### H.R. 7900—FY23 NATIONAL DEFENSE AUTHORIZATION BILL

# SUBCOMMITTEE ON STRATEGIC FORCES

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

#### LEGISLATIVE PROVISIONS

SUBTITLE C—NUCLEAR FORCES

Section 1621—Improvements to Nuclear Weapons Council

This section would amend section 179 of title 10, United States Code, to establish a role for the Nuclear Weapons Council in coordinating risk management efforts between the Department of Defense and the National Nuclear Security Administration. It would also consolidate Nuclear Weapons Council reporting requirements.

Section 1622—Portfolio Management Framework for Nuclear Forces

This section would amend chapter 24 of title 10, United States Code, to require the Secretary of Defense to implement a portfolio management framework for nuclear forces by January 1, 2024, and provide annual briefings to the congressional defense committees on its efforts to identify and manage risk relating to nuclear forces and prioritize the efforts among such forces.

#### SUBTITLE D—MISSILE DEFENSE PROGRAMS

Section 1631—Repeal of Requirement to Transition Ballistic Missile Defense Programs to the Military Departments

This section would strike subsection (b) from section 1676 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law 115–91; 10 U.S.C. 4205 note) which would repeal the requirement for the Missile Defense Agency to transition programs that met Milestone C, or equivalent, to the appropriate service.

Section 1633—Limitation on Availability of Certain Funds until Required Acquisition Authority Designation Relating to Capability to Defend the Homeland from Cruise Missiles

This section would limit the Department of Defense to 90 percent of the funds made available for fiscal year 2023 for travel by the Deputy Secretary of Defense until the Secretary of Defense makes the designation of an acquisition authority with respect to the capability to defend the homeland from cruise missiles.

Section 1634—Strategy to Use Asymmetric Capabilities to Defeat Hypersonic Missile Threats

This section would require the Secretary of Defense to submit to the congressional defense committees a comprehensive strategy to use asymmetric capabilities to defeat hypersonic missile threats.

Section 1635—Report on Integrated Air and Missile Defense Sensor of United States Indo-Pacific Command

This section would include the sense of Congress on the proposed integrated air and missile defense architecture for defense of Guam and note the lack of funding for a discrimination radar for homeland defense of Hawaii due to ongoing reevaluations of United States Indo-Pacific Command (USINDOPACOM) area of responsibility sensor architecture. In addition, this section would require an analysis of the defense of Guam integrated air and missile defense architecture, and would also require a report on the missile defense sensor architecture of USINDOPACOM.

### TITLE XVII—MUNITIONS REPLENISHMENT AND FUTURE PROCUREMENT

#### LEGISLATIVE PROVISIONS

Section 1704—Assessment of Acquisition Objectives for Patriot Air and Missile Defense Batteries

This section would include the sense of Congress that given Russia's invasion of Ukraine and the evolving cruise and ballistic missile threat from near-peer adversaries, the Secretary of the Army should reassess the current Patriot missile defense battery and interceptor acquisition objectives.

This section would require the Secretary of the Army to submit a report on the validity of current Patriot acquisition objectives not later than 150 days after the date of the enactment of this Act.

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

### TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

LEGISLATIVE PROVISIONS

### Subtitle B—Program Authorizations, Restrictions, Limitations, and Other Matters

Section 3113—Authorized Personnel Levels of the Office of the Administrator

This section would amend subsection (a) of section 3241A of the National Nuclear Security Administration Act (50 U.S.C. 2441a) to require the Office of the Administrator to annually report on personnel levels and to not exceed 110 percent of the total number of employees during the previous fiscal year.

### **BILL LANGUAGE**

### Subtitle C—Nuclear Forces

2	SEC. 1621.[Log 75137] IMPROVEMENTS TO NUCLEAR WEAP-
3	ONS COUNCIL.
4	(a) Meetings.—Subsection (b) of section 179 of title
5	10, United States Code, is amended—
6	(1) in paragraph (1), by inserting "and (4)"
7	after "paragraph (2)"; and
8	(2) by adding at the end the following new
9	paragraph:
10	"(4) At least once annually, the Council shall
11	hold a meeting that includes the Deputy Secretary
12	of Defense, who may serve as chair for that meet-
13	ing.".
14	(b) Responsibilities.—Subsection (d) of such sec-
15	tion is amended—
16	(1) by redesignating paragraphs (10), (11), and
17	(12) as paragraphs (11), (12), and (13), respec-
18	tively;
19	(2) by inserting after paragraph (9) the fol-
20	lowing new paragraph (10):
21	"(10) With respect to nuclear warheads—
22	"(A) reviewing military requirements, per-
23	formance requirements, and planned delivery
24	schedules to evaluate whether such require-
25	ments and schedules create significant risks to

1	cost, schedules, or other matters regarding pro-
2	duction, surveillance, research, and other pro-
3	grams relating to nuclear weapons within the
4	National Nuclear Security Administration; and
5	"(B) if any such risk exists, proposing and
6	analyzing adjustments to such requirements
7	and schedules."; and
8	(3) by striking paragraph (13), as so redesig-
9	nated, and inserting the following new paragraph
10	(13):
11	"(13) Coordinating risk management efforts be-
12	tween the Department of Defense and the National
13	Nuclear Security Administration relating to the nu-
14	clear weapons stockpile, the nuclear security enter-
15	prise (as defined in section 4002 of the Atomic En-
16	ergy Defense Act (50 U.S.C. 2501)), and the deliv-
17	ery platforms for nuclear weapons, including with re-
18	spect to identifying and analyzing risks and pro-
19	posing actions to mitigate risks.".
20	(c) Reports Relating to Safety.—Subsection (e)
21	of such section is amended by striking "conducted by the
22	Council" and inserting "for which the Council has received
23	a briefing".
24	(d) Plans and Budget .—Subsection (f) of such
25	section is amended to read as follows:

