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SUBCOMMITTEE ON STRATEGIC FORCES  
HOUSE ARMED SERVICES COMMITTEE  
U.S. HOUSE OF REPRESENTATIVES

OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR POLICY

PRESENTATION TO THE  
SUBCOMMITTEE ON STRATEGIC FORCES  
HOUSE ARMED SERVICES COMMITTEE  
U.S. HOUSE OF REPRESENTATIVES

HEARING ON FISCAL YEAR 2021 PRIORITIES FOR MISSILE DEFENSE

STATEMENT OF DR. ROBERT SOOFER  
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**Statement of Dr. Robert Soofer**  
**Deputy Assistant Secretary of Defense for Nuclear and Missile Defense Policy**  
**Before the**  
**House Armed Services Committee**  
**Subcommittee on Strategic Forces**  
**March 12, 2020**

**Introduction**

Chairman Cooper, Ranking Member Turner, and Members of the Committee, thank you for the opportunity to testify before you today on the international threat environment and the Department's missile defense policy, posture, and budget. In the year since the last budget hearing on these topics, North Korea, Iran, China, and Russia have all made significant advances in their missile forces – a development DoD anticipated and accounted for in this budget request. This Committee's support has been absolutely vital to the progress we have made so far, and will be even more crucial to supporting the Department's commitment to defending against the missile threats we face this year and beyond.

The FY2021 budget demonstrates this commitment by presenting the requests of the Missile Defense Agency (MDA), the Services, the Space Development Agency (SDA), and others for efforts supporting missile defense or missile defeat missions. These resources maintain and extend the service lives of our current forces, promote readiness, increase lethality, reinforce deterrence and assurance missions, and invest in the advanced technologies needed to counter future missile threats across the spectrum of threats.

**Evolving Threat Environment**

As adversary missile technology matures and proliferates, the threat to the U.S. homeland, allies, partners, and our forces in the field becomes increasingly dynamic and difficult to predict. While traditional fixed and mobile ballistic missile threats continue to grow, adversaries are also investing in ground-, air-, and sea-launched cruise missiles with diverse ranges. China and Russia are also developing and testing hypersonic missile technology, with Russia recently deploying the world's first operational intercontinental-range hypersonic glide vehicle (HGV). These missile technologies are being incorporated into adversary strategies meant to coerce and intimidate the United States and its allies by threatening critical targets in our homelands.

China, for example, fields over a thousand ballistic missiles including approximately 150-450 medium range ballistic missiles (MRBMs) which they claim have maneuverable warheads, and a growing number of intermediate range ballistic missiles (IRBMs) including the nuclear-capable DF-26. The PLA Navy and Air Force also continue to develop land-attack cruise missiles. China is also developing its own hypersonic glide vehicle program which is meant to challenge the U.S. military presence across the Pacific.

Russia maintains one of the largest missile inventories in the world and is building new ballistic, cruise, and hypersonic missiles to support its aggressive regional and global policies. Depending on the delivery platform, these new Russian missiles can range our NATO and Asian allies, U.S. forces, and the U.S. homeland. As an example, one regional threat our forces and allies face is the SS-26 Stone short-range ballistic missile, which can carry a variety of payloads including anti-personnel/anti-material, fragmentation sub-munitions, high explosive, thermobaric, high explosive earth-penetrators, electromagnetic pulse, and nuclear warheads. Russia's commitment to its missile force modernization is evident in the sheer number of missile types it is producing as well as its prioritization in their military budget.

North Korea has worked aggressively to develop nuclear ballistic missiles capable of threatening the U.S. homeland, allies, and partners. Despite our diplomatic efforts, North Korea continues its ICBM programs that will allow it to strike the United States. It has conducted multiple ICBM tests and showcased several ICBM variants, including the Hwasong-14 and Hwasong-15. Furthermore, North Korea has tested new regional ground- and sea based-ballistic missiles.

Iran, which possesses well over a thousand missiles, continues efforts to modernize and proliferate its regional missile systems. Iran views its missile arsenal as a valuable tool of coercion in the broader region of the Middle East and beyond – a fact clearly demonstrated by its launch of over a dozen ballistic missiles into Iraq recently. We believe Iran could gain valuable information from its space-launch program, despite its recent failure, which could contribute to an effort to develop an ICBM should it choose to do so. Iran has shown a willingness to use missiles to attack Saudi Arabia and transfer such weapons to its Houthi proxies in Yemen that have made extensive use of ballistic and cruise missiles and UAVs.

