SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES EN BLOC #1

LOG ID	REV	MEMBER	MARKUP LOC	DESCRIPTION	MARKUP ACT
679	3	Waltz, Michael	TAL	Briefing on the Army's Universal Robotics Controller and Warfighter Machine Interface development strategy, and assessment of commercial alternatives to the program.	EB 1
690	3	Bacon, Don	TAL	Directs the Air Force to brief the committee on MH-139 aircrew exposure protection	EB 1
691	0	Bacon, Don	TAL	Directs the Air Force to brief the committee on the Common Armaments Tester Fighters	EB 1
696	1	Bacon, Don	TAL	Direct the Department of Defense to brief the committee on its plan to field capabilities to counter unmanned aerial systems	EB 1
697	1	Bacon, Don	TAL	Directs the Secretary of Defense to conduct a review of the Department's unmanned aerial systems categorization framework	EB 1
727	1	Wittman, Robert	TAL	Would direct a briefing from the COS-AF on the analysis of Unified Video Dissemination System and Motion Video Online as the platforms for full motion video dissemination.	EB 1
783	1	Slotkin, Elissa	TAL	Directs the Asst. Secretary of the Army for Acquisition, Logistics, and Technology to provide a briefing to the House Armed Services Committee regarding any improvement and expansion of the Ground Vehicle Systems Center’s internal and external modeling and simulation capabilities	EB 1
837	1	Morelle, Joseph D.	TAL	Directs the ASA for ALT to provide a briefing to HASC not later than 12.30.21, on the acquisition strategy for procurement and fielding of all night vision devices to include testing and fielding schedules for each program, funding profiles, and acquisition objectives.	EB 1
855	1	Bacon, Don	TAL	Directs the Air Force to brief the committees on its plan to implement the EC-37B / Compass Call Replacement program of record	EB 1
966	0	Gallagher, Mike	TAL	Report on the Joint Light Tactical Vehicle acquisition strategy	EB 1
968	1	Kelly, Trent	TAL	Development of High Mach and Hypersonic Aircraft	EB 1
1007	1	Larsen, Rick	TAL	Directing a briefing from the Army to HASC on the testing of vertical tail boom modifications to improve the directional control and lift capabilities of rotary wing aircraft.	EB 1
1167	2	Moore, Blake D.	TAL	Litter Load Stability Technology	EB 1

LOG ID	REV	MEMBER	MARKUP LOC	DESCRIPTION	MARKUP ACT
1188	1	Vela, Filemon	TAL	Would direct the Secretary of the Navy to provide a report on the continued T-45 engine obsolescence issues, the T-45 replacement program, and potential alternatives that could support an accelerated replacement timeline.	EB 1
1221	1	Bacon, Don	TAL	Directs the Air Force to report to the committee on its plans to accelerate and expand implementation of the Sensor Open Systems Architecture standard	EB 1
1242	1	Wilson, Joe	TAL	Directs the Secretary of the Army to provide a report to congressional defense committees on development of new 40mm ammo.	EB 1
1243	1	Crow, Jason	TAL	Directs the Executive Agent for C-sUAS to brief the committee on plans, to expedite the identification, live-fire testing, acquisition, and fielding of commercial C-sUAS solutions suitable and effective for use at forward deployed locations	EB 1
1244	0	Wilson, Joe	TAL	Directs the Secretary of the Army to complete a comparative study on lethality of small arms platforms.	EB 1
1286	1	Cheney, Liz	TAL	NGSW Acquisition Strategy to Field Best Performing Magazines	EB 1
1294	1	Scott, Austin	TAL	This DRL directs the Secretary of the Air Force to provide the congressional committees on defense a briefing no later than March 1, 2022, on the overall assessment of the HH-60W.	EB 1
1303	1	Golden, Jared F.	TAL	DRL Language directing the department to provide a briefing on its efforts to integrate gesture control technology into IVAS, Enhanced Night Vision Goggle-Binocular, Soldier Borne Sensors, and other aerial and ground robotics.	EB 1
1308	2	Gallagher, Mike	TAL	Briefing on efforts to integrate next-generation secure waveforms in contested environments	EB 1
1372	0	McClain, Lisa C.	TAL	Requesting briefing from Army Futures Command on the feasibility of a cyber security research center.	EB 1
1419	2	Rogers, Mike	TAL	MH-139 Conversion Report Language	EB 1
1443	1	Norcross, Donald	TAL	Degraded Visual Environment system integration with Air Force Combat Search and Rescue helicopter fleet	EB 1

