H.R. 5515—FY19 NATIONAL DEFENSE AUTHORIZATION BILL

SUBCOMMITTEE ON STRATEGIC FORCES

SUMMARY OF BILL LANGUAGE

Table Of Contents

DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE XVI—STRATEGIC PROGRAMS, CYBER, AND INTELLIGENCE MATTERS

LEGISLATIVE PROVISIONS

SUBTITLE A—MANAGEMENT AND ORGANIZATION OF SPACE PROGRAMS

Section 16XX—Improvements to Acquisition System, Personnel, and Organization of Space Forces

This section would direct the Deputy Secretary of Defense to develop a plan to establish a separate alternative acquisition system for defense space acquisitions, including with respect to space vehicles, ground segments, and terminals. The Deputy Secretary would be required to submit a report to the congressional defense committees by December 31, 2019, on such plan.

This section would also task the Secretary of the Air Force to develop and implement a plan to increase the number and improve the quality of the civilian and military space cadre within the Air Force. The Secretary would also be required to submit a report to the congressional defense committees by March 1, 2019, on such plan.

This section would also require the Secretary of the Air Force to establish a new numbered Air Force responsible for space warfighting operations. The Secretary would be required to submit a plan for doing so to the congressional defense committees by December 31, 2019.

Lastly, this section would amend chapter 6 of title 10, United States Code, by adding a new section that would establish a subordinate unified command for space under U.S. Strategic Command that would be responsible for joint space warfighting operations.

SUBTITLE B—SPACE ACTIVITIES

Section 16XX—Rapid, Responsive, and Reliable Space Launch

This section would amend section 2273b of title 10, United States Code, regarding assured access to space to include consideration of rapid, responsive, and reliable space launches for national security space programs. It would also require the Secretary of Defense to provide for consideration of both reusable and expendable launch vehicles with respect to any solicitations occurring on or after March 1, 2019. Lastly, it would require the Secretary of Defense to conduct a risk and cost impact analysis with respect to reusable launch vehicles for national security payloads. The Secretary would be required to submit such analysis to the congressional defense committees within 180 days after the date of the enactment of this Act.

Section 16XX—Plan on Space Warfighting Readiness

This section would require the Secretary of Defense to develop a plan that identifies joint mission-essential tasks for space as a warfighting domain. This section would further require the Secretary to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate, within 60 days after the date of the enactment of this Act, on any authorities associated with such plan that the Secretary determines require legislative action.

Section 16XX—Study on Space-Based Radio Frequency Mapping

This section would direct the Secretary of Defense and the Director of National Intelligence to jointly conduct a study on the capabilities of the private sector with respect to radio frequency mapping and services for space-based electromagnetic collections. This section would also require the Secretary, in coordination with the Director, to provide a report on the study to the congressional defense committees and congressional intelligence committees, not later than 90 days after the date of the enactment of this Act.

Section 16XX—Use of Small- and Medium-Size Buses for Strategic and Tactical Satellite Payloads

This section would require the Secretary of Defense to conduct a study on the risks, benefits, and cost savings with respect to using small- and medium-size buses for strategic and tactical satellite payloads for protected satellite communications programs and next-generation overhead persistent infrared systems. This section would further require the Secretary to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives, not later than 180 after the date of the enactment of this Act, on such study.

This section would also require the Director of Cost Assessment and Program Evaluation to certify that future analysis of alternatives include materiel solutions for using small- and medium-size buses. Lastly, this section would require the Secretary of Defense, Secretary of the Air Force, and the Chairman of the Joint Chiefs of Staff to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives, not later than 240 days after the date of the enactment of this Act, on alternative space-based architectures using small-, medium-, and large-size buses.

Section 16XX—Evaluation and Enhanced Security of Supply Chain for Protected Satellite Communications Programs and Overhead Persistent Infrared Systems

This section would require the Secretary of Defense to develop a plan for and conduct evaluations of the supply chain vulnerabilities for protected satellite communications and next-generation overhead persistent infrared systems. Additionally, it would require the Secretary to develop risk mitigation strategies for the identified vulnerabilities. This section would require the Secretary to establish requirements to carry out the supply chain vulnerability evaluation and submit such requirements to the congressional defense committees not later than 120 days after the date of the enactment of this Act. Lastly, this section would require the Secretary to provide a briefing to the Committees on Armed Services of the Senate and House of Representatives not later than 180 days after the date of the enactment of this Act on the plan developed for carrying out such an evaluation.

Section 16XX—Plan to Provide Persistent Weather Imagery for United States Central Command

This section would require the Secretary of the Air Force to develop a plan to provide the U.S. Central Command with persistent weather imagery after 2025. The Secretary would be required to submit such plan to the congressional defense committees by March 1, 2019.

Section 16XX—Budget Assessments for National Security Space Programs

This section would amend section 239b of title 10, United States Code, by extending the required budget assessments for national security space programs to fiscal year 2021 and by requiring the Secretary of Defense to submit a report on the

budget for space programs to the congressional defense committees within 30 days after the date on which the President submits the budget request to Congress.

Section 16XX—Enhancement of Positioning, Navigation, and Timing Capacity

This section would require the Secretary of the Air Force to ensure that military Global Positioning System user equipment terminals have the capability to receive Galileo and QZSS signals, starting with increment 2, including with appropriate mitigation efforts. This section would also require the terminals to have the capability to receive non-allied positioning, navigation, and timing signals if the Secretary of Defense, in consultation with the Commander, U.S. Strategic Command, determines that the benefits outweigh the risks or the risks can be appropriately mitigated. This section would also require engagement with relevant U.S. allies.

SUBTITLE E—NUCLEAR FORCES

Section 16XX—Prohibition on Reduction of the Intercontinental Ballistic Missiles of the United States

This section would prohibit the Department of Defense from obligating or expending fiscal year 2019 funds to reduce the responsiveness, alert level, or quantity of deployed U.S. intercontinental ballistic missiles to less than 400. This section would provide an exception to this prohibition for activities related to maintenance and sustainment and activities to ensure safety, security, or reliability.

Section 16XX—Long-Range Standoff Weapon Requirements

This section would amend section 217 of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113-66) to enable the Secretary of the Air Force to retire the conventionally armed AGM-86 cruise missile and require the Secretary to ensure that a conventionally armed follow-on air-launched cruise missile, the long-range standoff weapon, achieves initial operating capability for conventional missions not later than 4 years after it achieves initial operating capability for nuclear missions.

Section 16XX—Acceleration of Ground-Based Strategic Deterrent Program and Long-Range Standoff Weapon Program

This section would require the Under Secretary of Defense for Acquisition and Sustainment, in consultation with the Secretary of the Air Force, to develop and implement plans to accelerate the development, procurement, and fielding of the Ground Based Strategic Deterrent (GBSD) program and the Long-Range Standoff cruise missile program. For GBSD, the plan would be required to

recapitalize the full intercontinental ballistic missile system, without phasing or splitting the program. For both programs, the plans would be required to assess the benefits, risks, feasibility, costs, and cost savings of various options for accelerating the programs. The Under Secretary, in consultation with the Secretary of the Air Force, would be required to submit the plans to the congressional defense committees within 120 days after the date of the enactment of this Act. The Commander of U.S. Strategic Command would be required, within 160 days after the date of the enactment of this Act, to provide a briefing to the congressional defense committees on the views of the Commander regarding the plans.

SUBTITLE F—MISSILE DEFENSE PROGRAMS

Section 16XX—Reports on Unfunded Priorities of the Missile Defense Agency

This section would require the Director of the Missile Defense Agency to submit a report to the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and the congressional defense committees on the unfunded priorities of the Missile Defense Agency for fiscal years 2020 and 2021, within 10 days of the submission of the budget request to Congress for those fiscal years.

Section 16XX—Multiyear Procurement Authority for Standard Missile-3 Block IB Missiles

This section would authorize the Department of Defense to enter a multiyear procurement for Standard Missile-3 Block IB missiles.

Section 16XX—Requirements for Ballistic Missile Defense Capable Ships

This section would require the Secretary of the Navy to include ballistic missile defense ship requirements in all future force structure assessments.

Section 16XX—Improvements to Research and Development and Acquisition Processes of Missile Defense Agency

This section would require the Under Secretary of Defense for Research and Engineering to transfer all research and development efforts and programs that have not yet reached milestone B to the Missile Defense Agency (MDA) if they are planned to be incorporated into the ballistic missile defense system or have explicit application for ballistic missile or hypersonic defense. This section would also require the Under Secretary to submit a report to the congressional defense committees by March 31, 2019, on the programs affected.

Further, this section would require the Secretary of Defense to notify the congressional defense committees before any of MDA's unique acquisition authorities are changed, and would prohibit changing the missile defense requirements generation process managed by U.S. Strategic Command.

This section would also require that MDA make the quarter and fiscal year for execution of planned flight tests unclassified. Lastly, this section would require the Deputy Secretary of Defense to update membership of the Missile Defense Executive Board, and would require that the Under Secretary of Defense for Acquisition and Sustainment be a standing member of the board and a co-chairman with respect to all decisions regarding acquisition and production milestone approvals.

Section 16XX—Layered Defense of the United States Homeland

This section would express the sense of Congress in support of the Department of Defense's efforts to provide layered defense of the homeland, and would require the Director of the Missile Defense Agency, in coordination with the Under Secretary of Defense for Policy, Commander of U.S. Northern Command, and Commander of U.S. Pacific Command, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by January 31, 2019, on options to increase layered protection of the U.S. homeland, to include the continental United States, Hawaii, and Alaska, from both the Democratic People's Republic of Korea and the Islamic Republic of Iran.

Section 16XX—Development of Persistent Space-Based Sensor Architecture

This section would direct the Director of the Missile Defense Agency (MDA), in coordination with the Director of National Intelligence, the Commander of Air Force Space Command, and the Commander of U.S. Strategic Command, to complete a plan and initiate development in fiscal year 2019 for a space-based missile defense sensor architecture. This section would limit obligation or expenditure of funds to initiate the space-based missile defense layer program until the plan is submitted to Congress. This section would also amend section 1683 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to require the Director of the MDA to submit a report to the congressional defense committees and congressional intelligence committees by January 31, 2019, on options to use other transactional authorities to accelerate development of this architecture.

Section 16XX—Boost Phase Ballistic Missile Defense

This section would require the Director, Missile Defense Agency (MDA) to begin a program in fiscal year 2019 to develop boost phase intercept capabilities that are either air-launched or ship-based, cost effective, and that include a kinetic interceptor. This section would require an independent feasibility study to be conducted for delivering an initial or demonstrated boost phase capability by calendar year 2021 using unmanned aerial vehicles and kinetic interceptors.

This section would also provide support for directed energy efforts that would contribute to intercontinental ballistic missile boost phase intercept

applications, and would direct MDA to continue developing this capability in fiscal year 2019 and leverage directed energy work by the Under Secretary of Defense for Research and Engineering. This section would require the Director of MDA to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate, and to any other congressional defense committee upon request, not later than February 28, 2019, on the criteria and parameters used to measure progress of such program.

