H.R. 6395—FY21 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—SPACE ACTIVITIES

Section 1601—Commercial Space Domain Awareness Capabilities

This section would require the Secretary of the Air Force to procure commercial space domain awareness services by awarding at least two contracts for low-Earth orbit. This section would limit the obligation or expenditure of funds for fiscal year 2021 to not more than 75 percent for the enterprise space battle management command and control until the Secretary of Defense certifies that the Secretary of the Air Force has awarded the contracts. This section would also require a report by the Chief of Space Operations on the commercial space domain awareness services procured by the Department of the Air Force in the preceding 2 years.

Section 1602—Limitation on Availability of Funds for Prototype Program for Multi-Global Navigation Satellite System Receiver Development

This section would limit the obligation or expenditure of funds for fiscal year 2021 to not more than 80 percent for increment 2 of the acquisition of military Global Positioning System user equipment terminals until the Secretary of Defense provides a certification that the Secretary of the Air Force is carrying out the program required under section 1607 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92), which mandated that the Secretary establish a program to prototype an M-code based, multi-global navigation satellite system receiver that is capable of receiving covered signals to increase the resilience and capability of military position, navigation, and timing equipment and to deter the likelihood of attack on the worldwide Global Positioning System by reducing the benefits of such an attack. This section would also limit the obligation or expenditure of funds until the Secretary of Defense provides a briefing to the Committees on Armed Services of the Senate and the House of Representatives on how such a program is being implemented.

SUBTITLE D—NUCLEAR FORCES

Section 1642—Exercises of Nuclear Command, Control, and Communications System

This section would require the President to participate in at least one large-scale nuclear command, control, and communication exercise within the first year of assuming office, per term, and would include waiver authority on a case-by-case basis.

Section 1643—Independent Studies on Nuclear Weapons Programs of Certain Foreign States

This section would require a federally funded research and development center to produce an open source analysis of foreign nuclear programs, to be made available on the internet. It would also extend a requirement for the Secretary of Defense, in consultation with the Director of National Intelligence, to produce a report on foreign and U.S. nuclear weapons capabilities.

SUBTITLE E—MISSILE DEFENSE PROGRAMS

Section 1651—Development of Hypersonic and Ballistic Missile Tracking Space Sensor Payload

This section would express the sense of Congress that the Missile Defense Agency (MDA) should be responsible for development of the sensor payload for the hypersonic and ballistic tracking space sensor (HBTSS), and further reinforces section 1683 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116-92). This section would also further limit the amount of funds authorized or otherwise made available for fiscal year 2021 to not more than 50 percent for operations and maintenance of the Space Development Agency until the Secretary of Defense provides certification that MDA is responsible for development of the HBTSS sensor payload.

Section 1652—Alignment of the Missile Defense Agency within the Department of Defense

This section would express the sense of Congress that the budget of the Missile Defense Agency (MDA) has experienced a 650 percent decrease in funding for advanced technology efforts since being aligned to the Under Secretary of Defense for Research and Engineering, and that the majority of MDA programs would be acquisition category 1 efforts in the standard Department of Defense 5000 acquisition system. This section would also require a report from the Secretary of Defense on what steps would need to be taken to realign MDA to the Under Secretary of Defense for Acquisition and Sustainment.

Section 1653—Analysis of Alternatives for Homeland Missile Defense Missions

This section would require the Director of Cost Assessment and Program Evaluation to conduct an analysis of alternatives (AOA) with regards to a complete architecture for using regional systems for homeland defense. The study would need to address sensors, testing, siting, manning, training, and sustainment of the entire architecture. For siting considerations, the provision would require the AOA to provide preference to sites that have already been assessed as part of the previous environmental impact analysis the Department of Defense conducted for a continental interceptor site, and for which Fort Drum, NY, was selected as the preferred location due to operational coverage.

The AOA would also need to include an independent lifecycle cost estimate for the entire architecture. The AOA should compare capabilities, costs and schedules with respect to using regional systems for homeland defense against deploying future ground-based midcourse defense systems.

In addition, this section would require the Defense Intelligence Agency, and any other intelligence community organizations that would be required, to provide an assessment on how development and deployment of regional systems to conduct longer-range missile defense would be perceived by near-peer and rogue nations, and how they would likely respond to these deployments.

Section 1654—Next Generation Interceptors

This section would require the Director of the Missile Defense Agency to notify the congressional defense committees not later than 7 days after any changes are made to requirements of the next generation interceptor program. This section would also require the Secretary of Defense, in coordination with the Director of the Missile Defense Agency, the Commander of U.S. Northern Command, and the Under Secretary of Defense for Policy, to submit a report on the next generation interceptor program.

Section 1655—Missile Defense Cooperation between the United States and Israel

This section would express the sense of Congress supporting U.S. and Israel missile defense cooperation under the current memorandum of understanding, support continued government-to-government information sharing with regard to the potential of using Israeli missile defense systems for U.S. purposes, and also provide support for the Secretary of Defense to expand missile defense cooperation to include directed energy capabilities.

SUBTITLE F—OTHER MATTERS

Section 1661—Conventional Prompt Global Strike

This section would require the Secretary of the Navy to initiate integration efforts for the conventional prompt global strike program onto the DDG 1000-class destroyers not later than January 1, 2021. This section would also require the Chairman of the Joint Chiefs of Staff, in coordination with the Under Secretary of Defense for Policy, to submit a report to the congressional defense committees, not later than 120 days after the date of the enactment of this Act, that would cover operational control, policy concerns, escalation risk mitigation, and basing strategies for land-based variants.

Section 1662—Submission of Reports under Missile Defense Review and Nuclear Posture Review

This section would require the Secretary of Defense to submit reports pursuant to the 2018 Nuclear Posture Review and the 2019 Missile Defense Review to the congressional defense committees within 30 days after the date of the enactment of this Act.

BILL LANGUAGE

Subtitle A—Space Activities

SEC. 1601.[Log 71316] COMMERCIAL SPACE DOMAIN AWARENESS CAPABILITIES.

(a) PROCUREMENT.—Not later than 90 days after the date of the enactment of this Act, the Secretary of the Air Force shall procure commercial space domain awareness services by awarding at least two contracts for such services.

(b) LIMITATION.—Of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2021 for the enterprise space battle management command and control, not more than 75 percent may be obligated or expended until the date on which the Secretary of Defense, without delegation, certifies to the congressional committees that the Secretary of the Air Force has awarded the contracts under subsection (a).

(c) REPORT.—Not later than January 31, 2021, the Chief of Space Operations, in coordination with the Secretary of the Air Force, shall submit to the congressional defense committees a report detailing the commercial space domain awareness services, data, and analytics of objects in low-earth orbit that have been purchased during the two-year period preceding the date of the report. The report shall be submitted in unclassified form.

(d) COMMERCIAL SPACE DOMAIN AWARENESS SERVICES DEFINED.—In this section, the term ''commercial space domain awareness services'' means space domain awareness data, processing software, and analytics derived from best-in-breed commercial capabilities to address warfighter requirements in low-earth orbit and fill gaps in current space domain capabilities of the Space Force, including commercial capabilities to—

(1) provide conjunction and maneuver alerts;

(2) monitor breakup and launch events; and

(2) detect and track objects smaller than 10 centimeters in size.

