

**H.R. 8070—SERVICEMEMBER QUALITY OF
LIFE IMPROVEMENT AND NATIONAL
DEFENSE AUTHORIZATION ACT FOR
FISCAL YEAR 2025**

**SUBCOMMITTEE ON STRATEGIC
FORCES**

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SUMMARY OF BILL LANGUAGE

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DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE XVI—SPACE ACTIVITIES, STRATEGIC PROGRAMS, AND INTELLIGENCE MATTERS

LEGISLATIVE PROVISIONS

SUBTITLE A—SPACE ACTIVITIES

Section 1601—Establishment of the Commercial Augmentation Space Reserve

This section would establish a program known as the "Commercial Augmentation Space Reserve" to procure space products and services for the reserve use of the Department of Defense.

Section 1604—Annual Briefing on Commercial Space Strategy of the Space Force

This section would require the Chief of Space Operations, in coordination with the Assistant Secretary of the Air Force for Space Acquisition and Integration, to brief the congressional defense committees on how the Department is planning to utilize commercial solutions to meet the mission areas identified in the U.S. Space Force Commercial Space Strategy published in April 2024.

Section 1605—Pilot Program to Demonstrate Hybrid Space Architecture

This section would require the Commander of the Space Systems Command of the Space Force to carry out a pilot program to demonstrate a hybrid space architecture and to demonstrate that architecture by integrating a military communication system.

SUBTITLE C—NUCLEAR FORCES

Section 1625—Reports and Briefings on Recommendations of the Congressional Commission on the Strategic Posture of the United States

This section would require annual reports and briefings on the progress of the Department of Defense related to implementing the recommendations of the Congressional Commission on the Strategic Posture of the United States established under section 1687 of the National Defense Authorization Act for Fiscal Year 2022.

Section 1626—Statement of Policy with Respect to Nuclear Weapons

This section would affirm current policy with respect to maintaining a human "in the loop" for actions critical to informing and executing decisions by the President with respect to nuclear weapon employment.

SUBTITLE E—OTHER MATTERS

Section 1641—Modification to Annual Assessment of Budget with Respect to Electromagnetic Spectrum Operations Capabilities

This section would amend section 503 of title 10, United States Code, related to modeling and simulation capabilities for joint electromagnetic spectrum operations.

**DIVISION C—DEPARTMENT OF ENERGY NATIONAL
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AUTHORIZATIONS**

**TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY
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LEGISLATIVE PROVISIONS

SUBTITLE C—OTHER MATTERS

**Section 3121—Modification to and Termination of Certain Reporting Requirements
Under Atomic Energy Defense Act**

This section would modify and terminate outdated reporting requirements related to the Mixed Oxide Fuel Fabrication Facility.

BILL LANGUAGE

1 **Subtitle A—Space Activities**

2 **SEC. 1601. [Log 80216]. ESTABLISHMENT OF THE COMMER-**
3 **CIAL AUGMENTATION SPACE RESERVE.**

4 (a) IN GENERAL.—Chapter 963 of title 10, United
5 States Code, is amended by inserting before section 9532
6 the following new section:

7 **“§ 9531. Commercial Augmentation Space Reserve.**

8 “(a) IN GENERAL.—The Secretary of Defense may
9 establish and carry out a program to be known as the
10 ‘Commercial Augmentation Space Reserve’ program.
11 Under the program, the Secretary may include in a con-
12 tract for the procurement of space products or services
13 one or more provisions under which a qualified contractor
14 agrees to provide additional space products or services to
15 the Department of Defense on an as-needed basis under
16 circumstances determined by the Secretary.

17 “(b) AUTHORITY TO CONTRACT.—Subject to sub-
18 section (c), and the extent that funds are otherwise avail-
19 able for obligation, the Secretary may contract with any
20 qualified contractor for space products or services in sup-
21 port of the Commercial Augmentation Space Reserve Pro-
22 gram as described in subsection (a).

23 “(c) SECURITY MEASURES.—In carrying out the pro-
24 gram under subsection (a), the Secretary shall—

1 “(1) ensure that each contract under, and
2 qualified contractor participating in, the program
3 complies with an applicable security measures, in-
4 cluding any security measures required under the
5 National Industrial Security program (or any suc-
6 cessor to such program); and

7 “(2) may establish and implement such addi-
8 tional security measures as the Secretary considers
9 appropriate to protect the national security interests
10 of the United States.

11 “(d) COMMITMENT OF SPACE PRODUCTS OR SERV-
12 ICES AS A BUSINESS FACTOR.—The Secretary may, in de-
13 termining the quantity of business to be received under
14 a space product or services contract under subsection (a),
15 use as a factor the relative amount of space product or
16 service committed to the Commercial Augmentation Space
17 Reserve by the qualified contractor involved.

18 “(e) WAIVER OF CERTAIN PROVISIONS OF LAW.—In
19 a time of war or national emergency, the Secretary may
20 waive the requirements of chapter 271 of this title or the
21 provisions of subsections (a) and (b) of section 1502 of
22 title 41 with respect to a contract under subsection (a).

23 “(f) DEFINITIONS.—In this section:

24 “(1) The term ‘space products or services’
25 means commercial products and commercial services

1 (as those terms are defined in section 2.101 of the
2 Federal Acquisition Regulation) and noncommercial
3 products and noncommercial services offered by
4 commercial companies that operate to, through, or
5 from space, including any required terrestrial
6 ground, support, and network systems and associ-
7 ated services that can be used to support military
8 functions and missions.