1	"(f) REVIEW AND ASSESSMENT OF PLANS AND
2	BUDGET TO SUPPORT NUCLEAR WEAPONS REQUIRE-
3	MENTS.—(1) The Council shall annually review the plans
4	and budget of the National Nuclear Security Administra-
5	tion and assess whether such plans and budget meet the
6	current and projected requirements relating to nuclear
7	weapons.
8	"(2) Not later than 30 days after the President sub-
9	mits to Congress the budget for a fiscal year under section
10	1105(a) of title 31, the Council shall submit to the con-
11	gressional defense committees a report containing the fol-
12	lowing:
13	"(A) The assessment conducted under para-
14	graph (1) with respect to that budget.
15	"(B) An assessment of—
16	"(i) whether the funding requested for the
17	National Nuclear Security Administration in
18	such budget—
19	"(I) enables the Administrator for
20	Nuclear Security to meet requirements re-
21	lating to nuclear weapons for such fiscal
22	year; and
23	"(II) is adequate (as determined pur-
24	suant to section 4717 of the Atomic En-
25	ergy Defense Act (50 U.S.C. 2757) to im-

1	plement the objectives of the Department
2	of Defense with respect to nuclear weapons
3	for that fiscal year; and
4	"(ii) whether the plans and budget re-
5	viewed under paragraph (1) will enable the Ad-
6	ministrator to meet the requirements to
7	produce war reserve plutonium pits under sec-
8	tion 4219(a) of such Act (50 U.S.C. 2538a(a)).
9	"(C) If the assessment under subparagraph
10	(B)(ii) determines that the plans and budget re-
11	viewed under paragraph (1) will not enable the Ad-
12	ministrator to meet the requirements to produce war
13	reserve plutonium pits under section 4219(a) of the
14	Atomic Energy Defense Act (50 U.S.C. 2538a(a))—
15	"(i) an explanation for why the plans and
16	budget will not enable the Administrator to
17	meet such requirements; and
18	"(ii) proposed alternative plans, budget, or
19	requirements by the Council to meet such re-
20	quirements.
21	"(3) If a member of the Council does not concur in
22	an assessment under paragraph (2), the report under such
23	paragraph shall include a written explanation from the
24	non-concurring member describing the reasons for the
25	member's non-concurrence.

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1	"(4) In this subsection, the term 'budget' has the
2	meaning given that term in section 231(f) of this title.".
3	(e) Updates on Meetings.—Subsection (g)(1)(A)
4	of such section is amended by inserting before the semi-
5	colon the following: "and the members who attended each
6	meeting".
7	(f) Conforming Amendment.—Section 4717(b)(2)
8	of the Atomic Energy Defense Act (50 U.S.C. 2757(b)(2))
9	is amended—
10	(1) in subparagraph (A), by inserting "and"
11	after the semicolon; and
12	(2) by striking subparagraphs (B) and (C) and
13	inserting the following new subparagraph (B):
14	"(B) submit to the congressional defense
15	committees the information required under sec-
16	tion 179(f)(2) of title 10, United States Code.".

1	SEC. 1622.[Log 75140] PORTFOLIO MANAGEMENT FRAME-
2	WORK FOR NUCLEAR FORCES.
3	(a) In General.—Chapter 24 of title 10, United
4	States Code, is amended by adding at the end the fol-
5	lowing new section (and conforming the table of sections
6	at the beginning of such chapter accordingly):
7	"§ 499c. Portfolio management framework for nuclear
8	forces
9	"(a) Requirement.—Not later than January 1,
10	2024, the Secretary of Defense shall—
11	"(1) implement a portfolio management frame-
12	work for nuclear forces of the United States that—
13	"(A) specifies the portfolio of nuclear
14	forces covered by the framework;
15	"(B) establishes a portfolio governance
16	structure for such forces that takes advantage
17	of, or is modeled on, an existing portfolio gov-
18	ernance structure, such as the Deputy's Man-
19	agement Action Group described in Department
20	of Defense Directive 5105.79;
21	"(C) outlines the approach of the Sec-
22	retary for identifying and managing risk relat-
23	ing to such forces and prioritizing the efforts
24	among such forces, including how the Secretary
25	will coordinate such identification, management,

1	and prioritization with the Secretary of Energy;
2	and
3	"(D) incorporates the findings and rec-
4	ommendations identified by the Comptroller
5	General of the United States in the report titled
6	'Nuclear Enterprise: DOD and NNSA Could
7	Further Enhance How They Manage Risk and
8	Prioritize Efforts' (GAO-22-104061) and
9	dated January 2022; and
10	"(2) complete a comprehensive assessment of
11	the portfolio management capabilities required to
12	identify and manage risk in the portfolio of nuclear
13	forces.
14	"(b) Annual Briefings.—(1) In conjunction with
15	the submission of the budget of the President to Congress
16	pursuant to section $1105$ of title $31$ for fiscal year $2025$
17	and each fiscal year thereafter, the Secretary shall provide
18	to the congressional defense committees a briefing on iden-
19	tifying and managing risk relating to nuclear forces and
20	prioritizing the efforts among such forces, including, with
21	respect to the period covered by the briefing—
22	"(A) the current and projected operational re-
23	quirements for nuclear forces that were used for
24	such identification, management, and prioritization;
25	"(B) key areas of risk identified: and

