

SUBCOMMITTEE ON STRATEGIC FORCES - EN BLOC #1

LOG ID	REV	MEMBER	MARKUP LOC	DESCRIPTION	MARKUP ACT
82	2	Gabbard, Tulsi	STR	This is a report on asking the SecDef to complete legally required briefings on the status of any official talks between the US and other relevant parties regarding the New START Treaty.	EB 1
92	1	Turner, Michael	STR	Prohibition on Availability of Funds for Certain Purposes Relating to the Global Positioning System	EB 1
100	1	Turner, Michael	STR	Report on Resilient Protected Communications Satellites	EB 1
131	0	Turner, Michael	STR	Clarification of Procurement of Commercial Satellite Communications Services	EB 1
146	0	Haaland, Debra A.	STR	The committee directs the Secretary of Defense to submit a report to defense committees by Dec 31, 2020 outlining benefits, vulnerabilities and risks associated with foreign sources of satellite solar power technology.	EB 1
226	3	Lamborn, Doug	STR	This amendment would require the Secretary of Defense to develop a plan for Department-wide space orbital debris mitigation practices.	EB 1
369	2	Banks, Jim	STR	A report on the NRO's plans for future commercial sources for satellite imagery.	EB 1
420	1	Garamendi, John	STR	DRL requesting a briefing on the implementation of an operational GPS backup system required per the National Timing Resilience and Security Act.	EB 1
510	0	Brooks, Mo	STR	DRL for a briefing on MDA's efforts to develop a cyber-secure information technology infrastructure that allows users to access data via a virtual desktop infrastructure.	EB 1
512	0	Brooks, Mo	STR	DRL for a briefing on improvements to tactical satellites and SAR data processing.	EB 1
567	0	Cooper, Jim	STR	Requires GAO report and briefings on space acquisition.	EB 1
577	1	Brown, Anthony G.	STR	Directs the Secretary of the Army to provide a report on the feasibility of NASA LiDAR technology to Army operations.	EB 1
126	0	Turner, Michael	STR	Technical Fix to Boost Phase Missile Defense Language	EB 1

LOG ID	REV	MEMBER	MARKUP LOC	DESCRIPTION	MARKUP ACT
136	2	Lamborn, Doug	STR	Requires commander of NORTHCOM, in coordination with the Director of MDA, to write a report identifying homeland vulnerabilities to cruise missile threats and to draft a plan to mitigate these threats.	EB 1
211	2	Larsen, Rick	STR	To direct the Secretary of Defense to submit a report to Congress on the requirements needed and plan for upgrading the Defense Early Warning Sites in Alaska to include terrestrial linkages	EB 1
277	0	Carbajal, Salud O.	STR	Extend the requirement for the Comptroller General of the U.S. to review and assess missile defense acquisition programs.	EB 1
436	0	Trahan, Lori	STR	A study and a report to the congressional defense committees to fully understand how the U.S. military can counter the continuing evolution of the ballistic missile, hypersonic and cruise missile threats to Guam.	EB 1
493	1	Torres Small, Xochitl	STR	Requires a briefing to address sounding rocket vehicle high-speed flight technology maturation tests.	EB 1
531	1	Lamborn, Doug	STR	Extends the date at which key missile defense programs are transferred from the Missile Defense Agency from 2021 to 2023 to allow for a more deliberate planning and discussion of the policy.	EB 1
166	0	Brooks, Mo	STR	DRL on how the Army plans to directly task space-based assets shared with the IC for LRPF.	EB 1
372	0	Haaland, Debra A.	STR	To provide for a tactically responsive space launch program	EB 1
15	1	Bacon, Don	STR	Affirms the importance of nuclear command, control and communications (NC3) modernization and directs a report on the operational readiness of the legacy airborne NC3 fleets	EB 1
308	0	Lamborn, Doug	STR	Requires the SecDef to establish a domestic responsive satellite manufacturing capability and develop a plan with the SecAF, CSO, and SPACECOM to rapidly reconstitute critical capability gaps in the event of destruction or failure of a space asset.	EB 1

Amendment to H.R. 6395 National Defense Authorization Act for Fiscal Year 2021

Offered by: Ms. Gabbard of Hawai‘i

In the portion of H.R. 6395 named “TITLE XII – MATTERS RELATING TO FOREIGN NATIONS”, insert after the section titled “Security Sector Assistance Training for Foreign Students” the following new text:

“The Committee is concerned that the Secretary of Defense and Secretary of State have not completed the briefings required by the National Defense Authorization Act for Fiscal Year 2020, Section 1237, regarding arms control negotiations and the New START Treaty. The Committee emphasizes the importance of legally binding, verifiable limits on Russian strategic nuclear forces on the United States’ national security, and strongly urges the both the Secretary of Defense and the Secretary of State to comply with the timeline laid out by Section 1237. The Committee further notes the importance of keeping Congress informed with regard to the Administration's nuclear arms control policies. Therefore, the Committee directs the Secretary of Defense, in coordination with the Secretary of State, to provide a briefing to the House Committee on Armed Services, not later than September 1, 2020 on the status of nuclear arms control negotiations with Russia.”

AMENDMENT TO H.R. 6395

OFFERED BY Mr. Turner of Ohio

At the appropriate place in title XVI, add the following new section:

1 **SEC. 16** ____ . **PROHIBITION ON AVAILABILITY OF FUNDS FOR**
2 **CERTAIN PURPOSES RELATING TO THE**
3 **GLOBAL POSITIONING SYSTEM.**

4 (a) **FINDINGS.**—Congress finds the following:

5 (1) On April 19, 2020, the Federal Commu-
6 nications Commission issued an order and authoriza-
7 tion granting Ligado Networks LLC the authority to
8 operate a nationwide terrestrial communications net-
9 work using the 1526–1536 megahertz band, the
10 1627.5–1637.5 megahertz band, or the 1646.5–
11 1656.5 megahertz band.

12 (2) In an attempt to address interference to the
13 Global Positioning System operating near those
14 bands, Ligado Networks LLC has committed to as-
15 suming the costs mitigating any interference caused
16 by their network.

17 (3) In the approval order, the Federal Commu-
18 nications Commission directed that “Ligado takes
19 all necessary mitigation measures to prevent or re-

1 mediate any potential harmful interference to U.S.
2 Government devices, including devices used by the
3 military, that are identified both pre- and post-de-
4 ployment of Ligado’s network.”.

5 (4) In a letter to the Committee on Armed
6 Services of the House of Representatives dated May
7 21, 2020, Ligado Networks LLC reaffirmed the
8 commitment to bear the costs to the Department of
9 Defense, stating that the “FCC directed Ligado to
10 provide protections to GPS devices using its spec-
11 trum by imposing stringent coordination, coopera-
12 tion, and replacement obligations on Ligado, so that
13 Ligado bears the burden” and “Make no mistake:
14 the obligation is ours, and the burden falls solely on
15 our company.”.

16 (b) PROHIBITION.—Except as provided by subsection
17 (c), none of the funds authorized to be appropriated by
18 this Act or otherwise made available for fiscal year 2021
19 or any subsequent fiscal year for the Department of De-
20 fense may be obligated or expended to retrofit any Global
21 Positioning System device or system, or network that uses
22 the Global Positioning System, in order to mitigate inter-
23 ference from commercial terrestrial operations using the
24 1526–1536 megahertz band, the 1627.5–1637.5 mega-
25 hertz band, or the 1646.5–1656.5 megahertz band.

1 (c) ACTIONS NOT PROHIBITED.—The prohibition in
2 subsection (a) shall not apply to any action taken by the
3 Secretary of Defense relating to—

4 (1) conducting technical or information ex-
5 changes with the entity that operates the commercial
6 terrestrial operations in the megahertz bands speci-
7 fied in such subsection;

8 (2) seeking compensation for interference from
9 such entity; or

10 (3) Global Positioning System receiver upgrades
11 needed to address other resiliency requirements.



AMENDMENT TO H.R. 6395
OFFERED BY MR. TURNER OF OHIO

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

1 **SEC. 16 ____ . REPORT ON RESILIENT PROTECTED COMMU-**
2 **NICATIONS SATELLITES.**

3 (a) FINDINGS.—Congress finds the following:

4 (1) The national command, control, and com-
5 munications system of the Department of Defense is
6 essential to the national security of the United
7 States.

8 (2) The Department of Defense requires the
9 space segments of such system to be resilient and
10 survivable to address advanced threats from Russia
11 and China.

12 (3) The next-generation overhead persistent in-
13 frared missile warning satellites are being upgraded
14 with enhanced resiliency features to make them
15 much less vulnerable to attack and will begin launch
16 in 2025.

