

**En Bloc Amendments to H.R. 5515****Subcommittee on Tactical Air and Land Forces  
En Bloc #2**

<b>Log #</b>	<b>Sponsor</b>	<b>Description</b>
<b>133</b>	Wilson	Requires the Secretary of the Navy to provide a briefing on operational details of the DDG-51 SWaP receiver, including capabilities and any challenges associated with integration of NGHMS and subsequently onto the MH-60R platform.
<b>140r1</b>	Gaetz	Directs Secretary of the Air Force to provide a briefing to the HASC not later than February 15, 2019, on Air Force plans to fund technologies which lead to low-cost, high performance turbofan engines of up to 1,200 pounds of thrust.
<b>177</b>	Hunter	Briefing on integration of JAGM-F for Navy and USMC.
<b>190</b>	Larsen	Directs SecNav to brief on engine noise reduction engineering efforts for F/A-18 series aircraft.
<b>264r1</b>	Gallagher	Directs a briefing on acquisition strategies to rapidly procure Deployable Air Base Systems in order to address identified PACOM capability gaps.
<b>280</b>	Brooks	Progress on funds allocated to develop government-owned solution that enable accelerated integration of new missile capabilities into the Army Integrated Air and Missile Defense program.
<b>311</b>	Conaway	Directs Secretary of the Navy to provide HASC and SASC briefing on CVW long range strike capabilities.
<b>350</b>	Knight	Requires the Secretary of Defense to provide a report on DOD target and threat systems used in development test and operational test and operational training environments.
<b>364</b>	Kelly	Supports the FY19 for CREW Devices (Modi II) and directs the Army to coordinate and harmonize the requirements, acquisition efforts and program of record of CREW electronic counter measure systems.
<b>375</b>	Lamborn	Requires the Secretary of the Army to provide a briefing that outlines potential courses of action to begin immediate procurement of Assured Position Navigation and Timing (APNT) systems, subject to successful test and evaluations.
<b>389</b>	Turner	Authorizes use of JSTARS Recap program funding to maintain the program office's functionality.

**Log 133**

**Amendment to H.R.  
National Defense Authorization Act for FISC**

**Offered by: Mr. Wilson (SC-02)**

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

U.S. Navy MH-60R Helicopter Antisubmarine Warfare and Aircraft Health  
Monitoring

The committee understands the U.S Navy operates a fleet of Antisubmarine Warfare (ASW) equipped MH-60R helicopters. The committee notes the MH-60R is fitted with advanced mission systems and sensors that are capable of detecting and engaging modern submarines in littoral and open ocean scenarios. However, the committee understands that the current ASW sonobuoy receiver is heavy and limited to its specific mission of receiving and transmitting data to and from U.S Navy sonobuoy fields for analysis through acoustic processors.

The committee is aware that new Size Weight and Power (SWaP) receiver technology currently being used on the DDG-51 that could provide the Navy with enhanced capability while also reducing weight on the MH-60R by over forty pounds. Additionally, the committee understands that the new receiver has the capability to integrate a Next Generation Health Monitoring System (NGHMS) which has the potential to replace the current HUMS system on the aircraft, saving an additional fifty pounds of critical weight. The committee is also aware the U.S Army is currently conducting demonstrations of NGHMS on the UH-72 Lakota light utility helicopter.

The committee directs the Secretary of the Navy, or his designee, to provide a briefing to the House Committee on Armed Services by September 28, 2018 that provides operational details of the DDG-51 SWaP receiver to include capabilities, any challenges associated with integration with NGHMS and subsequently onto the MH-60R platform. The briefing should also include a notional plan for testing this technology as well as a notional acquisition strategy.

**Amendment to H.R. 5515** LOG 140r1  
**National Defense Authorization Act for Fiscal Year 2019**

**Offered by: Rep. Gaetz**

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

**Advanced Turbine Engine Gas Generators**

The Advanced Turbine Engine Gas Generator project develops and demonstrates core engine technologies to address the growing need for affordable small turbofans utilized in current and future missile and remotely piloted aircraft propulsion systems. The project develops and demonstrates technology to reduce cost of ownership by half while improving mission flexibility and fuel consumption to increase range. It will also pave the way for providing much-needed competition where there currently is none. The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services, not later than February 15, 2019, on Department of the Air Force plans to fund technologies which lead to low cost, high performance turbofan engines of up to 1,200 pounds of thrust.”

