

En Bloc Amendments to H.R. 4909

April 27, 2016

Subcommittee on Emerging Threats and Capabilities		
En Bloc #2		
Log #	Sponsor	Description
153	McSally	Directs a pilot program for different operating models of labs and test and evaluation centers.
157	Franks	Briefing on how to integrate electromagnetic pulse hardening technology into micro grids on defense installations
160r1	Larsen	Directs a pilot program for modernization of selected electronic warfare programs
185	Rogers	Briefing on plans for assured access to domestic source of radiation-hardened microelectronics.
203	Garamendi	Pilot authority to acquire innovative commercial items using general solicitation competitive procedures
206r1	Lamborn	Briefing on cyber hardening existing programs through sustainment activities
246	Brooks	Briefing on the high-resolution 3-D topographic terrain data requirements to support tactical operations.
264r2	Walz	Briefing on the military free fall course
289	Lamborn	Briefing on U.S. - Israel anti-tunneling cooperative research program.

Log 153

AMENDMENT TO H.R. 4909 OFFERED BY MS. MCSALLY

At the appropriate place in title II, insert the following:

1 **SEC. 2** . **PILOT PROGRAM FOR THE ENHANCEMENT OF**
2 **THE LABORATORIES AND TEST AND EVALUA-**
3 **TION CENTERS OF THE DEPARTMENT OF DE-**
4 **FENSE.**

5 (a) **IN GENERAL.**—The Assistant Secretaries shall
6 jointly carry out a pilot program to demonstrate methods
7 for the more effective development of research, develop-
8 ment, test, and evaluation functions.

9 (b) **SELECTION AND PRIORITY.**—The Assistant Sec-
10 retaries shall jointly select not more than one laboratory
11 and one test and evaluation center from each of the mili-
12 tary services to participate in the pilot program under sub-
13 section (a).

14 (c) **PARTICIPATION IN PROGRAM.**—

15 (1) **IN GENERAL.**—Subject to paragraph (2),
16 the director of a laboratory or test and evaluation
17 center selected under subsection (b) shall propose
18 and implement alternative and innovative methods of
19 rapid project delivery, support, experimentation,

1 prototyping, and partnership with universities and
2 private sector entities to—

3 (A) generate greater value and efficiencies
4 in research and development activities per dol-
5 lar of cost; and

6 (B) enable more rapid deployment of
7 warfighter capabilities.

8 (2) IMPLEMENTATION.—The director shall im-
9 plement each method proposed under paragraph (1)
10 unless such method is disapproved by the Assistant
11 Secretary concerned.

12 (d) WAIVER AUTHORITY FOR DEMONSTRATION AND
13 IMPLEMENTATION.—Until the termination of the pilot
14 program under subsection (f), the director of a laboratory
15 or test and evaluation center selected under subsection (b)
16 may waive any restriction or departmental instruction that
17 would affect the implementation of a method proposed
18 under subsection (e), unless such implementation would
19 be prohibited by Federal law.

20 (e) MINIMUM PARTICIPATION REQUIREMENT.—Each
21 laboratory or test and evaluation center selected under
22 subsection (b) shall participate in the pilot program under
23 subsection (a) for a period of not fewer than six years be-
24 ginning not later than 180 days after the date of the en-
25 actment of this Act.

1 (f) TERMINATION.—The pilot program under sub-
2 section (a) shall terminate on the date determined appro-
3 priate by the Secretary of Defense that is on or after the
4 end of the six-year period described in subsection (c).

5 (g) ASSISTANT SECRETARY DEFINED.—In this sec-
6 tion, the term “Assistant Secretary” means—

7 (1) the Assistant Secretary of the Air Force for
8 Acquisition, with respect to a working capital fund
9 institution of the Air Force;

10 (2) the Assistant Secretary of the Army for Ac-
11 quisition, Technology, and Logistics, with respect to
12 a working capital fund institution of the Army; and

13 (3) the Assistant Secretary of the Navy for Re-
14 search, Development, and Acquisition, with respect
15 to a working capital fund institution of the Navy.



