U.S. Armed Forces and Department of Defense (DOD) civilian personnel in the U.S. Central Command's area of responsibility. The committee notes that the total body armor program evolved from a \$40.0 million program in 1999, to over \$6.0 billion through 2012. This represents a significant investment by the military services for individual personnel protection, and the committee recognizes the importance of this program.

Current overseas contingency operations have demonstrated that body armor has become a critical item on the battlefield. Therefore, maintaining a reliable and cost-effective body armor industrial capability sufficient to meet strategic objectives should continue to be an important consideration when developing current and future acquisition strategies for all body armor components. Currently, the industrial base is approaching an inflection point due to uncertainty of future demand and associated procurement of body armor. The rate of procurements has dramatically slowed. The committee notes that industry has been willing to absorb the cost of non-utilized and underutilized manufacturing capacity in the hope that DOD contracts will continue; however, this cannot be sustained indefinitely. The potential dynamic nature of current and future threats has increased the challenge to forecast requirements and inform industry in advance.

The committee notes that the military services are resourcing ongoing projects and initiatives to understand and improve the lifespan of soft body armor components. The committee understands that current efforts are examining environmental effects, ballistic fiber accelerated aging, and fiber/fabric surface

treatment during the weaving process. The committee notes that there is also research into three-dimensional weaving technology, and that modeling and simulation on soft armor architecture is also being investigated for more durable materials. The committee supports these initiatives.

In addition, the committee directs the Secretary of the Army to provide a briefing to the congressional defense committees within 180 days after the date of the enactment of this Act that provides an assessment of the long-term sustainment requirements for the body armor industrial base in the United States, to include supply chains for hard and soft body armor. The briefing should also include an assessment of body armor and related research, development, and acquisition objectives, priorities, and funding profiles for hard and soft body armor components in the following areas: (1) advances in the level of protection; (2) weight reduction; (3) manufacturing productivity and capability; and (4) efforts and new technologies that could currently be used to extend the lifespan of hard and soft body armor components.

Joint Air-to-Ground Missile program

The budget request included \$10.0 million in PE 65450A for Joint Air-to-Ground Missile (JAGM) research and development.

The committee supports the JAGM program and approves of the decision to continue the program as outlined in the revised Acquisition Decision Memorandum (ADM) issued by the Under Secretary of Defense for Acquisition, Technology, and Logistics on March 20, 2012. The committee notes that significant prior-year funding is available to continue the program and encourages expedited contracting actions to ensure that these funds can be obligated in fiscal year 2012. While the committee agrees with the decision in the ADM to explore technical trades to achieve a more affordable solution, the committee recommends that the Army retain a requirement for an all-weather, moving target-capable missile, with an emphasis on missile solutions capable of being fielded within 3 years of contract award. Therefore, the committee directs the Secretary of the Army to provide a briefing to the congressional defense committees by August 1, 2012, on the revised acquisition plan, anticipated requirements, and program schedule and funding needs.

The committee recommends \$10.0 million, the full amount requested, in PE 65450A for JAGM research and development.

M4 carbine product improvement program

The budget request contained \$96.5 million in PE 64601A for Infantry Support Weapons. Of this amount, \$21.3 million was requested for the Individual Carbine competition and \$9.2 million was requested for the M4 carbine product improvement program (PIP).

The committee notes that U.S. Army officials have informed the committee that the Army would resource a three-phase acquisition strategy to review potential

upgrades to the M4 carbine. Section 212 of the National Defense Authorization Act for Fiscal Year 2012 (Public Law 112-81) required the Secretary of the Army to submit to the congressional defense committees a business case assessment of commercially available upgrade kits and weapon systems before allowing the next generation Individual Carbine to enter full-rate production. The committee is concerned that the budget request does not contain the necessary resources to conduct the evaluation of commercial-off-the-shelf upgrade kits despite the Army's stated intent to do so in phase III of the PIP acquisition strategy.

