

115TH CONGRESS  
2D SESSION

# S. 2980

To improve the missile defense capabilities of the United States, and for other purposes.

---

IN THE SENATE OF THE UNITED STATES

MAY 24, 2018

Mr. SULLIVAN (for himself, Mr. SCHATZ, Mr. PETERS, Mr. CRUZ, and Mr. COTTON) introduced the following bill; which was read twice and referred to the Committee on Armed Services

---

## A BILL

To improve the missile defense capabilities of the United States, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Integrated Missile De-  
5 fense Act of 2018”.

6 **SEC. 2. SENSE OF THE SENATE ON ACCELERATION OF MIS-**  
7 **SILE DEFENSE CAPABILITIES.**

8 (a) FINDINGS.—Congress makes the following find-  
9 ings:

1           (1) During the past six years, under the regime  
2 of Kim Jong-un, North Korea has conducted ap-  
3 proximately 100 ballistic missile tests and four nu-  
4 clear tests.

5           (2) Over the last few years, North Korea has  
6 made deliberate and rapid progress in developing  
7 their medium-range ballistic missiles (MRBMs), in-  
8 termediate-range ballistic missiles (IRBM), sub-  
9 marine-launched ballistic missiles (SLBM), and  
10 intercontinental ballistic missiles (ICBM), including  
11 the first-ever launches of two different interconti-  
12 nental-range ballistic missiles (ICBM) and six  
13 launches of an intermediate-range ballistic missile  
14 (IRBM).

15           (3) As the only country to test nuclear weapons  
16 in the 21st century, last year North Korea detonated  
17 its sixth and largest nuclear device, estimated at  
18 over 140 kilotons in yield, and has threatened to  
19 conduct an air burst of a nuclear warhead mated to  
20 one of its long-range ballistic missiles.

21           (4) A report from Johns Hopkins University,  
22 published in 2015, and entitled “North Korea’s Nu-  
23 clear Futures: Technology and Strategy”, concluded  
24 that, by 2020, North Korea could have as many as  
25 100 nuclear weapons.

1           (5) The United States currently has 44 oper-  
2           ational ground-based interceptors distributed be-  
3           tween Fort Greely, Alaska, and Vandenberg Air  
4           Force Base, California.

5           (6) Section 1686 of the National Defense Au-  
6           thorization Act for Fiscal Year 2018 (Public Law  
7           115–91) authorizes up to 28 additional ground-based  
8           interceptors (GBIs) and begins the deployment of 20  
9           additional ground-based interceptors to Fort Greely.

10          (7) In September 2017, Congress approved a  
11          Department of Defense reprogramming of fiscal year  
12          2017 funding of more than \$400,000,000 to counter  
13          the North Korean missile threat.

14          (8) In November 2017, the President submitted  
15          an amendment to his fiscal year 2018 budget re-  
16          quest, which Congress subsequently approved, for  
17          \$4,000,000,000 for missile defeat and defense, in-  
18          cluding funding to begin the construction of a new  
19          missile field at Fort Greely, Alaska, and additional  
20          procurement funding necessary for 20 new ground-  
21          based interceptors to be fully deployed by 2023.

22          (9) The President’s budget proposal for fiscal  
23          year 2019 includes \$9,900,000,000 for the Missile  
24          Defense Agency and \$3,000,000,000 for air and

1 missile defense activities in the military depart-  
2 ments.

3 (10) The 2018 National Defense Strategy  
4 states that in order to “deliver performance at the  
5 speed of relevance . . . [W]e must not accept cum-  
6 bersome approval chains, wasteful applications of re-  
7 sources in uncompetitive space, or overly risk-averse  
8 thinking that impedes change.”.

