

En Bloc Amendments to H.R. 4909

April 27, 2016

Subcommittee on Emerging Threats and Capabilities		
En Bloc #1		
Log #	Sponsor	Description
001r1	Wittman	Briefing on the potential military applications of nanomaterials in combat systems.
007	Aguilar	Amends report on Cyber Training Equivalency to add ROTC and Centers of Academic Excellence
032	Bordallo	Modifies annual reporting requirement for the National Guard Bureau to include personnel, training, and equipment required to carry out its domestic response mission
050r1	Jones	Briefing on Low Energy Nuclear Reaction technology
051r1	Jones	Briefing on Special Operations Forces Education
062	Lamborn	Designates a senior Department official with responsibility for the development and demonstration of directed energy weapons.
068r1	Tsongas	Makes permanent an authority that allows Department of Defense labs and FFRDCs to provide funds for research and development of technologies for military missions.
088r1	Speier	Expands the existing report language on the management and measurement of cyber activities.
096	Speier	Briefing on efforts to improve data collection of grant awards
134	Norcross	Briefing on software license inventory reporting

Log 001r1

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

Offered by: Rep. Rob Wittman (VA-01)

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

Nanomaterials in Combat Systems

The committee is aware that nanomaterials are being incorporated with increasing frequency in many commercial products and processes because of their ability to make materials stronger, lighter, more durable, more reactive, more porous, or more conductive, among other things. The committee is also aware that the Department of Defense has been leveraging that commercial research, as well as investing in other areas with specific defense-related applications. The committee believes that the Department should be pursuing additional opportunities to transition that research into military combat systems. Therefore, the committee directs the Secretary of Defense to brief the House Armed Services Committee by March 1, 2017 on the potential military applications of nanomaterials in combat systems. The briefing should outline the use of emerging technology with nanomaterials to identify areas where possible enhancements or improvements to equipment used by each of the service branches might be possible.

**Amendment to H.R. 4909
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Offered by Aguilar, Pete (CA-31)

Language acknowledging the potential resources provided by Centers of Academic Excellence's (CAE's) and Reserve Officer Training Corps (ROTC's) in the field of cyber and adding them to the discussion of Cyber Training Equivalency

In the portion of the ETC report (page 92) to accompany H.R. 4909 titled "Cyber Training Equivalency":

1. Insert "(ROTC)" after Reserve Officer Training Course in the first paragraph.
2. Insert the following new text after "academies." and before "the committee also believes," "The committee also recognizes that the National Security Agency and Department of Homeland Security National Centers of Academic Excellence (CAE) for cyber defense and cyber operations could also be leveraged to promote higher education and research in cyber and the production of more cyber professionals."
3. Insert the following new text after "joint training standard" in the first paragraph "such as the CAEs, ROTC program or other certification programs."

AMENDMENT TO H.R. 4909
OFFERED BY MS. BORDALLO OF GUAM

At the end of subtitle F¹ of title X, add the following
new section:

1 **SEC. 10** ____ . **ANNUAL REPORT ON PERSONNEL, TRAINING,**
2 **AND EQUIPMENT REQUIREMENTS FOR THE**
3 **NON-FEDERALIZED NATIONAL GUARD TO**
4 **SUPPORT CIVILIAN AUTHORITIES IN PRE-**
5 **VENTION AND RESPONSE TO DOMESTIC DIS-**
6 **ASTERS.**

7 (a) **ANNUAL REPORT REQUIRED.**—Section 10504 of
8 title 10, United States Code, is amended—

9 (1) in subsection (a), by striking “**REPORT.—**”
10 and inserting “**REPORT ON STATE OF THE NA-**
11 **TIONAL GUARD.—(1)**”;

12 (2) by striking “**(b) SUBMISSION OF REPORT**
13 **TO CONGRESS.—**” and inserting “**(2)**”;

14 (3) by striking “**annual report of the Chief of**
15 **the National Guard Bureau**” and inserting “**annual**
16 **report required by paragraph (1)**”; and

17 (4) by adding at the end the following new sub-
18 section (b):

1 “(b) ANNUAL REPORT ON NON-FEDERALIZED SERV-
2 ICE NATIONAL GUARD PERSONNEL, TRAINING, AND
3 EQUIPMENT REQUIREMENTS.—(1) Not later than Janu-
4 ary 31 of each of calendar years 2017 through 2021, the
5 Chief of the National Guard Bureau shall submit to the
6 congressional defense committees and the officials speci-
7 fied in paragraph (5) a report setting forth the personnel,
8 training, and equipment required by the National Guard
9 during the next fiscal year to carry out its mission, while
10 not Federalized, to provide prevention, protection mitiga-
11 tion, response, and recovery activities in support of civilian
12 authorities in connection with natural and man-made dis-
13 asters.