9 “(2) The term ‘citizen of the United States’
10 means—

11 “(A) an individual who is a citizen of the
12 United States;

13 “(B) a partnership each of whose partners
14 is an individual who is citizen of the United
15 States; or

16 “(C) a corporation or association organized
17 under the laws of the United States or a State,
18 the District of Columbia, or a territory or pos-
19 session of the United States.

20 “(3) The term ‘qualified contractor’ means a
21 contractor that is a citizen of the United States.

22 “(4) The term ‘Secretary’ means the Secretary
23 of Defense.”.

24 (b) STUDY AND REPORT.—

1 (1) STUDY.—The Secretary of the Air Force, in
2 coordination with the Secretary of Defense, shall
3 seek to enter into an agreement with a federally
4 funded research and development center to conduct
5 a study on—

6 (A) the availability and adequacy of com-
7 mercial insurance to protect the financial inter-
8 ests of contractors providing support services to
9 space-related operations and activities of the
10 Department of Defense, taking into account the
11 risks that may be anticipated to arise from such
12 support;

13 (B) the adequacy of any existing authori-
14 ties under Federal law that would enable the
15 Federal Government to protect such interests in
16 the event commercial space insurance is not
17 available or not available on reasonable terms;
18 and

19 (C) potential options for Government-pro-
20 vided insurance similar to existing aviation and
21 maritime insurance programs under titles 49
22 and 46 of the United States Code, respectively.

23 (2) REPORT.—Not later than one year after the
24 date of the enactment of this Act, the Secretary of
25 the Air Force shall submit to the congressional de-

- 1 fense committees a report on the results of the study
- 2 conducted under paragraph (1).

1 **SEC. 1604.[Log 80215]. ANNUAL BRIEFING ON COMMERCIAL**
2 **SPACE STRATEGY OF THE SPACE FORCE.**

3 (a) FINDINGS.—Congress finds that the strategy of
4 the Space Force titled “U.S. Space Force Commercial
5 Space Strategy” published in April 2024, indicates that
6 the Space Force intends to focus future efforts and re-
7 sources on the following mission areas:

8 (1) Satellite communications.

9 (2) Space domain awareness.

10 (3) Space access mobility and logistics.

11 (4) Tactical surveillance, reconnaissance, and
12 tracking.

13 (5) Space based environmental monitoring.

14 (6) Cyberspace operations.

15 (7) Command and control.

16 (8) Positioning, navigation, and timing.

17 (b) SENSE OF CONGRESS.—It is the sense of Con-
18 gress that—

19 (1) the Space Force should continue to pursue
20 partnerships with the commercial space industry of
21 the United States to create a true hybrid architec-
22 ture that provides increased capabilities and resil-
23 ience;

24 (2) in assessing the potential use of commercial
25 solutions to support space domain awareness, the
26 Chief of Space Operations should consider—

1 (A) conducting—

2 (i) dynamic rendezvous and proximity
3 operations, cooperative and noncooperative
4 non-earth imaging, and noncooperative
5 rendezvous and proximity operations with
6 resident space objects; and

7 (ii) routine characterization, anomaly-
8 resolution, and broad metric observations
9 of resident space objects;

10 (B) entering into long term purchase ar-
11 rangements for data and services to support
12 space domain awareness; and

13 (C) functionally supporting an enterprise
14 architecture for space command and control
15 and space domain awareness;

16 (3) in developing and fulfilling requirements re-
17 lating to space access mobility and logistics, the
18 Chief of Space Operations should consider the use of
19 commercial solutions such as—

20 (A) geostationary commercial services for
21 life extension, refueling, and end of life mission
22 disposal;

23 (B) orbital sustainment and mission exten-
24 sion capabilities;

1 (C) maneuver services for unprepared cli-
2 ents in geostationary earth orbit; and

3 (D) nontraditional concepts for dynamic
4 space operations like electromechanical accel-
5 eration platforms; and

6 (4) the Chief of Space Operations and the As-
7 sistant Secretary of the Air Force for Space Acquisi-
8 tion and Integration should continue to engage with
9 the congressional defense committees on any
10 changes to acquisition authorities that are needed to
11 better integrate commercial space capabilities within
12 existing and future Government architectures.

13 (c) BRIEFING REQUIRED.—

14 (1) IN GENERAL.—Not later than 10 days after
15 the date on which the budget of the President for
16 each of fiscal years 2026 through 2029 is submitted
17 to Congress pursuant to section 1105 of title 31,
18 United States Code, the Chief of Space Operations,
19 in coordination with Assistant Secretary of the Air
20 Force for Space Acquisition and Integration, shall
21 provide to the congressional defense committees a
22 briefing that includes the information described in
23 paragraph (2) with respect to each mission area
24 specified in subsection (a).

1 (2) ELEMENTS.—Each briefing under para-
2 graph (1) shall include, with respect to each mission
3 area specified in subsection (a) for the fiscal year
4 concerned, the following:

5 (A) Of the funds requested for the mission
6 area, the percentage that are expected to be
7 used to fulfill requirements through the provi-
8 sion of commercial solutions compared to the
9 percentage that are expected to be used to ful-
10 fill such requirements through programs of
11 record.