SEC. 1602.[Log 71379] LIMITATION ON AVAILABILITY OF FUNDS FOR PROTOTYPE PROGRAM FOR MULTI-GLOBAL NAVIGATION SATELLITE SYSTEM RECEIVER DEVELOPMENT.

Of the funds authorized to be appropriated by this Act or otherwise made available for fiscal year 2021 for increment 2 of the acquisition of military Global Positioning System user equipment terminals, not more than 80 percent may be obligated or expended until the date on which the Secretary of Defense—

(1) certifies to the congressional defense committees that the Secretary of the Air Force is carrying out the program required under section 1607 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 133 Stat. 1724); and

(2) provides to the Committees on Armed Services of the House of Representatives and the Senate a briefing on how the Secretary is implementing such program, including with respect to addressing each element specified in subsection (b) of such section.

SEC. 1642.[Log 71209] EXERCISES OF NUCLEAR COMMAND, CONTROL, AND COMMUNICATIONS SYSTEM.

(a) REQUIREMENT.—Chapter 24 of title 10, United States Code, is amended by adding at the end the following new section:

"§ 499b. Exercises of nuclear command, control, and communications system

''(a) REQUIRED EXERCISES.—Except as provided by subsection (b), beginning 2021, the President shall participate in a large-scale exercise of the nuclear command, control, and communications system during the first year of each term of the President, and may participate in such additional exercises as the President determines appropriate.

''(b) WAIVER.—The President may waive, on a case-by-case basis, the requirement to participate in an exercise under subsection (a) if the President—

''(1) determines that participating in such an exercise is infeasible by reason of a war declared by Congress, a national emergency declared by the President or Congress, a public health emergency declared by the Secretary of Health and Human Services under section 319 of the Public Health Service Act (42 U.S.C. 247d), or other similar exigent circumstance; and

''(2) submits to the congressional defense committees a notice of the waiver and a description of such determination.''.

(b) CLERICAL AMENDMENT.—The table of sections at the beginning of such chapter is amended by adding at the end the following new item:

''499b. Exercises of nuclear command, control, and communications system.''.

SEC. 1643.[Log 71251] INDEPENDENT STUDIES ON NUCLEAR WEAPONS PROGRAMS OF CERTAIN FOREIGN STATES.

(a) STUDY.—Not later than 60 days after the date of the enactment of this Act, the Secretary of Defense shall seek to enter into a contract with a federally funded research and development center to conduct a study on the nuclear weapons programs of covered foreign countries.

(b) MATTERS INCLUDED.—The study under subsection (a) shall compile open-source data to conduct an analysis of the following for each covered foreign country:

(1) The activities, budgets, and policy documents, regarding the nuclear weapons program.

(2) The known research and development activities with respect to nuclear weapons.

(3) The inventories of nuclear weapons and delivery vehicles with respect to both deployed and nondeployed weapons.

(4) The capabilities of such nuclear weapons and delivery vehicles.

(5) The physical sites used for nuclear processing, testing, and weapons integration.

(6) The human capital of the scientific and technical workforce involved in nuclear programs, including with respect to matters relating to the edu-

cation, knowledge, and technical capabilities of that workforce.

(7) The known deployment areas for nuclear weapons.

(8) Information with respect to the nuclear command and control system.

(9) The factors and motivations driving the nuclear weapons program and the nuclear command and control system.

(10) Any other information that the federally funded research and development center determines appropriate.

(c) SUBMISSION TO DOD.—Not later than 14 months after the date of the enactment of this Act, and each year thereafter for the following two years, the federally funded research and development center shall submit to the Secretary the study under subsection (a) and any updates to the study.

(d) SUBMISSION TO CONGRESS.—Not later than 30 days after the date on which the Secretary receives the study under subsection (a) or updates to the study, the Secretary shall submit to the appropriate congressional committees the study or such updates, without change.

(e) PUBLIC RELEASE.—The federally funded research and development center shall maintain an internet website on which the center—

(1) publishes the study under subsection (a) by not later than 30 days after the date on which the Secretary receives the study under subsection (c); and

(2) provides on an ongoing basis commentaries, analyses, updates, and other information regarding the nuclear weapons of covered foreign countries.

(f) FORM.—The study under subsection (a) shall be in unclassified form.

(g) MODIFICATION TO REPORT ON NUCLEAR FORCES OF THE UNITED STATES AND NEAR-PEER COUNTRIES.—Section 1676 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 133 Stat. 1778) is amended—

(1) in subsection (a), by striking ''Not later than February 15, 2020, the Secretary of Defense, in coordination with the Director of National Intelligence, shall'' and inserting ''Not later than February 15, 2020, and each year thereafter through 2023, the Secretary of Defense and the Director of National Intelligence shall jointly''; and

(2) in subsection (b), by adding at the end the following new paragraph:

''(4) With respect to the current and planned nuclear systems specified in paragraphs (1) through (3), the factors and motivations driving the development and deployment of the systems.''.

(h) DEFINITIONS.—In this section:

(1) The term ''appropriate congressional committees'' means—

(A) the congressional defense committees;

(B) the Committee on Foreign Affairs and the Permanent Select Committee on Intelligence of the House of Representatives; and

(C) the Committee on Foreign Relations and the Select Committee on Intelligence of the Senate.

(2) The term ''covered foreign country'' means each of the following:

(A) China.

(B) North Korea.

(C) Russia.

(3) The term ''open-source data'' includes data derived from, found in, or related to any of the following:

(A) Geospatial information.

(B) Seismic sensors.

(C) Commercial data.

(D) Public government information.

(E) Academic journals and conference proceedings.

(F) Media reports.

(G) Social media.

Subtitle E—Missile Defense Programs

SEC. 1651.[Log 71186] DEVELOPMENT OF HYPERSONIC AND BALLISTIC MISSILE TRACKING SPACE SENSOR PAYLOAD.

(a) FINDINGS; SENSE OF CONGRESS.—

(1) FINDINGS.—Congress finds the following:

(A) Subsection (d) of section 1683 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 10 U.S.C. 2431 note), as amended by section 1683 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92), requires the Director of the Missile Defense Agency to develop a hypersonic and ballistic tracking space sensor payload to address missile defense tracking requirements.

(B) The budget of the President for fiscal year 2021 submitted under section 1105 of title 31, United States Code, did not provide any funding for the Missile Defense Agency to continue the development of such sensor payload.

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

(A) regardless of the overall architecture for a missile defense tracking space layer, the Director of the Missile Defense Agency should remain the material developer for the hypersonic and ballistic tracking space sensor payload to ensure that—

(i) unique hypersonic and ballistic missile tracking requirements are met; and

(ii) the system can be integrated into the existing missile defense system command and control, battle management, and communications system; and

(B) the Secretary of Defense should ensure transparency of funding for this effort to ensure proper oversight can be conducted on this critical capability.

(b) LIMITATION.—Subsection (d) of section 1683 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 10 U.S.C. 2431 note), as amended by section 1683 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92), is amended by adding at the end the following new paragraph:

''(3) LIMITATION.—Of the funds authorized to be appropriated by the National Defense Authoriza-

tion Act for Fiscal Year 2021 or otherwise made available for fiscal year 2021 for operation and maintenance, Defense-wide, for the Space Defense Agency, not more than 50 percent may be obligated or expended until the date on which the Secretary submits the certification under paragraph (2)(B).''.