9 (b) SENSE OF THE SENATE.—It is the sense of the  
10 Senate that the Missile Defense Agency should—

11 (1) accelerate the fielding, if technically fea-  
12 sible, of the planned additional 20 ground-based  
13 interceptors with Redesigned Kill Vehicles (RKV) at  
14 Missile Field 4 at Fort Greely, Alaska, and to mate  
15 the Redesigned Kill Vehicles with the newest booster  
16 technology;

17 (2) weigh the rapid growth in missile and nu-  
18 clear threats against the cost and risk of accel-  
19 erating the Redesigned Kill Vehicle and the Multi-  
20 Object Kill Vehicle development and deployment;

21 (3) ensure, prior to its operational deployment,  
22 that the Redesigned Kill Vehicle has demonstrated  
23 the ability to accomplish its intended mission  
24 through a successful, operationally realistic flight  
25 test;

1           (4) rapidly develop and deploy a persistent,  
2 space-based sensor architecture to ensure our missile  
3 defenses are more effective against ballistic missile  
4 threats and more responsive to new and emergent  
5 threats from hypersonic and cruise missiles;

6           (5) pursue innovative concepts for existing tech-  
7 nologies, such as a missile defense role for the F-  
8 35 aircraft; and

9           (6) invest in advanced technologies, such as  
10 boost-phase warning, tracking, and intercept.

11 (c) REPORT.—

12           (1) IN GENERAL.—Not later than 180 days  
13 after the date of the enactment of this Act, the Di-  
14 rector of the Missile Defense Agency shall submit to  
15 the congressional defense committees a report on  
16 ways the Missile Defense Agency can accelerate the  
17 construction of Missile Field 4 at Fort Greely, Alas-  
18 ka, as well as the deployment of 20 ground-based  
19 interceptors with Redesigned Kill Vehicles (RKV) at  
20 such missile field, by at least one year.

21           (2) CONTENTS.—The report required by para-  
22 graph (1) shall include the following:

23                   (A) A threat-based description of the bene-  
24 fits and risks of accelerating the construction  
25 and deployment referred to in paragraph (1).

1 (B) A description of the technical and ac-  
2 quisition risks and potential effects on the reli-  
3 ability of the Redesigned Kill Vehicle if deploy-  
4 ment is accelerated as described in paragraph  
5 (1).

6 (C) A description of the cost implications  
7 of accelerating the construction and deployment  
8 referred to in paragraph (1).

9 (D) A description of the effect such accel-  
10 eration would have on the Redesigned Kill Vehi-  
11 cle flight test schedule and the overall Inte-  
12 grated Master Test Plan.

13 (E) A description of the effect that the ac-  
14 celeration described in paragraph (1) would  
15 have on re-tipping currently deployed exoatmo-  
16 spheric kill vehicles with the Redesigned Kill  
17 Vehicle.

18 (F) A description of how such acceleration  
19 would align with the deployment of the long  
20 range discrimination radar and the homeland  
21 defense radar-Hawaii.

22 (G) A cost-benefit analysis and a feasibility  
23 assessment for construction of a fifth missile  
24 field at Fort Greely, Alaska.

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

4 **SEC. 3. DEVELOPMENT AND DEPLOYMENT OF PERSISTENT**  
5 **SPACE-BASED SENSOR ARCHITECTURE.**

6           (a) FINDINGS.—Congress makes the following find-  
7           ings:

8           (1) The Missile Defense Agency currently oper-  
9           ates the Space Tracking and Surveillance System-  
10          Demonstration (STSS-D), a two-satellite constella-  
11          tion for testing purposes, which uses sensors capable  
12          of detecting visible and infrared light and serves as  
13          an experimental space tracker for the ballistic mis-  
14          sile defense system.

15          (2) Conceptually developed in 2009, the Preci-  
16          sion Tracking Space (PTSS) would have provided  
17          the persistent space-based tracking of ballistic mis-  
18          siles, including object characterization and discrimi-  
19          nation, and would have also supported homeland, re-  
20          gional, and theater missile defense.

21          (3) Projected to enter orbit in 2018, the Missile  
22          Defense Agency and the Applied Physics Laboratory  
23          of Johns Hopkins University is currently conducting  
24          a Space-Based Kill Assessment (SKA) experiment, a  
25          network of small sensors hosted on commercial sat-

1 ellites, used to collect the energy signature of the im-  
2 pact between a ballistic missile threat and an inter-  
3 ceptor from the ballistic missile defense system.