12 (B) A description of the requirements for
13 each mission area and an explanation of wheth-
14 er and how the use of commercial solutions has
15 been considered for fulfilling such requirements.

16 (C) A description of any training or
17 wargaming exercises that are expected to inte-
18 grate commercial solutions and include the par-
19 ticipation of providers of such solutions.

20 (D) Any force designs of the Space
21 Warfighting Analysis Center for which commer-
22 cial solutions were considered as part of a force
23 design analysis from the previous fiscal year.

1 (E) An update on the status of any efforts
2 to integrate commercial systems into respective
3 Government architecture.

4 (F) With respect to the contracts entered
5 into to support the mission area—

6 (i) the number of such contracts;

7 (ii) the types of contracts used;

8 (iii) the length of time covered by
9 such contracts; and

10 (iv) the amount of funds committed
11 under such contracts.

12 (d) COMMERCIAL SOLUTIONS DEFINED.—In this sec-
13 tion, the term “commercial solutions” includes commercial
14 products, commercial services, and providers of such prod-
15 ucts and services.

1 **SEC. 1605. [Log 80583]. PILOT PROGRAM TO DEMONSTRATE**
2 **HYBRID SPACE ARCHITECTURE.**

3 (a) SENSE OF CONGRESS.—It is the sense of Con-
4 gress that—

5 (1) efforts that leverage commercial space sys-
6 tems, space systems of the United States Govern-
7 ment, and Government space systems of allies and
8 partners of the United States, enhance resiliency
9 and capabilities for data and communications paths
10 for global national security and allied operations;

11 (2) hybrid space architectures that leverage a
12 mixture of the space assets described in paragraph
13 (1) with dynamic operations across multiple con-
14 stellations are critical to modern warfighting and im-
15 plementing new warfighting concepts like joint all-
16 domain command and control;

17 (3) the integration of space and ground infra-
18 structure across secure cloud computing platforms to
19 collect, move, and process data are critical first steps
20 to establishing the foundation necessary to manage
21 and control this future hybrid space architecture;

22 (4) efforts that are ongoing within the Defense
23 Innovation Unit and the Space Force are important
24 and foundational to both inform and align with
25 other key Department of Defense-wide initiatives;
26 and

1 (5) alignment and integration with broader ef-
2 forts across the Department is essential.

3 (b) PROGRAM REQUIRED.—Beginning in fiscal year
4 2025, the Commander of the Space Systems Command
5 of the Space Force shall carry out a pilot program to dem-
6 onstrate a hybrid space architecture.

7 (c) REQUIREMENTS AND CONSIDERATIONS.—In car-
8 rying out the pilot program under subsection (b), the
9 Commander the Space Systems Command shall include in
10 the hybrid space architecture at least one military satellite
11 communications system, such as the Wideband Global
12 Satcom system or the Micro Geostationary Earth Orbit
13 system.

14 (d) BRIEFING.—Not later than 180 days after the
15 date of the enactment of this Act, the Assistant Secretary
16 of the Air Force for Space Acquisition and Integration
17 shall provide to the congressional defense committees a
18 briefing that includes—

19 (1) a description of the hybrid space architec-
20 ture developed under the pilot program under sub-
21 section (b) and a summary of the results of the pro-
22 gram as of the date of the briefing; and

23 (2) a plan for supporting the transition of the
24 hybrid space architecture efforts to a program of

1 record within the Space Force and the Space Sys-
2 tems Command.

3 (e) HYBRID SPACE ARCHITECTURE.—The term “hy-
4 brid space architecture” means network of integrated
5 United States Government, allied Government, and com-
6 mercially owned and operated capabilities both for on-orbit
7 constellations and ground systems.

1 **SEC. 1625. [Log 80243]. REPORTS AND BRIEFINGS ON REC-**
2 **COMMENDATIONS OF THE CONGRESSIONAL**
3 **COMMISSION ON THE STRATEGIC POSTURE**
4 **OF THE UNITED STATES.**

5 (a) **REPORTS REQUIRED.**—On an annual basis dur-
6 ing the five-year period beginning on the date of the enact-
7 ment of this Act, the Secretary of Defense shall submit
8 to the congressional defense committees a report on the
9 progress of the Department of Defense with respect to the
10 implementation of recommendations made by the Congres-
11 sional Commission on the Strategic Posture of the United
12 States established under section 1687 of the National De-
13 fense Authorization Act for Fiscal Year 2022 (Public Law
14 117–81) that pertain to the Department of Defense. Each
15 such report shall include—

16 (1) for each such recommendation, a determina-
17 tion of whether the Secretary of Defense intends to
18 implement the recommendation;

19 (2) in the case of a recommendation the Sec-
20 retary intends to implement—

21 (A) the intended timeline such implementa-
22 tion;

23 (B) the total amount of funding required
24 for such implementation;

1 (C) a description of any additional re-
2 sources or authorities the Secretary determines
3 is necessary for such implementation; and

4 (D) the plan for such implementation;

5 (3) in the case of a recommendation the Sec-
6 retary determines is not advisable or feasible, the
7 analysis and justification of the Secretary for mak-
8 ing such determination; and

9 (4) in the case of a recommendation the Sec-
10 retary determines the Department is already imple-
11 menting through a separate effort, the analysis and
12 justification of the Secretary for such determination.