14 “(2) To determine the annual personnel, training,
15 and equipment requirements of the National Guard re-
16 ferred to in paragraph (1), the Chief of the National
17 Guard Bureau shall take into account, at a minimum, the
18 following:

19 “(A) Core civilian capabilities gaps for the pre-
20 vention, protection, mitigation, response, and recov-
21 ery activities in connection with natural and man-
22 made disasters, as collected by the Department of
23 Homeland Security from the States.

1 “(B) Threat and hazard identifications and risk
2 assessments of the Department of Defense, the De-
3 partment of Homeland Security, and the States.

4 “(3) Personnel, training, and equipment require-
5 ments shall be collected from the States, validated by the
6 Chief of the National Guard Bureau, and be categorized
7 in the report required by paragraph (1) by each of the
8 following:

9 “(A) Emergency support functions of the Na-
10 tional Response Framework.

11 “(B) Federal Emergency Management Agency
12 regions.

13 “(4) The annual report required by paragraph (1)
14 shall be prepared in consultation with the chief executive
15 of each State, other appropriate civilian authorities, and
16 the Council of Governors.

17 “(5) In addition to the congressional defense commit-
18 tees, the annual report required by paragraph (1) shall
19 be submitted to the following officials:

20 “(A) The Secretary of Defense.

21 “(B) The Secretary of Homeland Security.

22 “(C) The Council of Governors.

23 “(D) The Secretary of the Army.

24 “(E) The Secretary of the Air Force.

1 “(F) The Commander of the United States
2 Northern Command.

3 “(G) The Commander of the United States
4 Cyber Command.”.

5 (b) CLERICAL AMENDMENTS.—

6 (1) SECTION HEADING.—The heading of such
7 section is amended to read as follows:

8 **“§ 10504. Chief of the National Guard Bureau: annual
9 reports”.**

10 (2) TABLE OF CONTENTS.—The table of sec-
11 tions at the beginning of chapter 1011 of title 10,
12 United States Code, is amended by striking the item
13 relating to section 10504 and inserting the following
14 new section:

“10504. Chief of the National Guard Bureau: annual reports.”.



Log 050r1

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

Offered by Congressman Walter B. Jones

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

Low Energy Nuclear Reactions (LENR) Briefing

The committee is aware of recent positive developments in developing low-energy nuclear reactions (LENR), which produce ultra-clean, low-cost renewable energy that have strong national security implications. For example, according to the Defense Intelligence Agency (DIA), if LENR works it will be a "disruptive technology that could revolutionize energy production and storage." The committee is also aware of the Defense Advanced Research Project Agency's (DARPA) findings that other countries including China and India are moving forward with LENR programs of their own and that Japan has actually created its own investment fund to promote such technology. DIA has also assessed that Japan and Italy are leaders in the field and that Russia, China, Israel, and India are now devoting significant resources to LENR development. To better understand the national security implications of these developments, the committee directs the Secretary of Defense to provide a briefing on the military utility of recent U. S. industrial base LENR advancements to the House Armed Services Committee by September 22, 2016. This briefing should examine the current state of research in the US, how that compares to work being done internationally, and an assessment of the type of military applications where this technology could potentially be useful.

Log 051 r1

Amendment to H.R. 4909

National Defense Authorization Act for Fiscal Year 2017

Offered by Congressmen Tim Walz and Walter B. Jones

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

Special Operations Forces Education Briefing

The committee remains concerned that high operational tempo and dwell times may not afford U.S. Special Operations Forces appropriate time for enrollment in Department of Defense (DoD) education programs such as the Tuition Assistance Program (TAP) and the Post 9-11 GI Bill. Therefore, the Committee on Armed Services of the House of Representatives directs a briefing from the Commander, U.S. Special Operations Command, not later than September 16, 2016, on the following:

1. The number of U.S. Special Operations Forces active and reserve personnel currently enrolled in TAP and the Post 9-11 GI Bill;
2. The number of SOF active and reserve enrolled in these programs over the past five years;
3. Percentage of SOF personnel active and reserve enrolled in these programs as compared to general purpose forces.
4. Any additional elements the Commander deems relevant.