4 (4) Section 236 of the National Defense Au-  
5 thorization Act for Fiscal Year 2014 (Public Law  
6 113–66) required the Secretary of Defense to con-  
7 duct an evaluation of options and alternatives for fu-  
8 ture sensor architectures for ballistic missile defense  
9 in order to enhance the ballistic missile defense ca-  
10 pabilities of the United States.

11 (5) General John Hyten, Commander of the  
12 United States Strategic Command, has argued for  
13 the “deployment of a global space-based sensor sys-  
14 tem with discrimination capability” as a “critical  
15 component to improving the effectiveness of our de-  
16 ployed interceptors” to “conduct both the character-  
17 ization of these new threats . . . as well as discrimi-  
18 nate better and earlier the mid-course element of the  
19 threat that exists today”, and finally to “target  
20 against . . . hypersonic capabilities [and] other ca-  
21 pabilities in the boost phase.”.

22 (6) Admiral James Syring, the former Director  
23 of the Missile Defense Agency, has stated, “From a  
24 missile defense perspective, we have to develop a fu-  
25 ture operational space layer. Given where the threat



1 is going with hypersonics and more ICBMs and so  
2 forth this persistent tracking and discrimination ca-  
3 pability from space is a must.”.

4 (7) General Samuel Greaves, the current Direc-  
5 tor of the Missile Defense Agency, has stated, that  
6 space-based sensors are “absolutely critical for the  
7 real threat that we see in front of us, the hypersonic  
8 threat”.

9 (b) DISSOCIATION WITH BALLISTIC MISSILE DE-  
10 FENSE REVIEW.—Subsection (a) of section 1683 of the  
11 National Defense Authorization Act for Fiscal Year 2018  
12 (Public Law 115–91) is amended by striking “If con-  
13 sistent” and all that follows through “develop” and insert-  
14 ing “the Director of the Missile Defense Agency shall, in  
15 coordination with the Secretary of the Air Force and the  
16 Director of the Defense Advanced Research Projects  
17 Agency, commence developing”.

18 (c) DEPLOYMENT.—Such subsection is further  
19 amended—

20 (1) by striking “(A) IN GENERAL.—” and in-  
21 serting the following:

22 “(a) DEVELOPMENT AND DEPLOYMENT.—

23 “(1) DEVELOPMENT.—”; and

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

1           “(2) DEPLOYMENT.—The Director of the Mis-  
2           sile Defense Agency shall ensure that the sensor ar-  
3           chitecture developed under paragraph (1) is deployed  
4           as soon as practicable.”.

5           (d) COMPATIBILITY WITH EFFORTS OF DEFENSE  
6           ADVANCED RESEARCH PROJECTS AGENCY.—Such section  
7           is amended—

8           (1) by redesignating subsections (e) and (f) as  
9           subsection (f) and (g), respectively; and

10          (2) by inserting after subsection (d) the fol-  
11          lowing new subsection (e):

12          “(e) COMPATIBILITY WITH EFFORTS OF DEFENSE  
13          ADVANCED RESEARCH PROJECTS AGENCY.—The Direc-  
14          tor shall ensure that the sensor architecture developed  
15          under subsection (a) is compatible with efforts of the De-  
16          fense Advanced Research Projects Agency relating to  
17          space-based sensors for missile defense.”.

18          (e) REPORT ON PROGRESS.—

19          (1) IN GENERAL.—Not later than 90 days after  
20          the date of the enactment of this Act, Secretary of  
21          Defense shall submit to the congressional defense  
22          committees a report on the progress of all efforts  
23          being made by the Missile Defense Agency, the De-  
24          fense Advanced Research Projects Agency, and the  
25          Air Force relating to space-based sensing and track-

1 ing capabilities for missile defense and how each of  
2 such organizations will work together to avoid dupli-  
3 cation of efforts.

4 (2) FORM.—The report required by paragraph  
5 (1) shall be submitted in unclassified form, but may  
6 include a classified annex.