1	"(C) a description of the actions proposed or
2	carried out to mitigate such risk.
3	"(2) The Secretary may provide the briefings under
4	paragraph (1) in classified form.
5	"(c) Nuclear Forces Defined.—In this section,
6	the term 'nuclear forces' includes, at a minimum—
7	"(1) nuclear weapons;
8	"(2) the delivery platforms and systems for nu-
9	clear weapons; and
10	"(3) nuclear command, control, and commu-
11	nications systems.".
12	(b) Initial Briefing.—
13	(1) Requirement.—Not later than June 1,
14	2023, the Secretary of Defense shall provide to the
15	congressional defense committees a briefing on the
16	progress of the Secretary to—
17	(A) develop the portfolio management
18	framework for nuclear forces under section
19	499c of title 10, United States Code, as added
20	by subsection (a); and
21	(B) complete the assessment described in
22	subsection (a)(2) of such section.
23	(2) FORM.—The Secretary may provide the
24	briefings under paragraph (1) in classified form.

1	Subtitle D—Missile Defense
2	Programs
3	SEC. 1631.[Log 75545] REPEAL OF REQUIREMENT TO TRAN-
4	SITION BALLISTIC MISSILE DEFENSE PRO-
5	GRAMS TO THE MILITARY DEPARTMENTS.
6	Section 1676 of the National Defense Authorization
7	Act for Fiscal Year 2018 (Public Law 115–91; 10 U.S.C.
8	4205 note) is amended by striking subsection (b).

1	SEC. 1633.[Log 75542] LIMITATION ON AVAILABILITY OF
2	CERTAIN FUNDS UNTIL REQUIRED ACQUISI-
3	TION AUTHORITY DESIGNATION RELATING
4	TO CAPABILITY TO DEFEND THE HOMELAND
5	FROM CRUISE MISSILES.
6	(a) FINDING.—Congress finds that Secretary of De-
7	fense has yet to designate a military department or De-
8	fense Agency with acquisition authority with respect to the
9	capability to defend the homeland from cruise missiles in
10	accordance with section 1684(e) of the National Defense
11	Authorization Act for Fiscal Year 2017 (Public Law 114–
12	328; 10 U.S.C. 4205 note).
13	(b) LIMITATION.—Of the funds authorized to be ap-
14	propriated by this Act or otherwise made available for fis-
15	cal year 2023 for the Department of Defense for travel
16	by the Deputy Secretary of Defense, not more than 90
17	percent may be obligated or expended until the Secretary
18	of Defense designates a military department or Defense
19	Agency with acquisition authority with respect to the ca-
20	pability to defend the homeland from cruise missiles.
21	(c) Defense Agency Defined.—In this section,
22	the term "Defense Agency" has the meaning given that
23	term in section 101(a)(11) of title 10, United States Code.

1	SEC. 1634.[Log 75493] STRATEGY TO USE ASYMMETRIC CA-
2	PABILITIES TO DEFEAT HYPERSONIC MIS-
3	SILE THREATS.
4	(a) Requirement.—Not later than March 1, 2023,
5	the Secretary of Defense, acting through the Director of
6	the Missile Defense Agency, shall submit to the congres-
7	sional defense committees a comprehensive layered strat-
8	egy to use asymmetric capabilities to defeat hypersonic
9	missile threats.
10	(b) Elements.—The strategy under subsection (a)
11	shall—
12	(1) address all asymmetric capabilities of the
13	United States, including with respect to—
14	(A) directed energy, as described in section
15	1664 of the National Defense Authorization Act
16	for Fiscal Year 2022 (Public Law 117–81; 10
17	U.S.C. 205 note) and including short-pulse
18	laser technology;
19	(B) microwave systems;
20	(C) cyber capabilities; and
21	(D) any other capabilities determined ap-
22	propriate by the Secretary and Director; and
23	(2) identify the funding required to implement
24	the strategy during the period covered by the future-
25	years defense program submitted to Congress under
26	section 221 of title 10. United States Code, in 2023.

1	SEC. 1635.[Log 75548] REPORT ON INTEGRATED AIR AND
2	MISSILE DEFENSE SENSOR OF UNITED
3	STATES INDO-PACIFIC COMMAND.
4	(a) Sense of Congress.—It is the sense of Con-
5	gress that the budget of the President for fiscal year 2023
6	submitted to Congress pursuant to section 1105 of title
7	31, United States Code—
8	(1) includes funding to develop and procure an
9	integrated air and missile defense architecture to de-
10	fend Guam that includes multiple mobile compo-
11	nents located across Guam, however, a full assess-
12	ment of the manning and infrastructure needed to
13	support those components, including items such as
14	power, water, and availability of personnel housing,
15	was not included in the overall determination of fea-
16	sibility; and
17	(2) did not include funding for the continued
18	development of the discrimination radar for home-
19	land defense planned to be located in Hawaii be-
20	cause of an ongoing reevaluation of the missile de-
21	fense posture and sensor architecture in the area of
22	responsibility of the United States Indo-Pacific Com-
23	mand.
24	(b) Report.—
25	(1) Requirement.—Not later than 90 days
26	after the date of the enactment of this Act, the Sec-