(c) COORDINATION.—Subsection (a) of such section is amended by striking ''the Commander of the Air Force Space Command and'' and inserting ''the Chief of Space Operations, the Commander of the United States Space Command, the Commander of the United States Northern Command, and''.

SEC. 1652.[Log 71445] ALIGNMENT OF THE MISSILE DEFENSE AGENCY WITHIN THE DEPARTMENT OF DEFENSE.

(a) FINDINGS.—Congress finds the following:

(1) Since the Missile Defense Agency was aligned to be under the authority, direction, and control of the Under Secretary of Defense for Research and Engineering pursuant to section 205(b) of title 10, United States Code, the advanced technology development budget requests in the defense budget materials (as defined in section 231(f) of title 10, United States Code) have decreased by more than 650 percent, from a request for $292,000,000 for fiscal year 2018 (the highest such request) to a request for $45,000,000 for fiscal year 2021.

(2) The overwhelming majority of the budget of the Missile Defense Agency is invested in programs that would be categorized as acquisition category 1 efforts if such programs were administered under the acquisition standards under Department of Defense Directive 5000.

(b) SENSE OF CONGRESS.—It is the sense of Congress that, in light of the findings under subsection (a), upon the completion of the independent review of the organization of the Missile Defense Agency required by section

1688 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 133 Stat. 1787), the Secretary of Defense should reassess the alignment of the Agency within the Department of Defense to ensure that missile defense efforts are being given proper oversight and that the Agency is focused on delivering capability to address current and future threats.

(c) REPORT.—Not later than February 28, 2021, the Secretary of Defense shall submit to the congressional defense committees a report on the alignment of the Missile Defense Agency within the Department of Defense. The report shall include—

(1) a description of the risks and benefits of both—

(A) continuing the alignment of the Agency under the authority, direction, and control of the Under Secretary of Defense for Research and Engineering pursuant to section 205(b) of title 10, United States Code; and

(B) realigning the Agency to be under the authority, direction, and control of the Under Secretary of Defense for Acquisition and Sustainment; and

(2) if the Agency were to be realigned, the actions that would need to be taken to realign the

Agency to be under the authority, direction, and control of the Under Secretary of Defense for Acquisition and Sustainment or another element of the Department of Defense.

SEC. 1653.[Log 71185] ANALYSIS OF ALTERNATIVES FOR HOMELAND MISSILE DEFENSE MISSIONS.

(a) ANALYSIS OF ALTERNATIVES.—

(1) REQUIREMENT.—Not later than 90 days after the date of the enactment of this Act, the Director of Cost Assessment and Program Evaluation, in coordination with the Secretary of the Navy, the Secretary of the Army, and the Director of the Missile Defense Agency, shall conduct an analysis of alternatives with respect to a complete architecture for using the regional terminal high altitude area defense system and the Aegis ballistic missile defense system to conduct homeland defense missions.

(2) SCOPE.—The analysis of alternatives under paragraph (1) shall include the following:

(A) The sensors needed for the architecture described in such paragraph.

(B) An assessment of the locations of each system included in the analysis to provide similar coverage as the ground-based midcourse defense system, including, with respect to such systems that are land-based, by giving preference to locations with completed environmental impact analyses conducted pursuant to section 227 of the National Defense Authorization Act for Fiscal Year 2013 (Public Law

112– 239; 126 Stat. 1678), to the extent practicable.

(C) The acquisition objectives for interceptors of the terminal high altitude area defense system and standard missile–3 interceptors for homeland defense purposes.

(D) Any improvements needed to the missile defense system command and control, battle management, and communications system.

(E) The manning, training, and sustainment needed to support such architecture.

(F) A detailed schedule for the development, testing, production, and deployment of such systems.

(G) A lifecycle cost estimate of such architecture.

(H) A comparison of the capabilities, costs, schedules, and policies with respect to—

(i) deploying regional systems described in subsection (a) to conduct homeland defense missions; and

(ii) deploying future ground-based midcourse defense systems for such missions.

(3) SUBMISSION.—Not later than 90 days after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a report containing—

(A) the analysis of alternatives under paragraph (1); and

(B) a certification by the Secretary that such analysis is sufficient.

(b) ASSESSMENT.—Not later than February 28, 2021, the Director of the Defense Intelligence Agency, and the head of any other element of the intelligence community that the Secretary of Defense determines appropriate, shall submit to the congressional defense committees an assessment of the following:

(1) How the development and deployment of regional terminal high altitude area defense systems and Aegis ballistic missile defense systems to conduct longer-range missile defense missions would be perceived by near-peer foreign countries and rogue nations.

(2) How such near-peer foreign countries and rogue nations would likely respond to such deployments.

SEC. 1654.[Log 71409] NEXT GENERATION INTERCEPTORS.

(a) NOTIFICATION OF CHANGED REQUIREMENTS.—During the acquisition and development process of the next generation interceptor program, not later than seven days after the date on which any changes are made to the requirements for such program that are established in the equivalent to capability development documentation, the Director of the Missile Defense Agency shall notify the congressional defense committees of such changes.

(b) BRIEFING ON CONTRACT.—Not later than 14 days after the date on which the Director awards a contract for the next generation interceptor, the Director shall provide the congressional defense committees a briefing on such contract, including with respect to the cost, schedule, performance, and requirements of the contract.

(c) REPORT ON GROUND-BASED MIDCOURSE DEFENSE SYSTEM.—

(1) REQUIREMENT.—Not later than 90 days after the date of the enactment of this Act, the Secretary of Defense, in coordination with the Under Secretary of Defense for Policy, the Director of the Missile Defense Agency, and the Commander of the United States Northern Command, shall submit to the congressional defense committees a report on the ground-based midcourse defense system.

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

(A) An explanation of how contracts in existence as of the date of the report could be used to reestablish improvements and sustainment for kill vehicles and boosters for the ground-based midcourse defense system.

(B) An explanation of how such system could be improved through service life extensions or pre-planned product improvements to address some of the requirements of the next generation interceptor by 2026, including an identification of the costs, schedule, and any risks.

(C) A description of the costs and schedule with respect to restarting booster production to field 20 additional interceptors by 2026.

(D) An analysis of policy implications with respect to the requirements for the ground-based midcourse defense system.

SEC. 1655.[Log 71338] MISSILE DEFENSE COOPERATION BETWEEN THE UNITED STATES AND ISRAEL.

(a) 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;

(2) the memorandum of understanding signed by the United States and Israel on September 14, 2016, including the provisions of the memorandum relating to missile and rocket defense cooperation, continues to be a critical component of the bilateral relationship;

(3) the United States and Israel should continue government-to-government collaboration and information sharing of technical data to investigate the potential operational use of Israeli missile defense systems for United States purposes; and

(4) in addition to the existing Israeli missile defense interceptor systems, there is potential for developing and incorporating directed energy platforms to assist the missile defense capabilities of both the United States and Israel.

(b) COOPERATION.—The Secretary of Defense may seek to extend existing cooperation with Israel to carry out, on a joint basis with Israel, research, development,

test, and evaluation activities to establish directed energy capabilities that address missile threats to the United States, the deployed members of the Armed Forces of the United States, or Israel. The Secretary shall ensure that any such activities are conducted—

(1) in accordance with Federal law and the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be Excessively Injurious or to have Indiscriminate Effects, signed at Geneva October 10, 1980; and

(2) in a manner that appropriately protects sensitive information and the national security interests of the United States and the national security interests of Israel.