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Waltz

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Report on the Universal Robotics Controller (URC) Program

The committee is aware of the U.S. Army's Universal Robotics Controller (URC) program is developing a common, open architecture operating system to run applications for all battalion and below Robotic and Autonomous Systems (RAS). URC is intended to be both backwards compatible with existing Army RAS and forward compatible with emerging Army and Joint RAS such as the Next Generation Combat Vehicle (NGCV), Optionally Manned Fighting Vehicle (OMFV), and Robotic Combat Vehicle (RCV) programs. The committee is also aware that there may be commercial operating systems that meet the requirements of the URC program and provide equivalent functionality at lower cost. Accordingly, the committee directs the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, not later than January 30, 2022, provide a briefing to the House Armed Services Committee on the Army's development strategy for URC including identification and an assessment of any viable commercially available alternatives for the URC program.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by Mr. Bacon of Nebraska

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

MH-139A Grey Wolf Aircrew Exposure Protection

The committee supports Air Force modernization plan to replace the UH-1N helicopter with the MH-139A Grey Wolf to continue the critical mission of ensuring the security of the ground-based leg of the nuclear triad. The committee understands that Air Force helicopter aircrews providing operational support to strategic missile sites in remote locations of the United States often face severe weather conditions and sub-arctic temperatures that present a wide range of operational hazards, especially for Airmen operating side-mounted M240 medium machine guns while exposed to the elements. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by March 1, 2022, on potential MH-139 aircrew exposure hazards related to operation of side-mounted machine guns. The briefing should include a description of developmental test and evaluation activities focused on operations in extreme cold weather, potential options, to include aircraft modifications, to address or mitigate the risk of aircrew exposure due to extreme weather conditions, and the estimated costs of these mitigation measures.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by Mr. Bacon of Nebraska

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Common Armament Tester Fighters (CAT-F)

The committee is aware the Air Force is conducting an analysis of alternatives (AoA) to develop a new material solution as part of the Air Force Common Armament Tester Fighters (CAT-F) program. This program is critical to providing a common test capability for fighter aircraft armament systems in support of F-15, F-16, A-10, MQ-9, and F-22 aircraft. The committee has a strong interest lowering acquisition cost and program risk by evaluating and leveraging existing operational systems in use across the military services that have the potential to meet new mission requirements. The committee expects the Air Force to fully consider all available options, including Navy test systems now in use, that may have the potential to meet Air Force operational requirements while delivering enhanced capability faster and at a lower cost. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by March 1, 2022, on its strategy to consider existing systems and technologies across the military services with the potential to meet CAT-F mission requirements, what systems have this potential, and how this information will be assessed and incorporated by the Air Force prior to release of the CAT-F request for proposal.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by Mr. Bacon of Nebraska

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Counter Unmanned Aerial Systems (C-UAS) Development, Testing and Fielding

The committee supports the Department of Defense (DOD) and Joint Counter Unmanned Aerial Systems (C-UAS) Office (JCO) efforts to identify gaps and prioritize C-UAS solutions. However, the committee is concerned that the rapidly evolving threat of advanced autonomous aerial systems could, at its current rate, continue to outpace DOD capabilities. Therefore, the committee directs the Secretary of Defense, not later than March 1, 2022, provide the House Armed Services Committee a briefing on its plan to rapidly develop, test, and field C-UAS systems. The briefing shall include a DOD UAS global threat assessment, a summary of DOD C-UAS capability requirements; and an identification and assessment of: (1) C-UAS systems under development by both DOD and the private sector, if any, including schedules for their current and planned testing; (2) existing and developmental systems' capability to counter advanced threat UAS including their ability to integrate with existing DOD air defense networks; (3) existing and developmental C-UAS systems ability to detect, track and kill individual drones or swarms; (4) their ability to protect rapidly deploying and mobile forces and operator safety; (5) potential policies impacting C-UAS fielding; and (6) an overall assessment of funding to include projected shortfalls and alternative near-term funding opportunities in order to rapidly develop, test and field C-UAS capabilities from now and over the next five years.