Section 16XX—Testing of Redesigned Kill Vehicle Prior to Production

This section would prohibit a lot production decision for the Redesigned Kill Vehicle until after a successful flight intercept test. This section would also provide a waiver for the Secretary of Defense to make such a decision prior to a successful flight test, if the specified conditions are met.

Section 16XX—Sense of Congress on Missile and Rocket Defense Cooperation between the United States and Israel

This section would express the sense of Congress in support of the administration's 10-year memorandum of understanding starting in fiscal year 2019 between the United States and the State of Israel on missile defense cooperation.

SUBTITLE G—OTHER MATTERS

Section 16XX—Under Secretary of Defense for Research and Engineering and the Nuclear Weapons Council

This section would amend section section 179 of title 10, United States Code, to include the Under Secretary of Defense for Research and Engineering as a member of the Nuclear Weapons Council and make a technical correction to the title of the Under Secretary for Acquisition and Sustainment.

Section 16XX—Report and Limitation Regarding Industrial Base for Large Solid Rocket Motors

This section would require the Under Secretary of Defense for Acquisition and Sustainment to submit a report to the appropriate congressional committees on whether, and if so, how, the Federal Government will sustain more than one supplier for large solid rocket motors. The report would be required to include an assessment of several matters, including risks, costs, and options for sustaining more than one supplier by leveraging various programs of the Department of Defense and the broader Federal Government. Furthermore, this section would prohibit the Secretary of the Air Force from awarding a contract for engineering and manufacturing development (EMD) for the Ground Based Strategic Deterrent (GBSD) program until the Under Secretary of Defense for Acquisition submits this

report. Finally, this section would require the Under Secretary to provide a briefing to the appropriate congressional committees by February 1, 2019, on the industrial base for large solid rocket motors.

As it has expressed in the past, the committee continues to support the GBSD program and efforts to recapitalize the nuclear triad. The committee continues to expect the Air Force and the Department of Defense to be mindful of the impacts GBSD and other large upcoming or ongoing programs have on the industrial base for large solid rocket motors in the near, medium, and longer terms. Due to the large volume of rocket motors that will be procured for GBSD, this program may have a particularly large impact on the health and vitality of this key element of the U.S. industrial base. The committee does not expect or encourage the GBSD program alone to be responsible for sustaining this industrial base, but does expect the Department of Defense to carefully consider its impacts, assessing risks, benefits, and costs, before making an EMD contract award.

Section 16XX—Extension of Commission to Assess the Threat to the United States from Electromagnetic Pulse Attacks and Similar Events

This section would amend section 1691 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) to extend several deadlines associated with the Commission to Assess the Threat to the United States from Electromagnetic Pulse Attacks and Similar Events.

DIVISION C—DEPARTMENT OF ENERGY NATIONAL SECURITY AUTHORIZATIONS AND OTHER AUTHORIZATIONS

TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

LEGISLATIVE PROVISIONS

SUBTITLE B—PROGRAM AUTHORIZATIONS, RESTRICTIONS, AND LIMITATIONS

Section 31XX—Prohibition on Availability of Funds for Programs in Russian Federation

This section would provide that none of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 for atomic energy defense activities may be obligated or expended to enter into a contract with, or otherwise provide assistance to, the Russian Federation. The Secretary of Energy, without delegation, would be provided the authority to waive this prohibition if the Secretary determines, in writing, that a nuclear-related threat in Russia must be addressed urgently and that it is necessary to waive the prohibition

to address that threat. The waiver could only be used if the Secretary of State and the Secretary of Defense concur in that determination, and the Secretary of Energy submits a report to the appropriate congressional committees containing notification that such waiver is in the national security interest of the United States, a justification for such waiver, a description of the activities to be carried out pursuant to the waiver, and a period of 7 days elapses. The prohibition and waiver contained in this section would not apply to up to $3.0 million that the Secretary of Energy may make available for the Department of Energy's Russian Health Studies Program.

TITLE XXXII—DEFENSE NUCLEAR FACILITIES SAFETY BOARD

LEGISLATIVE PROVISIONS

Section 3201—Authorization

The budget request contained $31.2 million for the Defense Nuclear Facilities Safety Board for fiscal year 2019. The committee recommends $31.2 million, the amount of the budget request.

BILL LANGUAGE

SEC. 16___.[Log 67151] IMPROVEMENTS TO ACQUISITION SYSTEM, PERSONNEL, AND ORGANIZATION OF SPACE FORCES.

(a) PLAN FOR ACQUISITION SYSTEM.—

(1) DEVELOPMENT.—The Deputy Secretary of Defense shall develop a plan to establish a separate, alternative acquisition system for defense space acquisitions, including with respect to procuring space vehicles, ground segments relating to such vehicles, and satellite terminals.

(2) REQUIREMENTS PROCESS.—The plan developed under paragraph (1) shall include recommendations of the Deputy Secretary with respect to whether the separate, alternative acquisition system described in the plan should use the Joint Capabilities Integration and Development System process or instead use a new requirements process developed by the Deputy Secretary in a manner that ensures that requirements for a program are synchronized across the space vehicles, ground segments relating to such vehicles, and satellite terminals, of the program.

(3) EXCEPTION.—The plan developed under paragraph (1) shall cover defense space acquisitions except with respect to the National Reconnaissance

Office and other elements of the Department of Defense that are elements of the intelligence community (as defined in section 3 of the National Security Act of 1947 (50 U.S.C. 3003)).

(4) SUBMISSION.—Not later than December 31, 2019, the Deputy Secretary shall submit to the congressional defense committees a report containing the plan developed under paragraph (1).

(b) CADRE DEVELOPMENT.—

(1) PLAN.—

(A) DEVELOPMENT.—The Secretary of the Air Force shall develop and implement a plan to increase the number and improve the quality of the space cadre of the Air Force.

(B) MATTERS INCLUDED.—The plan developed under subparagraph (A) shall address the following:

(i) Managing the career progression of members of the Armed Forces and civilian employees of the Department who form the space cadre of the Air Force throughout the military or civilian career of the member or the employee, as the case may be, including with respect to—

(I) defining career professional milestones;

(II) pay and incentive structures;

(III) the management and oversight of the space cadre;

(IV) conducting periodic cadre-wide professional assessments to determine how the cadre is developing as a group; and

(V) establishing a centralized method to control personnel assignments and distribution.

(ii) The identification of future space-related career fields that the Secretary determines appropriate, including a space acquisition career field.

(iii) The identification of any overlap that exists among operations and acquisitions career fields to determine opportunities for cross-functional career opportunities.

(C) SUBMISSION.—Not later than March 1, 2019, the Secretary shall submit to the congressional defense committees a report con-

taining the plan developed under subparagraph (A).

(2) NUMBERED AIR FORCE.—

(A) ESTABLISHMENT.—Not later than December 31, 2019, the Secretary of the Air Force shall establish as part of the Air Force a new numbered Air Force that is—

(i) responsible for carrying out space warfighting operations; and

(ii) assigned to the United States Space Command established by section 169 of title 10, United States Code, as added by subsection (c).

(B) EFFECT ON 14TH AIR FORCE.—The establishment of a new numbered Air Force under subparagraph (A) shall not effect the space support mission of the 14th Air Force, including with respect to—

(i) space launches, training, and exercises; and

(ii) being assigned to the Air Force Space Command.

(C) PLAN.—Not later than December 31, 2019, the Secretary shall submit to the congressional defense committees a plan to establish

the new numbered Air Force under subparagraph (A).

(c) ESTABLISHMENT OF SUBORDINATE UNIFIED COMMAND.—

(1) IN GENERAL.—Chapter 6 of title 10, United States Code, is amended by adding at the end the following new section:

"§ 169. Subordinate unified command of the United States Strategic Command

''(a) ESTABLISHMENT.—With the advice and assistance of the Chairman of the Joint Chiefs of Staff, the President, through the Secretary of Defense, shall establish under the United States Strategic Command a subordinate unified command to be known as the United States Space Command (in this section referred to as 'space command') for carrying out joint space warfighting operations.

''(b) ASSIGNMENT OF FORCES.—Unless otherwise directed by the Secretary of Defense, all active and reserve space warfighting operational forces of the armed forces shall be assigned to the space command, including the numbered Air Force responsible for carrying out space warfighting operations.

''(c) COMMANDER.—(1) The commander of the space command shall hold the grade of general or, in the case

of an officer of the Navy, admiral while serving in that position, without vacating the permanent grade of the officer. The commander shall be appointed to that grade by the President, by and with the advice and consent of the Senate, for service in that position. The position shall be designated, pursuant to subsection (b) of section 526 of this title, as one of the general officer and flag officer positions to be excluded from the limitations in subsection (a) of such section.

''(2) During the three-year period following the date on which the space command is established, the commander of the Air Force Space Command may also serve as the commander of the space command so established. After such period, one individual may not concurrently serve as both such commanders.

''(d) AUTHORITY OF COMMANDER.—(1) Subject to the authority, direction, and control of the commander of the United States Strategic Command, the commander of the space command shall be responsible for, and shall have the authority to conduct, all affairs of such command relating to joint space warfighting operations.

''(2)(A) Subject to the authority, direction, and control of the Deputy Secretary of Defense, the commander of the space command shall be responsible for, and shall have the authority to conduct, the following functions re-

lating to joint space warfighting operations (whether or not relating to the space command):

''(i) Developing strategy, doctrine, and tactics.

''(ii) Preparing and submitting to the Secretary of Defense program recommendations and budget proposals for space operations forces and for other forces assigned to the space command.

''(iii) Exercising authority, direction, and control over the expenditure of funds for forces assigned directly to the space command.

''(iv) Training and certification of assigned joint forces.

''(v) Conducting specialized courses of instruction for commissioned and noncommissioned officers.

''(vi) Validating requirements.

''(vii) Establishing priorities for requirements.

''(viii) Ensuring the interoperability of equipment and forces.

''(ix) Formulating and submitting requirements for intelligence support.

''(x) Monitoring the promotion of space operation forces and coordinating with the military departments regarding the assignment, retention, training, professional military education, and special and incentive pays of space operation forces.

''(B) The authority, direction, and control exercised by the Deputy Secretary of Defense for purposes of this paragraph is authority, direction, and control with respect to the administration and support of the space command, including readiness and organization of space operations forces, space operations-peculiar equipment and resources, and civilian personnel.

''(C) Nothing in this paragraph shall be construed as providing the Deputy Secretary of Defense authority, direction, and control of operational matters that are subject to the operational chain of command of the combatant commands or the exercise of authority, direction, and control of personnel, resources, equipment, and other matters that are not space-operations peculiar and that are in the purview of the armed forces.

''(3) The commander of the space command shall be responsible for—

''(A) ensuring the combat readiness of forces assigned to the space command; and

''(B) monitoring the preparedness to carry out assigned missions of space forces assigned to unified combatant commands other than the United States Strategic Command.

''(4) The staff of the commander shall include an inspector general who shall conduct internal audits and in-

spections of purchasing and contracting actions through the space command and such other inspector general functions as may be assigned.