Subtitle F—Other Matters

SEC. 1661.[Log 71407] CONVENTIONAL PROMPT GLOBAL STRIKE.

(a) INTEGRATION.—Section 1697(a) of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116–92; 133 Stat. 1791) is amended by adding at the end the following new sentence: ''The Secretary shall initiate such transfer of technologies to DDG–1000 class destroyers by not later than January 1, 2021.''.

(b) REPORT ON STRATEGIC HYPERSONIC WEAPONS.—

(1) REQUIREMENT.—Not later than 120 days after the date of the enactment of this Act, the Chairman of the Joint Chiefs of Staff, in coordination with the Under Secretary of Defense for Policy, shall submit to the congressional defense committees a report on strategic hypersonic weapons.

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

(A) A discussion of the authority to use strategic hypersonic weapons and if, and how, such authorities would be delegated to the commanders of the combatant commands or to the Chiefs of the Armed Forces.

(B) An assessment of escalation and miscalculation risks (including the risk that adversaries may detect initial launch but not reliably detect the entire boost-glide trajectory), how such risks will be addressed and minimized with regards to the use of strategic hypersonic weapons, and whether any risk escalation exercises have been conducted or are planned for the potential use of hypersonic weapons.

(C) A description of any updates needed to war plans with the introduction of strategic hypersonic weapons.

(D) Identification of the element of the Department of Defense that has responsibility for establishing targeting requirements for strategic hypersonic weapons.

(E) A description of how the requirements for land- and sea-based strategic hypersonic weapons will be addressed with the Joint Requirements Oversight Council, and how such requirements will be formally provided to the military departments procuring such weapons through an acquisition program described under section 804 of the National Defense Authoriza-

tion Act for Fiscal Year 2016 (10 U.S.C. 2302 note).

(F) A basing strategy for land-based launch platforms and a description of the actions needed to be taken for future deployment of such platforms.

(3) FORM.—The report under paragraph (1) shall be submitted in unclassified form, but may include a classified annex.

(c) ANNUAL REPORTS ON ACQUISITION.—

(1) ARMY AND NAVY PROGRAMS.—Except as provided by paragraph (3), not later than 30 days after the date on which the budget of the President for each of fiscal years 2022 through 2025 is submitted to Congress pursuant to section 1105 of title 31, United States Code, the Secretary of the Army and the Secretary of the Navy shall jointly submit to the congressional defense committees a report on the conventional prompt global strike programs of the Army and the Navy, including—

(A) the total costs to the respective military departments for such programs;

(B) the strategy for such programs with respect to manning, training, and equipping, including cost estimates; and

(C) a testing strategy and schedule for such programs.

(2) CERTIFICATIONS.—Not later than 60 days after the date on which the budget of the President for each of fiscal years 2022 through 2025 is submitted to Congress pursuant to section 1105 of title 31, United States Code, the Director of Cost Assessment and Program Evaluation shall submit to the congressional defense committees a certification regarding the sufficiency, including any anomalies, with respect to—

(A) the total program costs of the conventional prompt global strike programs of the Army and the Navy; and

(B) the testing strategy for such programs.

(3) TERMINATION.—The requirement to submit a report under paragraph (1) shall terminate on the date on which the Secretary of Defense determines that the conventional prompt global strike programs of the Army and the Navy are unable to be acquired under the authority of section 804 of the National Defense Authorization Act for Fiscal Year 2016 (10 U.S.C. 2302 note).

SEC. 1662.[Log 71349] SUBMISSION OF REPORTS UNDER MISSILE DEFENSE REVIEW AND NUCLEAR POSTURE REVIEW.

Not later than 30 days after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees—

(1) each report produced by the Department of Defense pursuant to the Missile Defense Review published in 2019; and

(2) each report produced by the Department pursuant to the Nuclear Posture Review published in 2018.

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

Cislunar Space Capabilities

The committee is aware that the Department of Defense has begun to assess capabilities and requirements for the cislunar region of space, including space domain awareness, space weather, and space control. The committee notes U.S. commercial capabilities could be used and expanded with new entrants to address emerging defense missions and requirements in the cislunar region in a cost-effective manner using novel approaches.

Therefore, the committee directs the Secretary of Defense to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by December 1, 2020, on deep space mission requirements for national security. The report should include;

(1) the Department's policy related to conducting missions like space domain awareness, tracking, relay, space weather, positioning/navigation/timing, space control, and rendezvous and proximity operations in the cislunar region of space;

(2) the Department's plans to establish requirements for the cislunar region, as necessary, in any of these mission areas;

(3) costs and funding requirements and plans across the Future Years Defense Program for technology or system development, commercial services, or operational missions in the cislunar region; and

(4) plans to address national security cislunar mission requirements using competitive procurement of commercial services and modular satellite material solutions from U.S. companies for each of the mission area requirements related to space domain awareness, space weather, and space control.

Commercial Space-Based Radio Frequency Mapping

In the committee report accompanying the National Defense Authorization Act for Fiscal Year 2020 (H. Rept. 116-120), the committee directed the Director of the National Reconnaissance Office to submit a report on commercial space-based radio frequency mapping and associated operations and services for space-based electromagnetic collections. The committee continues to note the potential use of such services and data to meet combatant command requirements, and therefore directs the Chief of Operations of the Space Force, in coordination with the

Commander of the U.S. Space Command, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by December 1, 2020, that includes an assessment of how U.S. commercial space-based radio frequency capabilities could support joint and allied warfighting activities, and a plan to test, evaluate, and use U.S. commercial space-based radio-frequency geo-intelligence capabilities and data, and associated costs.

Digital Ground Satellite Communications Architecture

The committee supports the Department of Defense's prior demonstrations to leverage innovations in commercially available technologies to utilize wideband satellite communication (SATCOM) ground capabilities across an integrated, responsive, flexible, and secure enterprise. The committee understands that key attributes and capabilities of a warfighter-focused SATCOM enterprise should include common digital ground infrastructure elements to ensure warfighter situational awareness, access to a common operating picture, and automated resource allocation functionality. While the committee commends the current "Fighting SATCOM Enterprise" initiative, the committee favors an accelerated and fully defined acquisition strategy related to the ground digitization efforts that will enable full-spectrum, seamless, and resilient communications across our national security space enterprise.

Therefore, the committee directs the Secretary of Defense to submit a plan to the congressional defense committees by March 1, 2021, on integrating a digital ground architecture that will utilize commercial innovations and solutions to enable wideband SATCOM roaming and multi-domain command and control capabilities without unnecessary additional investment in terminal hardware.

Intelligence Community and Space Situational Awareness

The committee notes that space situational awareness requirements are currently being filled by Department of Defense, intelligence community, other intergovernmental agencies, and, increasingly, commercial providers. While mission partners in the intelligence community can contribute to the decision calculus about the impact of actions resulting from a maneuver necessitated by a conjunction assessment, various mission partners make different contributions to this decision.