AMENDMENT TO H.R. 4350

OFFERED BY MR. BACON OF NEBRASKA

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

SEC. 10___. REQUIRED REVISION OF DEPARTMENT OF DEFENSE UNMANNED AIRCRAFT SYSTEMS CATEGORIZATION.

(a) IN GENERAL.—The Under Secretary of Defense for Acquisition and Sustainment shall initiate a process to review and revise the system used by the Department of Defense for categorizing unmanned aircraft systems, as described in Joint Publication 3–30 titled ''Joint Air Operations''.

(b) REQUIRED ELEMENTS FOR REVISION.—In revising the characteristics associated with any of the five categories of unmanned aircraft systems in effect as of the date of the enactment of this Act, the Under Secretary of Defense for Acquisition and Sustainment shall consider the effect a revision would have on—

(1) the future capability and employment needs to support current and emerging warfighting concepts;

(2) advanced systems and technologies available in the current commercial marketplace;

(3) the rapid fielding of unmanned aircraft systems technology; and

(4) the integration of unmanned aircraft systems into the National Airspace System.

(c) CONSULTATION REQUIREMENTS.—In carrying out the review required under subsection (a), the Under Secretary of Defense for Acquisition and Sustainment shall consult with—

(1) the Secretaries of the Military Departments;

(2) the Chairman of the Joint Chiefs of Staff; and

(3) the Administrator of the Federal Aviation Administration.

(d) REPORT REQUIRED.—Not later than March 1, 2022, the Under Secretary of Defense for Acquisition and Sustainment shall submit to the congressional defense committees, the Committee on Transportation and Infrastructure of the House of Representatives, and the Committee on Commerce, Science, and Transportation of the Senate a report describing the results of the review initiated under subsection (a), any revisions planned to the system used by the Department of Defense for categorizing unmanned aircraft systems as a result of such re-

view, and a proposed implementation plan and timelines for such revisions.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Robert J. Wittman (VA-01)

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Standardization for Full Motion Video Dissemination

The committee notes that after more than a decade of proven operational performance, the Defense Information Systems Agency's Unified Video Dissemination System (UVDS) and the National Geospatial-Intelligence Agency's Motion Imagery Online (MIO) have become the de facto standards for disseminating full motion video (FMV) on classified computer systems within the Department of Defense and select interagency partners. Both UVDS and MIO leverage an open architecture, well-documented standards-based interfaces, and a common software baseline to keep pace with rapidly evolving commercial developments in FMV technology. For example, the committee is aware that the Joint Artificial Intelligence Center is leveraging UVDS and MIO as the primary sources for its FMV ingest capabilities. Given the ubiquitous use of UVDS and MIO, both via traditional data centers and cloud deployments, the committee is concerned that the Air Force is potentially overlooking the utility of standardizing the existing, proven FMV dissemination capabilities of UVDS and MIO, especially as they relate to emerging cloud requirements for the Air Force Distributed Common Ground System.

Therefore, the committee directs the Chief of Staff of the Air Force to provide a briefing to the House Armed Services Committee, by February 15, 2022, on plans for full motion video dissemination standardization. The briefing shall include, at a minimum: a description of the Air Force's analysis of utilizing UVDS and MIO as the platforms for FMV dissemination; an assessment of the costs of leveraging these existing systems as compared to developing similar systems; and a technical and security comparison between these systems and other systems under consideration or under development.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Ms. Slotkin of Michigan

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Improving Ground Vehicle System Center Modeling & Simulation

In the committee report accompanying the National Defense Authorization Act for Fiscal Year 2020 (H. Rept. 116-120), the committee noted that modeling and simulation (M&S) has demonstrated its utility as a tool for vehicle technology development. Subsequently, in the committee report accompanying the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (H. Rept. 116-442), the committee further recognized the importance and value of modeling and simulation (M&S) in supporting digital design, experimentation, and developmental and operational test and evaluation for military ground vehicle systems. The committee also appreciates the briefing provided by the Army in December 2020 that outlines the Ground Vehicle Systems Center (GVSC) plans and efforts to improve and expand its M&S capabilities through public-private partnerships and finding additional M&S tools through their innovative outreach program.