Adversaries seek to defeat U.S. missile defenses not just through advances in their offensive missile technology, but also through targeted and coercive diplomatic campaigns. We have seen concerted Chinese and Russian efforts to intimidate allied leadership against cooperating with the United States on regional missile defense as well as attempts to sow misinformation and disinformation on U.S. homeland defenses, while increasing their own already considerable missile defense capabilities. The ultimate goal of these Chinese and Russian efforts is clear: the vulnerability of U.S., allied, and partner homelands and forces to missile coercion and attack.

U.S. missile defense policy recognizes the reality of this dynamic threat environment and addresses the protection of the United States, its forces abroad, allies, and partners, both now and in the future.

### **Missile Defense Policy and Roles**

To address the evolving challenges to our security and the security of our allies and partners, the United States is focused on a layered defense, with adaptable systems to meet the evolving threat environment. U.S. policy for defense of the homeland is to stay ahead of rogue state missile threats while relying on nuclear deterrence to address the large and more sophisticated Chinese and Russian ICBM arsenals. U.S. regional policy is to work with allies and partners to defend against common regional threats and preserve U.S. ability to support, reinforce, and achieve U.S. military objectives during a crisis or attack. As for emerging threats, U.S. policy is to hedge against unexpected adversary developments by investing in advanced technology so the United States, its allies, and its partners can defend against strategies of coercion or attack in the future.

Within this framework – homeland, regional, and emerging threats – our key missile defense policy objectives are centered on the following areas, as articulated in the 2019 Missile Defense Review (MDR):

- Defending the U.S. homeland, our military forces abroad, allies, and partners;
- Diminishing the benefits of adversary coercive threats and attacks;
- Assuring allies and partners that we will stand by our security commitments;
- Preserving our freedom of action to conduct military operations; and,
- Hedging against future, unanticipated offensive missile threats.

The MDR continues to be the Department's guiding policy document and we are working with this Committee's staff to keep you updated on DoD's implementation efforts.

Beyond the familiar roles missile defenses play in U.S. strategy described above, I would like to articulate some of the practical benefits missile defenses provide U.S. policy. First, credible U.S. missile defenses create another level of uncertainty in adversary attack planning, thereby discouraging attack. Second, U.S. missile defenses provide the United States insurance against the failure of deterrence and diplomacy, a distinct possibility when dealing with rogue states such as North Korea and Iran. Third, U.S. missile defense strengthens the leverage of U.S. diplomats at the negotiating table, such as when discussing North Korea's denuclearization by demonstrating U.S. ability to resist coercion and threats of limited nuclear attack. Fourth, U.S. missile defenses provide the President and other senior officials a "time buying" option during a crisis – relieving some pressure decision-makers may face about responding quickly to a developing attack. Fifth, U.S. missile defenses can intercept unauthorized or accidental adversary missile launches which can help decrease the risk of inadvertent escalation. Finally, U.S. missile defenses protect radars and other military systems that provide situational awareness, reducing the risk of miscalculation or misperception during a crisis, as well as reducing the likelihood of successful missile attacks against such systems.

In this age of growing missile threats to the U.S. homeland, where lines are now being blurred between traditional ballistic missiles and cruise missiles and hypersonic weapons, U.S. policy is at a pivotal stage. We remain confident that we can protect the homeland from rogue state missile attack today and we rely on our nuclear weapons to deter strategic attack from China and Russia. The current ground-based midcourse (GMD) defense system is well suited for the threat it was designed to defeat. We are also seeing the emergence of new threats to the homeland such as long-range cruise missiles. The United States is exploring options to improve its ability to provide strategic warning to U.S. leaders against emerging Chinese threats and long-range Russian bombers, as well as the ability to defend against cruise missile attacks on the homeland.

Regional missile threats to our allies, partners, and U.S. forces abroad range from a limited missile strike to a potentially much larger attack utilizing ballistic, cruise, and hypersonic missiles. U.S. regional missile defense policy is to work with allies and partners to further our

mutual interests against common threats through mutually-advantageous investments in missile defenses. We seek to deny an adversary any confidence that a missile attack can achieve a decisive victory or prevent the United States from operating within an adversary's anti-access/area-denial zone.

Emerging offensive missile threats will not remain fixed targets and adversaries will not allow their capabilities to remain static; so U.S. policy is to continuously re-evaluate its missile defense capabilities to make sure they meet current requirements as well as make the necessary investments in research and development to counter future advances in adversary capabilities. The Under Secretary of Defense for Research & Engineering, the Missile Defense Agency (MDA), the Services, and the Defense Advanced Research Projects Agency (DARPA) programs demonstrate the Department is investing in efforts to counter hypersonic missiles, improve laser-scaling, and develop advanced materials.