13 (b) BRIEFINGS REQUIRED.—Not less frequently than
14 annually during the five-year period beginning on the date
15 of the enactment of this Act, the Secretary of Defense
16 shall provide to the congressional defense committees a
17 briefing on—

18 (1) the progress of the Secretary in analyzing
19 and implementing the recommendations made by the
20 Congressional Commission on the Strategic Posture
21 of the United States with respect to the Department
22 of Defense;

23 (2) any programs, projects, or other activities of
24 the Department the Secretary is carrying out as of

1 such date to implement the recommendations of
2 such Congressional Commission; and
3 (3) the amount of funding provided for such
4 programs, projects, and activities.

1 **SEC. 1626. [Log 80416]. STATEMENT OF POLICY WITH RE-**
2 **SPECT TO NUCLEAR WEAPONS.**

3 It is the policy of the United States to maintain a
4 human “in the loop” for all actions critical to informing
5 and executing decisions by the President with respect to
6 nuclear weapon employment.

1 **Subtitle E—Other Matters**

2 **SEC. 1641. [Log 80753]. MODIFICATION TO ANNUAL ASSESS-**
3 **MENT OF BUDGET WITH RESPECT TO ELEC-**
4 **TROMAGNETIC SPECTRUM OPERATIONS CA-**
5 **PABILITIES.**

6 Section 503 of chapter 25 of title 10, United States
7 Code, is amended by adding at the end the following new
8 paragraph:

9 “(3) The development of a capability for mod-
10 eling and simulating multi-domain joint electro-
11 magnetic spectrum operations to—

12 “(A) assess the ability of the joint force to
13 conduct such operations in support of the oper-
14 ational plans of the combatant commands; and

15 “(B) inform improvements to such oper-
16 ations.”.

1 **Subtitle C—Other Matters**

2 **SEC. 3121. [Log 80242]. MODIFICATION TO AND TERMI-**
3 **NATION OF CERTAIN REPORTING REQUIRE-**
4 **MENTS UNDER ATOMIC ENERGY DEFENSE**
5 **ACT.**

6 (a) **PLAN FOR CONSTRUCTION AND OPERATION OF**
7 **MOX FACILITY.**—Section 4306 of the Atomic Energy De-
8 fense Act (50 U.S.C. 2566(a)(3)) is amended in sub-
9 section (a)(3)(A) by striking “for as long as the MOX fa-
10 cility is in use” and inserting “through 2024”.

11 (b) **PLANNED DISPOSITION PROGRAM.**—Such section
12 is further amended in subsection (e) by striking “If on
13 July 1 each year beginning in 2025 and continuing for
14 as long as the MOX facility is in use, less than 34 metric
15 tons of defense plutonium or defense plutonium materials
16 have been processed by the MOX facility” and inserting
17 “If less than 34 metric tons of defense plutonium or de-
18 fense plutonium materials have been processed by the
19 MOX facility by October 1, 2026”.

DIRECTIVE REPORT LANGUAGE

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DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATIONS

TITLE XVI—SPACE ACTIVITIES, STRATEGIC PROGRAMS, AND INTELLIGENCE MATTERS

ITEMS OF SPECIAL INTEREST

SPACE ACTIVITIES

Commercial Satellite Support for Department of Defense Mission Needs

The committee understands the valuable role that remote sensing data, of all phenomenologies, plays in allowing combatant commands (COCOMs) to execute their missions. The committee also appreciates the benefit provided by being able to leverage unclassified and sharable remote sensing data and products to support deterrence and encourage collaborations with allies and partners.

The committee notes that the National Reconnaissance Office's Commercial Systems Program Office is designated as the principal entity for acquiring commercial satellite remote sensing data, in response to the National Geospatial Intelligence Agency (NGA) prioritization of COCOM requirements. The committee is concerned to hear difficulties faced by COCOMs in obtaining necessary data that is pivotal for operational effectiveness, including data analytics available from the commercial sector in the remote sensing domain. Of particular concern are reports of COCOMs not receiving commercial data and products in timelines to support sensitive operations, particularly for those that require sharing of unclassified commercial data with partners, which remains increasingly difficult to do with intelligence community data.

Therefore, the Committee directs the Chairman of the Joint Chiefs of Staff to provide a report to the House Armed Services Committee not later than December 16, 2024, on the current requirements of the COCOMs for remote sensing data. The report should include the following information organized by each individual COCOM:

- (1) the number of requests made to NGA over the previous two years and the number fulfilled;
- (2) whether or not the amount of time to fulfill request met the required tactical timeline; and
- (3) the number of requests not fulfilled or only partially met, and the reason given by NGA.

Federal Reentry Range Coordination

The committee continues to support inclusion of a wide range of commercial space activities at Department of Defense test ranges, including launch and reentry operations. Utilization of these Department resources has proven beneficial to the commercial space sector in the United States, and a benefit to a range of Department users. The Department of Defense, through the Department of the Air

Force and the Federal Aviation Administration (FAA), are effectively coordinating commercial space launches and reentries through a Memorandum of Agreement (FAA-DAF-SLR-2021.21) at Vandenberg Space Force Base and Cape Canaveral Space Force Station. Through that agreement, the Department of the Air Force and the FAA have implemented a non-duplicative, single-approval process for each licensed activity on the Eastern and Western Ranges. This improved coordination, largely a result of section 1606 of the National Defense Authorization Act for Fiscal Year 2019 (Public Law 155-232), has proven a workable arrangement for the ranges, the FAA, and commercial launch and reentry operators.