The committee remains interested in the Army's development and appropriate use of M&S capabilities supporting digital design, technology development, experimentation, and testing of combat and tactical vehicles. Accordingly, the committee directs the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, not later than March 1, 2022, to provide a briefing to the House Armed Services Committee that outlines the Army's accomplishments, if any, that demonstrate its improvement and expansion of GVSC's internal and external M&S capabilities and how such improvements and expansion directly supports, materially advances, and reduces costs for the Army's high priority programs for combat and tactical vehicle modernization.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Morelle of New York

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Enhanced Night Vision Goggle-Binocular

The committee continues to support the Army's Enhanced Night Vision Google – Binocular (ENVG-B) program. ENVG-B provides the U.S. Army's close combat forces with the critical visual situational awareness necessary for engaging in close combat and combat support operations in all weather conditions, through obscurants, during limited visibility, and under all lighting conditions. ENVG-B technology utilizes thermal sensors and white phosphor dual Image Intensification (I2) tubes, both of which are key to low-light functionality and interoperability with other Army target acquisition devices and weapons. The committee supports the continued fielding of ENVG-B. Furthermore, the committee directs the Assistant Secretary of the Army for Acquisition, Logistics, and Technology to provide a briefing to the House Committee on Armed Services not later than December 30, 2021, on the acquisition strategy for procurement and fielding of all night vision devices to include testing and fielding schedules for each program, funding profiles, and acquisition objectives. The briefing should also include how the Army plans to ensure competition among current and future technologies and management of risk in the industrial base, and to ensure technology innovations in ENVG-B functionality are able to be rapidly manufactured and integrated into qualified fielded systems .

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by Mr. Bacon of Nebraska

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

EC-37B Compass Call Replacement

The committee notes the Air Force commitment to improving electromagnetic spectrum (EMS) capabilities through its recently published EMS Superiority Strategy. However, the committee remains concerned that the Air Force's only dedicated electromagnetic warfare (EW) aircraft, the EC-130H Compass Call, is rapidly nearing the end of its service life, while the EC-37B Compass Call replacement program faces production and delivery delays. The committee is also aware that the Air Force underestimated the cost of implementing system-wide open reconfigurable dynamic architecture (SWORD-A) capabilities, forcing the Compass Call program to realign funding from procurement to research and development. All of these issues raise concerns that the Air Force will be unable to meet joint airborne EW requirements as legacy aircraft retirements outpace the availability of replacement capability.

Given these concerns and the critical importance of airborne EW in support of joint military operations, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by March 1, 2022, on its plan to procure the full complement of ten EC-37B aircraft as defined in the program of record. The briefing shall include details on the planned utilization of the ten aircraft EC-37B fleet to meet test, training, operational deployment, and depot maintenance requirements, and the Air Force's plan to provide modernized EW capabilities to combatant commands in accordance with the Department's EMS Superiority Strategy implementation plan.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by:

Mr. Gallagher of Wisconsin

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Joint Light Tactical Vehicle Acquisition Strategy

The Committee recognizes that the Joint Light Tactical Vehicle (JLTV) offers the protection and off-road mobility needed to support operations along the full spectrum of conflict and will serve as part of the Army and Marine Corps tactical wheeled vehicle (TWV) fleet for decades. The Committee also understands that the Army plans to initiate a full and open competitive process for a new JLTV production contract in fiscal year 2022. The committee is concerned, however, that Army leadership's decisions over the last three years have failed to provide stable funding to support documented production plans and introduced avoidable risk within the JLTV supplier base. Accordingly, the committee directs the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, not later than March 1, 2022, to provide a report to the House Armed Services Committee that reassesses the health of the JLTV industrial base, and the business case for a competition for future JLTV production.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Trent Kelly

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Development of High Mach and Hypersonic Aircraft

The committee is encouraged by recent efforts to mature technologies necessary to develop reusable high-mach and hypersonic aircraft. The reports required by the Fiscal Year 2021 National Defense Authorization Act and Intelligence Authorization Act mandated hypersonic flight roadmaps, which demonstrates that these reusable aircraft have the potential to expand operational capability in intelligence, surveillance, and reconnaissance and low-cost responsive space access, mitigating the threat posed by traditional anti-access/area-denial systems and providing critical intelligence collection resiliency. The committee supports ongoing investments by the Department of Defense to deliver reusable high-mach flight capability in 2030, including near-term development and testing of high-mach propulsion, high-temperature materials, and hypersonic test facilities. The committee further believes that effective development of reusable high-mach flight capabilities will likely comprise integration of unique intelligence related mission requirements early in the development cycle.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment, in coordination with the Under Secretary of Defense for Intelligence and Security, to provide a report no later than April 15, 2022, to the congressional defense committees on the Department's ability to meet intelligence capability requirements as described on the in the Department's hypersonic flight roadmap, as well as explain any significant divergence in strategy or schedule. The report should also describe consultation and joint development activities with the intelligence community on research, development, test, and evaluation of reusable hypersonic flight platforms.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Rick Larsen