The committee directs the Directors of National Geospatial-Intelligence Agency, the Director of the National Reconnaissance Office, the Commander of U.S. Space Command, and the Chief of Operations of the Space Force to provide a briefing to the House Committee on Armed Services by November 1, 2020, on the current contributions the National Geospatial-Intelligence Agency and the National Reconnaissance Office make to operational decisions regarding the necessity to maneuver national technical means given a potential conjunction assessment, and the coordination among the agencies, Space Command and Space Force, in peacetime, in crisis, and during a conflict.

Mission Assurance in Launch

The committee notes that the high levels of mission assurance required by the Department of Defense for the National Security Space Launch program has ensured unprecedented levels of mission success. The committee supports the Department of the Air Force's commitment to safety, security, and mission delivery. However, the committee also notes that the mission assurance requirements of the Air Force drive significant costs for current and potential future bidders in National Security Launch program and in small launch; have not adequately accounted for reusability within the context of mission assurance; have not innovated in the areas of artificial intelligence, modelling, and computational advancements; and lastly, have not been motivated to be more cost-efficient.

The committee directs the Chief of Space Operations of the Space Force to provide a briefing and report to the House Committee on Armed Services by December 1, 2020, on innovation in mission assurance requirements for the National Security Space Launch program and for small launch, to include considering cost considerations, considering past launch performance and identifying levels of risk-tolerance for each payload. The briefing and report should also include proposed pathways to reconsider the current construct for design and implementation of mission assurance requirements to allow competition in the design and implementation of a mission assurance regime for the program, including considering having the Space Force either bring this expertise in-house, or having different outside entities be responsible for design of requirements versus mission assurance compliance verification. The briefing and report should also address how reusability should be included in mission assurance requirements, and how cost and risk should be balanced.

Non-Traditional Space Companies

The committee notes that one of the motivations for the establishment of a Space Force was the challenges in traditional space requirements and acquisition processes that are being outpaced by innovative commercial space companies. The committee supports the idea that innovation, competition, and on-ramping, non-traditional space companies will augment the capacity and capability derived from traditional space architectures. The committee recognizes that non-traditional space companies often note their inability to do business and compete on an equal playing field with traditional defense prime contractors.

The committee directs the Chief of Space Operations of the Space Force, in coordination with the Under Secretary of Defense for Acquisition and Sustainment, the Commander of U.S. Space Command, and the Chair of the Defense Innovation Board, to provide a report and briefing to the House Committee on Armed Services by December 1, 2020, on the challenges commonly encountered by non-traditional space new entrants and pathways to resolving those challenges. The report should address areas of future space innovation to include algorithm development, artificial intelligence, architecture development, high computing power

developments, and additive manufacturing. The report should also address innovative acquisition approaches that should be considered for high technology readiness level components that can be competitively tested to meet current and planned requirements.

Program to Improve Launch Support and Infrastructure at Federal Ranges

The committee notes section 1609 of the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116-92) authorized a program to enhance and improve launch support and infrastructure at Federal ranges, to support small and medium launches. The committee is aware of the age and importance of the infrastructure at the Eastern and Western Ranges to sustain a broad array of national security launches, including medium and heavy launches for national security. Therefore, the committee directs the Chief of Space Operations for the Space Force to submit a report to the congressional defense committees by October 30, 2020, that includes the requirements for sustaining and improving the physical infrastructure for the ranges at Vandenberg Air Force Base and Cape Canaveral and associated funding requirements over the fiscal year defense plan.

The committee further directs the Secretary of Defense to submit a report to the congressional defense committees by March 1, 2021, on any additional space testing and training range requirements that may be necessary to ensure the Department is ready and able to protect and defend vital national interests in space.

Space Development Agency

The committee notes that the Space Development Agency (SDA) has an important mission but that the establishment of this agency has been rocky, with the initial SDA Director replaced early in the establishment of the agency, only a few weeks after briefing the committee, and with no further notification to the committee on how its plans had shifted. The committee supported the mission and the initial plans for the SDA. However, the committee is concerned that the SDA is not positioned to execute its mission in an effective manner and is neither equipped to focus on the many priorities it has set, nor has it adequately budgeted across the Future Years Defense Program, with several programs left unfunded. The committee encourages the SDA to focus on top priorities, including the planned transport layer and the missile warning layer in low-Earth orbit using commercial architectures, which would increase space resilience. The committee expects the SDA Director to more regularly brief the committee on its plans and progress.

Furthermore, the committee is aware that the core mission of the SDA initially included plans to procure commercial space services, for example broadband communications capabilities, and is concerned that these plans were dropped, with its focus shifting instead to solely a payload and software development and procurement model. The committee therefore directs the SDA Director, in consultation with the Chief of Space Operations of the Space Force, to

submit a report to the congressional defense committees by December 1, 2020, containing a detailed plan to procure commercial services, including funding requirements.

Space-Based Broadband and Cellular Technologies

The committee continues to be encouraged by U.S. private sector development of low-Earth orbit satellite technologies and constellations that enhance civil and national security capabilities. Such investments have led to groundbreaking advances in supporting the warfighter, including advanced tactical communication, commercial remote sensing, and space situational awareness technologies. In particular, the committee is aware that private industry is developing commercial low-Earth orbit based satellite technology to provide resilient broadband capabilities, including cellular and broadband connectivity to fixed and mobile devices and to commercial terminals, sensors, and internet-based platforms without the need for traditional terrestrial ground infrastructure.

The committee encourages the Department of Defense to continue to identify opportunities to develop defense-specific applications that leverage this commercial satellite network capability and services. Therefore, the committee directs the Secretary of Defense to submit a report to the House Committee on Armed Services and the Senate Committee on Armed Services not later than January 31, 2021, on how this capability can be used to address military requirements, including combatant command requirements, and on plans to procure this capability and these services.

Weather Acquisition Strategy

The committee continues to note that the acquisition strategy to meet warfighter and Department of Defense requirements on weather should be a priority for the Air Force. The committee notes the risk in acquisition strategy for cloud characterization and theater weather imagery, as the legacy systems are long beyond their design life and the Air Force is relying on other aging satellites to fill gaps in weather coverage. The committee supports efforts to leverage ongoing experimental electro-optical/infrared (EO/IR) prototype developments as well as efforts for rapid prototyping, using proliferated low-Earth orbit architectures and buying weather data as a service. The committee encourages the Air Force to avoid continuing to slip the acquisition schedule and to continue to pursue modern technologies, instead of pursuing other risk reduction pathways that rely on outdated and costly systems that will not meet requirements.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services by October 30, 2020, on the progress on weather acquisition, particularly for EO/IR weather systems.

MISSILE DEFENSE PROGRAMS

Boost Phase Missile Defense

The committee notes that despite advances in midcourse and terminal missile defense systems, there are currently no efforts to develop boost phase intercept capabilities within the Missile Defense Agency's Future Years Defense Program. The committee further notes that there are opportunities to modify mature kinetic intercept technologies that could prove to be cost-effective and appropriate for regional missile defense. The committee recommends that the Missile Defense Agency (MDA) develop these technologies to further provide a layered missile defense system in the near to medium term.