Cosponsor: Rep. Murphy, Rep Banks

**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:

[Joint Air-to-Ground Missile for Fixed Wing Aircraft (JAGM-F) Integration]

[The committee notes the Department of the Navy, with the eventual retirement of the Maverick missile has similar requirements as the Air Force for Joint Air-to-Ground Fixed (JAGM-F) on its AV-8B Harrier, F/A-18C/D/E/F Hornet, and F-35B/C aircraft. JAGM-F is an improvement to the Army's JAGM which will allow the missile to be eject-launched from fixed wing aircraft to eliminate time sensitive moving targets and high value covered/sheltered and armored targets. The committee understands JAGM-F will be able to combat adverse weather, low visibility and austere communication environments on land and at sea while engaging multiple targets near simultaneously in multiple engagement modes. Therefore, the committee directs the Secretary of the Navy to provide a brief to the House Committee on Armed Services by February 8, 2019 that provides potential options for accelerating Navy and Marine Corps efforts with respect to integrating JAGM on fixed-wing aircraft.]

**Amendment to H.R. 5515  
National Defense Authorization Act for F**

**Log 190**

**Offered by: Rep. Larsen**

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

**Briefing on Ongoing Engine Noise Reduction Efforts**

The Committee continues to support ongoing efforts to reduce engine noise from the F-414 engine on the F/A-18 E/F Super Hornet and E/A-18 G Growler.

Attachments, known as chevrons, could reduce the noise associated with operations of these aircraft. A reduction in engine noise would benefit sailors working in close proximity to the aircraft, particularly on the carrier deck, and communities near installations home to these squadrons.

Having received the briefing required by the House Report to the Fiscal Year 2018 National Defense Authorization Act, the committee is aware that the Navy may be requesting authority to reprogram Fiscal Year 2018 funding in order to engineer, manufacture, proof and test redesigned chevrons. The Committee supports such a request, provided the funding source is a program with unexecutable funds.

The Committee is aware that these funds would be used to develop an improved chevron design which could achieve significant noise reduction at full military power. The committee directs the Secretary of the Navy to brief the House Committee on Armed Services no later than September 30, 2018 on engineering plans for Fiscal Year 2018 and 2019 and potential applications of chevron designs to additional aircraft.

Log 264 r1

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

**Offered by:  
Rep. Mike Gallagher**

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

**Deployable Air Base Systems**

Given increasing threats, the committee supports efforts to enhance U.S., allied, and partner airbase resiliency in the Indo-Pacific region. The committee is especially supportive of the logistics and resiliency investments identified by the Commander of U.S. Pacific Command's (PACOM) critical investments list as well as the forward air base resiliency requirements as identified on PACOM's integrated priority list.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services, no later than December 1, 2018, on potential courses of action, to include rapid acquisition strategies to rapidly procure Deployable Air Base Systems in order to address identified PACOM capability gaps.

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

**Offered by:**

**Mr. Brooks**

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

**Accelerated Integration to Counter Emerging Threats**

The Committee supports the accelerated integration capability to counter emerging threats being initiated by the Program Executive Office, Missiles and Space. The Army is developing a government-owned capability to provide cyber-robust networked weapon systems designed to operate within rapidly evolving threat timelines.

The Committee understands this is being accomplished through a unique approach to adapt and respond to real-time threats, dramatically accelerating the timeline to employ resilience in networked weapon systems.

The Committee directs the Secretary of the Army to provide a briefing to the Committee on Armed Services of the House of Representatives by March 1, 2019, on the status of progress being made through this accelerated program.

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

**Offered by: Mr. Conaway of Texas**

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

Briefing for the Senate Committee on Armed Services and the House Committee on Armed Services on US Navy's Efforts to Expand Carrier Air Wing Long-Range Strike Capability

The committee notes that the aircraft carrier air wing has been optimized for striking power and sortie generation and believes that it may not be configured to support the long-range strike required by current and future threat systems. While the introduction of the F-35C will significantly expand stealth capabilities, the F-35C could require increased range to address necessary targets. The committee believes that several options could be used to address this issue to include developing a stealth tanker capability, improved engine technology or to develop and procure a strike capability that is purposely built to strike at increased range. The committee further notes that the Navy previously desired to significantly increase the carrier air wing range with the development of the A-12 aircraft. The committee understands that the A-12 would have included a 5,000-pound internal carriage payload, stealth, and a range of 800 nautical miles. While the committee believes that requirements to support this capability remain relevant and the technology available, the development of the A-12 aircraft was mired in acquisition challenges that eventually resulted in the cancellation of the program. While the committee further believes that the Department of Defense has successfully developed a suite of long-range intelligence, surveillance and reconnaissance capabilities, the committee also believes that it is vital that the Navy develop a carrier-based long-range strike capability.

Therefore, the committee directs the Secretary of the Navy to provide a briefing to the Senate Committee on Armed Services and the House Committee on Armed Services by January 25, 2019, on options to expand the strike range of a carrier air wing in a contested environment, including manned and unmanned capabilities, and, Department of the Navy capabilities it plans to pursue in the Next Generation Air Dominance capability.