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Helicopter Vertical Tail Boom Modification

The committee is aware of new and emerging commercial technologies that could benefit the Army's UH-60 aircraft performance, including provide more directional control with increased lift capability. The committee supports the Army's efforts to incorporate proven enhanced capabilities into its current aircraft inventory.

The committee directs the Secretary of the Army to provide a briefing to the House Armed Services Committee by March 15, 2022, on any testing conducted on vertical tail boom modifications to improve the directional control and lift capabilities of rotary wing aircraft, any plans for continued testing of such capabilities, and an assessment of the aircraft performance benefits that could be provided by these technologies.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Moore of Utah

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Litter Load Stability Technology

The committee is aware that load stability technology has the potential to offer performance and safety improvements for military utility and medical evacuation helicopters. The committee understands that Army Futures Command and Army Program Directorate Medical Evacuation have conducted test and evaluation of litter-attached load stability systems on helicopter hoists. The committee supports completing any further testing and certification of this type of safety stabilization technology and allowing units to make use of this capability for life-saving and other missions. Therefore, the committee directs the Assistant Secretary of the Army for Acquisition, Logistics, and Technology to provide a briefing to the House Committee on Armed Services no later than March 31, 2022, on the remaining testing required on load stabilization technology and the status of plans to procure and field this capability to Army aviation units, to include estimated cost and schedule.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Vela of Texas

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

[T-45 Program Report]

"The committee directs the Secretary of the Navy to provide a report to the House Committee on Armed Services no later than June 1, 2022 on the continued T-45 engine obsolescence issues, the T-45 replacement program, and potential alternatives that could support an accelerated replacement timeline."

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by Mr. Bacon of Nebraska

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Air Force Sensor Open Systems Architecture (SOSA) Standard Initiative

The committee commends the Department of Defense's support for Modular Open Systems Architecture (MOSA) in recent years. The Air Force's Sensor Open Systems Architecture (SOSA) and the Army's Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Modular Open Suite of Standards (CMOSS) are examples of mature military electronics standards initiatives that are proving that programs of record can be unified around common modular building blocks. Increased use of these standards has the potential to increase speed of technology refresh, foster industry competition, and reduce the U.S. Government's costs of modernization and sustainment.

The committee notes that the SOSA and CMOSS standards are aligned in both hardware and software specifications, creating cross-service cooperation and cost savings for the Department of Defense (DoD). Nonetheless, the committee understands that despite this progress, Department of the Air Force software standards are still largely stovepiped along mission or capability areas and often not accessible to smaller or non-traditional defense contractors.

The committee encourages the Air Force to consider leveraging SOSA software and hardware standards across high priority sensor and C4ISR programs in support of building a true open, common, multi-purpose backbone architecture able to incorporate new capability more quickly and at lower cost.

Therefore, the committee directs the Secretary of the Air Force to submit a report to the congressional defense committees by March 1, 2022, on plans to accelerate and expand implementation of SOSA software and hardware standards. This report shall explain:

(1) How the Air Force intends to leverage SOSA to combine mission areas into a common system hardware and software ecosystem for multi-mission/multi-intelligence tactical communication, C4ISR, electronic warfare, signals intelligence, geospatial intelligence, and battlefield embedded computing;

(2) How the Air Force can maximize the accessibility and participation from industry and NATO partners, especially small and medium sized traditional and non-traditional defense businesses, to build against the SOSA standard;

(3) How the Air Force will ensure life cycle support of future SOSA sensor and C4ISR programs; and,

(4) How the Air Force will resource future SOSA standard research and development efforts such as prototyping, industry technical interchanges, a method of SOSA system accreditation/certification, and efforts to domestically source advanced chip technologies and manufacturing of critical components for the DoD.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Wilson of South Carolina

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

40mm Training Ammunition Analysis of Alternatives

The committee has supported the Army's development of two new 40mm day, night and thermal (DNT) training ammunition: the M918E1 40mm high velocity (HV) cartridge and M781E1 40mm low velocity (LV) cartridge. The committee is aware of the Army's cancellation of the M918E1 40mm HV DNT and pause in transition of the M718E1 LV DNT training cartridges into production. With this delay, the Army may need to revert to legacy ammunition and use a "mixed belt" configuration consisting of both the legacy M918 and M385A1 cartridges for HV day and night training and legacy M781 cartridge to conduct LV day-only training.