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1	retary of Defense shall submit to the congressional
2	defense committees a report on the findings of the
3	review conducted by the Secretary of the integrated
4	air and missile defense sensor architecture of the
5	United States Indo-Pacific Command.
6	(2) Investments.—The report under para-
7	graph (1) shall identify the investments that should
8	be made to increase the detection of nonballistic
9	threats and improve the discrimination of ballistic
10	missile threats, particularly with regards to Hawaii.
11	(3) FORM.—The report under paragraph (1)
12	shall be submitted in unclassified form, and may in-
13	clude a classified annex.
14	(c) Review of Integrated Air and Missile De-
15	FENSE ARCHITECTURE TO DEFEND GUAM.—
16	(1) Requirement.—Not later than 60 days
17	after the date of the enactment of this Act, the Sec-
18	retary of Defense shall seek to enter into a contract
19	with a federally funded research and development
20	center to conduct an independent assessment of the
21	integrated air and missile defense architecture to de-
22	fend Guam.
23	(2) Elements.—The assessment under para-
24	graph (1) shall include an analysis of each of the fol-
25	lowing:

1	(A) The proposed architecture capability to
2	address nonballistic and ballistic missile threats
3	to Guam, including the sensor, command and
4	control, and interceptor systems being proposed.
5	(B) The development and integration risk
6	of the proposed architecture.
7	(C) The manning required to operate the
8	proposed architecture, including the availability
9	of housing and infrastructure on Guam to sup-
10	port the needed manning levels.
11	(3) Submission.—Not later than 180 days
12	after the date of the enactment of this Act, the Sec-
13	retary shall submit to the congressional defense com-
14	mittees the assessment under paragraph (1), without
15	change.

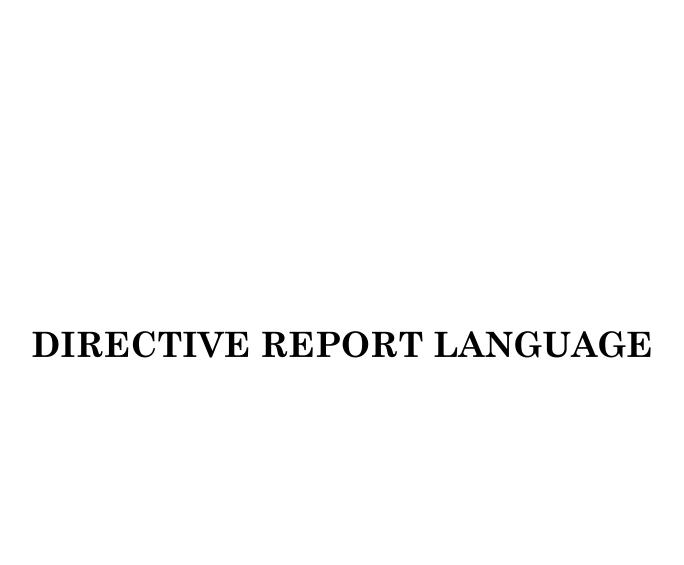
1	SEC. 1704.[Log 75248] ASSESSMENT OF ACQUISITION OB-
2	JECTIVES FOR PATRIOT AIR AND MISSILE DE-
3	FENSE BATTERIES.
4	(a) Findings; Sense of Congress.—
5	(1) FINDINGS.—Congress finds the following:
6	(A) The unlawful Russian invasion of and
7	war in Ukraine has highlighted the importance
8	of lower tier air and missile defense capabilities
9	in the European Area of Command.
10	(B) The emergency supplemental appro-
11	priations request by the President for the situa-
12	tion in Ukraine for fiscal year 2022 included
13	funding for a 16th Patriot air and missile de-
14	fense system battery, which increases the long
15	standing inventory requirement by one battery.
16	(2) Sense of congress.—It is the sense of
17	Congress that given the evolving cruise- and bal-
18	listic-missile threat from rogue nations and near-
19	peer adversaries, particularly in regional scenarios,
20	the Secretary of the Army should reassess the cur-
21	rent battery and interceptor acquisition objectives
22	for the Patriot air and missile defense system to de-
23	termine if 16 batteries and 3,376 Patriot advanced
24	capability-3 missile segment enhancement missiles
25	are still valid.

- 1 (b) Assessment.—Not later than 120 days after the
- 2 date of the enactment of this Act, the Secretary of the
- 3 Army shall assess and validate the battery and interceptor
- 4 acquisition objectives, as of the date of the enactment of
- 5 this Act, for the Patriot air and missile defense system
- 6 and Patriot advanced capability-3 missile segment en-
- 7 hancement missiles.
- 8 (c) Report.—Not later than 30 days after the date
- 9 on which the Secretary completes the assessment under
- 10 subsection (b), the Secretary shall submit to the congres-
- 11 sional defense committees a report on the assessment, in-
- 12 cluding whether the acquisition objectives described in
- 13 such subsection are valid or should be modified.