Therefore, the committee directs the Secretary of the Army to submit a report to the congressional defense committees within 180 days after the date of enactment of this Act that outlines the Army's plan to evaluate commercial-off-the-shelf upgrade kits to the M4 carbine in the product improvement program. This report should include the business case assessment comparing the capabilities and costs of commercial-off-the-shelf upgrade kits to the enhanced M4/A1 carbine.

The committee recommends \$21.3 million, the full amount requested, in PE 64601A for the Individual Carbine competition, and \$9.2 million, the full amount requested, for the M4 PIP program.

Occupant-centric survivability technology development program

The committee understands that the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) has established the occupant centric survivability program, with a goal of examining technologies that can significantly protect vehicle occupant casualties. The committee supports this effort. The committee understands that as part of its effort to improve occupant survivability, TARDEC is reviewing industry-derived integrated solutions, such as rapid occupant evacuation systems, modular composite armor and rocket-propelled grenade mitigation, exterior underbody and interior floor improvised explosive device blast mitigation solutions, and roof-mounted blast seating and restraint systems. The committee notes that the Marine Corps used a similar and innovative "kit" approach that tightly integrated numerous survivability technologies in an effort to significantly upgrade the occupant protection of Marine Corps' Light Armored Vehicles. The committee understands that such an integrated occupant-centric survivability system is potentially applicable to a wide-range of existing and future Army and Marine Corps vehicles and could be installed on current platforms in the near-term during depot reset, or in theater.

Therefore, the committee directs the Director, U.S. Army Tank Automotive Research, Development and Engineering Center to provide a report to the congressional defense committees by January 1, 2013, on the status of evaluating candidate occupant-centric survivability systems to include: prototyping and testing activities; the potential for integrating candidate technologies on existing vehicles, such as the Stryker vehicle, the Bradley Fighting Vehicle, the Armored Multi-Purpose Vehicle, and the high mobility, multi-purpose wheeled vehicle; and the status of coordinating findings with the Marine Corps.

Rotary-wing performance surface

The committee recognizes the need for the development of a rotary wing performance mission planning tool that improves aviation safety and survivability. Such a system could provide mission planners and air crews with the capability to display specific airframe performance characteristics that take into account terrain and soil features, and other performance factors to provide qualitative assessments of flight routes and landing zones. Such a system could also provide mission planners and aircrews with the capability to rapidly assess an area-of-operation for a forecasted time. This type of capability should be interoperable with existing aviation mission planning decision making tools and have the potential to be integrated with technologies facilitating operations in degraded visual environments.

The committee directs the Secretary of the Army to submit a report to the congressional defense committees by February 28, 2013, assessing the current capabilities and capability gaps in Army Aviation mission planning tools that would provide aircrews with enroute and landing zone assessments. The report should also take into consideration available empirical data derived from aircraft performance attributes, weather and environmental conditions, and known terrain conditions.

Shadow unmanned aerial system alternative engine

The committee notes that the Army's Shadow unmanned aerial system (UAS) has accumulated over 1 million flight hours in support of Operation Enduring Freedom and Operation Iraqi Freedom. The committee understands that a planned upgrade of the Shadow may enable it to perform longer-range and higher-altitude missions. The committee also notes that the Shadow's current engine runs on high-octane gasoline, which creates a significant logistics burden for the Army. The committee is also aware that the Army is pursuing an alternative engine to enhance UAS performance. The committee encourages the Army to continue development of alternative engine solutions and encourages the Army to consider high-efficiency, air-breathing turbine engine technologies. The committee directs the Secretary of the Army to provide a report to the congressional defense committees within 90 days after the date of the enactment of the this Act that details the Army's plans to modernize the Shadow platform's propulsion system.

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, NAVY

Items of Special Interest

Universal tactical controller for unmanned systems

The committee is concerned by the large number of proprietary controllers that have been fielded as part of small unmanned systems, including unmanned

aerial vehicles (UAV), unattended ground sensors (UGS), and unmanned ground vehicles (UGV). The committee understands the roles of UAVs, UGVs, and UGSs have increased significantly since 2002. The committee notes that the current inventory of unmanned systems, from Class 1 UAVs to UGVs and UGSs, includes many different types of systems, each requiring a proprietary controller unique to those systems. The committee also notes that more than 19,000 systems have been fielded to units across the Department of Defense.