**Amendment to H.R. 4909
National Defense Authorization Act for Fiscal Year 2017**

Offered by: Mr. Franks of Arizona

In the appropriate place in the report to accompany H.R. 4909, insert the following new Directive Report Language:

Assessment of hardening technologies for microgrids

The committee is aware of the increasing development and use of microgrids on Defense Department installations in an effort to provide better isolation capabilities from failures to the public electrical grid, but also to integrate other sources of energy to make bases more secure in the event of long-term power outages. The committee is also aware that the Department recently completed a Joint Concept Technology Demonstration, called "Smart Power Infrastructure Demonstration for Energy Reliability and Security (SPIDERS), to demonstrate how to integrate cyber-security, energy efficiency, and energy storage technologies into a common architecture for military installations. However, the committee does not believe that this demonstration looked at how to integrate technologies to harden against electromagnetic pulse (EMP) from high-altitude nuclear burst or space weather. The committee remains concerned that EMP effects could have potentially catastrophic effects against and electrical grid, and the effects against such new technology as microgrids is not currently quantified.

Therefore, the committee directs the Under Secretary of Defense for Acquisition, Technology, and Logistics to provide a briefing to the House Armed Services Committee by January 20, 2017 assessing the capabilities and needs for EMP hardening Department of Defense microgrids. This briefing should include an overview of the results of the SPIDERS JCTD, including any technologies that demonstration considered that would improve EMP hardening. The briefing should also assess the three locations used in the demonstration to identify what kinds of hardening technologies might be incorporated into their architectures, as well as an estimate of the projected costs in hardening those sites.

Log 160 R1

AMENDMENT TO H.R. 4909

OFFERED BY MR. LARSEN OF WASHINGTON

At the appropriate place in title II, add the following
new section:

1 **SEC. 2 . PILOT PROGRAM ON MODERNIZATION OF ELEC-**
2 **TROMAGNETIC SPECTRUM WARFARE SYS-**
3 **TEMS AND ELECTRONIC WARFARE SYSTEMS.**

4 (a) **PILOT PROGRAM.—**

5 (1) **IN GENERAL.—**The Secretary of Defense
6 may carry out a pilot program on the modernization
7 of electromagnetic spectrum warfare systems and
8 electronic warfare systems.

9 (2) **SELECTION.—**If the Secretary carries out
10 the pilot program under paragraph (1), the Elec-
11 tronic Warfare Executive Committee shall select
12 from the list described in section 224(b)(4) a total
13 of five electromagnetic spectrum warfare systems
14 and electronic warfare systems across at least two
15 military departments that are currently in
16 sustainment for modernization under the pilot pro-
17 gram.

18 (b) **DEFINITIONS.—**In this section:

1 (1) The term “electromagnetic spectrum war-
2 fare” means electronic warfare that encompasses
3 military communications and sensing operations that
4 occur in the electromagnetic operational domain.

5 (2) The term “electronic warfare” means mili-
6 tary action involving the use of electromagnetic and
7 directed energy to control the electromagnetic spec-
8 trum or to attack the enemy.

 In section 224(b), insert after paragraph (4) the fol-
 lowing new paragraphs (and redesignate the subsequent
 paragraph accordingly):

9 (5) Progress on increasing innovative electro-
10 magnetic spectrum warfighting methods and oper-
11 ational concepts that provide advantages within the
12 electromagnetic spectrum operational domain.

13 (6) Specific attributes needed in future elec-
14 tronic warfare capabilities, such as networking,
15 adaptability, agility, multifunctionality, and minia-
16 turization, and progress toward incorporating such
17 attributes in new electronic warfare systems.

18 (7) Capability gaps with respect to asymmetric
19 and near-peer adversaries identified pursuant to a
20 capability gap assessment.

1 (8) A joint strategy on achieving near real-time
2 system adaption to rapidly advancing modern digital
3 electronics.



**Amendment to H.R. 4909
National Defense Authorization Act for Fiscal Year 2017**

Offered by: Mr. Rogers of Alabama

In the appropriate place in the report to accompany H.R. 4909, insert the following new Directive Report Language:

Trusted foundries for strategic-hardened microelectronics

The committee understands that one of trusted foundries capable of producing strategic-hardened microelectronics for the Department of Defense was sold to a foreign-owned company in 2015. In testimony before the committee on October, 28, 2015, the Acting Deputy Secretary of Defense for Manufacturing and Industrial Base Policy expressed concern about the dwindling number of domestic microelectronic manufacturers. The committee also noted in the report that accompanied H.R. 1735, the Fiscal Year 2016 National Defense Authorization Act, that the acquisition of the microelectronics fabrication and related intellectual property by a foreign-owned entity creates uncertainty about the Department's future access to strategic-hardened trusted microelectronics and presents risk for the national security programs that rely on these products.