1	SEC. 3113.[Log 75139] AUTHORIZED PERSONNEL LEVELS OF
2	THE OFFICE OF THE ADMINISTRATOR.
3	(a) Modification of Authorized Levels.—Sub-
4	section (a) of section 3241A of the National Nuclear Secu-
5	rity Administration Act (50 U.S.C. 2441a) is amended to
6	read as follows:
7	"(a) Full-time Equivalent Personnel Lev-
8	ELS.—
9	"(1) Authorized Level.—For fiscal year
10	2023 and each fiscal year thereafter, the total num-
11	ber of employees of the Office of the Administrator
12	may not exceed 110 percent of the total number of
13	employees of the Office during the previous fiscal
14	year unless, during each fiscal year in which such
15	number is exceeded, the Administrator submits to
16	the congressional defense committees a report justi-
17	fying such excess.
18	"(2) Notification of total number.—Not
19	later than December 31, 2022, and each year there-
20	after, the Administrator shall notify the congres-
21	sional defense committees, the Committee on Energy
22	and Commerce of the House of Representatives, and
23	the Committee on Energy and Natural Resources of
24	the Senate of the total number of employees of the
25	Office of the Administrator during the previous fis-

1	cal year, broken down by the office in which the em-
2	ployees are assigned.".
3	(b) Report.—Subsection (f) of such section is
4	amended to read as follows:
5	"(f) Annual Report.—The Administrator shall in-
6	clude in the budget justification materials submitted to
7	Congress in support of the budget of the Administration
8	for each fiscal year (as submitted with the budget of the
9	President under section 1105(a) of title 31, United States
10	Code) a report containing the following information:
11	"(1) A projection of the expected number of
12	employees of the Office of the Administrator, as
13	counted under subsection (a), for the fiscal year cov-
14	ered by the budget justification materials and the
15	four subsequent fiscal years, broken down by the of-
16	fice in which the employees are projected to be as-
17	signed.
18	"(2) With respect to the most recent fiscal year
19	for which data is available—
20	"(A) the number of service support con-
21	tracts of the Administration and whether such
22	contracts are funded using program or program
23	direction funds;

1	"(B) the number of full-time equivalent
2	contractor employees working under each con-
3	tract identified under subparagraph (A);
4	"(C) the number of full-time equivalent
5	contractor employees described in subparagraph
6	(B) that have been employed under such a con-
7	tract for a period greater than two years;
8	"(D) with respect to each contract identi-
9	fied under subparagraph (A)—
10	"(i) identification of each appropria-
11	tions account that supports the contract;
12	and
13	"(ii) the amount obligated under the
14	contract during the fiscal year, listed by
15	each such account; and
16	"(E) with respect to each appropriations
17	account identified under subparagraph (D)(i),
18	the total amount obligated for contracts identi-
19	fied under subparagraph (A).".



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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 Radio Frequency Capabilities

The committee notes the continued development and fielding of commercial satellite radio frequency (RF) remote sensing capabilities within the U.S. innovation base, enabled by private capital investments. These new commercial, unclassified capabilities have the potential to support a variety of Department of Defense missions, from warfighting to understanding the impacts of climate change, while also relieving the burden on other limited assets and advancing the Department's multilateral and bilateral activities through greater information sharing with allies and partners.

The committee is encouraged by some examples where RF remote sensing capabilities have supported combatant command missions and exercises, such as U.S. European Command. Therefore, the committee directs the Chairman of the Joint Chiefs of Staff, in coordination with each of the combatant commanders, to provide a briefing to the House Committee on Armed Services not later than December 1, 2022, on how U.S. commercial RF satellite capabilities are being leveraged in combatant command exercises, experimentation, and wargaming, and how these commercial capabilities should be integrated into the information systems and workflows utilized by the combatant commands to support relevant operational mission needs. The briefing should address the following elements:

- (1) outline how the combatant commands are planning to leverage U.S. commercial satellite RF products and data in exercises, experimentation, and wargaming through the end of fiscal year 2024, spanning joint, component, and multilateral/bilateral levels:
- (2) how the demonstration of capability and mission utility translates to requirements for U.S. commercial RF products and data to support relevant operational mission needs;
- (3) how U.S. commercial satellite RF products and data should be integrated into the information systems and workflows used by the combatant commands, especially to collaborate with allies and partners, to ensure its timely and efficient operational use; and
- (4) what procurement and contracting mechanisms, if any, currently exist that the combatant commands, and Department of Defense more broadly, can use to procure commercial intelligence products in a data as a service construct, with the applicable contract vehicles.

#### Common Launch Integrator

The committee commends the Department of the Air Force for its continued use of the National Security Space Launch (NSSL) program, which serves to promote robust competition and assured access to space across the Department of Defense space community. However, the committee remains concerned regarding overall efforts to drive down cost, reduce risk, and ensure launch reliability and performance, particularly as the U.S. Space Force, including efforts of the Space Development Agency (SDA), plans to increase the total number of projected launches over the Future Years Defense Program.

The committee understands that the use of a common launch integrator (CLI), that works across Department customers, satellite manufacturers, and launch providers, can provide tested space vehicle interaction processes. The committee believes this approach could be an effective method to lower costs, reduce launch readiness timelines, and increase competition for launch providers.

Therefore, the committee encourages the use of the existing U.S. Space Force Launch Manifest Systems Integrator contract to deliver the CLI capability across Space Force and SDA Tranche 1 and 2 program where that capability can reduce cost and shorten satellite and launch vehicle integration. The committee further directs the Chief of Space Operations to provide a briefing to the House Committee on Armed Services not later than February 1, 2023, on the benefits, including cost and schedule, of using one consistent launch integration solution across all types space and launch vehicles, and all plans to utilize a CLI for current and future programs.

