

En Bloc Amendments to H.R. 5515**Subcommittee on Emerging Threats and Capabilities
En Bloc #3**

Log #	Sponsor	Description
148	Smith	Directs the Commandant of the Marine Corps to provide a briefing on a non-lethal weapon system.
176	Stefanik	Expresses support for advanced ceramics capabilities and requires the Under Secretary of Defense for Research and Engineering to provide a briefing on dual-use ceramic capabilities.
213	Panetta	Requires the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing on how Hacking for Defense may be expanded to support DOD's innovation and entrepreneurial efforts, including how it is currently used with DOD and may be further leveraged in DOD universities and PME programs.
314r1	Turner	SBIR/STTR programs shall be authorized to spend 3% of funds for administrative purposes and provide DOD expanded phase flexibility.
320r1	Carbajal	Authorize Pilot program on for a cyber security training center for the Army National Guard.
329r1	Russell	Directs the SECDEF to provide a briefing to HASC with an update on current DOD programs to Counter Class I and II UAS.
334	Hunter	Cargo inspections to counter vehicle borne IED threats.
398	Thornberry	Secretary of the Navy to provide a briefing on the Automated Test and Retest Program
402	O'Rourke	Add reporting on ex gratia payments to existing report on civilian casualties.

Amendment to H.R. 5515 National Defense Authorization Act for Fiscal Year 2019

Offered by: Adam Smith of Washington

In the appropriate place in the report to accompany H.R. 5515, insert the following new Directive Report Language:

Ocular Interruption System

The Committee is aware the Marine Corps' new Ocular Interruption System, which will replace the current decades-old system, represents a materiel solution providing personnel a single, non-lethal hail and warning capability applicable across the range of military operations where the objective is to minimize civilian casualties and limit collateral damage. The Committee is concerned with the budget request's proposed reduction of the Marine Corps Approved Acquisition Objective (AAO) requirement of 1,758 units from the previously stated goal of 1,848 units, and the delay of Full Operational Capability (FOC) until the fourth quarter of fiscal year 2020. The Committee is further concerned that the AAO requirement and the FOC timeline may have been altered without an associated change in requirements. Therefore, the Committee directs the Commandant of the Marine Corps to provide a briefing, not later than September 1, 2018, to the House Armed Services Committee on a plan to potentially fulfill its original AAO requirement of 1,848 units. This briefing shall include to planned delivery order schedule, pricing per unit, and fielding schedule

**Amendment to H.R. 5515
National Defense Authorization Act for Fiscal Year 2019**

Offered by: Rep. Stefanik

In the appropriate place in the report to accompany H.R. 5515, insert the following new Directive Report Language:

Advanced Ceramic Capabilities

The committee is interested in advancements in dual-use ceramic capabilities and production technologies. The committee is aware that recent advancements in smelting have significant overlap with ceramic production methods and could lower ceramic production costs. Advanced ceramic capabilities have demonstrated versatility in critical military applications, including composite armor for soldier and vehicle protection, and for use in advanced hypersonic vehicle development.

Therefore, the committee directs the Under Secretary of Defense for Research and Engineering, no later November 1, 2018, to provide to the Committee on Armed Services of the House of Representatives a briefing on dual-use ceramic capabilities. The briefing should include an overview of advances in ceramic production processes and technologies, the benefits ceramic capabilities provides, and any forecasted adoption of ceramic capabilities into current weapon systems.

**Amendment to H.R. 55
National Defense Authorization Act for Fiscal Year 2019**

Offered by Mr. Panetta of California

In the appropriate place in the report to accompany H.R. 5515, insert the following new Directive Report Language:

**Addressing Readiness Deficiencies through the Hacking for Defense Innovation
Education Program**

The committee notes that the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) authorized the Secretary of Defense to support national security innovation and entrepreneurial education, including but not limited to, Hacking for Defense.

The committee notes that expansion of Hacking for Defense innovation and entrepreneurial education at U.S. and North Atlantic Treaty Organization (NATO) universities may optimize and enhance the Department's innovation efforts outlined in the 2018 National Defense Strategy. Developing a culture of rapid and meaningful innovation, and deploying advanced warfighter solutions, may remedy existing readiness deficiencies. The committee also notes that Hacking for Defense innovation education programs may benefit overall Department of Defense professional education such as at the National Defense University, the Defense Acquisition University, the Naval Postgraduate School, and other professional education programs.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services not later than September 28, 2018 on how the Department may expand Hacking for Defense to support the Department's innovation and entrepreneurial education efforts, including a description of how the Hacking for Defense program is currently being employed within the Department of Defense and how it may be further leveraged to provide advanced warfighter solutions, address readiness deficiencies, and reinvigorate, modernize, and enhance the Department's innovation education with U.S. and NATO universities and professional education programs.