The committee recognizes that the Defense Production Act (DPA) Title III program provides the Department the ability to ensure the availability of domestic production capabilities for certain critical technologies, and that the National Security Space Industrial and Supply Base (NSS ISB) Risk Mitigation Program was developed to formulate a systematic process to fund mitigation efforts and rectify shortcomings in the space and industrial supply base. The committee believes DOD must ensure a continued domestic supply for strategic-hardened and trusted microelectronics and should consider utilizing DPA Title III authorities and the NSS ISB. The committee directs the Secretary of Defense to provide a briefing to the defense authorization committees by September 1, 2016, containing information on the Secretary's plans to ensure a continued domestic source of strategic-hardened trusted microelectronics and the Secretary's views on using DPA Title III and the NSS ISB for such purposes.

Log 203

AMENDMENT TO H.R. 4909 OFFERED BY MR. GARAMENDI OF CALIFORNIA

At the appropriate place in title VIII, insert the following:

1 **SEC. 8___ . PILOT PROGRAM FOR AUTHORITY TO ACQUIRE**
2 **INNOVATIVE COMMERCIAL ITEMS USING**
3 **GENERAL SOLICITATION COMPETITIVE PRO-**
4 **CEDURES.**

5 (a) **AUTHORITY.**—The Secretary of Defense may
6 carry out a pilot program, to be known as a “commercial
7 solutions opening pilot program”, under which innovative
8 commercial items may be acquired through a competitive
9 selection of proposals resulting from a general solicitation
10 and the peer review of such proposals.

11 (b) **TREATMENT AS COMPETITIVE PROCEDURES.**—
12 Use of general solicitation competitive procedures for the
13 pilot program under subsection (a) shall be considered to
14 be use of competitive procedures for purposes of chapter
15 137 of title 10, United States Code.

16 (c) **LIMITATIONS ON FUNDING.**—

17 (1) **LIMITATION ON INDIVIDUAL CONTRACT**
18 **AMOUNT.**—The Secretary may not enter into a con-

1 tract under the pilot program for an amount in ex-
2 cess of \$10,000,000.

3 (2) ANNUAL LIMITATION.—The total amount
4 that may be obligated or expended under the pilot
5 program for a fiscal year may not exceed
6 \$75,000,000.

7 (d) LIMITATION RELATING TO MAJOR DEFENSE AC-
8 QUISITION PROGRAM SYSTEMS.—The Secretary may not
9 acquire innovative commercial items under the pilot pro-
10 gram to replace a system under a major defense acquisi-
11 tion program in its entirety.

12 (e) GUIDANCE.—The Secretary shall issue guidance
13 for the implementation of the pilot program under this
14 section within the Department of Defense. Such guidance
15 shall be issued in consultation with the Office of Manage-
16 ment and Budget and shall be posted for access by the
17 public.

18 (f) REPORTS REQUIRED.—

19 (1) IN GENERAL.—Not later than six months
20 after the initiation of the pilot program, and every
21 six months thereafter, the Secretary shall submit to
22 the Committees on Armed Services of the Senate
23 and House of Representatives a report on the activi-
24 ties the Department of Defense carried out under
25 the pilot program.

1 (2) ELEMENTS OF REPORT.—The report under
2 this subsection shall include the following:

3 (A) An assessment of the impact of the
4 pilot program on competition.

5 (B) An assessment of the ability under the
6 pilot program to attract proposals from non-
7 traditional defense contractors (as defined in
8 section 2302(9) of title 10, United States
9 Code).

10 (C) A comparison of acquisition timelines
11 for—

12 (i) procurements made using the pilot
13 program; and

14 (ii) procurements made using other
15 competitive procedures that do not use
16 general solicitations.

17 (D) A recommendation on whether the au-
18 thority for the pilot program should be made
19 permanent.

20 (g) DEFINITION.—In this section, the term “innova-
21 tive” means—

22 (1) any new technology, process, or method,
23 able to be used to improve or replace existing infor-
24 mation system applications, programs, or networks,

1 or used to improve research and development of in-
2 formation technology advancements; or

3 (2) any new application of an existing tech-
4 nology, process, or method.

5 (h) TERMINATION.—The authority to enter into a
6 contract under a pilot program under this section termi-
7 nates on the date occurring five years after the date of
8 the enactment of this Act.