#### Synthetic Aperture Radar Imagery

As the National Reconnaissance Office (NRO) continues to accelerate its strategy for acquiring commercial satellite imagery to address Department of Defense requirements by contracting with providers of additional phenomenologies beyond electro-optical, the committee encourages the Director of NRO to expand the current synthetic aperture radar (SAR) commercial acquisition program beyond its pilot program status. As the demand across the Department increases for geospatial intelligence (GEOINT), the committee further encourages the NRO to continue pursuing commercial SAR GEOINT, with open competition to be responsive to the requirements of the National Geospatial-Intelligence Agency and the combatant commands, functional commands, and other key elements of the Armed Forces.

The committee recommends the NRO accelerate, to the extent possible, their adoption and integration of proven highly capable U.S. commercial SAR systems by working proactively with industry to apply domestic commercial solutions to known intelligence, surveillance, and reconnaissance gaps of the Department of Defense, and providing on-ramps for new capabilities as they become available.

Further, the committee directs the Director of the NRO to submit a report to the House Committee on Armed Services and the House Permanent Select Committee on Intelligence by December 31, 2022, on its plans to acquire commercial SAR GEOINT, including any plans to transition current pilot programs to operational contracts, and how any standard acquisitions would be flexible to emerging requirements, new technology, and evolving capabilities.

#### MISSILE DEFENSE PROGRAMS

#### Countering Missile Threats to Homeland

The committee notes advances in various missile technologies by foreign states, to include advances in hypersonic weapons, increasing capability and capacity of long-range precision fires, and continued testing of long-range missiles by rogue states. The committee continues to encourage the Department of Defense to analyze and assess the evolving security environment and threats posed by advancing missile and rocket capabilities of near-peer and rogue states.

Further, the committee notes efforts across the Department of Defense to strengthen missile defense systems for the the homeland, as well as improving regional missile defense capabilities. As such, the committee believes the Department of Defense must continue development of missile defense technologies, invest in the development of the Glide Phase Interceptor, and pursue advanced missile defense technologies such as directed energy. Therefore, the committee directs the Director of the Missile Defense Agency, in coordination with the Under Secretary of Defense for Policy, Chief of Naval Operations, and Commander of U.S. Northern Command, to submit a report to the House Committee on Armed Services by December 31, 2022, on countering threats posed to the homeland by advanced missile capabilities of near-peer and rogue states. The report shall include analysis of:

- (1) current capabilities to defend the homeland against the range of current and known future ballistic missile threats from rogue countries;
- (2) how the current homeland ballistic missile defense architecture would need to be adjusted to defend against two or more nuclear-capable rogue nations, including estimated costs to implement any adjustments;
- (3) investments needed in sensor architectures to detect and track cruise and hypersonic missile threats to the homeland; and
- (4) how existing U.S. Ground-Based Interceptor sites, and the preferred location for a third continental United States interceptor site at Fort Drum, NY, could be leveraged for future advanced missile interceptor platforms and increased battlespace awareness for U.S. Northern Command against missile threats.

#### Hypersonic and Cruise Missile Threat Detection

The committee notes the potential of using commercial systems or nondevelopmental radar upgrades to detect and track low-flying short-, medium-, and long-range hypersonic weapons or cruise missile threats. The committee encourages the Secretary of Defense, through the Defense Innovation Unit or other service or agency component, to use existing other transaction authorities or Small Business Innovation Research program funds to evaluate the feasibility of a test program to test such systems and radars. Therefore, the committee directs the Secretary of Defense to provide a briefing to the House Committee on Armed Services not later than December 31, 2022, on whether:

- (1) available commercial or non-developmental software and hardware are capable of meeting requirements to detect and track short-, medium- and long-range hypersonic weapon systems;
- (2) available commercial or non-developmental software and hardware are capable of meeting threshold requirements of detecting and tracking hypersonic weapon systems as to create significant savings in radar upgrade programs or ongoing missile testing requirements; and
- (3) requirements for planned upgrades or investment to existing radar infrastructure could be restructured in such a way as to allow for maximum usage of commercial technology, as required by section 2377 of title 10, United States Code.

Integration of Artificial Intelligence Technologies into Hypersonic Missile Defense Programs

The committee recognizes the advancement of foreign hypersonic missile technology as an emerging global threat due to their high speeds and maneuverability, particularly while they are inside the atmosphere. The Department of Defense has developed limited capability to defend against these types of threats, and a prime example is the sea-based component of the missile defense system developed jointly by the Missile Defense Agency and Department of the Navy, referred to as the Aegis Ballistic Missile Defense System, employed on U.S. Navy Ticonderoga-class cruisers and Arleigh Burke-class destroyers. The committee notes that while these missile defense systems are highly capable, technological advancements in hypersonic missiles present challenges to their capability.

The committee notes that parallel advancements in artificial intelligence technologies may help close this gap in hypersonic missile defense capability. In decreasing response time to hypersonic missile threats, artificial intelligence may be able to assist missile defense systems in detecting and engaging threats in their boost phase, midcourse, and terminal phases of flights.