7 **SEC. 4. INTEGRATED AIR AND MISSILE DEFENSE FOR**  
8 **EVOLVING THEATER MISSILE THREATS.**

9 (a) FINDINGS.—Congress makes the following find-  
10 ings:

11 (1) The December 2017 National Security  
12 Strategy (NSS) states, “great power competition  
13 [has] returned [as] China and Russia began to re-  
14 assert their influence regionally and globally”.

15 (2) Additionally, such strategy states that  
16 China and Russia are “fielding military capabilities  
17 designed to deny America access in times of crisis  
18 and to contest our ability to operate freely in critical  
19 commercial zones during peacetime” with the goal of  
20 “contesting [United States] geopolitical advantages  
21 and trying to change the international order in their  
22 favor”.

23 (3) The 2018 National Defense Strategy states  
24 that—

1 (A) “[t]he central challenge to U.S. prosper-  
2 ity and security is the reemergence of long-  
3 term, strategic competition by what the Na-  
4 tional Security Strategy classifies as revisionist  
5 powers”;

6 (B) “[i]t is increasingly clear that China  
7 and Russia want to shape a world consistent  
8 with their authoritarian model—gaining veto  
9 authority over other nations’ economic, diplo-  
10 matic, and security decisions”;

11 (C) “[l]ong-term strategic competitions  
12 with China and Russia are the principal prior-  
13 ities for the Department, and require both in-  
14 creased and sustained investment, because of  
15 the magnitude of the threats they pose to U.S.  
16 security and prosperity today, and the potential  
17 for those threats to increase in the future”; and

18 (D) “[i]nvestments [on missile defense]  
19 will focus on layered missile defenses and dis-  
20 ruptive capabilities for both theater missile  
21 threats and North Korean ballistic missile  
22 threats”.

23 (4) Among his priorities for missile defense up-  
24 grades, General John Hyten stated that the United  
25 States needs to “increase the robustness of regional

1 missile defense capability and capacity including de-  
2 ployment of the Aegis Ballistic Missile Defense and  
3 the Terminal High-Altitude Area Defense (THAAD)  
4 capabilities and implementation of recommendations  
5 from the Department’s Joint Regional Integrated  
6 Air and Missile Defense Capability Mix (JRICM)  
7 study”.

8 (5) General Curtis Scaparrotti, Commander of  
9 United States European Command (USEUCOM)  
10 stated, “It is essential that our assigned and rota-  
11 tional multi-domain forces are protected by a robust,  
12 layered [integrated air and missile defense (IAMD)]  
13 capability . . . Our approach to IAMD must be in-  
14 clusive with our NATO allies and key partners as we  
15 face a growing ballistic missile threat from regional  
16 adversaries.”.

17 (6) Admiral Harry Harris, Commander of  
18 United States Pacific Command, stated,  
19 “USPACOM will continue working with Japan, the  
20 ROK, and Australia to improve our level of staff co-  
21 ordination and information sharing with the goal of  
22 creating a fully-integrated Ballistic Missile Defense  
23 (BMD) architecture that addresses the increasing  
24 cruise missile threat.”.

1 (b) SENSE OF THE SENATE.—It is the Sense of the  
2 Senate that—

3 (1) the United States should utilize regional  
4 missile defense assets to counter and deter against  
5 cruise, short-to-medium-range ballistic, and hyper-  
6 sonic missile threats;

7 (2) the United States should continue to rapidly  
8 work toward the interoperability of all United States  
9 missile defense systems for a more effective layered  
10 defense; and

11 (3) the United States Army should increase its  
12 attention, focus, and resources developing an inte-  
13 grated air-and-missile defense architecture to protect  
14 both land and air forces from cruise, short-to-me-  
15 dium-range ballistic, and hypersonic missile threats.