In addition to a lack of kinetic boost phase intercept efforts, the committee is concerned by removal of funding for the diode pumped alkali laser (DPAL) effort, in addition to the transfer of all directed energy efforts out of MDA. Understanding that directed energy solutions for long-range missile defense largely remain in the advanced technology development phase and could require significant funding and time to fully develop and deploy, these technologies could address the cost imbalance between missile defense and offense. Further, a recent senior executive review team report stated that "If successfully developed, the unique features of DPALs, an efficient electrically powered, relatively short wavelength gas laser with the potential to deliver megawatt power with near diffraction limited beam quality from a single aperture would provide the Department of Defense/MDA with an important strategic technology...."

To better understand the Department's plans for boost phase missile defense, the committee directs the Under Secretary of Defense for Research and Engineering, in coordination with the Director of the Missile Defense Agency, to submit a report to the House Committee on Armed Services not later than January 31, 2021, that details efforts across the Department of Defense. The report should include efforts and cost of developing mature technologies for kinetic boost phase defense for regional missile defense applications. The report should also address long-range directed energy efforts, including how specific long-range boost phase missile defense requirements are being addressed, specifically for energies needed beyond 500 megawatts and how the overall directed energy roadmap is being used to synergize efforts across the services and agencies while also addressing unique requirements for each potential platform.

Report on Discrimination Improvements to the Missile Defense System

The committee notes that the President's budget request for fiscal year 2021 cancelled the Homeland Defense Radar-Hawaii (HDR-H) and Pacific Radar, directly reducing delivery of additional discrimination capability to the missile defense system. Increasing discrimination has been a priority to the combatant commanders and the Missile Defense Agency to address current gaps and improve homeland defense shot doctrine. The committee has been supportive of efforts to

increase discrimination capability of the missile defense system, and is concerned that cancellation of these efforts will result in worsening shot doctrine and overreliance on aging ground- and sea-based radars, such as Cobra Dane and the Sea-Based X-Band (SBX) radars.

Due to these concerns, the committee directs the Director of the Missile Defense Agency, in coordination with Commanders of Northern, Indo-Pacific, and Space Commands, to submit a report to the House Committee on Armed Services not later than December 31, 2020, on the impacts of cancelling these critical discrimination efforts. The report should be unclassified, but may have a classified annex, and should include at a minimum;

(1) a description of the current discrimination capability of the missile defense system, including all assumptions made about asset availability to support the existing architecture;

(2) how HDR-H and the Pacific Radar would have increased discrimination capability for defense of the continental United States, Alaska, and Hawaii, specifically highlighting any gaps that currently exist in discriminating sensor coverage;

(3) how the above response would change if SBX was not optimally located at sea in an operational status;

(4) how the Department of Defense intends to address discrimination improvements without HDR-H and Pacific Radar;

(5) the resulting costs and sustainment requirements associated with need to extend SBX and Cobra Dane radars as a result of the cancellation of the HDR-H and Pacific Radar; and

(6) the viability of using modular, relocatable radar capabilities to close ground-based sensor coverage gaps, including an assessment of changing the acquisition model for discrimination sensors to focus on inventory rather than site-specific needs.

NUCLEAR FORCES

Manning and Personnel Optimization for Air Force Global Strike Command and Ground-Based Strategic Deterrence Program

The committee notes that the 2019 RAND Corporation report “Managing Nuclear Modernization Challenges for the U.S. Air Force” states that "the sheer scale of the programs, which touch on nearly every part of the weapons, delivery platforms, command and control, and weapon storage, is daunting," that "this ambitious set of programs will need to be fielded by Air Force Global Strike Command, a relatively young command with a relatively small staff that has limited experience in fielding new systems," and that "all of this is happening in a tight fiscal period with some opposition to various nuclear systems in favor of other national priorities." The report identifies one of the challenges as a critical imbalance between workforce available to Air Force Global Strike Command and the major modernization programs that the command must execute to recapitalize

the nuclear enterprise, including the Ground-Based Strategic Deterrent and the strategic bomber programs. Additionally, this report identifies a number of deficiencies in critical skills, in nuclear certification and survivability testing of future nuclear systems.

The committee is aware of similar findings from the Comptroller General of the United States regarding schedule risks and the expertise and personnel needs of the Air Force with regard to the Ground-Based Strategic Deterrent (GBSD) program, and the challenges within the Air Force in setting up a program office that will be able to conduct rigorous oversight of such a complex and large acquisition program.

Therefore, the committee directs the Secretary of the Air Force, in coordination with the Commander of Air Force Global Strike Command, to submit a report to the Committees on Armed Services of the Senate and the House of Representatives by December 1, 2020, on the command's response to the findings and recommendations of the RAND report and the challenges in filling personnel positions and expertise needs in the Air Force program office. The report should also provide the number of unfilled personnel manning positions at the command and the GBSD program office, and the number of and type of personnel required to reduce schedule and technical risks to the major programs that the command and the program office are managing.

Nuclear Employment, Strategic Conventional Strike, and the Law of Armed Conflict

The committee recognizes the importance of the rule of law in guiding U.S. military doctrine, planning, and targeting with regard to nuclear weapons. The United States adherence to the rule of law, and in particular the law of armed conflict, in the context of nuclear weapons and their use is a bedrock principle. Notably, under current Department plans, by 2030 the Department of Defense will develop and deploy a range of new, long-range conventional strike systems, of which some will be under the operational control of Commander of U.S. Strategic Command (USSTRATCOM). Given the strategic implications of these systems, the committee encourages the Department to take additional consideration with regard to the strategic and legal implications of such systems.

Therefore, the committee directs the Commander of USSTRATCOM to submit a report to the House Committee on Armed Services by February 1, 2021, on plans, policies, and guidance regarding nuclear weapons employment, including from a legal perspective. The report should include:

(1) a detailed explanation for how current plans for nuclear employment apply the law of armed conflict, specifically the principle of military necessity, with illustrative scenarios;

(2) a detailed description of how USSTRATCOM is planning to incorporate long-range conventional strike options in the context of nuclear planning through 2030;

(3) a detailed legal analysis of how long-range conventional strike options might affect the legality of current nuclear strike options through 2030;

(4) the aggregate number and a description of types of targets that cannot currently be held at risk with conventional weapons, and whether certain target categories may be held at risk with conventional weapons by 2030;

(5) an analysis of the legal considerations regarding plans to respond with nuclear weapons, rather than conventional weapons, after a “non-nuclear strategic attack” as outlined in the 2018 Nuclear Posture Review; and

(6) a legal review of the status of the doctrine of “belligerent reprisal” in U.S. nuclear doctrine.

Potential Delays to Nuclear Modernization

The committee notes that the Commander, U.S. Strategic Command (USSTRATCOM) testified on February 27, 2020, that "many of the modernization and sustainment efforts necessary to ensure the deterrent's viability have zero schedule margin and are late-to need." The committee notes that this modernization effort is extremely complex, expensive, and requires the concurrent modernization of all legs of the triad, as well as the nuclear command and control systems. All three legs of the modernized triad, if on schedule, will begin to be deployed in the 2030 timeframe. Further, the Comptroller General of the United States noted recently that "the Minuteman III weapon system will be unable to meet full mission requirements after 2026." The Ground Based Strategic Deterrent is not planned to achieve first production until 2027, with initial operating capability not until 2029.