AMENDMENT TO H.R. 4909
OFFERED BY MR. LAMBORN OF COLORADO

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

1 **SEC. 2** . **DESIGNATION OF DEPARTMENT OF DEFENSE**
2 **SENIOR OFFICIAL WITH PRINCIPAL RESPON-**
3 **SIBILITY FOR DIRECTED ENERGY WEAPONS.**

4 Not later than 180 days after the date of the enact-
5 ment of this Act, the Secretary of Defense shall—

6 (1) designate a senior official already serving
7 within the Department of Defense as the official
8 with principal responsibility for the development and
9 demonstration of directed energy weapons for the
10 Department; and

11 (2) set forth the responsibilities of that senior
12 official with respect to such programs.



AMENDMENT TO H.R. 4909

OFFERED BY Ms. TSONGAS OF MASSACHUSETTS

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

1 **SEC. 2 ___. MECHANISMS TO PROVIDE FUNDS FOR DE-**
2 **FENSE LABORATORIES FOR RESEARCH AND**
3 **DEVELOPMENT OF TECHNOLOGIES FOR MILI-**
4 **TARY MISSIONS.**

5 Section 219 of the Duncan Hunter National Defense
6 Authorization Act for Fiscal Year 2009 (Public Law 110-
7 417; 10 U.S.C. 2358 note), as most recently amended by
8 section 262 of the National Defense Authorization Act for
9 Fiscal Year 2014 (Public Law 113-66), is amended—

10 (1) in subsection (a)(1), by striking “not more
11 than”; and

12 (2) by amending subsection (d) to read as fol-
13 lows:

14 “(d) SPECIAL RULE.—For purposes of this section,
15 a federally funded research and development center shall
16 be considered a defense laboratory if the center is spon-
17 sored by the Department of Defense.”.



~~revised 8/2~~
LOG088R1

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

**Offered by:
Jackie Speier**

In the portion of the report to accompany H.R. 4909 titled "Comptroller General Assessment of the Management and Measurement of Cyber Activities", insert at the bottom of page 91 the following new text:

"(2) To what extent the Department made progress in implementing key cyber security guidance such as the Defense Cyber Strategy, the Cybersecurity Campaign, and the Cybersecurity Scorecard.

(a) Including a review of the extent to which the Department has implemented Government Accountability Office recommendations from the reports titled *Management Improvements Needed to Enhance Programs Protecting the Defense Industrial Base from Cyber Threats* (GAO-12-762SU), and *Defense Cyber Security: Opportunities Exist for DOD to Share Cybersecurity Resources with Small Business* (GAO-15-777)

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

Offered by:
Jackie Speier

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

Better Gender Reporting in Grantmaking

The committee is aware recent research illustrates women continue to face challenges in educational and career advancement in science, technology, mathematics and engineering (STEM) fields. In a December 2015 report entitled *Women in STEM Research* the United States Government Accountability Office (GAO) determined, through analysis of available but limited data, there were discrepancies in the number of grants awarded to women and men at the Department of Defense within certain components. The committee notes this differentiation in success rates does not mean the Department is using discriminatory practices when awarding grants. The committee further acknowledges GAO reported the lack of data available to analyze limited their ability to gauge the success rates of men and women.

The committee believes the lack of complete award data containing demographic information at certain Department agencies and components impacts the ability to fully evaluate and understand if the most qualified individuals are being funded, regardless of demographics

Therefore, the committee directs the Under Secretary of Defense for Acquisition, Technology and Logistics to provide a briefing to the House Armed Services Committee not later than January 1, 2017, on improving data collection efforts within the Department in order to provide complete and analyzable records for grant awards. .

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

Offered by: Mr. Norcross of New Jersey

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

Asset Tracking for Information Technology Security

The Committee recognizes that the Department of Defense needs a comprehensive asset management system with continuous remediation across all layers of the open systems interconnection model in order to achieve and maintain security over the Department's information technology systems. Section 935 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66) directed the Department to provide a plan for a software inventory process for the products for which any military department spends more than \$5 million annually. According to the response from the Chief Information Officer received January 14, 2016, the Department intends to use the ongoing Financial Improvement and Audit Readiness (FIAR) efforts to enable reporting for software licenses owned, and the information security continuous monitoring (ISCM) to report software in use and license compliance.

The committee is supportive of utilization of these processes but believes the Department is capable of achieving asset management and continuous monitoring prior to the scheduled FIAR and ISCM schedules of 2018 and 2020 by using existing capabilities and partnering with industry. Therefore, the committee directs the Department of Defense Chief of Information Officer to provide a briefing to the House Armed Services Committee by October 1, 2016, on the utilization of FIAR and ISCM to do information technology asset tracking, including management processes, resources required, timelines for execution, and the capture and collection of data.