Therefore, the committee directs the Director of the Missile Defense Agency, in coordination with the Secretary of the Navy, to provide a report to the House Committee on Armed Services by December 31, 2022, on current and future efforts to integrate artificial intelligence technologies into hypersonic missile defense systems. The report should include, at a minimum:

(1) the gap in current sea-based missile defense capability to engage hypersonic threats,

- (2) how artificial intelligence can be applied to decrease response time in detecting hypersonic missiles in their boost phase, midcourse, and terminal phases of flights,
- (3) how artificial intelligence can be used in tracking and engaging hypersonic missiles, and
- (4) the investments in research and development needed to improve seabased missile defense systems to defend against hypersonic threats.

#### Patriot Missile Defense Obsolescence

The committee is encouraged by the Army's commitment to the Lower Tier Air and Missile Defense Sensor (LTAMDS) program as the premier radar of the service's next-generation integrated air and missile defense strategy. However, the committee is also cognizant of the need to continue investing in Patriot system and missile modernizations as it will take at least 7 years for the Army to field its total requirement of the Integrated Air and Missile Defense Battle Command System (IBCS), and at least 11 years to fully field LTAMDS. Over the intervening period and beyond, the Army and 17 current partner nations participating in the Patriot International Engineering Services Program (IESP) will continue to operate a significant number of legacy Patriot system components. As observed in the U.S. European Command, U.S. Central Command, and U.S. Indo-Pacific Command areas of responsibility, these components need to keep pace with the stresses associated with an unrelenting operations tempo (OPTEMPO). As such, it is critical that the Army prioritize the need to address pressing obsolescence challenges in order to ensure Patriot's ability to continue serving as a critical enabler to the Army's integrated air and missile defense strategy throughout the fielding of IBCS and LTAMDS.

Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services not later than December 1, 2022, on pending obsolescence needs within the Patriot modernization program. The briefing shall contain the following elements:

- (1) a summary of all funded and unfunded obsolescence requirements through the Future Years Defense Program; and
- (2) an analysis of which unfunded obsolescence requirements are needed to mitigate risks associated with spares demands assuming notional air and missile defense OPTEMPO increases of (a) 10 percent, (b) 25 percent.

#### NUCLEAR FORCES

Comptroller General Review of Nuclear Command, Control, and Communications Enterprise Center

The committee is aware that the Department of Defense created a new nuclear command, control, and communications (NC3) governance structure, establishing the NC3 Enterprise Center and making the Commander of U.S.

Strategic Command the operational commander of the NC3 enterprise with responsibility for NC3 operations, requirements, and systems. The committee understands that this action was intended to centralize the previously diffused governance authority and responsibility for the NC3 enterprise. The committee also understands that the Office of the Under Secretary of Defense for Acquisition and Sustainment was designated as the NC3 enterprise capability portfolio manager and given increased responsibilities for resources and acquisition to support the Commander of U.S. Strategic Command in this new role.

Given the importance of the NC3 mission, the committee believes it appropriate to review the effectiveness of the NC3 Enterprise Center in fulfilling its governance and oversight mission requirements and responsibilities. Therefore, the committee directs the Comptroller General of the United States to assess the function and effectiveness of the NC3 Enterprise Center in the governance and oversight of the NC3 enterprise and its operations, including its ability to ensure NC3 enterprise readiness, its ability to assess future NC3 operational requirements, and other issues the Comptroller General deems appropriate.

The committee further directs the Comptroller General to provide a briefing to the House Committee on Armed Services by April 1, 2023, on the Comptroller General's findings and, as deemed appropriate, provide a report by a date agreed to at the time of the briefing.

#### Plan for the Survivable Airborne Operations Center

The committee notes that the aging E-4B National Airborne Operations Center (NAOC) fleet requires recapitalization and modernized systems to ensure it maintains sufficient aircraft availability and communications reliability to perform nuclear command, control, and communications (NC3) missions for the duration of its service life. The committee further recognizes that going forward, a new airframe, the Survivable Airborne Operations Center (SAOC), is required to ensure a robust, survivable mobile communications layer for NC3. The committee is concerned over both the availability and capability of the current E-4B fleet and the slow progress in the development of the SAOC.

Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not later than April 1, 2023, on its plan to sustain the NAOC and field the SAOC.

#### Readiness and Sustainment of the Sentinel Missile Fleet

The committee notes that it is critical for the Air Force to leverage technology to identify lifecycle needs and address readiness challenges for its strategic weapon systems. The Air Force benefits from utilizing modeling, simulation, and other analytic capabilities to understand and optimize the readiness of its platforms and weapon systems and to reduce development, maintenance, and sustainment costs. Therefore, the committee directs the Secretary of the Air Force to provide a briefing to the House Committee on Armed Services not

later than August 1, 2023, on the current and planned use of predictive analytic capabilities to optimize sustainment and readiness of the Sentinel intercontinental ballistic missile. This briefing shall include:

- (1) how predictive analytics will be used for sustainment and maintaining readiness of the Sentinel fleet;
- (2) any projected improvements in readiness or cost savings associated with such efforts: and
- (3) any potential issues or challenges that the Air Force anticipates in implementing predictive analytics for the Sentinel fleet.

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

### TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

#### ITEMS OF SPECIAL INTEREST

Comptroller General Review of National Nuclear Security Administration Recruitment and Retention

The committee recognizes the challenge faced by the National Nuclear Security Administration (NNSA) and its Managing and Operating (M&O) contractors (Kansas City National Security Campus, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Nevada National Security Site, Y-12 National Security Complex, Pantex Plant, Sandia National Laboratories, and Savannah River Site) in recruiting and retaining individuals with specialized skills needed to oversee and execute critical national security programs. Given the continued expansion of NNSA weapons activities and the labor market, this challenge may become more acute.