### **U.S. Missile Defense Capabilities and Posture**

The FY21 budget request recognizes the reality of the threats, advances U.S. policy objectives, and lays out the capabilities and posture essential for the credibility of our deterrence, assurance, and damage limitation missions.

#### *U.S. Homeland Defense*

The United States continues to strengthen its homeland missile defenses and is pursuing more advanced capabilities to stay ahead of rogue state threats. Today, the U.S. is defended by the GMD system which consists of 44 GBIs supported by a globally integrated network of sensors and a Command and Control system. To improve the current GMD system, the FY 2021 budget request includes funds for: software advances to enhance existing sensors' performance; deploying a new missile tracking and discrimination sensor in Alaska; refurbishing the COBRA DANE radar; continuing the integration of the Space-based Kill Assessment capability into the missile defense system; and increasing the current GBI fleet's reliability through hardware and software improvements.

DoD is also pursuing more advanced capabilities for the nation as missile threats evolve. First, we are investing in the expansion and modernization of the GMD system. This effort includes a request for the development of a new all-up-round interceptor with the advanced

technology needed to meet the future threat, the Next Generation Interceptor (NGI). We anticipate, based on our success-driven schedule, initial fielding of NGI interceptors as early as 2028, and will continue delivering new interceptors until we meet the appropriate fleet mix of 64 interceptors.

Second, we are enhancing the reliability of the existing GMD system by conducting Stockpile Reliability Program (SRP) and Service Life Extension (SLE) testing of the deployed GBI fleet to inform potential upgrades to extend service life until replaced by NGI. Of special note, MDA will develop the technology needed to expand the GBI battlespace through selectable 2nd and 3rd stage employment, discrimination improvements, and upgraded cybersecurity.

Third, to maintain and improve an effective, robust layered missile defense system, DoD is exploring options for layered homeland missile defense capabilities to complement the existing GMD system and enhance protection of the homeland. This year MDA will conduct a flight test of the SM-3 Block IIA against an ICBM-class target to determine its feasibility as part of an architecture for layered defense of the homeland. MDA is also evaluating the technical feasibility of a new THAAD interceptor to support homeland defense. This layered defense construct, should it prove feasible, would offer additional opportunities to engage missile threats in the late mid-course phase and could be available mid-decade. Successful flight testing will be essential to any potential layered defense of the homeland.

Some have expressed concern that should the SM-3 Block IIA intercept test against an ICBM-type target succeed, and we subsequently decide to incorporate the system into a homeland defense architecture, our plans to build a number of these interceptors could upset strategic stability with China and Russia by threatening to negate some level of their nuclear deterrent. China and Russia will certainly make this argument, but their own sizable investments in homeland missile defense, to include Russia's 68 nuclear-capable interceptors surrounding Moscow, against the full range of missile threats demonstrate their hypocrisy on the topic. Nevertheless, we size our homeland missile defenses to counter the rogue state threat and rely on nuclear deterrence against the much larger Chinese and Russian strategic missile arsenals. Not only do Chinese and Russian strategic missiles vastly outnumber the currently planned number of interceptors, but they also incorporate missile defense countermeasures which they claim will overcome any defense.

Lastly, we are developing a new generation of advanced ground and space based sensors to better detect, track, and discriminate enemy missile warheads. These include completion of a ground-based long range discriminating radar in Alaska and the development of new space-based sensors to track more sophisticated missile threats. Space sensors offer significant advantages for continuous tracking and discriminating threats over the geography limitations of terrestrial sensors. This provides a potential interceptor the data needed for an engagement success.

### *Regional Defense*

As we look beyond the homeland, potential adversaries are developing new, more lethal regional ballistic, cruise, and hypersonic offensive missiles to strike regional U.S. forces, allies, and partners. These missile capabilities support A2/AD strategies designed to contest U.S. and allies' ability to respond to regional aggression, inhibit our freedom of maneuver, and erode our ability to reinforce allies in crisis or conflict. In response, the U.S. is modernizing and increasing its regional missile defense posture by: increasing our capacity by procuring additional Patriot, THAAD, and sea-based SM-3 and SM-6 interceptors; fielding additional mobile platforms, including more BMD-capable Aegis ships, to better respond to crises or conflicts; integrating U.S. regional systems to expand the area that can be defended and employ interceptors more efficiently; and integrating regional ballistic missile and cruise missile defenses. For example, the U.S. Army is acquiring two Israeli-built Iron Dome batteries for cruise missile defense that will over time become part of its larger Integrated Air and Missile Defense (IAMD) posture.