16 (c) REPORT.—

17 (1) IN GENERAL.—Not later than 90 days after  
18 the date of the enactment of this Act, if consistent  
19 with the direction or recommendations of the Missile  
20 Defense Review that commenced in 2017, the Sec-  
21 retary of Defense shall submit to the congressional  
22 defense committees a report on the Department's  
23 plan for the creation of a fully interoperable and in-  
24 tegrated air and missile defense architecture.

1           (2) ELEMENTS.—Elements of the report re-  
2           quired by paragraph (1) are as follows:

3           (A) An intelligence assessment of cruise,  
4           short-to-medium-range ballistic, and hypersonic  
5           missile threats to the United States and its de-  
6           ployed forces.

7           (B) An examination of current United  
8           States capabilities to defeat the threats included  
9           in the report required by subparagraph (A) and  
10          an analysis of the existing capability and re-  
11          source gaps.

12          (C) An analysis of the level of integration  
13          and interoperability of United States missile de-  
14          fense systems and the future requirements  
15          needed to become fully integrated and inter-  
16          operable to defeat the threats included in the  
17          report required by subparagraph (A).

18          (D) A description of the current state of  
19          survivability of United States missile defense  
20          systems against the full spectrum of air and  
21          missile threats from near-peer threats and any  
22          planned efforts to increase survivability.

23          (3) FORM.—The report required by paragraph  
24          (1) shall be submitted in unclassified form, but may  
25          include a classified annex.

1 **SEC. 5. ACCELERATION OF HYPERSONIC MISSILE DEFENSE**  
2 **PROGRAM.**

3 (a) FINDINGS.—Congress makes the following find-  
4 ings:

5 (1) General Joe Dunford, Chairman of the  
6 Joint Chiefs of Staff, stated, “The United States  
7 military is in a fierce competition to harness the  
8 benefits of emerging technologies, including hyper-  
9 sonics . . . as these developments will fundamentally  
10 change the character of war.”.

11 (2) General John Hyten, Commander of United  
12 States Strategic Command (USSTRATCOM) stated,  
13 “China is swiftly developing and testing a hyperson-  
14 ic-glide vehicle capability, a technology used to de-  
15 feat ballistic missile defenses.”.

16 (3) General Hyten also stated, “President  
17 Putin announced Russia’s development of . . . a  
18 maneuverable hypersonic glide vehicle,” which “only  
19 reinforce Russia’s commitment to develop weapons  
20 designed to intimidate and coerce the U.S. and its  
21 allies.”.

22 (4) Admiral Harry Harris, Commander of  
23 USPACOM stated, “China and Russia continue to  
24 develop and operationally field advanced counter-  
25 intervention technologies which include fielding and  
26 testing of highly maneuverable re-entry vehicle/war-



1 head (i.e., hypersonic weapons) capabilities that  
2 challenge U.S. strategic, operational, and tactical  
3 freedom of movement and maneuver. China and  
4 Russia also present other notable challenges in the  
5 form of cruise missiles and small-unmanned aircraft  
6 systems (s-UAS) which fly different trajectories,  
7 making them hard to detect, acquire, track, and  
8 intercept.”.

9 (b) ACCELERATION OF PROGRAM.—The Director of  
10 the Missile Defense Agency shall accelerate the hypersonic  
11 missile defense program of the Missile Defense Agency.

12 (c) DEPLOYMENT.—The Director shall deploy such  
13 program in conjunction with a persistent space-based mis-  
14 sile defense sensor program.

15 (d) REPORT.—

16 (1) IN GENERAL.—Not later than 90 days after  
17 the date of the enactment of this Act, the Director  
18 shall submit to the congressional defense committees  
19 a report on how hypersonic missile defense can be  
20 accelerated to meet emerging hypersonic threats.

21 (2) CONTENTS.—The report submitted under  
22 paragraph (1) shall include the following:

23 (A) An estimate of the cost of such accel-  
24 eration.

1 (B) The technical requirements and acqui-  
2 sition plan needed for the Director to develop  
3 and deploy a hypersonic missile defense pro-  
4 gram.

5 (C) A testing campaign plan that acceler-  
6 ates the delivery of hypersonic defense systems  
7 to the warfighter.