AMENDMENT TO H.R. 5515
OFFERED BY MR. TURNER OF OHIO

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

1 **SEC. 8 . AMENDMENTS TO SBIR AND STTR PROGRAM.**

2 (a) **USE OF SBIR OR STTR FUNDING FOR ADMINIS-**
3 **TRATIVE COSTS.**—Section 9 of the Small Business Act (15
4 U.S.C. 638) is amended—

5 (1) in subsection (f)—

6 (A) in paragraph (2), by striking “shall
7 not” and all that follows through “make avail-
8 able” and inserting “shall not make available”;
9 and

10 (B) by adding at the end the following new
11 paragraph:

12 “(5) **ADMINISTRATIVE COSTS.**—A Federal agen-
13 cy may use up to 3 percent of its SBIR budget es-
14 tablished pursuant to paragraph (1) for the purpose
15 of funding administrative costs of the program.”;
16 and

17 (2) in subsection (n)—

18 (A) in paragraph (2), by striking “shall
19 not” and all that follows through “make avail-

1 able” and inserting “shall not make available”;
2 and

3 (B) by adding at the end the following new
4 paragraph:

5 “(4) ADMINISTRATIVE COSTS.—A Federal agen-
6 cy may use up to 3 percent of its SBIR budget es-
7 tablished pursuant to paragraph (1) for the purpose
8 of funding administrative costs of the program.”.

9 (b) EXPANSION OF PHASE FLEXIBILITY.—Section
10 9(cc) of such Act (15 U.S.C. 638(cc)) is amended by strik-
11 ing “During fiscal years” and all that follows through
12 “may each provide” and inserting “During fiscal years
13 2018 through 2022, all agencies participating in the SBIR
14 program may provide”.



Log 320
Revised

Log 320 v1

AMENDMENT TO H.R. 5515

OFFERED BY MR. CARBAJAL OF CALIFORNIA

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

1 **SEC. 16 ____ . PILOT PROGRAM ON REGIONAL CYBER SECURITY TRAINING CENTER FOR THE ARMY NATIONAL GUARD.**

2
3
4 (a) **PILOT PROGRAM.**—The Secretary of the Army
5 may carry out a pilot program under which the Secretary
6 establishes a National Guard training center to provide
7 collaborative interagency education and training for mem-
8 bers of the Army National Guard.

9 (b) **DURATION.**—If the Secretary carries out the pilot
10 program under subsection (a), the Secretary shall carry
11 out the pilot program for a two-year period.

12 (c) **CENTER.**—

13 (1) **TRAINING AND COOPERATION.**—In carrying
14 out the pilot program under subsection (a), the Sec-
15 retary shall ensure that the training center estab-
16 lished under such subsection—

17 (A) educates and trains members of the
18 Army National Guard quickly and efficiently by
19 concurrently training cyber protection teams

1 and cyber network defense teams on a common
2 standard in order to defend—

3 (i) the information network of the De-
4 partment of Defense in a State environ-
5 ment;

6 (ii) while acting under title 10, United
7 States Code, the information networks of
8 State governments; and

9 (iii) critical infrastructure;

10 (B) fosters interagency cooperation by—

11 (i) co-locating members of the Army
12 National Guard with personnel of depart-
13 ments and agencies of the Federal Govern-
14 ment and State governments; and

15 (ii) providing an environment to de-
16 velop interagency relationship to coordinate
17 responses and recovery efforts during and
18 following a cyber attack;

19 (C) collaborates with academic institutions
20 to develop and implement curriculum for inter-
21 agency education and training within the class-
22 room; and

23 (D) coordinates with the Persistent Cyber
24 Training Environment of the Army Cyber Com-
25 mand in devising and implementing interagency

1 education and training using physical and infor-
2 mation technology infrastructure.

3 (2) LOCATIONS.—If the Secretary carries out
4 the pilot program under subsection (a), the Sec-
5 retary shall select one National Guard facility at
6 which to carry out the pilot program. The Secretary
7 shall select a facility that is located in an area that
8 meets the following criteria:

9 (A) The location has a need for cyber
10 training, as measured by both the number of
11 members of the Army National Guard that
12 would apply for such training and the number
13 of units of the Army National Guard that verify
14 the unit would apply for such training.

15 (B) The location has high capacity infor-
16 mation and telecommunications infrastructure,
17 including high speed fiber optic networks.

18 (C) The location has personnel, technology,
19 laboratories, and facilities to support proposed
20 activities and has the opportunity for ongoing
21 training, education, and research.

22 (d) ACTIVITIES.—If the Secretary carries out the
23 pilot program under subsection (a), the Secretary shall en-
24 sure that the pilot program includes the following activi-
25 ties:

1 (1) Providing joint education and training and
2 accelerating training certifications for working in a
3 cyber range.

4 (2) Integrating education and training between
5 the National Guard, law enforcement, and emer-
6 gency medical and fire first responders.

7 (3) Providing a program to continuously train
8 the cyber network defense teams to not only defend
9 the information network of the Department of De-
10 fense, but to also provide education and training on
11 how to use defense capabilities of the team in a
12 State environment.