Therefore, the committee directs the Commander, U.S. Strategic Command, in consultation with the Secretary of the Air Force, to provide a report to the House Committee on Armed Services not later than February 1, 2021, detailing plans in the event of a delay of a major weapons system. At minimum, the report should describe:

(1) USSTRATCOM and Air Force planning in the event of a delay to initial operational capability of the Ground Based Strategic Deterrent program of at least 2 years;

(2) USSTRATCOM and Air Force planning in the event of a delay to full operating of the Ground Based Strategic Deterrent program of at least 4 years;

(3) specific risks to obsolesce of the Minuteman III weapon systems and their timelines; and

(4) options to mitigate these risks, including costs, both within the land-based leg of the triad and through a system approach.

Requirements Planning for Nuclear Complex and Nuclear Enterprise

The committee is concerned that the requirements levied on the nuclear complex to meet warhead and responsive infrastructure are significant and are driving tight schedules and increasing costs for the complex. The National Nuclear Security Administration (NNSA) is responsible for four concurrent warhead life

extension programs, the W93, and reaching a production of 30 pits per year by 2026 and no fewer than 80 pits per year by 2030 to ensure the viability of the strategic nuclear deterrent. The Administration is growing supporting workforce to become a production-oriented organization and undertaking major recapitalization of the complex's infrastructure. These requirements have significant costs, and the Nation cannot afford delays and additional risks to the executability of ongoing programs.

The committee is aware of these challenges and of the need to ensure rigorous coordination and planning as these growing requirements are validated, as they have resource, workforce, and cost implications for the nuclear complex, and policy implications. The committee notes some improvement in coordination for the drafting of the U.S. Strategic Command (USSTRATCOM) annual requirements planning document, but notes the urgent need to improve planning tools and coordination to ensure that plans are executable and affordable, and the Nuclear Weapons Council adequately and realistically prioritizes requirements given resource constraints.

Therefore, the committee directs the Commander of USSTRATCOM, in coordination with the Administrator for Nuclear Security, to provide a copy of the most recent final requirements planning document to the House Committee on Armed Services. The committee further directs the Commander of USSTRATCOM, in coordination with the Administrator for Nuclear Security, the Under Secretary of Defense for Acquisition and Sustainment, the Under Secretary of Defense for Policy, the Secretary of the Navy, and the Secretary of the Air Force, to provide a briefing to the House Committee on Armed Services not later than October 1, 2020, on the following: what trade-offs are made within the requirements planning document; how considerations informing the requirements and planning process inform decisions, including what policy considerations, costs and resource constraints are considered; the level of coordination between USSTRATCOM, the Department, and NNSA; and lessons learned and remaining challenges for near- and long-term planning.

Use of Artificial Intelligence at U.S. Strategic Command

The committee notes that advances in artificial intelligence technologies are altering strategic weapons, reconnaissance, missile defense, cyberspace, and nuclear command, control, and communications (NC3). These technological advances will have an impact on the nuclear enterprise: the policy that governs it and the strategic force structures of which it is comprised. For example, U.S. Strategic Command leadership has recognized that emerging artificial intelligence technologies are important capabilities to the enterprise. The committee is aware that the Department of Defense's Joint Artificial Intelligence Center is responsible for, among other things, accelerating the delivery of artificial intelligence-enabled capabilities and scaling the department-wide impact of artificial intelligence, and understands that the Department is in the early stages of determining how to leverage artificial intelligence technologies. However, the committee is concerned

about the extent to which the Department has considered the implications of artificial intelligence for the nuclear enterprise. Accordingly, the committee directs the Comptroller General of the United States to review the following:

(1) to what extent has the Department examined the effects, risks, and efficiencies of artificial intelligence on the nuclear enterprise; and

(2) to what extent are these artificial intelligence effects accounted for in nuclear deterrence policy?

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services not later than December 1, 2020, on the Comptroller General's preliminary findings and to submit a final report on a date agreed to at the time of the briefing.

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

Comptroller General review of construction and infrastructure recapitalization projects

The committee notes that the National Nuclear Security Administration (NNSA) is undertaking an unprecedented number of line item construction and infrastructure recapitalization efforts as part of its nuclear modernization plans. The committee believes that NNSA's past record makes close oversight of such projects essential to ensure that performance issues, such as schedule slips, scope changes, or cost overruns, are closely monitored and that the committee has independent knowledge of project progress. As a result, the committee directs the Comptroller General of the United States to review NNSA's portfolio of construction and infrastructure recapitalization efforts with particular attention to cost and schedule performance and project scope. The Comptroller General should prioritize its review of projects with a total cost in excess of $100.0 million.

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services by September 30, 2020, on the Comptroller General's preliminary findings and to submit a final report on a date agreed to at the time of the briefing.

Comptroller General review of laboratory-, plant-, and site-directed research and development for nuclear weapons production improvement

The National Nuclear Security Administration (NNSA) sites devote a portion of their research efforts to creative and innovative work to maintain their vitality in disciplines relevant to their national security missions. NNSA states that these efforts are vital in attracting scientists, engineers and technicians to its sites. These efforts include Laboratory and Plant-Directed Research and Development (LDRD and PDRD, respectively; or directed R&D, collectively). LDRD funding may comprise up to 6 percent of laboratories' budgets and PDRD funding may comprise up to 4 percent of other sites' budgets. Collectively, NNSA's laboratories, two of which have production functions, budget about $300 million annually to be spent on LDRD; NNSA's plants and its Nevada National Security Site collectively budget about $160 million annually to be spent on PDRD.

NNSA is currently in the midst of a massive effort to modernize its nuclear weapons and related facilities. In doing so, NNSA is working to restart mothballed or discontinued fabrication and production processes that may be inefficient, unsafe, and/or obsolete. Over the past decade, NNSA has relied on LDRD and PDRD to explore more up-to-date alternatives to its legacy fabrication and manufacturing processes.

Given the many demands placed on NNSA's production sites and its laboratory-based production functions, the committee wants to ensure that NNSA's research into improved technology and manufacturing is efficiently funded. Accordingly, the committee directs the Comptroller General of the United States to undertake a review of NNSA's PDRD, the manufacturing-related portions of LDRD, and the relationship of these funds to NNSA's weapons technology and manufacturing maturation program. This review should include:

(1) recent PDRD and manufacturing related LDRD projects and funding at NNSA's sites;

(2) the process used to vet and select projects for directed R&D purposes; and

(3) the determining factors for use of directed R&D, weapons technology and manufacturing program funding, or weapon modernization program funding to develop and mature technology and manufacturing efforts.

The Comptroller General shall deliver a preliminary briefing to the House Committee on Armed Services not later than November 1, 2020, and to submit a final report on a date agreed to at the time of the briefing.