Therefore, the committee directs the Comptroller General of the United States to undertake a review of recruitment and retention at NNSA and its M&O contractors. The review shall include at a minimum the following:

- (1) analysis of trends in recruitment and retention at NNSA and its M&O contractors over at least the last 5 years, including assessments of trends within specific job functions and skill sets and at at each individual M&O site;
- (2) an identification of factors that are making recruitment and retention at NNSA and its M&O contractors challenging, to include NNSA policies on pay and other compensation, the pay and compensation offered at each M&O contractor, and other factors:
- (3) an assessment of recent steps taken by NNSA to enhance recruitment and retention to assess their efficacy;

- (4) a review of other Government efforts designed to increase recruitment and retention of individuals with specialized skill sets to judge their potential utility for NNSA; and
- (5) any recommendations for the Department of Energy, NNSA, and Congress that the Comptroller General identifies based on its analysis.

The committee further directs the Comptroller General of the United States to provide a briefing to the House Committee on Armed Services by April 1, 2023, on the Comptroller General's preliminary findings and to submit a final report on a date agreed to at the time of the briefing. This report may be combined with others assigned to the Comptroller General related to NNSA and M&O contractor personnel.

#### Comptroller General Review of Quality Assurance Functions Across the Environmental Management Complex

The committee notes that in a 2018 report entitled "Hanford Waste Treatment Plant: DOE Needs to Take Further Actions to Address Weaknesses in Its Quality Assurance Program", the Comptroller General of the United States identified quality assurance issues at the Hanford Site's Waste Treatment and Immobilization Plant that emerged in part due to the lack of independence of Hanford's quality assurance division. The committee recognizes that the purpose of quality assurance is to ensure that design, construction, and operations problems are identified, and that fixes are put in place to ensure they do not recur. The committee is concerned that other recent issues across the Department of Energy's Office of Environmental Management (EM) complex appear to stem, at least in part, from limited quality assurance oversight.

Therefore, the committee directs the Comptroller General of the United States to evaluate what quality assurance functions Department of Energy Office of Environmental Management sites have for capital asset projects, what lessons the Department of Energy has learned from quality assurance issues across the EM complex, and what steps the Department of Energy is taking to ensure such issues do not reoccur.

The committee further directs the Comptroller General of the United States to provide a briefing to the House Committee on Armed Services by April 1, 2023, on the Comptroller General's preliminary findings and to submit a final report on a date agreed to at the time of the briefing.

#### Implementation of Nuclear Forensics Recommendations

The committee notes that section 3231 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 required the National Academies of Sciences, Engineering, and Medicine to conduct a study that examined U.S. Government nuclear forensics capabilities. The resulting report entitled "Restoring and Improving Nuclear Forensics to Support Attribution and Deterrence" was

published in May 2021 and found that national technical nuclear forensics requires increased prioritization across the U.S. Government.

The committee directs the Administrator of the National Nuclear Security Administration to provide a briefing to the House Committee on Armed Services not later than April 1, 2023, on the progress of the National Nuclear Security Administration, and the Government broadly, in implementing the recommendations of the study.

### Implementation of the University-Based Defense Nuclear Policy Collaboration Program

The committee notes that the United States currently faces a shortage of innovative ideas to promote nuclear deterrence and nonproliferation and is experiencing a diminished pipeline of young experts to replenish the aging workforce. Civil society organizations can complement and augment governmental capacity through their independence, agility, and flexibility.

Recognizing the urgency of the challenge, section 3113 of the National Defense Authorization Act for Fiscal Year 2022 (Public Law 117-81) authorized a university-based defense nuclear policy collaboration program at the National Nuclear Security Administration (NNSA). The committee directs the Administrator of NNSA to provide a briefing to the House Committee on Armed Services not later than April 1, 2023, on NNSA's plan to implement the university-based defense nuclear policy collaboration program. The briefing shall include, at a minimum:

- (1) an inventory of recent and ongoing NNSA funding for research, analysis, and other activities by universities and other non-profit organizations related to nuclear policy;
- (2) NNSA's planned approach for implementing the policy collaboration program, including the amount of funding requested over the Future-Years Nuclear Security Program; and
- (3) whether any realignment or new organizational structures within NNSA may be necessary to further foster the development of the policy collaboration program.

#### Modernization of the Pantex Plant

The committee recognizes the important efforts that the Department of Defense and the National Nuclear Security Administration (NNSA) are making to modernize the nuclear enterprise. An important element of the nuclear enterprise is the Pantex Plant in Amarillo, Texas, the sole location where U.S. nuclear weapons are assembled and disassembled. The committee is concerned by the state of some of the facilities at the Pantex Plant and the pace of modernization at the site.

Therefore, the committee directs the Administrator of NNSA to provide a briefing to the House Committee on Armed Services not later than April 1, 2023, on NNSA's plan to modernize the Pantex Plant. The briefing shall include, at a minimum:

- (1) a description of which facilities and infrastructure at the Pantex Plant need to be modernized;
- (2) options for modernizing the facilities and infrastructure at the Pantex Plant, including an option or options for accelerated modernization over the Future Years Nuclear Security Program;
- (3) cost-estimates associated with the proposed modernization options over the Future Years Nuclear Security Program; and
- (4) an examination of any barriers to modernizing the facilities and infrastructure at the Pantex Plant, including any limits imposed by statutory requirements.