The committee understands that the current Memorandum of Agreement does not include additional ranges where licensed reentry operations may also occur. As the Department of Defense begins to utilize the unique capabilities provided by commercial reentry operators, this lack of coordination between the Department of Defense and the FAA creates often overlapping and duplicative requirements. The committee supports the expansion of these operations at other ranges that are part of the Major Range Test and Facility Base (MRTFB), in addition to the Eastern and Western ranges to support a range of Department and commercial reentry flight and test needs.

Therefore, the committee directs the Secretary of the Air Force to provide a report to the House Committee on Armed Services not later than January 31, 2025, on Department of Air Force plans to update the current Memorandum of Agreement with the FAA, related to commercial launch and reentry activities. The report should include:

- (1) the status of discussions between the Department of the Air Force and the FAA on plans to update the existing Memorandum of Agreement;
- (2) an assessment of the Department of the Air Force reentry flight needs for operational or test and evaluation purposes within the next five years; and
- (3) a discussion of how the Department of the Air Force plans to develop a process, in coordination with the FAA, to ensure new commercial reentry technologies can access test ranges that are part of the MRTFB.

Ground Infrastructure for Space Light Detection and Ranging Capability

The committee is encouraged by the Defense Innovation Unit and National Security Innovation Capital's efforts to support commercial Light Detection and Ranging (LiDAR) satellite constellation technology. In continuing these efforts, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than December 31, 2024, on the current roles and responsibilities for LiDAR data and steps the Department is taking to prepare for commercial LiDAR satellite constellation technology. This briefing may be submitted in a classified form, if necessary. The briefing should also cover the following:

- (1) information on future space-based LiDAR system capabilities and requirements;

- (2) current ground infrastructure located in the continental United States that has the capacity to downlink and process space-derived LiDAR data;
- (3) an overview of remaining supply chain-based challenges to a U.S. space-based LiDAR capability, including satellite components; and
- (4) commercial space LiDAR research and development efforts underway.

High-Capacity Multi-Orbit Satellite Constellations

The committee is encouraged by the continued efforts of the United States Space Force in building resilient space systems by fielding proliferated constellations of small satellites in low earth orbit (LEO). However, higher orbits are, and will still be required, to meet critical mission applications. Satellites in these orbits could benefit from greater payload power, increased payload aperture, and additional propulsive capabilities required to maneuver without regret.

The committee is aware of efforts to rapidly deliver low-cost high-capacity satellites suitable for proliferating resilient constellations across multiple orbits including higher LEO, medium earth orbit, geostationary orbit, and cislunar space.

The committee supports the Space Force's efforts to employ a similar proliferated satellite acquisition strategy to deploy affordable, high-performance, high-power, multi-orbit satellite capabilities by working closely with the commercial space industry.

Therefore, the committee directs the Assistant Secretary of the Air Force for Space Acquisition and Integration to provide a briefing to the House Committee on Armed Services not later than December 1, 2024, that examines the mission areas that could benefit most from integration of proliferated low-cost, high-performance satellites into the services constellations across multiple orbits to meet future operational requirements and provide the resilience required by the evolving threats to U.S. space systems.

Hybrid Satellite Communications Terminals

The committee is aware of the ongoing work at Space Systems Command to build and develop hybrid satellite communications (SATCOM) terminals that communicate through multiple commercial and government constellations. The committee is encouraged by these ongoing efforts to take advantage of a mature commercial market for SATCOM and allow air platforms to communicate with a variety of commercial constellations in order to increase resiliency and allow for national systems to prioritize capacity in contested environments. The committee remains concerned that there is not a broader Department of Defense effort to deploy hybrid SATCOM terminals on platforms outside of the Department of the Air Force.

Therefore, the committee directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to House Committee on Armed Services not later than February 1, 2025, on any efforts being made to coordinate

the development of hybrid SATCOM terminals for platforms across the Department of Defense. The briefing should include:

- (1) an integration roadmap for deployment of hybrid SATCOM terminals for platforms in the Department of the Air Force;
- (2) an integration roadmap for deployment of hybrid SATCOM terminals for platforms in the Department of the Navy; and
- (3) an integration roadmap for deployment of hybrid SATCOM terminals for platforms in the Department of the Army.

Launch Site Diversity for the National Security Space Launch Program

The committee supports the National Security Space Launch Program (NSSL) and its related procurement for launch operations that are vital to Department of Defense space objectives. Given the emerging needs of Department and commercial launch operators, the NSSL program must meet requirements that enable payload processing and launch beyond the current NSSL capable locations on the Western and Eastern ranges.

Therefore, the committee directs the Chief of Space Operations to provide a briefing to the House Committee on Armed Services not later than December 1, 2024, on the feasibility of launching NSSL missions out of space ranges not currently utilized by the United States Space Force for NSSL, such as Wallops Island, Virginia; Pacific Spaceport Complex, Alaska; and Spaceport America in New Mexico after 2025. The briefing should also include assessments of:

- (1) the feasibility of using alternative sites for NSSL missions like the Global Positioning System or Space Development Agency Tranches;
- (2) the payload processing needs that would be required; and
- (3) the vulnerabilities of the current Department launch ranges to both adversary action and natural disaster.