**Amendment to H.R. 5515  
National Defense Authorization Act for 1**

**Log 350**

**Offered by: Rep. Steve Kni**

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

**Report on DoD Target and Threat Systems**

The Committee recognizes that military capabilities of adversary nations continue to improve over time thus challenging the ability of the United States military to project power and protect its national interests throughout the world. In order to ensure thorough and realistic testing and evaluation of defense weapons systems and effective operational unit training, it is imperative that DoD continues to develop and maintain a sufficient inventory of realistic targets and threat systems that accurately represent the capability of adversary nations. In support of that imperative, the Committee believes that the status and adequacy of target and threat systems programs need to be assessed.

The Secretary of Defense shall conduct a review of the Department's targets and threat systems in support of test and evaluation and training and shall identify recommended actions to address shortcomings in those systems in a final report.

The review, recommendations, and final report shall address, but not be limited to, the following:

(A) All airborne, seaborne, ground, and undersea targets and target control systems used to support open air test and evaluation and warfighter training exercises;

(B) All real and simulated threat systems used to support open air test and evaluation and warfighter training exercises;

(C) The degree to which all of the above systems replicate both current and future threats;

(D) The adequacy of target and threat systems inventories to meet current and future test and evaluation and training requirements;

(E) The ability of the above systems to support effective testing and evaluation of future U.S. combat and weapon systems;

(F) The ability of the above systems to support effective warfighter training against future threats.

Not later than one year after the date of enactment, the Secretary shall submit to the congressional defense committees a final report on the review and recommended actions to address all shortcomings in the abilities of DoD targets and threat systems to effectively support open air test and evaluation events and training exercises.

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

**Offered by: Trent Kelly (MS-01)**

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

## CREW Electronic Counter-Measure Systems

The budget request contained \$42.7 million for the procurement of counter radio controlled improvised explosive devices (RCIED) electronics warfare (CREW) family of electronic counter measure (ECM) systems to protect dismounted soldiers, fixed-sites, and tactical and combat vehicles. The committee supports this program and notes that the United States Marine Corps and United States Special Operations Command are currently procuring the same family of systems. The committee is aware that the Army has two Program Executive Offices (PEOs) responsible for developing and procuring ground-based mounted and dismounted CREW and ECM systems. The committee notes that PEO Ammunition procures these systems specifically for Army Explosive Ordnance Disposal (EOD) units and that PEO Intelligence, Electronic Warfare & Sensors (IEW&S) for all other Army organizational units. The committee needs to be assured that these PEOs are coordinating effectively on materiel solutions and are engaged in mutually supporting activities regarding CREW ECM systems.

The committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by August 30, 2018, on the Army's efforts to coordinate and synchronize the requirements process, rapid acquisition efforts, and programs of record of PEO IEW&S and PEO Ammo related to CREW ECM systems.

# Log 375

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

### Offered by: Congressman Doug Lamborn, CO-05

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

#### Assured Position, Navigation and Timing

In response to global peer threats and demands from combatant commanders, the committee last year expressed its concern that the Army was not moving fast enough to field Assured Position Navigation and Timing (APNT) solutions. APNT solutions are required because of the reliance of military vehicles, communications and weapons systems on precise position, navigation and timing. The committee understands that strategic high-end competitors possess the capability to disrupt systems that depend on GPS which could pose an unacceptable level of risk to U.S. operations in GPS-denied environments. The committee notes the Army has stood up a Cross Functional Team (CFT) pilot to rapidly assess material development solutions to address the APNT mission area and perceived capability gaps.

In response to Section 236 of the National Defense Authorization Act of Fiscal Year 2018, the Army submitted a report to the congressional defense committees dated March 30<sup>th</sup>, 2018 that described its approach to test various systems at White Sands Missile Range in the 3<sup>rd</sup> Quarter of Fiscal Year 2018. The Army's report further described fielding both the A kits and B kits of a Quick Reaction Capability to specific units starting in the Second Quarter of Fiscal Year 2019. The committee understands that this testing is ongoing.

The committee directs the Secretary of the Army, in coordination with the Director of the Army's APNT CFT pilot, to provide a briefing to the House Committee on Armed Services by September 1, 2018 that outlines potential courses of action to begin immediate procurement of these systems, subject to successful test and evaluations.

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

In section 2\_\_\_\_ (Log 67236), insert after subsection (d) the following new subsection (e) (and redesignate the subsequent subsection accordingly):

1       (e) PROGRAM OFFICE PERSONNEL.—Using funds  
2 authorized to be appropriated by this Act or otherwise  
3 made available for the Air Force for fiscal year 2019 for  
4 the Joint Surveillance Target Attack Radar System re-  
5 capitalization program, the Secretary of the Air Force  
6 may obligate and expend funds necessary for civilian pay  
7 expenses required to manage, execute, and deliver the  
8 Joint Surveillance Target Attack Radar System recapital-  
9 ization weapon system capability.