8 (3) FORM.—The report required by paragraph  
9 (1) shall be submitted in unclassified form, but may  
10 include a classified annex.

11 **SEC. 6. SENSE OF THE SENATE ON ALLIED PARTNERSHIPS**  
12 **FOR MISSILE DEFENSE.**

13 (a) FINDINGS.—Congress makes the following find-  
14 ings:

15 (1) At the 2010 Lisbon Summit, the North At-  
16 lantic Treaty Organization (NATO) agreed to de-  
17 velop a missile defense capability to protect North  
18 Atlantic Treaty Organization European populations,  
19 territory, and armed forces against the threats posed  
20 by the proliferation of ballistic missiles by Iran.

21 (2) The United States contribution to that  
22 North Atlantic Treaty Organization effort is the Eu-  
23 ropean Phased Adaptive Approach (EPAA), which  
24 includes the deployment of a Terminal High Altitude  
25 Area Defense (THAAD) radar in Turkey, the de-

1       ployment of Aegis Ballistic Missile Defense ships in  
2       Europe, the deployment of an Aegis Ashore in Ro-  
3       mania, and a second Aegis Ashore site in Poland,  
4       which will be completed by 2020.

5               (3) Currently, ballistic missile defense-capable  
6       Aegis ships are operating in European waters to de-  
7       fend Europe from potential ballistic missile attacks  
8       from countries such as Iran.

9               (4) Additional ballistic missile defense-capable  
10       Aegis ships are operating in the Western Pacific and  
11       the Persian Gulf to provide regional defense against  
12       potential ballistic missile attacks from countries such  
13       as North Korea and Iran.

14              (5) In early 2017, United States Pacific Com-  
15       mand (USPACOM) and United States Forces-Korea  
16       (USFK) deployed a Terminal High Altitude Area  
17       Defense (THAAD) battery to the Korean peninsula  
18       in 2017 that is now fully operational.

19              (6) In December 2017, Japanese Prime Min-  
20       ister Shinzo Abe’s Cabinet agreed to purchase two  
21       United States-made Aegis Ashore batteries to defend  
22       against “North Korea’s nuclear missile development  
23       . . . a new level of threat to Japan.”.

24              (7) Under Secretary of Defense John Rood  
25       stated, “We are also encouraging our allies and

1 partners in Europe, the Middle East and Near East  
2 Asia to acquire missile defense capabilities, and to  
3 strengthen missile defense cooperation in order to  
4 move towards a more interoperable and integrated  
5 missile defense architecture against hostile ballistic  
6 and cruise missile threats.”.

7 (8) General Vincent Brooks, Commander of  
8 United States Forces-Korea stated that “Increasing  
9 interoperability with [Republic of Korea (ROK)] sys-  
10 tems is a key part of improving Alliance missile de-  
11 fense, including program upgrades to the ROK Pa-  
12 triot system and procurement of PAC-3 intercep-  
13 tors. As North Korea continues to improve its mis-  
14 sile forces, the ROK-United States Alliance must  
15 also continue to expand its BMD capabilities.”.

16 (9) General James Dickinson, Commander of  
17 United States Army Space and Missile Defense  
18 Command, stated that “integrating allies into a  
19 common and mutually supportive [missile defense]  
20 architecture is a critical warfighter priority”, and  
21 events like the NIMBLE TITAN campaign—the  
22 world’s premier strategic and military policy missile  
23 defense event—“fosters greater confidence in com-  
24 bined missile defenses and provide a means to ad-  
25 vance U.S. efforts in collaboration, integration,

1 interoperability, and burden sharing with our allies  
2 and partners.”.

3 (b) SENSE OF THE SENATE.—It is the sense of the  
4 Senate that—

5 (1) the United States should seek additional op-  
6 portunities, at the tactical, operational, and strategic  
7 levels, to provide missile defense capabilities, doc-  
8 trine, interoperability, and planning to allies and  
9 trusted partners of the United States;

10 (2) an expedited foreign military sales arrange-  
11 ment would be beneficial in delivering such missile  
12 defenses to allies and trusted partners; and

13 (3) it is important to continue to work with al-  
14 lies and trusted partners, such as Israel, to learn  
15 from their experience deploying successful missile  
16 defense technologies.