17 (4) Because missile warning satellites rely on
18 protected communications satellites to relay warn-
19 ings and response orders, the next-generation over-

1 head persistent infrared missile warning satellites
2 will require protected communications satellites with
3 enhanced resiliency features, however, the current
4 plan of the Space Force is to provide those capabili-
5 ties with the evolved strategic satellite communica-
6 tions program that will not be available until 2032
7 or later.

8 (5) As a result, the Chief of Space Operations
9 should implement an accelerated plan to achieve
10 more resilient protected communications satellites
11 without delay.

12 (b) REPORT.—Not later than 60 days after the date
13 of the enactment of this Act, the Chief of Space Oper-
14 ations shall submit to the congressional defense commit-
15 tees a report on how the Space Force will address the need
16 for resilient protected communications satellites during
17 the years 2025 through 2032.



AMENDMENT TO H.R. 6395
OFFERED BY MR. TURNER OF OHIO

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

1 **SEC. 9__ . CLARIFICATION OF PROCUREMENT OF COM-**
2 **MERCIAL SATELLITE COMMUNICATIONS**
3 **SERVICES.**

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. Procurement of commercial satellite commu-**
8 **nications services**

9 “The Chief of Space Operations shall be responsible
10 for the procurement of commercial satellite communica-
11 tions services for the Department of Defense.”.

12 (b) TABLE OF SECTIONS AMENDMENT.—The table of
13 sections at the beginning of chapter 963 of such title is
14 amended by inserting before the item relating to section
15 9532 the following new item:

“9531. Procurement of commercial satellite communications services.”.



**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by: Haaland, Deb A.

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Satellite Solar Power Technology Sourcing

The committee is aware that high efficiency solar cells and panels are essential for powering civil and national security satellites. US technological leadership and secure and reliable sources of solar cells and panels are critical aspects of satellite operations. A 2019 report by Air Force Research Laboratory and the Defense Innovation Unit on the state of the space industrial base recommended that the United States “include reforms in government contracting and direct government investment as needed to compensate for U.S. adversaries’ anti-competitive behavior, and establish the long-term technological and logistical space infrastructure needed to ensure long-term, U.S. dominance in space.” The committee understands that a whole-of-government approach is needed to enable a stable domestic industrial base for solar cell and panel manufacturing. The committee is also aware of the challenges stemming from foreign competition within the solar cell industry that benefit from government subsidies , which can undercut price competitiveness for U.S. domestic suppliers.

The committee therefore directs the Secretary of Defense to submit a report to the defense committees by December 31, 2020 outlining the benefits, vulnerabilities and risks associated with foreign sources of satellite solar power technology. The report shall include recommended investments, any necessary policy changes, or other steps deemed appropriate to support this segment of the national security space industrial base.

Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021

Offered by: Mr. Lamborn of Colorado

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Policy and Technology Review on Minimizing Orbital Debris Threats

National security depends on reliable access to, and safe operations in, space. Critical Department of Defense (DoD) missions operating in space and providing multidomain support depend on minimizing orbital threats, including the threat posed by orbital debris. Both satellites and rocket bodies are major sources of space debris, particularly in low-Earth orbit. There have also been several notable close calls between active satellites and active and defunct craft. Our nation and global economy cannot afford actual collisions, much less the additional debris that would be created as a result.

The Committee is aware of the routinely updated U.S. government's Orbital Debris Mitigation Standard Practices (ODMSP) and the Air Force's Unified Data Library (UDL). However, notwithstanding the growing risk from orbital debris to our national defense assets, the Department does not appear to have changed its standard operating practices – for its own warfighting satellites, or for the commercial satellite operators on which it relies – in any substantive way since first publishing the ODMSP report in 2001.

Therefore, the committee directs the Secretary of Defense to review the Department's current policies for orbital debris mitigation, including compliance with ODMSP, and provide to the congressional defense committees a plan for full compliance with the ODMSP in all orbits and particularly low earth orbit through the establishment of Department-wide orbital debris mitigation practices no later than January 31 2021. Compliance should include both nominal end-of-mission operations and off-nominal operations. For example, if a Department of or contracted commercial space service experiences an anomaly in orbit, the operator should continue to be subject to the ODMSP.

Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021

Offered by: Mr. Jim Banks of Indiana

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

NATIONAL RECONNAISSANCE OFFICE (NRO)
FUTURE COMMERCIAL SOURCES OF SATELLITE IMAGERY

As the National Reconnaissance Office (NRO) moves forward with its strategy for acquiring commercial satellite imagery following the EnhancedView contract, which is set to end at the end of FY2020, the committee expects the Director to continue a program of open competition likely leading to contracts to multiple awardees, and to be responsive to the requirements of the National Geospatial-Intelligence Agency and the broader Department of Defense GEOINT user community, including Combatant Commands, Functional Commands, and other key elements of the armed forces. The committee expects the NRO to fulfill the GEOINT requirements of the user community to the greatest extent, and believes Office should be working proactively with industry to apply commercial solutions to known Intelligence, Surveillance, and Reconnaissance gaps as much as possible. The Committee expects the NRO to not only support the continuation of commercial data acquisitions consistent with the needs met by the EnhancedView contract, but to further enable on-ramps for new capabilities responsive to additional needs. The committee directs the Director of the NRO to report to the congressional defense and intelligence committees by December 15th 2020, on its plans to lead the GEOINT community in identifying and working with new commercial providers or new commercial data sets and solutions, transitioning them from pilot programs to operational contracts, and doing so even as formal requirements are still in development.

Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021

Offered by: Mr. Garamendi

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Terrestrial Based Backup for GPS

The committee is aware that Section 1618 of the Fiscal Year 2017 National Defense Authorization Act (NDAA) (PL 114-328) required the Secretaries of Defense, Transportation, and Homeland Security to report to the appropriate congressional committees on the respective requirements necessary to backup and complement the positioning, navigation and timing (PNT) capabilities of the Global Positioning System (GPS) for national security and critical infrastructure and examine the alternative methods to provide backup. The committee also notes that the Fiscal Year 2018 NDAA (Section 1606, P.L. 115-91) called for the Secretaries to conduct a demonstration of backup technologies.

The federal government has been tasked for over sixteen years with developing a GPS backup capability, beginning with President Directive NSPD-39 in 2004. Since then, numerous studies, both public and private, have validated the critical need for backup and identified the lack of such backup as a critical vulnerability for national security and critical infrastructure. After several years of hearings and studies by the appropriate congressional committees, Congress passed the National Timing Resilience and Security Act of 2018 (NTSRA) as Section 514 of the Frank LoBiondo Coast Guard Authorization Act of 2018 (Sec. 514, P.L. 115-282, Dec. 4, 2018). Congress deemed it necessary to provide for a terrestrial based backup for the timing component as soon as possible because of the Executive Branch's failure to do so. The Act uses a public-private partnership to build and operate the backup timing system, one of the alternative models that were identified for analysis in the FY 2017 NDAA.

The Committee's view is the NTSRA is entirely complementary and not in conflict with the Committee's actions to provide backup for GPS, especially the positioning and navigation elements critical to the military and aviation. An uninterrupted timing signal is essential to the national economy in the operation of our financial networks, banking system, credit and debit transactions, operation of the electric grid and telecom networks. Congress determined that the nation could no longer risk not having at least a backup timing system and passed NTSRA as a result.

The committee notes that the backup system called for by the NTSRA was to be operational by December 2020, but the report from the demonstration has yet to be completed. The Committee directs the Secretaries of Defense, Transportation, and Homeland Security to provide a briefing to the appropriate congressional committees by January 31, 2021, on the implementation of an operational backup system required under NTSRA.

**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by: Rep. Mo Brooks (AL-05)

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

**Ballistic Missile Defense System Advanced Technology Mission Assessment
Architecture**

The committee notes that given the Missile Defense Agency's (MDA) platforms and network security could be significantly improved by the development and deployment of a high performance computing infrastructure designed to enable secure data delivery, high fidelity cyber ranges, big data repositories with deep data analytics, machine learning, and artificial intelligence. Therefore, the committee directs the Director of the Missile Defense Agency to provide a briefing to the House Committee on Armed Services not later than January 31, 2020, on MDA's efforts to develop a cyber-secure information technology infrastructure that allows users to access data via a virtual desktop infrastructure.

Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021

Offered by: Rep. Mo Brooks (AL-05)

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Sensor-to-Shooter Tactical Satellite Targeting Support to Deep Strike Weapons

The committee notes that near-peer adversaries are fielding systems designed to outrange or overmatch Department of Defense weapons systems and simultaneously deny our forces access to intelligence in the deep battlefield and thus, an ability to see and strike critical targets. The committee is concerned that, as the Department of Defense develops next-generation, deep-strike weapon systems, it lacks persistent deep sensing capabilities to find targets for these weapons to strike. The committee strongly encourages the Department of Defense to leverage advances in technology that now allow for not only a precise view of the deep battlefield, but an ability to quickly deliver precision targeting data to support deep-strike weapons systems. Therefore, the committee directs the Secretary of Defense to brief the House Committee on Armed Services not later than February 15, 2021, on the Department of Defense's plans to accelerate needed improvements on existing Synthetic Aperture Radar (SAR) sensors; advance and further refine processing of SAR data; support the development of a tactical ground architecture for the delivery of targeting data; and fund integration with ongoing experiments and live exercises to develop concepts of operations, as well as tactics, techniques, and procedures, that can transition to, and be adopted as joint doctrine, leading to a significant reduction in the delivery time of precision targeting data.

**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by: Mr. Cooper

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Space acquisition

The committee notes that 1601(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115–232) and the report accompanying the National Defense Authorization Act for Fiscal Year 2020 (Public Law 116-92) directed the Secretary of the Air Force to provide to the congressional defense committees a report on whether and, if so, how to implement an alternative acquisition system. In addition, the committee continues to support the development of a space acquisition cadre. The committee is aware that the Secretary of the Air Force briefed committee members on recommendations included in its report on Alternative Acquisition System for the United States Space Force in May 2020 but to date has not submitted a final copy of the report. Further, the committee notes that the draft report raised questions about the risk of undermining congressional oversight of major space acquisition programs and the lack of accountability. In addition, the committee continues to support and recommend measures to improve and ensure the retention of a robust and experienced space acquisition cadre.

Therefore, the committee directs the Comptroller General of the United States to review the draft report on an Alternative Acquisition System for the United States Space Force submitted by the Secretary of the Air Force and provide its analysis to the House and Senate Armed Services committees by December 15, 2020. The committee also directs the Director of the National Reconnaissance Office, the Director of Navy Space Systems Program and the Director of Naval Reactors at the National Nuclear Security Administration to each brief the House Armed Services Committee no later than December 1, 2020 on program management and personnel practices they use to ensure a high level of expertise and effective management of their acquisition programs. The briefings shall include whether and how the Directors rely on small, collaborative teams, employ strong systems engineering and program management, draw from the latest advances in technology and concepts of operation, establish a short chain of

command and avoid bureaucracy, and any other element each Director recommends related to creating and sustaining effective acquisition culture and program management.

**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by: Mr. Brown of Maryland

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Military application of LiDAR satellites

The committee recognizes that support to long-range precision fires and future Intelligence, Surveillance and Reconnaissance operations will be degraded based on the Anti-Access/Anti-Denial (A2AD) environment of adversaries possessing advanced air defense capabilities. The committee understands there may be innovative new technologies which could provide tactically-relevant, high-resolution targeting information from low earth orbit satellites, such as 3-D LiDAR. Space-based LiDAR with the ability to provide triple-canopy deep foliage in support of counter Denial and Deception D&D. The committee further understands that such capability has proved effective for National Aeronautics and Space Administration objectives and the feasibility of converting this to military applications should be studied, including as a hosted payload on a National Reconnaissance Office or Army satellite. Therefore, the committee directs the Secretary of the Army to provide a report to the congressional defense committees not later than February 1, 2021, on the feasibility of commercializing a multi-aperture single photon LiDAR satellite to support Army long-range precision fires and Army Special Operations Command elements.

**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by Mr. Turner of Ohio:

In the portion of the report to accompany H.R. 6395 titled “Boost Phase Missile Defense”, strike the following text: “megawatts” and insert the following new text “kilowatts”.

AMENDMENT TO H.R. 6359
OFFERED BY MR. LAMBORN OF COLORADO

At the appropriate place in subtitle E of title XVI,
insert the following new section:

1 **SEC. 16 ____. REPORT ON CRUISE MISSILE DEFENSE.**

2 Not later than January 15, 2021, the Commander
3 of the United States Northern Command, in coordination
4 with the Director of the Missile Defense Agency, shall sub-
5 mit to the congressional defense committees a report con-
6 taining—

7 (1) an identification of any vulnerability of the
8 contiguous United States to known cruise missile
9 threats; and

10 (2) a plan to mitigate any such vulnerability.