''(e) INTELLIGENCE AND SPECIAL ACTIVITIES.—This section does not constitute authority to conduct any activity which, if carried out as an intelligence activity by the Department of Defense, would require a notice to the Select Committee on Intelligence of the Senate and the Permanent Select Committee on Intelligence of the House of Representatives under title V of the National Security Act of 1947 (50 U.S.C. 3091 et seq.).''.

(2) CLERICAL AMENDMENT.—The table of sections at the beginning of such chapter is amended by inserting after the item relating to section 167b the following new item:

''169. Subordinate unified command of the United States Strategic Command''.

SEC. 16___.[Log 67152] RAPID, RESPONSIVE, AND RELIABLE SPACE LAUNCH.

(a) ASSURED ACCESS TO SPACE.—Section 2273 of title 10, United States Code, is amended—

(1) in subsection (b)—

(A) in paragraph (1), by striking ''; and'';

(B) in paragraph (2), by striking the period at the end and inserting ''; and''; and

(C) by adding at the end the following new paragraph:

''(3) the availability of rapid, responsive, and reliable space launches for national security space programs to—

''(A) improve the responsiveness and flexibility of a national security space system;

''(B) lower the costs of launching a national security space system; and

''(C) maintain risks of mission success at acceptably low levels.''; and

(2) in subsection (c), by inserting before the period at the end the following: ''and the Director of National Intelligence''.

(b) REUSABILITY OF LAUNCH VEHICLES.—

(1) DESIGNATION.—Effective March 1, 2019, the Evolved Expendable Launch Vehicle program of the Department of Defense shall be known as the ''National Security Space Launch program''. Any reference in Federal law, regulations, guidance, instructions, or other documents of the Federal Government to the Evolved Expendable Launch Vehicle program shall be deemed to be a reference to the National Security Space Launch program.

(2) REQUIREMENT.—In carrying out the National Security Space Launch program, the Secretary of Defense shall provide for consideration of both reusable and expendable launch vehicles with respect to any solicitation occurring on or after March 1, 2019, for which the use of a reusable launch vehicle is technically capable and maintains risk at acceptable levels.

(3) NOTIFICATION OF SOLICITATIONS FOR NON-REUSABLE LAUNCH VEHICLES.—Beginning March 1, 2019, if the Secretary proposes to issue a solicitation for a contract for space launch services for which the use of reusable launch vehicles is not eligible for the award of the contract, the Secretary shall notify in writing the appropriate congressional committees of such proposed solicitation, including jus-

tifications for such ineligibility, by not later than 60 days before issuing such solicitation.

(c) RISK AND COST IMPACT ANALYSIS.—

(1) IN GENERAL.—The Secretary shall conduct a risk and cost impact analysis with respect to launch services that use reusable launch vehicles. Such analysis shall include—

(A) an assessment of how the inspection and certification regime of the Air Force for previously flown launch vehicles will ensure increased responsiveness and operational flexibility while maintaining acceptably low risk; and

(B) an assessment of the anticipated cost savings to the Department of Defense realized by using a previously flown launch vehicle or components.

(2) SUBMISSION.—Not later than 180 days after the date of the enactment of this Act, the Secretary shall submit to the appropriate congressional committees the analysis conducted under paragraph (1).

(d) APPROPRIATE CONGRESSIONAL COMMITTEES DEFINED.—In this section, the term ''appropriate congressional committees'' means the following:

(1) The congressional defense committees.

(2) The Permanent Select Committee on Intelligence of the House of Representatives and the Select Committee on Intelligence of the Senate.

SEC. 16___.[Log 67154] PLAN ON SPACE WARFIGHTING READINESS.

(a) IN GENERAL.—Not later than 60 days after the date of the enactment of this Act, the Secretary of Defense shall develop, and commence the implementation of, a plan that—

(1) identifies joint mission-essential tasks for space as a warfighting domain;

(2) identifies any additional authorities, or delegated authorities, that would need to accompany the employment of forces to meet such mission-essential tasks;

(3) meets the readiness requirements for space warfighting, including with respect to equipment, training, and personnel, to meet such mission-essential tasks; and

(4) considers the contributions by allies and partners of the United States with respect to defense space capabilities to increase burden-sharing across space systems, as appropriate.

(b) BRIEFING.—Not later than 60 days after the date of the enactment of this Act, the Secretary shall provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other congres-

sional defense committee upon request, a briefing describing the authorities identified under subsection (a)(2) that the Secretary determines require legislative action.

SEC. 16___.[Log 67253] STUDY ON SPACE-BASED RADIO FREQUENCY MAPPING.

(a) STUDY.—The Secretary of Defense and the Director of National Intelligence shall jointly conduct a study on the capabilities of the private sector with respect to space-based radio frequency mapping and associated operations and services for space-based electromagnetic collections. Such study shall address the following:

(1) The near-term commercial market offerings of such operations and services in the United States and outside the United States.

(2) The potential benefits to the United States provided by such operations and services.

(3) The potential risks to the United States posed by such operations and services.

(4) The sufficiency of existing legal authorities available to the Secretary and the Director to address such potential risks.

(b) REPORT.—Not later than 90 days after the date of the enactment of this Act, the Secretary and the Director shall jointly submit to the congressional defense committees, the Permanent Select Committee on Intelligence of the House of Representatives, and the Select Committee

on Intelligence of the Senate a report containing the study under subsection (a).

SEC. 16___.[Log 67157] USE OF SMALL- AND MEDIUM-SIZE BUSES FOR STRATEGIC AND TACTICAL SATELLITE PAYLOADS.

(a) BRIEFING ON RISKS, BENEFITS, AND COST SAVINGS.—

(1) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Secretary of Defense, in coordination with the Director of National Intelligence, shall provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other appropriate congressional committee upon request, a briefing on the risks, benefits, and cost savings with respect to using small- and medium-size buses for strategic and tactical satellite payloads for protected satellite communications programs and next-generation overhead persistent infrared systems.

(2) MATTERS INCLUDED.—The briefing provided under paragraph (1) shall address the following:

(A) Increasing component and subcomponent commonality for power regulation, solar arrays, battery technology, thermal control, and avionics.

(B) The security of the supply chain, including a strategy to mitigate risk in such supply chain.

(b) ANALYSES OF ALTERNATIVES.—

(1) CERTIFICATIONS.—With respect to each analysis of alternatives of new space vehicles relating to a program described in paragraph (2), the Director for Cost Assessment and Program Evaluation shall certify to the appropriate congressional committees that the analysis—

(A) includes materiel solutions for using small- and medium-size buses; and

(B) considers the relevant operational benefits and potential cost savings of using small-, medium-, and large-size buses.

(2) PROGRAMS DESCRIBED.—The programs described in this paragraph are the programs of the Department of Defense relating to any of the following:

(A) Protected satellite communications.

(B) Next-generation overhead persistent infrared systems.

(C) Space-based environmental monitoring.

(c) BRIEFING ON ALTERNATIVE SPACE-BASED ARCHITECTURES.—Not later than 240 days after the date

of the enactment of this Act, the Secretary of Defense, the Secretary of the Air Force, and the Chairman of the Joint Chiefs of Staff shall jointly provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other appropriate congressional committee upon request, a briefing on alternative space-based architectures for the programs described in subsection (b)(2) using small-, medium-, and large-size buses.

(d) APPROPRIATE CONGRESSIONAL COMMITTEES DEFINED.—In this section, the term ''appropriate congressional committees'' means the following:

(1) The congressional defense committees.

(2) The Permanent Select Committee on Intelligence of the House of Representatives and the Select Committee on Intelligence of the Senate.

SEC. 16___.[Log 67158] EVALUATION AND ENHANCED SECURITY OF SUPPLY CHAIN FOR PROTECTED SATELLITE COMMUNICATIONS PROGRAMS AND OVERHEAD PERSISTENT INFRARED SYSTEMS.

(a) EVALUATIONS OF SUPPLY CHAIN VULNERABILITIES.—

(1) IN GENERAL.—Not later than December 31, 2020, and in accordance with the plan under paragraph (2)(A), the Secretary of Defense, in coordination with the Director of National Intelligence, shall conduct evaluations of the supply chain vulnerabilities of each covered program.

(2) PLAN.—

(A) DEVELOPMENT.—The Secretary shall develop a plan to carry out the evaluations under paragraph (1), including with respect to the personnel and resources required to carry out such evaluations.

(B) BRIEFING.—Not later than 180 days after the date of the enactment of this Act, the Secretary shall provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other appropriate

congressional committee upon request, a briefing on the plan under subparagraph (A).

(3) WAIVER.—The Secretary may waive, on a case-by-case basis with respect to a covered program, either the requirement to conduct an evaluation under paragraph (1) or the deadline specified in such paragraph if the Secretary certifies to the congressional defense committees before such date that all known supply chain vulnerabilities of such covered program have minimal consequences for the capability of such covered program to meet operational requirements or otherwise satisfy mission requirements.

(4) RISK MITIGATION STRATEGIES.—In carrying out an evaluation under paragraph (1), the Secretary shall develop—

(A) strategies for mitigating the risks of supply chain vulnerabilities identified in the course of such evaluation; and

(B) cost estimates for such strategies.

(b) PRIORITIZATION OF CERTAIN SUPPLY CHAIN RISK MANAGEMENT EFFORTS.—

(1) INSTRUCTIONS.—Not later than 180 days after the date of the enactment of this Act, the Secretary shall issue a Department of Defense Instruc-

tion, or update such an Instruction, establishing the prioritization of supply chain risk management programs, including supply chain risk management threat assessment reporting, to ensure that acquisition and sustainment programs relating to covered programs receive the highest priority of such supply chain risk management programs and reporting.

(2) REQUIREMENTS.—

(A) ESTABLISHMENT.—The Secretary shall establish requirements to carry out supply chain risk management threat assessment collections and analyses under acquisition and sustainment programs relating to covered programs.

(B) BRIEFING.—Not later than 120 days after the date of the enactment of this Act, the Secretary shall provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other appropriate congressional committee upon request, a briefing on the requirements established under subparagraph (A).

(c) DEFINITIONS.—In this section:

(1) The term ''appropriate congressional committees'' means the following:

(A) The congressional defense committees.

(B) The Permanent Select Committee on Intelligence of the House of Representatives and the Select Committee on Intelligence of the Senate.

(2) The term ''covered programs'' means programs of the Department of Defense relating to any of the following:

(A) Protected satellite communications.

(B) Next-generation overhead persistent infrared systems.

SEC. 16___.[Log 67254] PLAN TO PROVIDE PERSISTENT WEATHER IMAGERY FOR UNITED STATES CENTRAL COMMAND.

(a) PLAN.—The Secretary of the Air Force shall develop a plan to provide the United States Central Command with persistent weather imagery for the area of operations of the Command beginning not later than January 1, 2026.

(b) MATTERS INCLUDED.—The plan developed under subsection (a) shall include the following:

(1) A long-term method for providing the United States Central Command with persistent weather imagery for the area of operations of the Command that—

(A) does not rely on data provided by a foreign government; and

(B) does not include relocating legacy geostationary operational environmental satellites.

(2) A description of the costs required to carry out the plan.