Medium Earth Orbit Missile Warning Missile Tracking Layer

United States Space Force (USSF) Space Systems Command (SSC) and the Space Development Agency (SDA) are partnering to rapidly deliver a proliferated and resilient space-based sensor network against hypersonic threats. The committee has been a proponent of SDA's and SSC's new Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) Missile Warning/Missile Tracking (MW/MT) efforts. Given the vital importance of responding to great power competition with a resilient approach, it is imperative to focus on providing MW/MT at speed and lower cost, in response to warfighter needs.

The committee supports continued funding of both SSC and SDA MW/MT programs, which enable the United States to rapidly deploy a new space architecture to characterize and track all hypersonic threats and improve attribution. It is critical that the United States continues to ensure that resilient architectures in LEO and MEO are provided rapidly and with maximum warfighter utility. The committee also believes that MEO Epoch 2 solutions that uniquely

blend MW and MT capabilities at a low cost of ownership at the constellation level are critical elements to a future resilient force design.

Therefore, the committee directs the Assistant Secretary of the Air Force for Space Acquisition and Integration to provide a briefing to the House Armed Services Committee not later than December 1, 2024, on what requirements will remain unmet after fielding Epoch 1 space and ground constellations. The briefing should also address what technology advancements are required to meet the full set of requirements and how the USSF intends to integrate MW/MT capabilities to ensure maximum mission utility and low cost of ownership at the constellation level in MEO Epoch 2.

Prepositioned On-Orbit Tactically Responsive Space Capabilities

The committee is aware that the space domain is contested, and countries such as Russia and China continue to develop and deploy threats on-orbit to degrade and destroy U.S. national security satellites. The committee notes that multiple Department officials have testified that the United States is currently not able to adequately defend national security systems on orbit from these types of threats. Therefore, the committee directs the Chief of Space Operations to provide a briefing to the House Committee on Armed Services not later than December 31, 2024, on options for the current industrial base to deliver pre-positioned on-orbit responsive space capabilities, with a particular focus on small- and non-traditional businesses. The briefing shall include the following:

(1) the results of market survey data for industrial base partners that can deliver pre-positioned, responsive, on-orbit capabilities, to include small- and non-traditional businesses, to the Department of Defense;

(2) an assessment of rapid manufacturing, modular assembly, and/or pre-assembled capabilities for deployment within 24 hours or less of commanding, and realistic timeline of when that could be achieved, for each commercial industrial base partner identified in the market research for (1), including small- and non-traditional businesses; and

(3) identification of space industrial base partners, including small- and non-traditional businesses, who can provide an orbital test bed facility for laboratory testing, refinement, and demonstration of pre-positioned on-orbit responsive space capabilities.

Space Development Agency Futures Program

The committee recognizes the pivotal role of the Space Development Agency (SDA) in advancing the United States' space capabilities through the Proliferated Warfighting Space Architecture (PWSA). The committee also believes that continued investment in these emerging technologies from the commercial sector will be vital to the continued technology development of the overall SDA mission. To ensure continued technological advancement and readiness, the committee directs the Director of the Space Development Agency to provide a briefing to the House

Committee on Armed Services not later than February 1, 2025, on SDA plans to use its Research and Engineering (R&E) budget specifically for the SDA Futures Program. The briefing shall include:

- (1) the percentage of the SDA R&E budget it has allocated for the SDA Futures Program, aimed at flight demonstrations of payloads with potential for future PWSA integration;
- (2) description of commercial platforms for Futures Program payload deployment put on contract; and
- (3) plans to increase onboarding of new technologies.

Space-Based Environmental Monitoring

The committee notes the importance of accurate and up-to-date weather information to the success and safety of our warfighters. Furthermore, the committee is concerned that our current weather information systems do not address all the existing capability gaps and have been extended beyond their service life, specifically the low-earth orbit defense meteorological satellite program (DMSP).

The committee commends the U.S. Space Force for pursuing materiel solutions to replace DMSP with the modern electro-optical/infrared weather system (EWS) and the weather system follow-on microwave system. As such, the committee directs the Assistant Secretary of the Air Force for Space Acquisition and Integration to provide a briefing to the congressional defense committees not later than December 31, 2024, on the Department's current EWS acquisition strategy and current plans to replace DMSP with a long-term EWS capability. The briefing should include:

- (1) notional schedules, risk assessments, and resourcing necessary across the Future Years Defense Program for a long-term EWS replacement;
- (2) possible constellation options to compare coverage and persistence; and
- (3) an assessment of associated costs for the replacement program.

Waterfront Facilities for Federal Space Launch Ranges

The committee is aware of ongoing efforts to modernize the Space Force's ranges as part of the Spaceport of the Future Initiative. Maritime transport is the only available option to relocate some space launch vehicles to the Eastern and Western ranges. Ensuring access to space is a national security priority. In some cases, rough conditions in the ocean delay unloading of space launch vehicles and risk potential damage. The committee believes that the modernization of waterfront facilities at federal ranges, specifically where space launch vehicles are received, is critical to national security and the protection of significant investments made in each space launch vehicle by the United States government is paramount.