**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by: Rick Larsen

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Report on Arctic Distant Early Warning Sites

The committee notes that the Department of Defense's 2019 Report to Congress on Arctic Strategy states that DOD's ability to detect threats in the Arctic is a prerequisite to deterring or responding to strategic competitors' activities in the region. The DoD's ability to detect threats and defend North America is challenged by rapidly advancing strategic competitors' capabilities. At the Halifax International Security Forum in November of 2019, Gen. O'Shaughnessy, Commander of Northern Command and North American Aerospace Defense Command, stated that "we need to invest again" in the Defense Early Warning System.

The committee believes that military readiness in the Arctic is vital to United States national security and steps should be taken to improve Defense Early Warning Sites to detect threats in the Arctic.

Therefore, the committee directs the Secretary of Defense, in coordination with the Commander of Northern Command North American Aerospace Defense Command, not later than January 31, 2021, to submit to the congressional defense committees a report on the requirements needed and plan for upgrading Defense Early Warning Sites in Alaska to include terrestrial linkages.

AMENDMENT TO H.R. 6395
OFFERED BY MR. CARBAJAL OF CALIFORNIA

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

1 **SEC. 16 ____ . EXTENSION AND MODIFICATION OF REQUIRE-**
2 **MENT FOR COMPTROLLER GENERAL OF THE**
3 **UNITED STATES REVIEW AND ASSESSMENT**
4 **OF MISSILE DEFENSE ACQUISITION PRO-**
5 **GRAMS.**

6 Section 232(a) of the National Defense Authorization
7 Act for Fiscal Year 2012 (Public Law 112–81; 125 Stat.
8 1339), as amended by section 1688 of the National De-
9 fense Authorization Act for Fiscal Year 2016 (Public Law
10 114–92; 129 Stat. 1144), is amended—

11 (1) in paragraph (1), by striking “through
12 2020” and inserting “through 2025”; and

13 (2) in paragraph (2)—

14 (A) by striking “through 2021” and insert-
15 ing “through 2026”; and

16 (B) by adding at the end the following new
17 sentence: “In carrying out this subsection, the
18 Comptroller General shall review emergent
19 issues relating to such programs and account-

1 ability and, in consultation with the congres-
2 sional defense committees, either include any
3 findings from the review in the reports sub-
4 mitted under this paragraph or provide to such
5 committees a briefing on the findings.”.



AMENDMENT TO H.R. 6395
OFFERED BY MRS. TRAHAN OF MASSACHUSETTS

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

1 **SEC. 16 ____ . REPORT ON DEFENSE OF GUAM FROM INTE-**
2 **GRATED AIR AND MISSILE THREATS.**

3 (a) REPORT.—Not later than 120 days after the date
4 of the enactment of this Act, the Secretary of Defense
5 shall submit to the congressional defense committees a re-
6 port containing a study on the defense of Guam from inte-
7 grated air and missile threats, including such threats from
8 ballistic, hypersonic, and cruise missiles.

9 (b) ELEMENTS.—The report under subsection (a)
10 shall include the following:

11 (1) The identification of existing deployed land-
12 and sea-based air and missile defense programs of
13 record within the military departments and Defense
14 Agencies, including with respect to interceptors, ra-
15 dars, and ground-, ship-, air-, and space-based sen-
16 sors that could be used either alone or in coordina-
17 tion with other systems to counter the threats speci-
18 fied in subsection (a) with an initial operational ca-
19 pability by 2025.

1 (2) A plan of how such programs would be used
2 to counter such threats with an initial operational
3 capability by 2025.

4 (3) A plan of which programs currently in de-
5 velopment but not yet deployed could enhance or
6 substitute for existing programs in countering such
7 threats with an initial operational capability by
8 2025.

9 (4) An analysis of which military department,
10 Defense Agency, or combatant command would have
11 operational control of the mission to counter such
12 threats.

13 (5) A cost analysis of the various options de-
14 scribed in paragraphs (1) and (3), including a
15 breakdown of the cost of weapons systems consid-
16 ered under the various scenarios (including any costs
17 to modify the systems), the cost benefits gained
18 through economies of scale, and the cost of any mili-
19 tary construction required.

20 (6) An analysis of the policy implications re-
21 garding deploying additional missile defense systems
22 on Guam, and how such deployments could affect
23 strategic stability, including likely responses from
24 both rogue nations and near-peer competitors.