17 **SEC. 7. SENSE OF THE SENATE ON RESULTS OF TESTS CAR-**  
18 **RIED OUT BY MISSILE DEFENSE AGENCY.**

19 (a) FINDINGS.—Congress makes the following find-  
20 ings:

21 (1) General John Hyten, Commander of the  
22 United States Strategic Command, stated that  
23 North Korea is quickly advancing their missile and  
24 nuclear technology because their rapid testing ca-

1        dence allows them to quickly apply lessons learned  
2        in testing to advance new capabilities.

3            (2) Before the Committee on Armed Services of  
4        the Senate, General Hyten stated, “If you look at  
5        what North Korea’s doing; test, fail, test, fail. And  
6        I look at what I did when I was a younger officer  
7        in the space business, that’s how you go fast. [Carl]  
8        Von Braun in the early days the rocket business, he  
9        had a 60 percent failure rate; maybe the greatest  
10       rocket scientist of all time. Can you imagine if [the  
11       Missile Defense Agency] had a 60 percent failure  
12       rate, what the—what the newspapers would say?”.

13           (3) General Hyten characterized the current ir-  
14       regular testing environment in the United States as  
15       “the wrong kind of testing environment” due to  
16       risk-aversion and fear of failure.

17           (4) Regular missile defense testing, including  
18       ground testing and non-intercept tests, not only im-  
19       proves the missile defense system, but also gives the  
20       members of the Armed Forces experience with and  
21       confidence in their tactics, techniques, and proce-  
22       dures.

23           (5) Section 1690 of the National Defense Au-  
24       thorization Act for Fiscal Year 2018 (Public Law  
25       115–91) states that “Director of the Missile Defense

1 Agency should continue to focus testing campaigns  
2 on delivering increased capabilities to the Armed  
3 Forces as quickly as possible and . . . should seek  
4 to establish a more prudent balance between risk  
5 mitigation and the more rapid testing pace needed  
6 to quickly develop and deliver new capabilities to the  
7 Armed Forces.”.

8 (6) Regarding a needed shift to a less-risk ad-  
9 verse missile defense testing culture, Under Sec-  
10 retary of Defense John Rood stated, “I think in  
11 some ways when we look at our allies like Israel and  
12 their test regimens, they’re much more willing to go  
13 back out to the test range, begin a flight test regi-  
14 men, work through their issues, understanding there  
15 are going to be bumps in the road . . . I certainly  
16 second the approach [of a less-risk adverse testing  
17 culture].”.

18 (b) SENSE OF THE SENATE.—It is the sense of the  
19 Senate that—

20 (1) tests carried out by the Missile Defense  
21 Agency, which do not achieve an intercept or the  
22 main objective, should not be considered failures if  
23 they contribute to the advancement of the capability;

24 (2) the Missile Defense Agency—in an effort to  
25 deliver capabilities at the speed of relevance—should

1 recognize the learning value of individual advance-  
2 ments made by all test events, rather than viewing  
3 any total outcome as an indication of the reliability  
4 of entire missile defense systems;

5 (3) the Missile Defense Agency should, as part  
6 of its test program, continue to build an independ-  
7 ently accredited modeling and simulation element to  
8 better inform missile defense performance assess-  
9 ments and test criteria; and

10 (4) the Missile Defense Agency should continue  
11 to pursue an increasingly rigorous testing regime, in  
12 coordination with the Office of the Director, Oper-  
13 ational Test and Evaluation, to more rapidly deliver  
14 capabilities to the warfighter as the threat evolves.