13 (4) Developing curriculum and educating the
14 National Guard on the different missions carried out
15 under titles 10 and 32, United States Code, in order
16 to enhance interagency coordination and create a
17 common operating picture.



Log 329r1

**Amendment to H.R. 5515
National Defense Authorization Act for Fiscal Year 2019**

Offered by: Mr. Russell of Oklahoma

In the appropriate place in the report to accompany H.R. 5515, insert the following new Directive Report Language:

Counter Small Tactical Unmanned Air Systems

The committee notes that Class I and II unmanned air systems (UAS), which in most cases are readily available commercial-off-the-shelf small and lightweight UAS, can be employed by state and non-state actors for use against U.S. military and civilian personnel. The committee understands that current maneuver short range air defense initiatives, as well as counter-UAS initiatives would address fixed-wing, rotorcraft, and medium-to-large UAS platforms. The committee is concerned by the rapid proliferation of small UAS and believes the military services should examine all potential combined kinetic and non-kinetic options to immediately address this perceived capability gap in organic air defense for Army Maneuver Brigades.

The committee directs the Secretary of the Defense to provide a briefing to the House Committee on Armed Services by December 15, 2018 that provides an update on current Department of Defense programs to counter class I and II UAS. The briefing shall include:

- a) The command responsible for developing and promulgating counter-UAS performance requirements;
- b) A resource plan for developing and assessing potential material solutions for near-term and mid-term timeframes;
- c) How the Department of Defense intends to ensure that units at the battalion and below echelons will be capable of defeating single and swarming Class I and II UAVs; and
- d) The procedures whereby technical assessments will be shared and coordinated with the other military services.

**Amendment to H.R. 5515
National Defense Authorization Act for Fiscal Year 2019**

Offered by: Mr. Hunter

[For new Directive Report Language, please use the following:]

In the appropriate place in the report to accompany H.R. 5515, insert the following new Directive Report Language:

[Cargo Inspections To Counter Vehicle Borne IED Threats]

[The Committee is encouraged that the Department of the Army is testing and planning to deploy new passive cargo inspection technologies to address a joint urgent operational need to counter Vehicle Borne Improvised Explosive Device (VBIED) threats. This disruptive technology, which utilizes naturally occurring cosmic ray muons and electrons, identifies shielded and unshielded nuclear and radioactive materials; detects smuggled contraband, including weapons, bomb-making materials, and illicit goods; and is proven safe for humans, animals, and food products. The Committee encourages the Army to continue with the current testing program and supports efforts to deploy the system at a major US military facility. Further, the Committee requests a briefing 60 days after the enactment of this bill on the potential future deployments of these next generation inspection technologies inside and outside the continental United States. The briefing, which may be provided in a classified setting, shall include an assessment of current cargo inspection protocols and requirement gaps that may exist.]

**Amendment to H.R. 5515
National Defense Authorization Act for Fiscal Year 2019**

Offered by: Mr. Thornberry of Texas

In the appropriate place in the report to accompany H.R. 5515, insert the following new Directive Report Language:

Small Business Innovation Research – Automated Test and Retest Program

The committee recognizes the Small Business Innovation Research (SBIR) program is a valuable tool to engage small business and provide a pathway for innovators to conduct business with the Department of Defense. The National Defense Authorization Act of 2012 (Public Law 112-81), Section 5001, also known as the SBIR/STTR Reauthorization Act of 2011, mandates that agencies, to the greatest extent practicable, shall issue Phase III awards to the SBIR award recipients that developed the technology. The committee is aware that the technology developed for the Automated Test and Retest Program has demonstrated success that has led to an enterprise-wide approach, and offers cost savings over current efforts. The committee encourages the Navy to continue to support SBIR award recipients to the greatest extent practicable for any Phase III awards associated with the Automated Test and Retest Program.

Therefore, the committee directs the Secretary of the Navy, no later than 31 January 2019, to provide to the Committee on Armed Services of the House of Representatives, a briefing on the Automated Test and Retest Program. The briefing should include an overview of SBIR award recipients associated with this program, the Navy's methodology and process for considering SBIR Phase III awards, and a plan detailing how the Navy's Automated Test and Retest program will comply with the SBIR/STTR Reauthorization Act of 2011 for future contract awards.

AMENDMENT TO H.R. 5515
OFFERED BY MR. O'ROURKE OF TEXAS

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

1 **SEC. 10___ . ADDITIONAL MATTER FOR INCLUSION IN AN-**
2 **NUAL REPORT ON CIVILIAN CASUALTIES IN**
3 **CONNECTION WITH UNITED STATES MILI-**
4 **TARY OPERATIONS.**

5 Section 1057(b)(2) of the National Defense Author-
6 ization Act for Fiscal Year 2018 (Public Law 115-91) is
7 amended by adding at the end the following new subpara-
8 graph:

9 “(F) A description of any ex gratia pay-
10 ments made in connection with such casual-
11 ties.”.