1 (c) CONSULTATION.—The Secretary shall carry out
2 this section in consultation with each of the following:

3 (1) The Director of the Missile Defense Agency.

4 (2) The Commander of the United States Indo-
5 Pacific Command.

6 (3) The Commander of the United States
7 Northern Command.

8 (4) Any other official whom the Secretary of
9 Defense determines for purposes of this section has
10 significant technical, policy, or military expertise.

11 (d) FORM.—The report submitted under subsection
12 (a) shall be in unclassified form, but may contain a classi-
13 fied annex.

14 (e) BRIEFING.—Not later than 30 days after the date
15 on which the Secretary submits to the congressional de-
16 fense committees the report under subsection (a), the Sec-
17 retary shall provide to such committees a briefing on the
18 report.



Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021

Offered by: Rep. Xochitl Torres Small

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Missile Defense Agency (MDA) High-Speed Flight Experiment Testing

The committee identifies missile defense against the hypersonic missile threat as a key priority for the nation's future security posture, and for that reason is concerned that there are insufficient ground test facilities available to support enabling technology maturation. The committee is aware of existing U.S. Navy sounding rocket vehicles that are available to rapidly conduct flight experiments for high-speed technologies such as propulsion, warheads, thermal protection systems, seeker windows and control systems. MDA's Advanced Research Program is focused on the development of innovative and enabling technologies to support this urgent requirement through contracts with small business, and universities. A key to transitioning these technologies to a future missile program is an affordable, rapid testing method for technical maturation and demonstration. The committee believes the use of sounding rocket-based flight experiments will provide this solution. Therefore, the committee directs the Director of the Missile Defense Agency, in coordination with the Secretary of the Navy, to provide a briefing to the congressional defense committees no later than January 31, 2021 on options that exist to increase testing to support hypersonic defense technology maturation.

AMENDMENT TO H.R. 6395
OFFERED BY MR. LAMBORN OF COLORADO

At the appropriate place in subtitle E of title XVI,
insert the following new section:

1 **SEC. 16 ____ . EXTENSION OF TRANSITION OF BALLISTIC MIS-**
2 **SILE DEFENSE PROGRAMS TO MILITARY DE-**
3 **PARTMENTS.**

4 Section 1676(b)(1) of the National Defense Author-
5 ization Act for Fiscal Year 2018 (Public Law 115–91; 10
6 U.S.C. 2431 note) is amended by striking “2021” and in-
7 serting “2023”.



**Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021**

Offered by: Rep. Mo Brooks (AL-05)

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Army GEOINT

The committee believes the Department of Defense requires the strongest possible integration with the intelligence community. The United States Army, in particular, will be dependent upon the interagency for intelligence capabilities to enable long range precision fires. Therefore, the Committee directs the Undersecretary of Defense for Intelligence and Security and the Army's Deputy Chief of Staff for Intelligence to provide the committee with a briefing not later than December 31, 2020, on plans to ensure the Army has direct access, including collection tasking, to the intelligence capabilities required to enable the Army's long range precision fires capabilities under development. The briefing should include information on the Army's efforts to build an information architecture that will support direct access to such intelligence capabilities.

AMENDMENT TO H.R. 6395

OFFERED BY MS. HAALAND OF NEW MEXICO

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

1 **SEC. 16 ____ . TACTICALLY RESPONSIVE SPACE LAUNCH OP-**
2 **ERATIONS.**

3 The Secretary of the Air Force shall implement a
4 tactically responsive space launch program—

5 (1) to provide long-term continuity for tactically
6 responsive space launch operations across the fu-
7 ture-years defense program submitted to Congress
8 under section 221 of title 10, United States Code;

9 (2) to accelerate the development of—

10 (A) responsive launch concepts of oper-
11 ations;

12 (B) tactics;

13 (C) training; and

14 (D) procedures;

15 (3) to develop appropriate processes for
16 tactically responsive space launch, including—

17 (A) mission assurance processes; and

18 (B) command and control, tracking, telem-
19 etry, and communications; and

2

- 1 (4) to identify basing capabilities necessary to
- 2 enable tactically responsive space launch, including
- 3 mobile launch range infrastructure.