Therefore, the committee directs the Secretary of the Army, in coordination with the Secretary of the Navy, to determine the advisability and feasibility of developing a soldier-wearable, universal controller for the Army and the Marine Corps that could potentially operate Class 1 UAVs, UGSs, and UGVs, and to provide a briefing to the congressional defense committees within 180 days after the date of the enactment of this Act on the results of the study.

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

Items of Special Interest

Assessment on inner-aural communications hearing protection capabilities

The committee is concerned that hearing loss continues to remain one of the most prevalent long-term injuries for military personnel. The committee is concerned that many military personnel may not wear their issued earplugs because current earplugs could potentially limit situational awareness as well as reduce the warfighter's ability to communicate over handheld and man-portable radios. The committee understands that U.S. Special Operations Command has developed and fielded communications technology that both increases situational awareness and mitigates the risk of permanent hearing loss through the use of enhanced inner-aural hearing protection and hearing enhancement protective technology.

The committee believes that the military services should consider additional investment in such technology and directs the Under Secretary of Defense for Acquisition, Technology, and Logistics to brief the congressional defense committees within 180 days after the date of enactment of this Act on the status of the Department's efforts in developing technology to reduce service-related hearing loss, as well as the advisability and feasibility of equipping military personnel with inner-aural communications hearing protection and enhancement systems that could potentially reduce the risk of hearing loss.

Department of Defense unmanned aircraft system operations in the National Airspace System

The budget request contained \$7.7 million in PE 35219A, \$18.0 million in PE 35220F, \$0.7 million in PE 63211F, and \$8.9 million in PE 64400D8Z for sense and avoid technology development to further unmanned aircraft system (UAS)

operations in the National Airspace System (NAS). The budget request also included \$37.7 million in Aircraft Procurement, Army, for procurement of Ground Based Sense and Avoid (GBSAA) systems for the Grey Eagle UAS program to comply with Federal Aviation Administration requirements to “sense and avoid” and permit expanded training opportunities and operation of the Grey Eagle unmanned aerial vehicle in the national airspace.

The committee supports these projects. UAS have become a significant component of the Nation's defense capability, as well as having the potential to provide support during a crisis and disaster response. The committee also recognizes the contribution that the Joint Planning and Development Office's (JPDO) report, “NextGen Unmanned Aircraft Systems Research, Development and Demonstration Roadmap,” dated March 15, 2012, has made by providing a multi-agency perspective of the technology required to enable UAS operations and integration in the next generation NAS. The report is a joint publication of the Federal Aviation Administration, the National Aeronautics and Space Administration, the Department of Defense (DOD), the Department of Commerce, and the Department of Homeland Security. The committee supports and encourages a collaborative relationship between the Department of Defense and other JPDO partners in order to expedite development of the necessary technologies to solve the challenges of UAS-NAS integration.

While supporting the Department of Defense's investment in "sense and avoid" technologies and system development, the committee is concerned about the overall plan for development and system fielding. Therefore, the committee directs the Under Secretary of Defense for Acquisition, Technology, and Logistics, in coordination with the Secretaries of the military departments, to provide a report to the congressional defense committees, the Senate Select Committee on Intelligence, and the House Permanent Select Committee on Intelligence within 180 days after the date of the enactment of this Act on current DOD capabilities and the program for GBSAA and airborne sense and avoid (ABSAA) development and fielding in support of UAS operations in the NAS. The report should include: the technology development and procurement roadmap for the Office of the Secretary of Defense and the military services, and include the required capabilities and systems for each, as applicable; the fiscal year 2013 Future Years Defense Program research and development and procurement budgets for each; a description of the technology development progress made and procurement actions taken to date; and the current GBSAA and ABSAA fielded capabilities. Finally, the report should include the projects the Department of Defense intends to address that are included in the multi-agency JPDO report, "NextGen UAS Research, Development, and Demonstration Roadmap."