Therefore the committee directs the Chief of Space Operations to provide a briefing to the House Committee on Armed Services not later than November 15, 2024, that includes the following:

- (1) an assessment of the current and projected use of waterfront facilities, such as ports and docks, at federal space launch ranges of the Space Force;
- (2) an assessment of infrastructure improvements to such facilities that would be needed to meet, directly or indirectly, national security and readiness requirements, including supporting a more rapid launch cadence and ensuring access for launch vehicles;
- (3) a detailed plan to implement any required improvements, including the estimated funding required to implement the plan; and
- (4) any additional proposals that would support improved waterfront facilities for the federal space launch ranges of the Space Force, including recommendations for legislative action to carry out such proposals.

NUCLEAR FORCES

Cyber Intrusion Pilot for Nuclear Command, Control and Communications

The committee notes the Nuclear Command, Control and Communications (NC3) Enterprise Center is carrying out a pilot program, known as the Cyber Intrusion Pilot (CIP), to demonstrate persistent real-time cybersecurity monitoring and visibility capabilities and to detect anomalies and vulnerabilities based on network behavior modeling and traffic analysis. In addition to informing the NC3 Enterprise Cyber Sensing and Monitoring Strategy, the committee believes the CIP has the potential to make a significant contribution to enhancing the cybersecurity of the broader NC3 architecture. Therefore, the committee directs the Commander of U.S. Strategic Command to submit a report to the House Committee on Armed Services not later than February 1, 2025, on the results of the pilot effort to date, as well as any associated lessons learned. The report shall also include an assessment of prioritized options to enhance the pilot program and deploy its capabilities at greater scale.

Long Range Standoff Weapon Parts Obsolescence

The committee understands the Air Force plans to conduct life-of-type purchases of certain components at risk for obsolescence in order to ensure availability for Long Range Standoff Weapon production plans and meet inventory requirements. The committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than December 1, 2024, detailing the diminishing manufacturing sources and material shortages anticipated over the life of the program, as well as the authorities and resources utilized to address these challenges. Additionally, the briefing shall include a discussion of options available, should missile system inventory requirements increase in the future.

Sentinel Missile Program

The committee notes the Sentinel missile program is undergoing a review in accordance with sections 4371 through 4377 of title 10, United States Code, commonly referred to as the "Nunn-McCurdy statute". As part of this review, the Department is required to assess reasonable alternative systems and capabilities.

The committee supports a thorough and objective review and thus directs the Under Secretary of Defense for Acquisition and Sustainment to provide a briefing to the House Committee on Armed Services not later than one month following the determination by the Secretary of Defense with respect to the program's termination, as required under section 4376(b) of title 10, United States Code, and the submission to Congress of the associated documentation. Additionally, the briefing should also include a description of the alternative systems and capabilities considered, including road-mobile intercontinental ballistic missile capabilities, and an assessment of the relative feasibility and advisability of such alternatives.

MISSILE DEFENSE PROGRAMS

Replacement of MV Pacific Collector and SS Pacific Tracker

The committee understands the Missile Defense Agency (MDA) is studying options to replace the capabilities provided by test instrumentation ships MV Pacific Collector and SS Pacific Tracker. While both vessels provide unique telemetry and tracking capabilities, each is over 50 years old, and sustainment of these assets is becoming increasingly challenging. The committee also recognizes the unique capabilities provided by these vessels, and the significant contributions they have made to Department priorities beyond the mission of the MDA. The committee, therefore, directs the Director of the Missile Defense Agency to provide a briefing to the House Committee on Armed Services not later than December 1, 2024, on the conclusion of this analysis. The briefing shall include an assessment of the potential for utilization of the Vessel Construction Manager concept as part of this recapitalization effort. The committee further directs the Under Secretary of Defense for Research and Engineering to submit a report to the House Committee on Armed Services not later than March 1, 2025, assessing the sufficiency of other Department test and evaluation capabilities to provide a similar level of test data and range safety support, and the impact the vessels' retirement would have on other developmental programs beyond the purview of the MDA.

OTHER MATTERS

Hypersonic Aerial Targets

The committee is aware of the rapid adversarial development of hypersonic capabilities and is concerned by the increasing hypersonic threats to the United States. The committee shares one of the Department's top priorities of rapidly developing hypersonic offensive and defense capabilities, concurrently with

developing doctrine and policy surrounding these capabilities. The committee notes that to achieve this priority the Department must address the critical gaps in current U.S. hypersonic programming for test beds, reusable targets, and engine capabilities. Congress, through funding at the Air Force Research Lab, supports the investments in flight qualification of hypersonic aerial targets that have reuse potential, in addition to investments for additively manufactured engines and increased flight testing. With numerous challenges to address within U.S. hypersonic capability development, the committee encourages the Department emphasize the pursuit of reusable hypersonic targeting options to improve testing options.

Therefore, the committee directs the Under Secretary of Defense for Research and Evaluation, in coordination with the Under Secretary of Defense for Acquisition and Sustainment, to provide a briefing to the House Committee on Armed Services not later than December 1, 2024, on the Department's use of reusable hypersonic aerial targets. The briefing should also include:

- (1) timelines, costs, and potential cost-savings of current efforts;
- (2) an overview of the Department's use of additive manufacturing, liquid-storable engines, ceramic matrix composition components, aggressive cooling technology and prototyping, and other relevant cutting-edge technology for the use of hypersonic testing;
- (3) details on current commercial services that the Department uses for reusable hypersonics aerial targets; and
- (4) details on other commercially-available services in this field that could be considered by the Department for this purpose.