The committee is concerned that legacy HV ammunition may present avoidable risk including unexploded ordnance (UXO) danger, an incendiary hazard that creates a fire hazard on training areas and reduces training efficacy. The committee is also concerned about the use of legacy LV ammunition due to its limitation of day-only training use.

The committee is further aware that other services currently use alternative 40mm HV and LV day and night training cartridges that do not present the hazards and impediments found in the Army's legacy ammunition. Therefore, the committee directs the Secretary of the Army to provide a report to the congressional defense committees by March 1, 2022 that evaluates existing and available 40mm HV and LV day and night training ammunition currently in use in other services. The report shall include, but is not limited to, an assessment of the ability of other cartridges to meet the Army's requirements, a cost analysis of procuring this ammunition for Army use, an analysis of the contractual and legal barriers, if any, to procurement and a potential fielding schedule.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Crow

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Fielding of Counter-Small Unmanned Aircraft Systems Across the Joint Force

The committee understands that the Under Secretary of Defense for Acquisition and Sustainment designated an Executive Agent for Counter-Small Unmanned Aircraft Systems (C-sUAS). The committee included language in the fiscal year 2021 NDAA Conference Report requiring the Executive Agent to "prioritize the objective of developing and executing a plan to develop, test, and begin production of a counter unmanned aircraft system that can be fielded as early as fiscal year 2021 to meet immediate operational needs in countering Group 1, 2, and 3 unmanned aircraft systems and, to the extent practical, has the potential to counter other, larger unmanned aircraft systems." The committee is concerned about the increasing threats to US forces by UAS, including swarms, and believes certain commercial solutions, if tested and proven suitable and effective, can be acquired, tested, and fielded at a faster rate than what is occurring today. The committee also believes that dynamic live-fire testing, demonstrations, and competitive shoot-offs can be effective ways to comparatively evaluate systems and accelerate their acquisition. Therefore the committee directs the Executive Agent for C-SUAS, not later than March 1, 2022, to brief the House Armed Services Committees on plans, if any, to expedite the identification, live-fire testing, acquisition, and fielding of commercial C-sUAS solutions suitable and effective for use at forward deployed locations.

AMENDMENT TO H.R. 4350

OFFERED BY MR. WILSON OF SOUTH CAROLINA

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

SEC. 10___. COMPARATIVE STUDY ON .338 NORMA MAGNUM PLATFORM.

(a) STUDY REQUIRED.—Not later than one year after the date of the enactment of this Act, the Secretary of the Army shall complete a comparative study on the .338 Norma Magnum platform.

(b) ELEMENTS.—The study required by subsection (a) shall include a comparative analysis between the current M2 .50 caliber, the M240 7.62, and the .338 Norma Magnum, focused on the metrics of lethality, weight, cost, and modernity of the platforms.

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AMENDMENT TO H.R. 4350

OFFERED BY MS. CHENEY OF WYOMING

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

SEC. 1___. STRATEGY FOR THE PROCUREMENT OF ACCESSORIES FOR THE NEXT GENERATION SQUAD WEAPON.

(a) STRATEGY REQUIRED.—The Secretary of the Army shall develop and implement a strategy to identify, test, qualify, and procure, on a competitive basis, accessories for the next generation squad weapon of the Army, including magazines and other components that could effect the performance of such weapon.

(b) MARKET SURVEY AND QUALIFICATION ACTIVITIES.—

(1) INITIAL MARKET SURVEY.—Not later than one year after a decision is made to enter into full-rate production for the next generation squad weapon, the Secretary of the Army shall conduct a market survey to identify accessories for such weapon, including magazines and other components, that could effect the weapon's performance.

(2) QUALIFICATION ACTIVITIES .—After completing the market survey under paragraph (1), the Secretary of the Army may compete, select, procure, and conduct tests of such components to qualify such components for purchase and use. A decision to qualify such components shall be based on established technical standards for operational safety and weapon effectiveness.