(c) SUBMISSION.—Not later than March 1, 2019, the Secretary shall submit to the congressional defense committees the plan developed under subsection (a).

SEC. 16___.[Log 67722] BUDGET ASSESSMENTS FOR NATIONAL SECURITY SPACE PROGRAMS.

Section 239(b)(1) of title 10, United States Code, is amended to read as follows:

''(1) Not later than 30 days after the date on which the President submits to Congress the budget for each of fiscal years 2017 through 2021, the Secretary of Defense shall submit to the congressional defense committees a report on the budget for national security space programs of the Department of Defense. The Secretary may include the report in the defense budget materials if the Secretary submits such materials to Congress by such date.''.

SEC. 16___.[Log 67805] ENHANCEMENT OF POSITIONING, NAVIGATION, AND TIMING CAPACITY.

(a) CAPABILITY FOR TRUSTED SIGNALS.—The Secretary of the Air Force shall ensure that military Global Positioning System user equipment terminals have the capability, including with appropriate mitigation efforts, to receive trusted signals from the Galileo satellites of the European Union and the QZSS satellites of Japan, beginning with increment 2 of the acquisition of such terminals.

(b) CAPABILITY FOR OTHER SIGNALS.—The Secretary of the Air Force shall ensure that military Global Positioning System user equipment terminals having the capability to receive non-allied positioning, navigation, and timing signals, beginning with increment 2 of the acquisition of such terminals, if the Secretary of Defense, in consultation with the Commander of the United States Strategic Command, determines that—

(1) the benefits of receiving such signals outweigh the risks; or

(2) such risks can be appropriately mitigated.

(c) ENGAGEMENT.—The Secretary of Defense, jointly with the Secretary of State, shall engage with relevant allies of the United States to—

(1) enable military Global Positioning System user equipment terminals to receive the positioning, navigation, and timing signals of such allies; and

(2) negotiate as appropriate other potential agreements relating to the enhancement of positioning, navigation, and timing.

SEC. 16___.[Log 66818] PROHIBITION ON REDUCTION OF THE INTERCONTINENTAL BALLISTIC MISSILES OF THE UNITED STATES.

(a) PROHIBITION.—Except as provided by subsection (b), none of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 for the Department of Defense shall be obligated or expended for—

(1) reducing, or preparing to reduce, the responsiveness or alert level of the intercontinental ballistic missiles of the United States; or

(2) reducing, or preparing to reduce, the quantity of deployed intercontinental ballistic missiles of the United States to a number less than 400.

(b) EXCEPTION.—The prohibition in subsection (a) shall not apply to any of the following activities:

(1) The maintenance or sustainment of intercontinental ballistic missiles.

(2) Ensuring the safety, security, or reliability of intercontinental ballistic missiles.

SEC. 16___.[Log 67179] LONG-RANGE STANDOFF WEAPON REQUIREMENTS.

Subparagraphs (A) and (B) of section 217(a)(1) of the National Defense Authorization Act for Fiscal Year 2014 (Public Law 113–66; 127 Stat. 706) are amended to read as follows:

''(A) achieves initial operating capability for nuclear missions prior to the retirement of the nuclear-armed AGM–86;

''(B) achieves initial operating capability for conventional missions by not later than four years after the date of the achievement under subparagraph (A); and''.

SEC. 16___.[Log 67482] ACCELERATION OF GROUND-BASED STRATEGIC DETERRENT PROGRAM AND LONG-RANGE STANDOFF WEAPON PROGRAM.

(a) PLAN FOR ACCELERATION OF PROGRAMS.—Consistent with validated military requirements and in accordance with applicable provisions of Federal law regarding acquisition, the Under Secretary of Defense for Acquisition and Sustainment, in consultation with the Secretary of the Air Force, shall develop and implement—

(1) a plan to accelerate the development, procurement, and fielding of the ground-based strategic deterrent program; and

(2) a plan to accelerate the development, procurement, and fielding of the long-range standoff weapon.

(b) CRITERIA.—The plans developed under subsection (a) shall meet the following criteria:

(1) With respect to the plan developed under paragraph (1) of such subsection, the plan shall ensure that the ground-based strategic deterrent program includes the recapitalization of the full intercontinental ballistic missile weapon system for 400 deployed missiles and associated spares and 450 launch facilities, without phasing or splitting the

program, including with respect to the missile flight system, ground-based infrastructure and equipment, appropriate command and control elements.

(2) The plans shall include a comprehensive assessment of the benefits, risks, feasibility, costs, and cost savings of various options for accelerating the respective program covered by the plan, including by considering—

(A) accelerating—

(i) the technology maturation and risk reduction phase, including through the identification of low and high technology readiness levels, requirements, and timelines for maturing such technology;

(ii) the award of an engineering and manufacturing development contract; and

(iii) making the milestone B decision;

(B) transitioning full acquisition authority, responsibility, and accountability of the respective program to the Secretary of the Air Force, including milestone decision authority;

(C) providing a general officer-level program executive officer a dedicated, single-program, long-term assignment with a tailored acquisition approach, program strategy, and over-

sight model for the respective program that empowers the general officer to accelerate the program, make decisions, and be held accountable;

(D) streamlining, as appropriate, test and evaluation activities for the respective program, particularly for proven technologies, while ensuring high confidence in the final deployed system;

(E) leveraging agile software development or other innovative approaches to reduce timeframes for software development;

(F) identifying and proposing statutory changes that the Under Secretary or the Secretary of the Air Force determine could accelerate the respective program;

(G) identifying accelerated goals for initial operational capability and full operational capability for the respective program; and

(H) such other options as the Under Secretary or the Secretary of the Air Force consider appropriate.

(c) SUBMISSION.—Not later than 120 days after the date of the enactment of this Act, the Under Secretary, in consultation with the Secretary of the Air Force, shall submit to the congressional defense committees the plans

developed under subsection (a), including an assessment of the options considered and the options selected to be implemented under the plans.

(d) BRIEFING.—Not later than 160 days after the date of the enactment of this Act, the Commander of the United States Strategic Command shall provide to the congressional defense committees a briefing on the views of the Commander with respect to the plans developed under subsection (a).

(e) DEFINITIONS.—In this section:

(1) The term ''milestone B decision'' has the meaning given that term in section 2400(a) of title 10, United States Code.

(2) The term ''milestone decision authority'' has the meaning given that term in section 2366a(d) of title 10, United States Code.

SEC. 16___. [Log 67166] REPORTS ON UNFUNDED PRIORITIES OF THE MISSILE DEFENSE AGENCY.

(a) REPORTS.—Not later than 10 days after the date on which the budget of the President for each of fiscal years 2020 and 2021 is submitted to Congress pursuant to section 1105 of title 31, United States Code, the Director of the Missile Defense Agency shall submit to the Secretary of Defense and the Chairman of the Joint Chiefs of Staff, and to the congressional defense committees, a report on the unfunded priorities of the Missile Defense Agency.

(b) ELEMENTS.—

(1) MATTERS INCLUDED.—Each report under subsection (a) shall specify, for each unfunded priority covered by such report, the following:

(A) A summary description of such priority, including the objectives to be achieved if such priority is funded (whether in whole or in part).

(B) The additional amount of funds recommended in connection with the objectives under subparagraph (A).

(C) Account information with respect to such priority, including, as applicable—

(i) the line item number for applicable procurement accounts;

(ii) the program element number for applicable research, development, test, and evaluation accounts; and

(iii) the sub-activity group for applicable operation and maintenance accounts.

(2) PRIORITIZATION OF PRIORITIES.—Each report under subsection (a) shall present the unfunded priorities covered by such report in order of urgency of priority.

(c) UNFUNDED PRIORITY DEFINED.—In this section, the term ''unfunded priority'', in the case of a fiscal year, means a program, activity, or mission requirement of the Missile Defense Agency that—

(1) is not funded in the budget of the President for the fiscal year as submitted to Congress pursuant to section 1105 of title 31, United States Code;

(2) is necessary to fulfill a requirement associated with an operational or contingency plan of a combatant command or other validated requirement; and

(3) would have been recommended for funding through the budget referred to in paragraph (1) by

the Director of the Missile Defense Agency in connection with the budget if—

(A) additional resources had been available for the budget to fund the program, activity, or mission requirement; or

(B) the program, activity, or mission requirement has emerged since the budget was formulated.

SEC. 16___.[Log 67200] MULTIYEAR PROCUREMENT AUTHORITY FOR STANDARD MISSILE–3 BLOCK IB MISSILES.

(a) AUTHORITY FOR MULTIYEAR PROCUREMENT.—Subject to section 2306b of title 10, United States Code, the Director of the Missile Defense Agency may enter into one or more multiyear contracts, beginning with the 2019 program year, for the procurement of standard missile–3 block IB missiles.

(b) CONDITION FOR OUT-YEAR CONTRACT PAYMENTS.—A contract entered into under subsection (a) shall provide that any obligation of the United States to make a payment under the contract for a fiscal year after fiscal year 2019 is subject to the availability of appropriations or funds for that purpose for such later fiscal year.

SEC. 16___.[Log 67637] REQUIREMENTS FOR BALLISTIC MISSILE DEFENSE CAPABLE SHIPS.

(a) FORCE STRUCTURE ASSESSMENT.—The Secretary of the Navy, in consultation with the Director of the Missile Defense Agency, shall include in the first force structure assessment conducted following the date of the enactment of this Act the following:

(1) An assessment of the requirements for ballistic missile defense capable ships.

(2) The force structure requirements associated with advanced ballistic missile defense capabilities.

(b) FORCE STRUCTURE ASSESSMENT DEFINED.—The term ''force structure assessment'' has the meaning given the term in Chief of Naval Operations Instruction 3050.27.

SEC. 16___.[Log 67350] IMPROVEMENTS TO RESEARCH AND DEVELOPMENT AND ACQUISITION PROCESSES OF MISSILE DEFENSE AGENCY.

(a) RESEARCH AND DEVELOPMENT.—

(1) TRANSFER.—Not later than September 30, 2020, the Secretary of Defense shall transfer the authority and the total obligational authority for each research and development program described in paragraph (2) from the Under Secretary of Defense for Research and Engineering to the Director of the Missile Defense Agency.

(2) RESEARCH AND DEVELOPMENT PROGRAM DESCRIBED.—A research and development program described in this paragraph is a program that the Under Secretary identifies as meeting each of the following criteria:

(A) The program consists of efforts to develop prototypes or science and technology, or has not yet received Milestone B approval (as defined in section 2366 of title 10, United States Code).

(B) The efforts of the program either—

(i) are planned to be incorporated into ballistic missile defense systems; or

(ii) have explicit applications for ballistic missile defense or hypersonic defense.

(3) REPORT.—Not later than March 31, 2019, the Under Secretary shall submit to the congressional defense committees a report that—

(A) lists each research and development program identified under paragraph (2); and

(B) a summary of the efforts and funding required for such programs during the period covered by the future-years defense program under section 221 of title 10, United States Code, as of the date of the report.