Cooperative Audit Strategy

The committee notes that the Department of Energy established the Cooperative Audit Strategy in 1992 to maximize the overall audit coverage at management and operating (M&O) contractors and fulfill its responsibility for auditing the costs incurred by the Department's major facilities contractors. For its M&O contracts, the Department does not use an independent third party to audit

contractors' costs and ensure that invoiced costs are allowable under the contract. Instead, the M&O contractors' internal audit organization is responsible for performing operational and financial audits, assessing the adequacy of management control systems, and conducting an audit of the M&O contractors' incurred cost statements. Each year the Department of Energy's Office of the Inspector General (OIG) performs an assessment of incurred cost statements for the ten M&O contractors that incurred and claimed the most costs that year. For the remaining M&O contractors, the OIG performs assessments based on risk. If not considered high-risk, the OIG assesses the contractor at least once every four years. The Comptroller General has raised concerns about the timeliness and completeness of these audits. The committee is also concerned about whether the Cooperative Audit Strategy is rigorous enough for the tens of billions of dollars the Department of Energy spends on these contracts annually. Therefore, to address these and other concerns, the committee directs the Administrator of the National Nuclear Security Administration to submit a report to House Committee on Armed Services not later than February 28, 2021, reviewing the Cooperative Audit Strategy. At a minimum, the report should include:

(1) a plan to independently audit each M&O contractor at least every 3 years;

(2) resources and timelines required to implement such a plan; and,

(3) the challenges and benefits of implementing such a plan.

Establishment of an industrial base analysis capability

The committee notes that over time, globalization and consolidation of the U.S. defense industrial base have reduced competition and made it more common to rely on sole suppliers for certain subsystems, components, and materials needed to meet U.S. national security objectives. Unlike the Department of Defense, the National Nuclear Security Administration (NNSA) does not comprehensively monitor and report on the health of the industrial base supporting its national security activities or identify specific industrial base risks to address strategically. The committee is concerned that, with NNSA in the midst of the most extensive nuclear modernization since the Cold War, there are troubling similarities between the industrial bases and supply chains of the Department of Defense and NNSA. According to NNSA, its difficulties in maintaining a viable industrial base and secure supply chain stem from the small quantities of parts and materials NNSA procures, the irregular nature of NNSA's procurements, intense foreign competition, and the agency's exacting performance requirements for nuclear weapons. While various NNSA programs and contractors are monitoring select parts of NNSA's industrial base and supply chain, in 2018 the Department of Energy's Inspector General found that these efforts were potentially fragmented or duplicative. Therefore, the committee directs the Administrator of the National Nuclear Security Administration to provide a report to the congressional defense committees not later than February 1, 2021, detailing a plan to consistently and strategically

monitor its industrial base as pertains to nuclear weapon components, subsystems, and materials to determine how this capability should perform its functions and what ongoing resources it will need to be successful. The committee further directs the Administrator to provide a preliminary briefing to House Committee on Armed Services not later than August 1, 2020, on achieving this capability.

Stockpile Responsiveness

The committee notes the value that the Department of Defense and Department of Energy attach to the Stockpile Responsiveness program. However, the committee also notes that the program has been insufficiently focused on the overriding challenge of the nuclear enterprise: production. As the complex transitions from a maintenance and sustainment focus to a production focus over the next decade, the committee encourages the Secretary of Defense and the Administrator of the National Nuclear Security Administration to focus some resources and effort toward reducing cost, risk, and difficulty of manufacturing and producing nuclear weapons. While the National Nuclear Security Administration maintains significant funding for production modernization and technology maturation, this funding is primarily focused on achieving specific tail number missions.

Therefore, the committee directs the Administrator of the National Nuclear Security Administration, in consultation with the Secretary of Defense, to provide a briefing to the House Committee on Armed Services by August 1, 2020, on plans to leverage the Stockpile Responsiveness program to increase the responsiveness of the production complex.

Defense Nuclear Nonproliferation

Comptroller General review of safeguards

The committee notes the importance of maintaining a robust and capable safeguards program at International Atomic Energy Agency (IAEA). In implementing its safeguards mission, IAEA faces a number of continuing and emerging challenges that could further burden or dilute the safeguards program's resources. These include the continued expansion of nuclear power worldwide, growth in nuclear material stockpiles, the development of new advanced reactors concepts that will utilize new fuel types and technologies, and the potential emergence of new nuclear fuel reprocessing programs in Asia. Additionally, IAEA could be asked to monitor and verify any potential future denuclearization initiative with North Korea and possibly intensify inspections of Iran's nuclear program.

The Department of Energy provides vital assistance to the IAEA in developing its safeguards approaches, staff and expertise, technologies, and other resources. Many of these efforts are led by National Nuclear Security Administration's (NNSA) Office of Defense Nuclear Nonproliferation.

The committee therefore directs the Comptroller General of the United States to conduct a review of the assistance provided by the Department of Energy and NNSA to the IAEA's safeguards programs, and other U.S. agencies's contributions as appropriate. Specifically, the committee expects GAO's review to provide information on:

(1) the lessons NNSA has learned from IAEA inspections in Iran and what other key challenges it has identified to its safeguards mission over the next decade,

(2) the various forms and sources of assistance provided to IAEA safeguards by the Department of Energy;

(3) how NNSA assistance is coordinated with or augmented by other relevant agencies;

(4) how NNSA prioritize IAEA requests for assistance; and

(5) how effective has assistance provided by the Department of Energy, NNSA, and other agencies been in strengthening safeguards approaches, technologies, staff, and other resources, and where are the continuing gaps or issues of concern.

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services by January 30, 2021, on the Comptroller General's preliminary findings and to submit a final report on a date agreed to at the time of the briefing.

ENVIRONMENTAL AND OTHER DEFENSE ACTIVITIES

Defense Environmental Cleanup

Comptroller General review of Environmental Management

The committee notes that having strong leadership and a strategic long-term plan will be key to the Department of Energy's success in managing its environmental liabilities. The Government Accountability Office has made numerous recommendations to improve Environmental Management (EM) planning. Having the right staff with the right skills is a fundamental first step for EM to effectively address its liabilities and mission goals.

Further, the committee notes that instability in its leadership and organizational structure has limited the capacity of EM to carry out its mission. Since 1991, EM has had nine different assistant secretaries and nine Acting Assistant Secretaries or Senior Advisors. In the past 5 years, the average length of service for EM leadership is 1 year. In addition, EM has been moved under four different Under Secretaries in the past 15 years.

Considering this lack of continuity in its leadership and in position within the Department of Energy, the committee directs the Comptroller General of the United States to undertake a review of EM's capacity to carry out its enduring mission. Specifically, the review should include consideration of:

(1) what are the key elements in EM's mission to manage environmental cleanup and address environmental liabilities, and how has EM's mission changed since its creation;

(2) to what extent has the Department of Energy provided EM sufficient capacity and ensured leadership stability to carry out its mission; and

(3) to what extent do current and former Department of Energy and EM leaders believe EM has had sufficient capacity and leadership stability to carry out its mission?

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services by November 1, 2020, on the Comptroller General's preliminary findings and to submit a final report on a date agreed to at the time of the briefing.

Other Defense Activities

Advanced Computer Tools to Identify Classified Information

The committee notes the Department of Energy's efforts to increase automation with regard to classification in order to decrease the risk of inadvertent release of classification, as well as increased efficiency. The committee notes that such tools are also necessary to reduce the backlog of information awaiting declassification. In particular, the committee is encouraged by the Department's effort to ensure the Advanced Computer Tools to Identify Classified Information (ACTICI) initiative is funded and successful. Therefore, the committee directs the Director of the Office of Classification to provide a briefing to the House Committee on Armed Services not later than August 1, 2020, on the ACTICI program. The briefing should include:

(1) the goals of the program;

(2) options and strategies for leveraging other tools and processes developed both within and outside government to increase efficiency and reliability of the mission;

(3) timelines for implementing such tools; and

(4) options for accelerating or expanding the program beyond current scope.