The United States recognizes the increasingly complex nature of the threat and the multiple systems needed to properly characterize, track, and neutralize adversary regional missile threats. Our IAMD posture must be adaptable to new adversary capabilities and tactics. Thus, U.S. geographically-focused combatant commands are developing forward-looking IAMD roadmaps that will guide future missile defense architectures and cooperation strategies with allies and partners. The objective of these roadmaps is to develop and deploy, with our allies and partners, interoperable and integrated missile defense sensors, interceptors and command and control. These "master plans" provide a combatant command-level framework that addresses IAMD with respect to theater design, capabilities and capability gaps, as well as responsibilities and contributions. They outline the strategy for achieving the capability and capacity requirements to deter, and if necessary defeat, the wide range of threats facing our forces worldwide. In addition



to U.S. efforts, NATO is developing an IAMD capability to defend the Alliance from regional air and missile threats from any direction.

### *Preparing for Emerging Missile Threats and Uncertainties*

Looking to the future, our investment strategy and priorities will focus on how best to address more advanced adversary missile threats. In addition to improving today's operational systems, we are examining advanced concepts and technologies. For example, we requested funding in FY21 to develop space-based sensors to improve detection, tracking, and discrimination; and, conduct R&D for defenses against hypersonic missiles, including near-term sensor and command and control upgrades; and concept definition for a regional glide phase weapon system.

### **Working with Allies and Partners**

We must also continue working together with allies and partners to enhance our regional missile defense efforts in the Indo-Pacific, Europe, and the Middle East. We face these threats collectively. Our cooperation strengthens deterrence and provides assurance essential to the unity of our alliances which are threatened by missile coercion and attacks.

The Indo-Pacific is one of the most important regions of the world, and is a cornerstone for cooperative missile defense efforts with strong alliance partners such as Japan, the Republic of Korea, and Australia. A few highlights include the U.S. and Japan are successfully co-producing the SM-3 IIA interceptor, which will defend against more advanced threats. Japan is also in the process of procuring two Aegis Ashore BMD systems which will add to Japan's layered defense posture. The U.S. is also cooperating with South Korea to upgrade its PAC-2 batteries to the more advanced PAC-3 system. South Korea also hosts a U.S. THAAD battery which complements U.S. and ROK Patriots units on the peninsula providing for a layered defense against missile attack. Australia currently deploys Aegis-equipped ships and by the end of the decade has plans to field a new class of Aegis-equipped frigates.

Missile defense plays a critical role in the collective defense capabilities of NATO, and we are working toward improving both the effectiveness and interoperability of current systems to provide more robust protection. NATO has an operational ballistic missile defense capability,

based upon the Aegis Ashore site in Romania, Aegis BMD ships that can be assigned to NATO in a crisis, radars like the AN/TPY-2 in Turkey and early-warning radars in the UK and Greenland, and NATO command and control. The final phase of this effort will be achieved with the completion of the Aegis Ashore site in Poland. Distinct from the NATO BMD standing mission, which is directed against threats from outside the Euro-Atlantic area, the Alliance has integrated air and missile defense capabilities that would be deployed in a crisis to defend against ballistic and cruise missiles from any source.

In the Gulf, missile defenses have proved invaluable – both as a deterrent and an effective response when deterrence fails. Saudi Arabia and the UAE have conducted a number of successful intercepts of hostile missile attacks with their Patriot systems. In response to Iranian aggression, we have provided missile defense systems – Patriot and THAAD batteries – to defend mutual interests in Saudi Arabia. We continue to provide critical ballistic missile early warning data throughout the region. In addition, the U.S. is executing an FMS case with Saudi Arabia for 7 THAAD batteries. There is still much more to be done and the U.S. is making progress with its partners in the Gulf to help establish missile defense capabilities that, when integrated over time, would provide the basis for a networked, layered defense across the region.

Our budget for \$500M continues the longstanding support for U.S.-Israeli cooperation on missile defense – highlighted today by our cooperation on the David's Sling Weapon System to counter SRBMs and cruise missiles, and the Arrow-3 hit-to-kill interceptor to address regional ballistic missile threats. Our request also supports co-production of Israel's Iron Dome system to counter rockets, mortars, artillery, and UAVs.

## **Conclusion**

In summary, we must be prepared to meet the growing dangers from offensive missile threats together with allies and partners. In the process, we will strengthen our ability to protect our homelands and our forces; enhance deterrence; and prepare to meet future threats which continue to evolve. Missile defenses, both homeland and regional, provide an invaluable counter to increasingly capable offensive missile forces and the coercive strategies behind them. The

United States will continue to lead the way in missile defense, and together with our critical allies and partners throughout the world, we will deter and defeat our common threats.