(b) NOTIFICATION ON CHANGES TO NON-STANDARD ACQUISITION PROCESSES AND RESPONSIBILITIES.—

(1) LIMITATION.—None of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 for the Secretary of Defense may be obligated or expended to change the non-standard acquisition processes and responsibilities described in paragraph (2) until—

(A) the Secretary notifies the congressional defense committees of such proposed change; and

(B) a period of 180 days has elapsed following the date of such notification.

(2) NON-STANDARD ACQUISITION PROCESSES AND RESPONSIBILITIES DESCRIBED.—The non-standard acquisition processes and responsibilities described in this paragraph are such processes and responsibilities described in—

(A) the memorandum of the Secretary of Defense titled ''Missile Defense Program Direction'' signed on January 2, 2002;

(B) Department of Defense Directive 5134.09, as in effect on the date of the enactment of this Act; and

(C) United States Strategic Command Instruction 583–3.

(c) INTEGRATED MASTER TEST PLAN INFORMATION.—

(1) PUBLIC AVAILABILITY.—Together with the release of each integrated master test plan of the Missile Defense Agency, the Director of the Missile Defense Agency shall make publicly available a version of each such plan that identifies the fiscal year and the fiscal quarter in which events under the plan will occur.

(2) SUBMISSION.—Not later than 30 days after the budget of the President for each of fiscal years 2020 and 2021 is submitted to Congress under sec-

tion 1105 of title 31, United States Code, the Director shall submit to the congressional defense committees the integrated master test plan of the Missile Defense Agency, including any classified and unclassified versions of such plan.

(d) MISSILE DEFENSE EXECUTIVE BOARD.—In addition to the Under Secretary of Defense for Research and Engineering serving as chairman of the Missile Defense Executive Board pursuant to section 1676(c)(3)(B) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131 Stat. 1773), the Under Secretary of Defense for Acquisition and Sustainment shall serve—

(1) as a member of the Board; and

(2) as co-chairman with respect to decisions regarding acquisition and the approval of acquisition and production milestones.

SEC. 16___.[Log 67544] LAYERED DEFENSE OF THE UNITED STATES HOMELAND.

(a) FINDINGS.—Congress finds the following:

(1) The United States homeland (including Hawaii and Alaska) are currently protected against intercontinental ballistic missiles by the ground-based midcourse defense system, with 44 ground-based interceptors located at Fort Greely, Alaska, and Vandenberg, California.

(2) The Department of Defense plans to expand the number of ground-based interceptors to 64 interceptors by 2023 by adding Missile Field 4 at Fort Greely, Alaska.

(b) SENSE OF CONGRESS.—It is the sense of Congress that the United States should—

(1) continue to explore and deploy capabilities that increase the layered defense of the United States homeland;

(2) support, if determined by the Secretary of Defense as necessary for the national security of the United States, the deployment of a ground-based interceptor site, or potential other ballistic missile defense system pending successful testing, on the East Coast of the United States that—

(A) weighs cost effectiveness and prioritization of capability; and

(B) provides for increased protection of the continental United States from North Korean and Iranian threats;

(3) support the ability of the Army, the Navy, and the Missile Defense Agency to deploy fixed, semi-fixed, and mobile at-sea and ashore assets to locations to increase the layered defense of all of the United States homeland; and

(4) support, as appropriate, further analysis and testing for regional systems to be employed for the layered defense of the United States homeland.

(c) CERTIFICATION.—Before the Secretary of Defense makes a potential determination to deploy regional assets to provide missile defense from longer range threats, the Secretary shall certify to the congressional defense committees that such deployment would not unnecessarily undermine or pose additional risk to strategic stability.

(d) BRIEFING.—Not later than January 31, 2019, the Director of the Missile Defense Agency, in coordination with the Under Secretary of Defense for Policy, the Commander of the United States Northern Command, and the Commander of the United States Pacific Com-

mand, shall provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other congressional defense committee upon request, a briefing that—

(1) describes options and plans to increase or improve the layered protection of the United States homeland (including Hawaii and Alaska) from threats posed by North Korea and threats posed by Iran;

(2) addresses the capabilities and reliability of missile defense systems to defend against potential trajectories of missiles from both the north and south poles; and

(3) addresses technical capability and policy with respect to such options.

SEC. 16___. [Log 67348] DEVELOPMENT OF PERSISTENT SPACE-BASED SENSOR ARCHITECTURE.

(a) FINDINGS.—Congress finds the following:

(1) Absent a missile defense review, the budget of the President submitted to Congress under section 1105(a) of title 31, United States Code, for fiscal year 2019 did not propose funding for efforts within the Missile Defense Agency to further develop the Missile Defense Tracking System (a future space sensor architecture) and instead funds were provided to the Air Force to determine the plan of the Department of Defense for future missile warning and tracking capabilities.

(2) Delaying development and deployment of a space-based missile tracking capability further places the United States at a disadvantage against hypersonic threats.

(b) DEVELOPMENT REQUIRED.—Subsection (a) of section 1683 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131. Stat. 1777) is amended by striking ''If consistent with the direction or recommendations of the Ballistic Missile Defense Review that commenced in 2017, the Director of the Missile Defense Agency'' and inserting ''Beginning fiscal year

2019, the Director of the Missile Defense Agency, in coordination with the Director of National Intelligence, the Commander of the Air Force Space Command, and the Commander of the United States Strategic Command,''.

(c) PLAN.—

(1) LIMITATION.—Of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 for the Department of Defense for the development of the space-based sensor architecture under subsection (a) of section 1683 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131 Stat. 1777), not more than 25 percent may be obligated or expended until the date on which the Director of the Missile Defense Agency submits the plan under subsection (e) of such section.

(2) CLARIFICATION OF ROLES.—Section 1683(e) of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131 Stat. 1777) is amended by striking ''the Director shall submit'' and inserting ''the Director of the Missile Defense Agency, in coordination with the Director of National Intelligence, the Commander of the Air Force Space Command, and the Commander of the United States Strategic Command shall submit''.

(d) REPORT ON USE OF OTHER AUTHORITIES.—Such section 1683 is further amended—

(1) by redesignating subsection (f) as subsection (g); and

(2) by inserting after subsection (e) the following new subsection (f):

''(f) REPORT ON USE OF OTHER AUTHORITIES.—Not later than January 31, 2019, the Director of the Missile Defense Agency shall submit to the appropriate congressional committees a report on the options available to the Director to use other transactional authorities pursuant to section 2371 of title 10, United States Code, to accelerate the development and deployment of the sensor architecture required by subsection (a).''.

SEC. 16___.[Log 67517] BOOST PHASE BALLISTIC MISSILE DEFENSE.

(a) DEVELOPMENT AND STUDY.—Section 1685 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 10 U.S.C. 2431 note) is amended by adding at the end the following new subsections:

''(d) DEVELOPMENT.—

''(1) REQUIREMENT.—Beginning fiscal year 2019, the Director of the Missile Defense Agency shall carry out a program to develop boost phase intercept capabilities that—

''(A) are cost effective;

''(B) are air-launched, ship-based, or both; and

''(C) include kinetic interceptors.

''(2) PARTNERSHIPS.—In developing kinetic boost phase intercept capabilities under paragraph (1), the Director may enter into partnerships with the Ministry of National Defense of the Republic of Korea or the Ministry of Defense of Japan, or both.

''(e) INDEPENDENT STUDY.—

''(1) REQUIREMENT.—The Secretary of Defense shall seek to enter into an agreement with a

federally funded research and development center to conduct a feasibility study on providing an initial or demonstrated boost phase capability using unmanned aerial vehicles and kinetic interceptors by December 31, 2021. Such study shall include, at a minimum, a review of the study published by the Science, Technology, and National Security Working Group of the Massachusetts Institute of Technology in 2017 titled 'Airborne Patrol to Destroy DPRK ICBMs in Powered Flight'.

''(2) SUBMISSION.—Not later than July 31, 2019, the Secretary shall submit to the congressional defense committees the study conducted under paragraph (1).''.

(b) DIRECTED ENERGY DEVELOPMENT.—Subsection (b) of such section is amended—

(1) by striking ''The Secretary of Defense'' and inserting the following:

''(1) IN GENERAL.—The Secretary of Defense''; and

(2) by adding at the end the following new paragraph:

''(2) ROLE OF DIRECTOR.—

''(A) TRANSFER OF RESPONSIBILITY.—Beginning fiscal year 2019, the Secretary shall

transfer from the Under Secretary of Defense for Research and Engineering to the Director of the Missile Defense Agency the responsibility to continue developing the interim directed energy boost phase ballistic missile defense capability specified in paragraph (1).

''(B) OTHER PROGRAMS.—In continuing the development under subparagraph (A), the Director shall—

''(i) leverage the efforts of the Under Secretary under the high energy laser advanced development program; and

''(ii) share with the Under Secretary any information useful to such program.

''(C) BRIEFING.—Not later than February 28, 2019, the Director shall provide to the Committees on Armed Services of the House of Representatives and the Senate, and to any other congressional defense committee upon request, a briefing on—

''(i) specific criteria that the Director will address in the development under subparagraph (A); and

''(ii) parameters used to measure progress in such development.''.

(c) MODIFICATION TO SENSE OF CONGRESS.—Subsection (a) of such section is amended by striking ", if consistent with the direction or recommendations of the Ballistic Missile Defense Review that commenced in 2017".

SEC. 16___.[Log 67588] TESTING OF REDESIGNED KILL VEHICLE PRIOR TO PRODUCTION.

(a) SUCCESSFUL TESTING REQUIRED.—Except as provided by subsection (b), the Director of the Missile Defense Agency may not make a lot production decision for the redesigned kill vehicle unless the vehicle has undergone at least one successful flight intercept test that meets the following criteria:

(1) The test sufficiently assesses the performance of the vehicle in order to inform a lot production decision.

(2) The results of the test demonstrate that the vehicle—

(A) will work in an effective manner; and

(B) has the ability to accomplish the intended mission of the vehicle.

(b) WAIVER.—The Secretary of Defense, without delegation, may waive subsection (a) if—

(1) the Secretary determines that the waiver is in the interest of national security;

(2) the Secretary determines that the threat of missiles is advancing at a pace that requires additional capacity of the ground-based midcourse system by 2023;

(3) the Secretary determines that the waiver is appropriate in light of the assessment conducted by the Director of Operational Test and Evaluation under subsection (c);

(4) the Secretary submits to the congressional defense committees a report containing—

(A) a notice of the waiver, including the rationale of the Secretary for making the waiver;

(B) a certification by the Secretary that the Secretary has analyzed and accepts the risk of making and implementing a lot production decision for the redesigned kill vehicle prior to the vehicle undergoing a successful flight intercept test; and

(C) the assessment of the Director of Operational Test and Evaluation under subsection (c); and

(5) a period of 30 days elapses following the date on which the Secretary submits the report under paragraph (4).

(c) ASSESSMENT ON RISKS.—The Director of Operational Test and Evaluation shall submit to the Secretary of Defense an assessment on the risks of making a lot

production decision for the redesigned kill vehicle prior to the vehicle undergoing a successful flight intercept test.

SEC. 16___.[Log 67786] SENSE OF CONGRESS ON MISSILE AND ROCKET DEFENSE COOPERATION BETWEEN THE UNITED STATES AND ISRAEL.