(c) INFORMATION TO CONGRESS.—Not later than 180 days after the date of the enactment of this Act, the Secretary of the Army shall provide to the congressional defense committees a briefing or a report on—

(1) the strategy developed and implemented by the Secretary under subsection (a); and

(2) the results of the market survey and qualification activities under subsection (b).

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Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Scott of Georgia

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

HH-60W Combat Search and Rescue Helicopter

The committee recognizes the Air Force's focus on testing, procuring, and fielding the HH-60W Jolly Green II to replace the HH-60W Pave Hawk combat rescue helicopter. The committee notes that the HH-60W is designed to provide increased range, lethality, situational awareness, safety, and reliability for the crucial Air Force combat search and rescue (CSAR) mission.

Accordingly, the committee directs the Secretary of the Air Force to provide a briefing to the congressional defense committees by March 1, 2022, on the status of the HH-60W program. This briefing should include, at a minimum, the following: the plan and schedule for aircraft beddown; planned force structure, to include current and future basing and the timing of associated divestment of the HH-60G Pave Hawk; manning, training, and infrastructure requirements; required support equipment; the associated funding requirements for all these elements; and recommendations on further improving the overall combat effectiveness and readiness of the HH-60W aircraft and the CSAR mission.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr. Golden of Maine

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Wearable Gesture Control Technology

The committee understands the 2019 Army Modernization Strategy calls for the development and procurement of tools and platforms that increase situational awareness, reduce cognitive load, simplify use of unmanned systems, and improve human-machine connectivity. The committee also understands the Army is pursuing gesture control technology, a potential capability shared between these priorities that harnesses neural and physical gesture impulses to control digital interfaces, unmanned systems, and communications. Therefore, the committee directs the Secretary of the Army to brief the congressional defense committees no later than March 1, 2022, on its efforts to integrate gesture control technology into platforms with potential compatibility, including but not limited to Integrated Visual Augmentation System (IVAS), Android Tactical Assault Kit (ATAK), Nett Warrior, Enhanced Night Vision Goggle-Binocular (ENVG-B), Soldier Borne Sensors, and aerial and ground robotics. The briefing shall include, but is not limited to, existing capabilities, research and development efforts, and potential budget and schedule timelines.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by:

Mr. Gallagher of Wisconsin

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Assured Communications on Tactical Unmanned Aerial Systems in Highly Contested Environments

The committee anticipates that future combat operations will involve increasingly hostile radio frequency environments requiring improved low probability of detection, low probability of intercept, low probability of exploitation, and anti-jam tactical communications capability. The committee commends the Army and Air Force officials for working with industry partners to develop a multicarrier spread spectrum protected waveform designed to resolve gaps in wideband tactical data link terminals that are critical to Unmanned Aerial Systems (UAS) operations in highly contested environments. This capability will help ensure secure, persistent, reliable communications required for UAS tactical operations.

The committee remains interested in continued efforts to mature assured communications technologies. Accordingly, the committee directs the Secretary of the Army, in coordination with Commander, Army Futures Command, to provide a briefing to the House Armed Services Committee not later than March 1, 2022, on plans to accelerate fielding of a next-generation protected waveform. The briefing shall include the Army's plans to: (1) expand research and development efforts to scale terminals for multiple applications and to address adjacent functions, such as electronic warfare techniques; (2) port to small form-factor radios and demonstrate airborne testing on relevant tactical UAS platforms; augment additional capabilities like multiple-access networking or burst-mode transmission; (3) optimize processor architecture to improve size, weight, power, and cost; and (4) achieve any other critical next generation features. The briefing should also explain what steps the Department is taking to integrate next-generation secure waveforms with a multi-channel antenna for assured communications.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mrs. McClain

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Request for Briefing on Vehicle Cyber Security Research Center

The budget request contained $164.9 million in PE 0603462A for Next Generation Combat Vehicle advanced technology development. The committee recommends $169.9 million, an increase of $5.0 million, in PE 0603462A for vehicle cyber security research.

The committee understands the risks that cyber-threats pose to the effective and efficient operation of our military and commercial vehicles and recognizes that a wide range of expertise, resources, and technical capability are necessary to address cyber-security challenges. The committee also acknowledges that there is both a national security and an economic value in collaboration to address these challenges through the integration of Department of Defense, federal agencies, commercial entities, and academic partners. Private-public collaboration and formal partnerships are important tools for conducting research and innovation, specifically in technology and cyber-security programs.