Leveraging Commercially Provided Recoverable Hypersonic Testbed and Calibration Platform

The committee recognizes that the development and fielding of resilient, space-based sensing capabilities in low, medium, and geosynchronous earth orbits, designed for indications, warning, detection, tracking and fire control, are a critical element of a global air and missile defense architecture with hypersonic defeat capability. Proper calibration, testing, and training is crucial to the success of these sensing capabilities. The Department requires robust and cooperative capabilities for extensive and repeated calibration, testing, and training events in realistic scenarios with realistic live targets. To achieve these capabilities, the committee believes that the Department should consider emerging commercial capabilities to provide hypersonic targets and associated launch services.

Therefore, the committee directs the Director of the Missile Defense Agency, in consultation with the Chief of Space Operations, to provide a briefing to the House Committee on Armed Services not later than December 30, 2024, on the calibration, testing, and training curriculum required to enable resilient, space-based sensing capabilities for U.S. air and missile defense architecture with hypersonic defeat capability. The briefing should also:

- (1) identify statutory and logistical gaps in current calibration, test, and training efforts;
- (2) provide an overview of ongoing joint programs, between the Department and commercial launch services, to improve calibration, test, and training efforts; and
- (3) provide statutory or budgetary recommendations on how the Department and the committee may close these capability gaps, with an emphasis on how commercially-provided hypersonic targets and launch services can be best leveraged.

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

TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

ITEMS OF SPECIAL INTEREST

Countering Unmanned Aerial Systems

The committee understands that the National Nuclear Security Administration (NNSA) recently implemented a pilot program leveraging commercially available technology to detect and respond to unmanned aerial system (UAS) intrusions. The committee is encouraged by NNSA’s innovative approach and its rapid deployment of capabilities in response to emergent challenges. The committee directs the Administrator for Nuclear Security to provide a briefing to the House Committee on Armed Services not later than December 13, 2024, on the findings of the pilot program and a plan, including associated resource requirements and timelines, to scale counter-UAS capabilities across the nuclear security enterprise.

Maintenance and Recapitalization of Facilities at the Pantex Plant

The committee believes that the Pantex Plant, located in the Texas Panhandle, plays a unique role in sustaining the United States’ nuclear deterrent as the Nation’s only site for nuclear warhead assembly and disassembly operations. While significant attention is devoted to large capital projects, the state of maintenance, repair and recapitalization needs is also vitally important for the achievement of a modern and response nuclear security enterprise. The committee notes National Nuclear Security Administration’s recent investments at the Pantex Plant, including the ongoing recapitalization of bay and cell safety systems, as well as site-wide lighting upgrades. However, the committee remains concerned about outstanding recapitalization and deferred maintenance challenges at the site. The

accumulation of these projects can drive higher operating costs, impact quality of life for employees, and pose a risk to mission delivery. Therefore, the committee directs the Administrator of the National Nuclear Security Administration to submit a report to the House Committee on Armed Services not later than January 15, 2025, on the status of infrastructure maintenance and recapitalization at the Pantex Plant. The report should include:

- (1) a description of identified minor construction and recapitalization projects that support mission requirements;
- (2) a risk-informed and prioritized list of deferred maintenance projects for both active and excess facilities; and
- (3) identification of any excess facilities at the site for which disposition by the Department of Energy's Office of Environmental Management is required.

Resilience of Pantex Plant to Natural Disasters

The committee is aware that in February 2024, the Texas Panhandle experienced the largest wildfire in the history of the state, which also threatened the Pantex Plant. The committee applauds the efforts of first responders and notes that, while the fire did not reach the site boundary, this incident provides an opportunity for critical review of procedures and policies to ensure that this facility is equipped and prepared for natural disasters in the future. Therefore, the committee directs the Administrator for Nuclear Security to provide a briefing to the House Committee on Armed Services not later than December 31, 2024, on the procedures and policies for natural disaster preparedness of the Pantex Plant. The briefing shall include:

- (1) an overview of emergency response plans and relevant policies for natural disasters;
- (2) a summary of federal, state, and local responsibilities during a natural disaster nearing the Pantex Plant;
- (3) an assessment of emergency response materials and their availability and readiness at the Pantex Plant; and
- (4) a description of the lessons learned and assessment of the effectiveness of response activities related to the February wildfires.

Transfer of Responsibility for the Savannah River Site

The committee believes it is important to carefully track the transition of primary responsibility for the Savannah River Site from the Department of Energy's Office of Environmental Management (EM) to the National Nuclear Security Administration (NNSA) to ensure the site's vital mission, workforce, and the surrounding community avoid undue disruption. However, the committee notes that structural differences between the budget documents submitted by EM and NNSA do not provide a clear picture of transitioning activities. For example, EM's budget request for Community and Regulatory Support for the Savannah River Site is about \$7.0 million less than the amount provided for the previous fiscal year.

Although NNSA's budget does not contain an equivalent account, it has informed the committee that additional funds for the same activities are contained in its request for funds for Operations of Facilities at the Savannah River Site.

Accordingly, the committee directs the Administrator of the National Nuclear Security Administration to provide a briefing to the House Committee on Armed Services by December 1, 2024, detailing the transfer of responsibility for activities and associated funding from EM to NNSA. Further, the committee encourages NNSA to include more detailed information in this respect in future budget submissions.