(a) FINDINGS.—Congress finds the following:

(1) The United States and Israel signed a Memorandum of Understanding on September 14, 2016, that covers the 10-year period beginning with fiscal year 2019.

(2) The Memorandum of Understanding states that the United States will provide annual funding of $500,000,000 for cooperative programs to develop, produce, and procure missile, rocket, and projectile defense capabilities to help Israel meet its security needs and to help develop and enhance the missile defense capabilities of the United States.

(3) The Memorandum of Understanding further states that Israel may seek additional missile defense funding from the United States in exceptional circumstances, as may be jointly agreed by the United States and Israel.

(b) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) the strong and enduring relationship between the United States and Israel is in the national security interest of both countries; and

(2) the September 2016 Memorandum of Understanding between the United States and Israel, including the provisions of the memorandum relating to missile and rocket defense cooperation, is a critical component of the bilateral relationship.

SEC. 16___.[67184] UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING AND THE NUCLEAR WEAPONS COUNCIL.

Section 179(a) of title 10, United States Code, is amended—

(1) in paragraph (1), by striking '', Technology, and Logistics'' and inserting ''and Sustainment'';

(2) by redesignating paragraphs (4) and (5) as paragraphs (5) and (6), respectively; and

(3) by inserting after paragraph (3) the following new paragraph (4):

''(4) The Under Secretary of Defense for Research and Engineering.''.

SEC. 16___.[Log 67185] REPORT AND LIMITATION REGARDING INDUSTRIAL BASE FOR LARGE SOLID ROCKET MOTORS.

(a) REPORT.—

(1) IN GENERAL.—The Under Secretary of Defense for Acquisition and Sustainment shall submit to the appropriate congressional committees a report on whether, and if so, how, the Federal Government will sustain more than one supplier for large solid rocket motors.

(2) MATTERS INCLUDED.—The report under paragraph (1) shall include an assessment of the following:

(A) The risks within the industrial base for large solid rocket motors, including the risks to national security.

(B) The near- and long-term costs associated with having a single source of large solid rocket motors as compared to having more than one such source.

(C) Options for sustaining more than one supplier for large solid rocket motors, including through leveraging—

(i) the ground-based strategic deterrent program;

(ii) the Trident II D5 fleet ballistic missile program;

(iii) the ground-based midcourse defense program;

(iv) national security space launch programs;

(v) programs of the National Aeronautics and Space Administration; and

(vi) any other applicable programs that use or may use large solid rocket motors.

(b) LIMITATION.—In addition to the requirements under section 1662 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131 Stat. 1766), the Secretary of the Air Force may not award a contract for engineering and manufacturing development for the ground-based strategic deterrent program until the date on which the Under Secretary submits to the appropriate congressional committees the report under subsection (a)(1).

(c) BRIEFING.—Not later than February 1, 2019, the Under Secretary shall provide to the Committees on Armed Services of the House of Representatives and the

Senate, and to any other appropriate congressional committee upon request, a briefing on the industrial base for large solid rocket motors.

(d) APPROPRIATE CONGRESSIONAL COMMITTEES DEFINED.—In this section, the term ''appropriate congressional committees'' means the following:

(1) The congressional defense committees.

(2) The Committee on Science, Space, and Technology and the Permanent Select Committee on Intelligence of the House of Representatives.

(3) The Committee on Commerce, Science, and Transportation and the Select Committee on Intelligence of the Senate.

SEC. 16___.[Log 67708] EXTENSION OF COMMISSION TO ASSESS THE THREAT TO THE UNITED STATES FROM ELECTROMAGNETIC PULSE ATTACKS AND SIMILAR EVENTS.

Section 1691 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 131 Stat. 1786) is amended—

(1) in subsection (e)—

(A) in paragraph (1)(A), by striking ''April 1, 2019'' and inserting ''December 1, 2019''; and

(B) in paragraph (3), by striking ''October 1, 2018'' and inserting ''March 1, 2019''; and

(2) in subsection (h), by striking ''October 1, 2019'' and inserting ''the date that is 180 days after the date on which the Commission submits the report under subsection (e)(1)''.

SEC. 31___.[Log 66819] PROHIBITION ON AVAILABILITY OF FUNDS FOR PROGRAMS IN RUSSIAN FEDERATION.

(a) PROHIBITION.—None of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2019 for atomic energy defense activities may be obligated or expended to enter into a contract with, or otherwise provide assistance to, the Russian Federation.

(b) WAIVER.—The Secretary of Energy, without delegation, may waive the prohibition in subsection (a) only if—

(1) the Secretary determines, in writing, that a nuclear-related threat in the Russian Federation must be addressed urgently and it is necessary to waive the prohibition to address that threat;

(2) the Secretary of State and the Secretary of Defense concur in the determination under paragraph (1);

(3) the Secretary of Energy submits to the appropriate congressional committees a report containing—

(A) a notification that the waiver is in the national security interest of the United States;

(B) justification for the waiver, including the determination under paragraph (1); and

(C) a description of the activities to be carried out pursuant to the waiver, including the expected cost and timeframe for such activities; and

(4) a period of seven days elapses following the date on which the Secretary submits the report under paragraph (3).

(c) EXCEPTION.—The prohibition under subsection (a) and the requirements under subsection (b) to waive that prohibition shall not apply to an amount, not to exceed $3,000,000, that the Secretary may make available for the Department of Energy Russian Health Studies Program.

(d) APPROPRIATE CONGRESSIONAL COMMITTEES DEFINED.—In this section, the term ''appropriate congressional committees'' means the following:

(1) The congressional defense committees.

(2) The Committee on Foreign Relations of the Senate and the Committee on Foreign Affairs of the House of Representatives.

SEC. 3201 [Log 66799]. AUTHORIZATION.

There are authorized to be appropriated for fiscal year 2019, $31,243,000 for the operation of the Defense Nuclear Facilities Safety Board under chapter 21 of the Atomic Energy Act of 1954 (42 U.S.C. 2286 et seq.).

DIRECTIVE REPORT LANGUAGE

Table Of Contents

DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE XVI—STRATEGIC PROGRAMS, CYBER, AND INTELLIGENCE MATTERS

ITEMS OF SPECIAL INTEREST

SPACE ACTIVITIES

Commercial Satellite Imagery

The committee continues to support the National Geospatial-Intelligence Agency's (NGA) continued acquisition of commercial satellite imagery in support of global geospatial-intelligence needs. The committee is also aware that NGA, working with the National Reconnaissance Office (NRO), is developing a joint transition plan to transfer commercial imagery pixel acquisition from NGA to NRO in fiscal year 2019, and expects continued focus and leveraging of these commercial capabilities to add to U.S. imagery capacity and capabilities. Acquisition of commercial imagery should take advantage of a broad swath of U.S. industry capabilities by contracting with several providers to leverage high-resolution providers, global coverage, high revisit rates and cost-effective services that are rapidly emerging within industry.

The committee directs the NGA Director and the NRO Director to jointly provide a briefing to the congressional defense committees and the congressional intelligence committees by August 1, 2018, on agency plans for the transition from NGA to NRO, and planned funding beyond fiscal year 2019, and on an open and fair competitive acquisition process to leverage industry capabilities, including but not limited to plans following the EnhancedView contract.

Criteria for Launch Service Agreement Down-Select

The committee notes that the Secretary of the Air Force plans to make an initial down-select decision to three potential Expendable Evolved Launch Vehicle (EELV) launch providers for assured access to space in the summer of 2018, and plans to make a final award for launch service procurement contracts by the end of

fiscal year 2019. The committee is aware that full-scale flight tests of new space launch vehicles may not occur until after this award is made.

The committee therefore directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than October 1, 2018, on the criteria and sufficiency of test data that the Air Force will use to make the final launch service agreement awards by the end of fiscal year 2019, potentially ahead of fully integrated flight tests. The briefing should also include criteria and incentives that the Air Force will use to ensure that the contractors selected maintain schedule and fidelity in line with their contract bids.

GPS Backup Demonstration

The committee continues to support the demonstration of backup and complementary positioning, navigation, and timing capabilities of the Global Positioning System (GPS) as required by section 1606 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91). The committee encourages the Secretary of Defense, Secretary of Transportation, and Secretary of Homeland Security to continue to work together to jointly develop and implement a plan for carrying out this backup GPS capability demonstration in 2019 and 2020. Further, the committee expects the Secretaries to submit the final report next year as required by Public Law 115-91. The committee directs the Secretary of Defense to provide a briefing to the congressional defense committees by December 1, 2018, on the progress being made on this demonstration.

Launch Support and Infrastructure Modernization

The committee is aware that the Air Force's launch support and modernization program required by section 1609 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) covers the Eastern and Western Ranges, but does not include U.S. spaceports. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives not later than September 14, 2018, on the potential benefits of including in this program U.S. spaceports and ranges that actively support national security missions, including benefits such as increasing resilience and rapid launch capability, and the estimated costs of including them.

Launch Vehicle Upper Stage Mission Enhancement

The committee is interested in the cost-effective development of advanced launch vehicle upper stages to be used for defense of our space assets. Advanced upper stages could increase the operational flexibility and on-orbit reusability of the holistic launch system while also allowing for greater delivery of mass to orbit.

The committee directs the Secretary of Defense to provide a briefing to the congressional defense committees by December 3, 2018, on the benefits, risks, costs,

and operational opportunities for next generation upper stage technology. The briefing should examine as appropriate on-orbit reusability, cryogenic refueling, multiple engine restarts, and power generation to support secondary payloads that can support space resiliency.

Plan for Use of Allied Launch Services in Case of Emergency Need

The committee notes that a plan for the use of allied launch vehicles was mandated by section 1604 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328). This plan was to provide assured access to space should the Department of Defense be unable to meet that requirement for a limited period using only U.S. launch vehicles.

In 2017, the Air Force provided to Congress a report that analyzed the initial potential of using an allied nation's launch vehicle and services for U.S. national security space launches. The committee commends the Air Force for providing this analysis. The committee notes the report identified a number of activities that have not been implemented, specifically regarding the pursuit of non-recurring design validation or certification of the allied launch system for specific payloads or reference missions, early integration studies of specific payloads, an environmental impact statement plus one year of standard mission integration and space-flight-worthiness assessment, and the pursuit of a pathfinder mission. The committee further notes that additional capabilities may be needed to use allied launch capability in the event of an emergency and inability of U.S. launch providers to provide assured access to space.

The committee directs the Secretary of Defense to provide a report to the House Committee on Armed Services by December 3, 2018, on an operational backup plan for assured access into space using allied launch vehicles. This plan shall include:

(1) an assessment of U.S. satellites that would be appropriate to be launched on an allied launch vehicle;

(2) relevant laws, regulations, and policies governing the launch of national security satellites;

(3) whether any legislative, regulatory, or policy actions or changes would be necessary to allow for the launch of a national security satellite on an allied launch vehicle; and

(4) the certification requirements for using allied launch vehicles pursuant to the plan and the estimated cost, schedule, and measures that would be necessary to certify allied launch vehicles.

When creating this backup plan, the committee expects the Secretary to leverage findings identified by the previous Air Force report.