Log 206 R1

**Amendment to H.R. 4909
National Defense Authorization Act for Fiscal Year 2017**

Offered by Mr. Lamborn

In the appropriate place in the report to accompany H.R. 4909, insert the following new Directive Report Language:

Cyber Hardening Through Program Sustainment

The committee is aware of the ongoing efforts to harden our major weapon systems against cybersecurity threats. The committee understands that for many systems, it will be necessary to address those threats after the system has been deployed and in sustainment. The committee is concerned that the current funding and execution processes for modernization and sustainment are not well synchronized, leading to gaps in our ability to address some of these problems. The committee believes that the Department should examine using existing cycles for software block upgrades or replacement of obsolete electronic systems as a way to cost effectively harden our more vulnerable platforms, such as aircraft, ships, submarines and other vehicles. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Armed Services Committee by January 16, 2017 on how to implement a pilot to cyber harden existing programs through sustainment activities in Fiscal Year 2018. This briefing should identify a subset of programs to examine, as well as an estimate of both resources and time needed to carry out such efforts.

Amendment to H.R. 4909 National Defense Authorization Act for Fiscal Year 2017

Offered by: Mr. Brooks of Alabama

In the appropriate place in the report to accompany H.R. 4909, insert the following new Directive Report Language:

Enduring High-Resolution Geospatial Data

The committee is aware that the Department has been utilizing sophisticated three-dimensional high-resolution light detection and ranging (LIDAR) systems to provide geospatial data for tactical users in theaters of hostilities. Such data has proven to be useful for these tactical users in providing capabilities for accurate foundation mapping that supports special operations and other forces with situational awareness, mission planning, targeting, as well as the ability to share with coalition partners and aid in the development of partner capacity. While national capabilities are useful in a strategic context, the committee believes that these tactical systems are vital to supporting urgent, in-theater operational forces in the successful execution of their missions. However, the committee is concerned that the reliance on overseas contingency operations (OCO) funds have prevented Special Operations Command and the Army from properly ensuring that such capabilities are included in the base budget request. Funding these capabilities in the base budget ensures these capabilities are available to support existing and emerging requirements, while enabling broader application of the capability in regions outside of traditional OCO-funded geographies. Therefore the committee directs the Commander of Special Operations Command, in coordination with the Secretary of the Army and the Chairman of the Joint Chiefs of Staff, to conduct a review of these activities and the capabilities supporting them and provide a briefing to the House Armed Services Committee by November 1, 2016. This review should examine the current requirements, especially those outside of areas of active hostilities, and how those requirements will be satisfied across the future years' defense program.

**Amendment to H.R. 4909
National Defense Authorization Act for Fiscal Year 2017**

Offered by: Mr. Walz of Minnesota

In the appropriate place in the report to accompany H.R. 4909, insert the following new Directive Report Language:

**Military Free Fall Course as a Requirement of the U.S. Army Special Forces
Qualification Course**

The committee is aware that in 2012 the U.S. Army Special Operations Command (USASOC) approved a concept and implementation plan for offering the Military Free Fall (MFF) course to all Special Forces upon completion of the Special Forces Qualification Course (SFQC) but prior to graduation. The committee would like to better understand the addition of the MFF course on Special Forces, including the impact on overall recruiting and retention if successful completion of MFF becomes a requirement for graduating SFQC.

Therefore, the committee directs the Commander of U.S. Special Operations Command to provide a briefing to the House Armed Services Committee on the MFF course, including impacts on readiness if MFF becomes mandatory, not later than October 1, 2016.

Amendment to H.R. 4909
National Defense Authorization Act for Fiscal Year 2016

Log 289

Offered by Mr. Lamborn

In the appropriate place in the report to accompany H.R. 4909, insert the following new Directive Report Language:

United States-Israel Anti-tunnel Cooperation

The Committee notes that Section 1606 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92; 22 USC 8606) authorized a new, joint United States-Israel anti-tunneling program to protect United States and Israel forces from terrorist attacks.

The Principal Deputy Assistant Secretary of Defense for Special Operations/Low-Intensity Conflict stated during a March 1, 2016 House Armed Services Subcommittee on Emerging Threats and Capabilities hearing that the U.S. and Israel plan to execute 17 counter-tunnel projects for tunnel detection, tunnel mapping, and intelligence collection. At the same hearing, the Commander of U.S. Special Operations Command stated that the subterranean threat is used by terrorists but also affects other mission areas. The Committee continues to support this program, however, the Committee is aware that none of the funds authorized and appropriated in Fiscal Year 2016 have been executed as of April 27, 2016.

Therefore, the Committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than June 30, 2016, as to the status of United States-Israel anti-tunnel cooperation, including:

- (1) The status of the Memorandum of Agreement;
- (2) The full plan for project development;
- (3) The current plan for expenditure of funds, including an identification of entities that will be receiving or have received funds; and
- (4) A clarification of future requirements.