Amendment to H.R. 6395
National Defense Authorization Act for Fiscal Year 2021

Offered by Mr. Bacon of Nebraska

In the appropriate place in the report to accompany H.R. 6395, insert the following new Directive Report Language:

Nuclear Command, Control and Communications Enterprise Modernization

The committee acknowledges the importance of the Department of Defense's efforts to modernize the nuclear command, control, and communications (NC3) enterprise as a critical element of the nation's nuclear deterrent capability. The recent establishment of the Nuclear Command, Control and Communications Enterprise Center (NEC) within U. S. Strategic Command (USSTRATCOM) is a significant advancement that will help inform and enable the modernization of the Department's situational awareness, decision-making, force direction, force management and planning for resilient NC3. The committee believes strong and sustained attention to NC3 will be required as the Department continues to implement a comprehensive nuclear deterrent modernization program. The committee also observes that robust partnerships with industry will be required in order to develop, field and affordably sustain a modernized NC3 enterprise and believes the NEC can play an important role in developing these relationships.

The committee also recognizes the importance of maintaining a responsive and resilient airborne NC3 capability. The committee is aware of the ongoing analysis to determine options to replace E-4B and E-6B aircraft that currently perform this mission. However, as the deliberate planning process to replace these aircraft proceeds forward, the committee is aware of the age of the legacy airborne NC3 fleet and its capacity to maintain a sustained airborne presence if directed. To better understand the capabilities and limitations of the current airborne NC3 fleet, the committee directs the Secretary of Defense to provide a briefing to the congressional defense committees by November 30, 2020, on the ability of USSTRATCOM to conduct sustained airborne NC3 operations. This briefing will include an overview of the Department's airborne NC3 operational employment concept, an evaluation of current Air Force and Navy airborne NC3 capabilities and limitation related to manpower, training, maintenance, logistics support, basing, and aerial refueling requirements, and an assessment of how long contingency airborne NC3 operations can be sustained.

AMENDMENT TO H.R. 6395
OFFERED BY MR. LAMBORN OF COLORADO

At the appropriate place in subtitle A of title XVI,
insert the following new section:

1 **SEC. 16 ____. RESPONSIVE SATELLITE INFRASTRUCTURE.**

2 (a) IN GENERAL.—The Secretary of Defense shall es-
3 tablish a domestic responsive satellite manufacturing ca-
4 pability for Department of Defense space operations to be
5 used—

6 (1) for the development of components, sys-
7 tems, structures, and payloads necessary to reconsti-
8 tute a national security space asset that has been
9 destroyed, failed, or otherwise determined to be in-
10 capable of performing mission requirements; and

11 (2) to rapidly acquire and field necessary space-
12 based capabilities needed to maintain continuity of
13 national security space missions and limit capability
14 disruption to the warfighter.

15 (b) PLAN FOR RESPONSIVE SATELLITE
16 INFRASTRUCUTRE.—The Secretary of Defense, in con-
17 sultation with the Secretary of the Air Force, the Chief
18 of Space Operations, and the Commander of United
19 States Space Command, shall develop an operational plan

1 and acquisition strategy for responsive satellite infrastruc-
2 ture to swiftly identify need, develop capability, and launch
3 a responsive satellite to fill a critical capability gap in the
4 event of destruction or failure of a space asset or otherwise
5 determined need.

6 (c) MATTERS INCLUDED.—The plan outlined under
7 subsection (b) shall include the following:

8 (1) A process for determining whether the re-
9 constitution of a space asset is necessary.

10 (2) The timeframe in which a developed sat-
11 ellite is determined to be “responsive”.

12 (3) A plan to leverage domestic commercial en-
13 tities in the “new space” supply chain that have al-
14 ready demonstrated rapid satellite product develop-
15 ment and delivery capability to meet new “mission
16 responsiveness” requirements being passed down by
17 Department of Defense prime satellite contractors
18 in—

19 (A) power systems and solar arrays;

20 (B) payloads and integration features; and

21 (C) buses and structures.

22 (4) An assessment of acquisition requirements
23 and standards necessary for commercial entities to
24 meet Department of Defense validation of supply
25 chains, processes, and technologies while operating

1 under rapid development cycles needed to maintain
2 a responsive timeframe as determined by paragraph
3 (2).

4 (5) Such other matters as the Secretary con-
5 siders appropriate.

6 (d) REPORT REQUIRED.—Not later than 180 days
7 after the date of the enactment of this Act, the Secretary
8 of Defense shall submit to Congress a report detailing the
9 plan under subsection (b).