Portable Satellite Data Receiver Status

The committee notes that the United States Air Force Research Laboratory's Small Business Initiative Research has provided funding for the

development of a unique satellite communications receive suite for reliable, portable connection by the warfighter to the Global Broadcast System (GBS). The committee is aware that the Department of Defense joint program office now includes these portable receive suites as an approved solution for receive technology with military satellite communications on the existing GBS network. The committee encourages the Department of Defense and the Air Force to ensure that these suites are made available to the warfighter.

The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by November 1, 2018, on a plan, including applicability and cost, for rapidly fielding commercially available, secure, satellite, Suitcase Portable Receive Suites and Rucksack Portable Receive Suites in support of deployed warfighter operations.

Rapid Satellite Capability Reconstitution

The committee recognizes the value that rapid reconstitution may contribute to increasing resilience in the space domain. The committee directs the Under Secretary of Defense for Research and Engineering to submit a report to the House Committee on Armed Services by January 15, 2019, on the needs and capabilities of the Department of Defense to rapidly reconstitute disaggregated Earth-orbiting satellite constellations. The report should include options for developing an approach for commercially acquiring, where cost effective, resilient and rapid launch services to support reconstitution, including but not limited to the feasibility of launching satellites within one week of need.

Space Flag Exercise and Responsive Launch

The committee is encouraged that the budget request proposed creating a dedicated Air Force Space Procurement funding line to acquire affordable, flexible launch services to deliver spacelift capability for small payloads to low Earth orbit through geostationary transfer orbit. The committee supports the proposed Rocket System Launch Program procurement and encourages sustained investment to further operationalize integration of new small launch services into the space enterprise.

The National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) also states that the Secretary of Defense should establish "an annual capstone training event" for space professionals to refine doctrine, operations, and training. This "Space Flag" exercise improves training to operate in the event of loss of space capabilities and to deter conflict in space. The U.S. Air Force concluded its second annual Space Flag exercise in August 2017 in Colorado Springs, Colorado.

Demonstrating overt resolve and ability to rapidly replenish diminished capabilities could contribute to increasing resilience in space as it relates to operations, tactics, and procedures for protecting and defending U.S. assets. In addition, integrating responsive launch capabilities into the annual Space Flag

event could be an important step in evolving space mission operations, and to test, train, and operationalize these capabilities.

Accordingly, the committee directs the Secretary of the Air Force to provide a briefing to the congressional defense committees by December 1, 2018, on the value, plans, requirements, and benefits of aligning the small launch activities of the Rocket System Launch Program with the annual Space Flag training exercise.

Use of Commercial Items in Follow-On Wideband Communications System

The committee supports efforts to conduct an analysis of alternatives for a follow-on wideband communications system to the Wideband Global Satellite Communications System as required by section 1611 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The committee encourages the Department of Defense's efforts to maximize the use of commercial satellite communications capabilities as required by section 2377 of title 10, United States Code.

Section 2377 of title 10, United States Code, requires that Federal agencies maximize the use of commercial items in determining requirements and soliciting for procurements. To prevent critical satellite communications capability gaps and to field a follow-on wideband communications system by 2021, the Department must ensure that its market research is fully investigating the ability of a commercial offeror to meet the requirements of the Air Force's procurement needs on a commercial basis, in part or in full.

Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services by June 30, 2018, on the Department's efforts to comply with section 2377 of title 10, United States Code, and on its analysis of alternatives for a follow-on wideband communications system.

MISSILE DEFENSE PROGRAMS

Cybersecurity of Ballistic Missile Defense System

This committee notes the 2017 report from the Director, Operational Test and Evaluation, of the Department of Defense, on the cybersecurity testing gaps that exist for the Ballistic Missile Defense System (BMDS). The committee further notes that a plan is needed from the Missile Defense Agency and Director, Operational Test and Evaluation to conduct vulnerability assessments, cooperative vulnerability and penetration assessments, and adversarial assessments on all BMDS mission elements. Therefore, the committee directs the Director of the Missile Defense Agency, in coordination with the Director, Operational Test and Evaluation, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by December 31, 2018, on the BMDS cybersecurity testing road map. The briefing must include a comprehensive plan to improve the cybersecurity posture of the mission elements of the BMDS, including addressing the requirement to further enhance such posture through the

integration and dissemination of left- and right-of-launch data, and what process the Director of the Missile Defense Agency will use to incorporate lessons learned from the cybersecurity assessments.

Hypersonic Defense

The committee directs the Director of the Missile Defense Agency to provide a briefing to the congressional defense committees by December 31, 2018, on the hypersonic defense analysis of alternatives and the integrated plan, including estimated costs to deliver hypersonic defense capabilities in a manner that is global, cost effective, persistent, and provides resilient tracking, in accordance with section 1687 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328).

Maintenance of Patriot Batteries

The committee notes that an ongoing review by the Comptroller General of the United States of the Army's maintenance of the Patriot missile defense system has found that although the Army believes that the current pace of recapitalizing Patriot equipment incurs long-term risks to sustaining the system, the Army has concluded that it cannot increase the recapitalization pace without affecting current operational demands or without shifting resources from its integrated air and missile defense modernization priorities. In addition, the ongoing review by the Comptroller General has found that the return of reset equipment to Patriot units generally has not met the Army's timeliness goal and that delays in returning reset equipment can affect unit training. Therefore, the committee directs the Secretary of the Army to provide a briefing to the Committee on Armed Services of the House of Representatives not later than December 1, 2018, on a plan to conduct a comparative analysis of factors affecting Patriot reset timeliness and appropriate corrective actions to improve timeliness.

Options to Supplement Missile Defense of Hawaii

The committee notes that Hawaii is currently defended against missile threats from North Korea by the deployed ground-based interceptors located at Fort Greely, Alaska, and Vandenberg Air Force Base, California. Mindful of potential costs and untested capability of Standard Missile-3 (SM-3) interceptors against long-range missile threats, the committee directs the Secretary of the Navy, in consultation with the Director of the Missile Defense Agency, to provide a briefing to the Committee on Armed Services of the House of Representatives, not later than September 15, 2018, on the potential to supplement this defense by assigning a permanent Aegis ship patrol to increase a layered ballistic missile defense of Hawaii, with the assumption that SM-3 missiles might be effective against long-range threats. The briefing should address the technical capability, feasibility,

benefits, risks, cost, and trade-offs of this option for the purpose of defending Hawaii.

In addition, mindful of the high demand for Terminal High Altitude Area Defense (THAAD) batteries and the untested capability of the THAAD weapon system against long-range threats, the committee also directs the Director of the Missile Defense Agency, in coordination with the Secretary of the Army, to provide a briefing to the Committee on Armed Services of the House of Representatives, not later than September 15, 2018, on the feasibility of stationing a permanent THAAD battery in Hawaii, and the technical capability, costs, benefits, and risks of testing a THAAD interceptor against an intercontinental ballistic missile.

Patriot Interceptor Inventory

The committee recognizes, given the reality of ever-increasing capabilities and quantities of ballistic missiles and air-breathing threats (such as cruise missiles and unmanned aerial vehicles), the importance of maintaining a full complement of interceptors for the Patriot system. Section 1678 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) directed the Army to submit a plan to maintain an inventory of interceptors necessary to retain the capability provided by Patriot interceptors. The committee notes that the report has not yet been received and will be delayed until July 2018.

Therefore, the committee directs the Secretary of the Army, in coordination with the Chief of Staff of the Army, to submit an amended report to the congressional defense committees by July 31, 2018, that addresses the value of maintaining use of Guidance Enhanced Missile (GEM-T) capabilities alongside Patriot Advanced Capability-3 (PAC-3) and PAC-3 Missile Segment Enhanced (MSE) to provide Patriot with a full complement of capability and capacity against current and evolving threats, including air-breathing and all other types of ballistic missiles. The report should also include the Army's intent to recertify the aging GEM-T inventory and cite a desired date to commence this activity so as to minimize any negative consequences to Patriot munitions capacity.

Protection of Ballistic Missile Defense System Components

The committee notes an increase to land-based ballistic missile defense system (BMDS) components with the development and delivery of the Long Range Discriminating Radar, Homeland Defense Radar-Hawaii, Pacific Radar, and completion of the Aegis Ashore site in Poland. These new sites are in addition to already deployed terrestrial weapon system sites and radars. Responsibility for protection of these sites against threats such as cruise missiles, unmanned aerial vehicles, and electronic warfare falls under the combatant commander for which they are located.

The committee directs the Secretary of Defense, in coordination with the Commander, U.S. Strategic Command, and appropriate regional combatant commands, to provide a briefing to the congressional defense committees by

November 30, 2018, detailing the current protections of deployed BMDS assets from cruise missile, unmanned aerial vehicle, and electronic warfare threats. The briefing should also include the requirements for protection of the future assets that are in the program of record, as well as any plans to increase protection of current and future assets, including costs and any mitigating measures in the event that a system is degraded or unavailable.

Standard Missile-3 Testing and Reliability

The committee is aware of the role and importance of the Standard Missile-3 (SM-3) interceptors in providing missile defense capability to the warfighter. The committee notes that failures of the SM-3 IB and SM-3 IIA revealed issues that may have been avoided with additional system engineering focus, and these recent challenges could have impacts on reliability assessments of these interceptors by the Director, Operational Test and Evaluation.

The committee also notes that section 1680 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115-91) included a requirement to test the SM-3 IIA capability against a longer range threat. The committee directs the Director of the Missile Defense Agency to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate, not later than August 1, 2018, on how the recent SM-3 IIA test failure affects the planned test of this missile against an intercontinental ballistic missile-range target. This briefing should include implications such as changes to timeline of planned tests, requirements for additional tests, and changes in funding requirements.

The committee also directs the Director of the Missile Defense Agency, in coordination with the Director of the Office of Test and Evaluation, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives, not later than December 15, 2018, detailing how the Missile Defense Agency will ensure the contractor's systems engineering and ground testing procedures are adequate to support production of SM-3 IB and SM-3 IIA interceptors. The briefing should describe how ground test data from production interceptors supports SM-3 reliability estimates from the Missile Defense Agency and the Office of Test and Evaluation.

NUCLEAR FORCES

Air Force Global Strike Command and Nuclear Deterrence Institute

The committee continues to oversee Air Force Global Strike Command (AFGSC) as it leads and coordinates efforts across the Air Force for both nuclear deterrence operations and the National Leadership Command Capabilities/Nuclear Command, Control, and Communications system. The committee believes strong and sustained attention on these missions will be required as the Air Force carries out its portions of the nuclear modernization program.

The committee understands that the AFGSC's strategy to enhance science, technology, innovation, and collaboration related to its missions has successfully leveraged partnerships with local governments, academia, industry, and non-profits. This strategy also includes an intent to establish an institute dedicated to AFGSC's missions, further leverage these partnerships, and provide AFGSC an analytical foundation and direct access to expertise across its mission set. To better understand how the Air Force intends to proceed with this initiative, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by November 30, 2018, on implementation of the AFGSC's strategy to enhance science, technology, innovation, and collaboration. The briefing should include:

(1) the Secretary's decision regarding if, and if so, when and how, to establish the institute recommended by the strategy;

(2) whether and how the institute could uniquely contribute to the nuclear deterrence operations mission of the Air Force without duplication of other capabilities and resources; and

(3) the benefits and costs associated with the institute.