Accordingly, the committee directs the Commander, Army Futures Command, not later than February 1, 2022, to provide a briefing to the House Committee on Armed Services on the feasibility and advisability of establishing a research center for vehicle cyber security development and testing either under the authority of the U.S. Army Ground Vehicle Systems Center or as a Cooperative Research and Development Agreement. This briefing should include an assessment of the purposes, objectives, governance, facilities and staffing requirements, cost estimates, and identification of suitable locations for establishment of such a center to support vehicle cyber security research, development, and testing.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: Mr Rogers (AL)

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

MH-139 Conversion

The committee recognizes that the 908th Reserve Airlift Wing at Maxwell Air Force Base (AFB) was recently selected by the Air Force and Air Force Reserve for conversion from its current mission as a Combat Coded C-130 airlift wing to an Air Force Reserve Flying Training Unit (FTU) to train air crew members for the new MH-139 helicopter. The successful transition and on-time schedule depend on the completion of the environmental assessment and the completion of the requisite facility modifications. The aircraft are currently scheduled to be delivered as early as fiscal year 2023.

In testimony before the committee, the commander of U.S. Strategic Command emphasized the pressing need to replace the current fleet of UH-1N Huey helicopters with the new MH-139 aircraft and recognized the importance this new aircraft will play in maintaining the operational readiness of the nation's Intercontinental ballistic missile force. The committee emphasizes that for the transition to the new weapons system to remain on schedule, it is critical that the new FTU be equipped, manned, and ready to produce aircrew members as soon as the aircraft is operationally ready. The committee believes that failure to immediately fund related projects to retrofit existing facilities to accommodate simulators and training of the initial cadre of flight training instructors prior to the delivery of the aircraft would have significant adverse impacts on the readiness of the FTU to begin its mission. Additionally, the committee believes that any C-130 divestiture of mission at Maxwell AFB should be "heel to toe" with the delivery of replacement MH-139 aircraft. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by March 1, 2022, as to: the delivery timeline for MH-139 helicopter aircraft; the anticipated transition of C-130 aircraft; and the facility recapitalization to support the aircraft simulators, building updates, training aircraft, and instructor training to ensure this bed-down remains on schedule at Maxwell AFB.

Amendment to H.R. 4350
National Defense Authorization Act for Fiscal Year 2022

Offered by: MR. NORCROSS

In the appropriate place in the report to accompany H.R. 4350, insert the following new Directive Report Language:

Degraded visual environment system for Air Force combat search and rescue helicopter fleet

The committee has encouraged and supported efforts by the military services to develop and field modernized degraded visual environment (DVE) systems on rotary wing aircraft. Uncharted wires and low visibility brown-out conditions present military helicopters with additional hazards during training and operational missions, sometimes leading to aircraft damage, aircraft loss, or aircrew fatalities.

The committee supported plans by the Air Force to leverage investments made by the Army and U.S. Special Operations Command and field a DVE capability to its HH-60G Pave Hawk fleet. However, the fiscal year 2022 budget request eliminated nearly all HH-60G DVE funding, leaving only $5.6 million for contract close-out. Information provided to the committee from the Air Force cited delays caused by integration challenges as the reason for cancelling the DVE program. In a June 30, 2021, committee hearing on the fiscal year 2022 budget request for rotary wing aircraft, the Acting Assistant Secretary of the Air Force for Acquisition, Technology, and Logistics testified that the planned divestment of the HH-60G fleet within this decade influenced the decision to cancel the DVE project.

The committee is concerned about the abrupt DVE cancellation and the de-emphasis on increasing flight and aircrew safety. Though the Air Force claims that near-term HH-60G retirement justifies not fielding a DVE system, the replacement combat rescue aircraft, the HH-60W Jolly Green II, has no DVE system in its current program baseline. The committee notes that in 2018, an entire crew of seven service members died when their HH-60G Pave Hawk flew into an undetected wire on the border between Iraq and Syria.

Accordingly, the committee directs the Secretary of the Air Force to submit a report to the House Committee on Armed Services by December 15, 2021, on a plan to restore the DVE integration and fielding effort to the HH-60G program. The report

shall include a schedule for integration and fielding and the associated remaining costs.