15 **SEC. 8. SENSE OF THE SENATE ON DISCRIMINATION FOR**  
16 **MISSILE DEFENSE.**

17 (a) FINDINGS.—Congress makes the following find-  
18 ings:

19 (1) General Lori Robinson, Commander of  
20 United States Northern Command  
21 (USNORTHCOM), stated, “I continue to prioritize  
22 improvements to the intercontinental ballistic missile  
23 defense sensor architecture to enhance system resil-  
24 iency and target discrimination . . . As our adver-  
25 saries develop and field more sophisticated inter-



1 continental ballistic missiles, improved target dis-  
2 crimination will improve the likelihood of a success-  
3 ful engagement.”.

4 (2) General Robinson also stated, “Improved  
5 discrimination capability will increase the likelihood  
6 of a successful intercept, and the Missile Defense  
7 Agency is developing additional radars such as the  
8 Long Range Discrimination Radar in Alaska and a  
9 persistent radar on Hawaii, both of which will pro-  
10 vide improved target discrimination and a more sur-  
11 vivable sensor network.”.

12 (3) General Samuel Greaves, the Director of  
13 the Missile Defense Agency, stated, “In addition,  
14 improvements in sensor coverage to include the long-  
15 range discrimination radar in Clear, Alaska, the ad-  
16 dition of homeland defense radar in Hawaii, if it’s  
17 approved, and planning for a homeland defense  
18 radar in the Pacific, as well as advanced discrimina-  
19 tion improvements, will enable the United States to  
20 improve protection of the homeland.”.

21 (4) In the President’s proposed budget for fis-  
22 cal year 2019, the Missile Defense Agency requested  
23 the following:

24 (A) \$220,900,000 to continue the develop-  
25 ment of advanced discrimination for the AN/

1 TPY-2, Sea-Based X-band (SBX) radar, and  
2 the Upgraded Early Warning Radars (UEWRs)  
3 to counter evolving threats.

4 (B) \$164,600,000 to continue development  
5 of the Long Range Discrimination Radar  
6 (LRDR) and \$174,000,000 for additional mili-  
7 tary construction for the Long Range Discrimi-  
8 nation Radar to provide persistent long-range  
9 midcourse discrimination, precision tracking,  
10 and hit assessment and improve ballistic missile  
11 defense system target discrimination capability  
12 while supporting a more efficient utilization of  
13 the ground-based midcourse defense interceptor  
14 inventory.

15 (C) \$62,200,000 in fiscal year 2019 for  
16 the Homeland Defense Radar-Hawaii (HDR-H)  
17 and \$33.500,000 on for the Homeland Defense  
18 Radar-Pacific (HDR-P) to close coverage gaps  
19 in the Pacific architecture and provide per-  
20 sistent long-range acquisition and midcourse  
21 discrimination, precision tracking, and hit as-  
22 sessment to support the defense of the home-  
23 land against long-range missile threats.

24 (5) As a part of its Fiscal Year 2019 Unfunded  
25 Priorities List submitted to Congress, the Missile

1 Defense Agency also requested an additional  
2 \$126,000,000 to develop advanced discrimination ca-  
3 pabilities and high-fidelity digital modeling and sim-  
4 ulation enhancements.

5 (b) SENSE OF THE SENATE.—It is the sense of the  
6 Senate that prioritizing discrimination capabilities to im-  
7 prove missile defense effectiveness against current and fu-  
8 ture threats is critically important.

9 (c) REPORT.—

10 (1) IN GENERAL.—Not later than 90 days after  
11 the date of the enactment of this Act, the Director  
12 of the Missile Defense Agency shall submit to the  
13 congressional defense committees a report on the fol-  
14 lowing:

15 (A) Needed discrimination improvements  
16 within the missile defense architecture.

17 (B) The Missile Defense Agency’s plan to  
18 rapidly field advanced discrimination capabili-  
19 ties.

20 (C) An analysis of efforts to address dis-  
21 crimination challenges against emerging adver-  
22 sary threats, including hypersonic and cruise  
23 missiles.

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

4 **SEC. 9. CONGRESSIONAL DEFENSE COMMITTEES DEFINED.**

5           In this Act, the term “congressional defense commit-  
6           tees” has the meaning given such term in section 101 of  
7           title 10, United States Code.

○