B83-1 Nuclear Gravity Bomb

The committee notes that the 2018 Nuclear Posture Review (NPR) proposes to retain the B83-1 nuclear gravity bomb in the U.S. nuclear stockpile, whereas it had previously been slated for retirement in the early 2020s. The NPR stated, "the B83-1 and B61-11 gravity bombs can hold at risk a variety of protected targets. As a result, both will be retained in the stockpile, at least until there is sufficient confidence in the B61-12 gravity bomb that will be available in 2020." The NPR elaborated, saying it proposes "sustaining the B83-1 past its currently planned retirement date until a suitable replacement is identified."

The committee also notes that in 2012, the National Nuclear Security Administration (NNSA) estimated that retaining the B83 gravity bomb would potentially require it to undergo an alteration in the 2020s and a life extension program in the 2030s, both of which would cost billions of dollars. Additionally, the NNSA may have planned to use certain materials from the B83 for currently planned life extension programs.

The committee believes further explanation for the decision to retain the B83 is warranted, particularly because such decision may require the B83 to undergo significant life extension activities and could impact other planned warhead modernization programs. The committee also expects a fuller understanding of the military requirements associated with the B83-1 and its retention.

The committee therefore directs the Secretary of Defense, in coordination with the Commander of U.S. Strategic Command and the Administrator for Nuclear Security, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by November 15, 2018, on the plan and rationale for,

and implications of, retaining the B83-1. The report should address specific military requirements associated with the decision to now retain the B83-1, impacts on current or planned warhead programs including re-use of any materials, and potential risks, benefits, plans and costs associated with continued surveillance and potential life extension activities for the B83-1. The committee directs the report to be provided in unclassified form, with a classified annex as necessary.

Nuclear Survivability and Hostile Environments Testing

To be a credible and effective deterrent, U.S. nuclear weapons are designed to operate in the most extreme hostile environments. The committee has no doubt that current U.S. nuclear forces and weapons meet these exacting requirements. However, as it has expressed in the past, the committee believes that the Department of Defense and the National Nuclear Security Administration (NNSA) must be mindful of how the threat environment and so-called "stockpile-to-target sequence" may evolve as adversaries continue to advance their defensive capabilities. In particular, the committee believes the United States must ensure it has the capability to experimentally test materials, components, subsystems, and full systems in realistic environments that combine multiple extreme threats.

To better understand Department of Defense and NNSA efforts in this regard, the committee directs the Chairman of the Nuclear Weapons Council, in coordination with the Administrator for Nuclear Security, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 30, 2018, on nuclear weapon survivability requirements and related test capabilities. Such briefing should include:

(1) current requirements related to survivability and the stockpile-to-target sequence;

(2) the evolving threat environment and potential changes to such requirements over the next 20 years;

(3) capabilities to test materials, components, subsystems, and systems in realistic, combined environments;

(4) any risks or gaps in such experimental capabilities and any plans to address or mitigate such risks or gaps; and

(5) any changes in concepts of operation that may be applicable.

Perimeter Security at NATO Nuclear Bases

The committee appreciates the importance of the North Atlantic Treaty Organization's (NATO) deterrence and defense mission, and the role that U.S. forward-deployed nuclear weapons play in the NATO Alliance. The committee notes its continuing interest in ensuring robust and consistent security for these weapons and that NATO, the United States, and individual host nations have engaged in a series of security enhancement and modernization projects in recent years. The committee applauds these steps and supports ongoing efforts to standardize requirements and security measures across NATO's nuclear bases but also

recognizes that each base and host nation presents different challenges for implementation and standardization of upgrades. The committee believes that continued enhancements and progress towards standardization is an important endeavor, and that an area particularly ripe for further action is perimeter security.

The committee therefore directs the Secretary of Defense, in coordination with the Secretary of the Air Force, to provide a briefing to the Committees on Armed Services of the House of Representatives and the Senate by December 1, 2018, assessing and comparing perimeter security at all NATO nuclear bases. Such briefing should also contain the following:

(1) a comparison of perimeter security at NATO nuclear bases versus each other and versus nuclear bases in the United States;

(2) details on requirements and standards for perimeter security at NATO nuclear bases and nuclear bases in the United States; and

(3) a plan for actions that the United States could propose and undertake to standardize and enhance perimeter security at NATO nuclear bases, including through bilateral engagements with host nations and multilateral engagement through NATO.

Plutonium Pit Production

In 2008, the Secretary of Defense and the Secretary of Energy stated in a joint report, "at present the United States does not have the ability to produce new nuclear weapons," particularly the ability to produce plutonium pits. In 2010, the Secretaries signed a Memorandum of Agreement that said the National Nuclear Security Administration (NNSA) would "plan and program to ramp up to a minimum of 50-80 pits/year." In 2014, the Secretary of Defense said in a letter to the congressional defense committees that "the Department of Defense (DOD) has revalidated its requirement for 50–80 pits per year based on the demands of stockpile modernization, the commitments to a modern physical infrastructure, and the ability to hedge against technical or geopolitical risk."

Section 3112 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law 113-291), put this requirement, and associated timeframes for production, into statute and included a Sense of Congress that "the requirement to create a modern, responsive nuclear infrastructure that includes the capability and capacity to produce, at minimum, 50 to 80 pits per year, is a national security priority."

The 2018 Nuclear Posture Review (NPR) also discusses the need for a plutonium pit production capacity, saying "the United States does not have a sustained plutonium pit manufacturing capability needed to avoid stockpile age-out, support life extension programs (LEP), and prepare for future uncertainty...To avoid age-related risks, DOD requires NNSA to produce at least 80 plutonium pits per year by 2030, and to sustain the capacity for future LEPs and follow-on programs."

The committee continues to believe a pit production capability is a national security priority, but seeks clarification on whether and why the 2018 NPR has modified the pit production requirement. Therefore, the committee directs the Secretary of Defense, in coordination with the Secretary of Energy and the Commander of U.S. Strategic Command, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by September 30, 2018, on the annual pit production requirement, including any associated timelines. Such report should include a detailed rationale and justification for any changes to the requirement, the drivers behind the requirement, an assessment of whether the potential to reuse pits affects the requirement, and associated costs.

DIVISION B—MILITARY CONSTRUCTION AUTHORIZATIONS

TITLE XXII—NAVY MILITARY CONSTRUCTION

ITEMS OF SPECIAL INTEREST

Aegis Ashore Poland Austere Housing

The committee notes that the U.S. Navy has made the decision to maintain austere housing accommodations for the Aegis Ashore site in Redzikowo, Republic of Poland. This decision was made despite the committee's concerns about the impact that these conditions could have on the quality of life for the sailors manning the site.

Aegis Ashore Poland will provide critical missile defense capability to defend our deployed forces, allies, partners, and friends from missile defense threats. The site will be manned 24/7 by sailors on rotating, unaccompanied tours. The Commander of Naval Installations Command determined that the Aegis Ashore site located in Redzikowo, Poland, warranted "austere" housing, and the Chief of Naval Operations approved this determination. Under this determination, the housing accommodation guidelines will place up to 4 persons in each berthing room.

The committee is concerned that the austere housing may have a negative impact on quality of life for the sailors manning the site as they execute a critical missile defense mission. Therefore, the committee directs the Secretary of the Navy to provide a briefing to the House Committee on Armed Services by November 30, 2018, on options to improve housing standards for sailors at the Aegis Ashore Poland site, including estimated costs and schedule for completing the possible improvements.

DIVISION C—DEPARTMENT OF ENERGY NATIONAL SECURITY AUTHORIZATIONS AND OTHER AUTHORIZATIONS

TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

ITEMS OF SPECIAL INTEREST

NATIONAL NUCLEAR SECURITY ADMINISTRATION

Weapons Activities

Lithium and tritium

The committee continues to conduct oversight of the National Nuclear Security Administration's (NNSA) approach to managing and ensuring a sustainable supply of key strategic materials, and recognizes NNSA's efforts to bring coherency and stability to what were previously scattered and decentralized efforts. The committee believes that a clear, long-term plan to ensure access to these materials is important for the credibility of the nuclear deterrent.

Although NNSA's plans for all of its strategic materials would benefit from further clarification and refinement, the committee in particular desires increased detail and clarity on NNSA's plans with regard to tritium and lithium. As the Nuclear Posture Review (NPR) states, "U.S. production of tritium ... is now insufficient to meet the forthcoming U.S. nuclear force sustainment demands, or to hedge against unforeseen developments. Programs are planned, but not yet fully funded, to ease these critical production shortfalls." And as the NPR states with regards to lithium: "The U.S. is also unable to produce or process a number of other critical materials, including lithium... For instance, the United States largely relies on dismantling retired warheads to recover lithium to sustain and produce deployable warheads. This may be inadequate to support the nuclear force replacement program and any supplements to it."

The committee therefore directs the Administrator for Nuclear Security to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 1, 2018, on NNSA's plans to meet near- and long-term requirements for tritium and lithium. Such briefing should include the requirements, the options and plans to meet such requirements, costs associated with these options and plans, and the status of any actions underway.

Defense Nuclear Nonproliferation

Future nuclear proliferation challenges

The committee continues to focus on the challenges associated with the detection, evaluation, and response to emerging nuclear threats, including emerging technologies that could lead to technological surprise. Recent advancements in materials, manufacturing, computing, and cyber interconnectivity indicate that

robust efforts are needed to identify and develop solutions to ensure the United States can continue to reliably detect, define, deter, delay, deny, and defeat these threats.

The committee therefore directs the Administrator for Nuclear Security, in coordination with the directors of relevant national security laboratories, to provide a briefing to the Committees on Armed Services of the Senate and the House of Representatives by November 15, 2018, on emerging nuclear proliferation threats and the state of our capabilities to address these threats. Such briefing should include options for novel solutions to meet these challenging threats, leverage on-going efforts within the national security laboratories, and include an estimate of the resources required to respond effectively and stay ahead of any emerging threats.

ENVIRONMENTAL AND OTHER DEFENSE ACTIVITIES

Defense Environmental Cleanup

Briefings on vapor events at Hanford Site

The committee is concerned about the continuing reports of toxic vapors emanating from nuclear waste tanks at the Hanford Site being inhaled by workers. Over the past several years, many workers have reported suspicious odors and subsequent health effects. The committee notes that additional protective measures and guidance have been implemented at the site, but that reported events continue. The committee therefore directs the Secretary of Energy, acting through the Assistant Secretary of Energy for Environmental Management, to provide semiannual briefings to the Committee on Armed Services of the House of Representatives, starting on August 31, 2018, and continuing during fiscal year 2019, on waste tank vapor incidents at the Hanford Site. Such briefings should include details on recent vapor inhalation events, any technical data regarding the vapors, any health problems caused by the vapors, mitigation measures in place to protect workers from the vapors, engineered or administrative controls being considered to prevent such events, and any other information the Secretary determines to be relevant.