**Lieutenant General Heath A. Collins, USAF**
**Director, Missile Defense Agency**
**Before the**
**House Armed Services Committee**
**Strategic Forces Subcommittee**
**April 30, 2025**

Chairman DesJarlais, Ranking Member Moulton, and distinguished Members of the Subcommittee, it is an honor to appear before you today to discuss the Missile Defense Agency (MDA) portfolio.

MDA is moving fast to provide effective defenses for the protection of the U.S. homeland, deployed forces, and our allies and friends. We are focused on delivering advanced, reliable, resilient capabilities on accelerated timelines to meet Warfighter needs. Today, MDA is transforming itself, its enterprise, and its industry base to employ modern digital frameworks, models, and tools that improve decision advantage in order to field capabilities to the Warfighter at speed and scale. MDA is also engaging non-traditional companies with their innovative tools and approaches to tackle complex design and integration challenges. These efforts will reduce lead times and increasing transparency, agility, and efficiency to enable the MDA workforce to focus on delivering next generation missile defense capabilities.

Over the past decade, adversaries have significantly advanced their ability to strike the homeland and field more sophisticated long-range weapons, including new ballistic, cruise, and hypersonic missiles. China is at varying stages of developing nuclear-armed Intercontinental Ballistic Missile (ICBM)-class hypersonic glide vehicles (HGV), orbital weapons, and even conventionally-armed long-range missiles designed to strike the Continental United States (CONUS) without crossing the nuclear threshold. Russia has improved its already formidable capability to threaten CONUS and recently

fielded the world's first HGV-equipped ICBM. Moscow continues to develop and test other novel nuclear delivery platforms like the Sarmat heavy ICBM and the Burevestnik nuclear-powered cruise missile. Russian bombers and naval combatants have resumed deterrence patrols that place their cruise missiles in range of the homeland. North Korea is advancing its strategic weapons program. In October 2024, Pyongyang tested the new Hwasong-19 ICBM that can probably deliver a nuclear payload to points across North America. Iran is growing its nuclear and space launch programs to provide a viable pathway for developing a nuclear-armed ICBM, should Tehran decide to do so.

**Layering and Integration Critical to System Performance**

Layering defenses is critical to improving the performance of any missile defense system. A network of geographically dispersed sensors and diverse weapon systems allows the system to engage inbound threats at varying times in the missile's flight to improve overall defense effectiveness. There are system performance benefits to having engagement capabilities in different geographic domains and the ability to layer engagements, to include increasing the probability of a successful intercept.

An examination of the defense of Israel from real world missile attacks over the past 17 months provides a look at the performance efficiencies integrated layered defenses make possible. In 2024, Iran conducted two large-scale aerial and missile attacks on Israel. Israeli missile defenses and the U.S. Missile Defense System demonstrated combat-proven interoperability by detecting, tracking, and engaging the most complex, dense, and stressing ballistic missile attacks in history, saving countless Israeli and American lives. These same U.S. and Israeli assets have successfully defended Israel against dozens of missiles launched from Yemen by the Houthis.

Working together with Israeli missile defense systems, Aegis BMD and Terminal High Altitude Area Defense (THAAD) have performed exceptionally well, contributing to the highly successful protection of Israel as well as U.S. and international military forces and the civilian population. Aegis BMD demonstrated operational capability outside its design requirements. Standard Missile (SM)-3 Block IA and Block IB missiles demonstrated high reliability and excess capabilities in these operations. SM-6 missiles fired in Sea-Based Terminal mode demonstrated high reliability and effectiveness. We have been working closely during this period with the Navy to deliver missile software upgrades and Aegis weapon system upgrades to improve defenses. Additionally, the U.S. Army deployed THAAD to Israel in October 2024 and has since conducted the first U.S. engagement with the weapon system. The system has performed very well with regional partners in defensive operations demonstrating the maturity, reliability, and effectiveness of the THAAD system, fully integrated and layered with the Israeli missile defense systems. During these operations, we learned much about the effectiveness of our sensors, weapons, command and control systems and the tactics, techniques and procedures to employ them effectively, validating the need for layered missile defenses. The exo- and endo-atmospheric layers across multiple systems proved vital in reducing the engagement burden on lower tier systems, prevented damage to critical defended assets, and ultimately saved lives.

A missile defense system is only as effective as its ability to command and control all integrated elements. The Command and Control, Battle Management and Communications (C2BMC) system proved its value in integrating real-world combat operations. C2BMC provides global communications, command and control and is a

force multiplier that brings different sensors and shooters together so that systems not designed to work together can share data and engage threats they otherwise would not have been able to see. In the Middle East, C2BMC enabled remote engagements by both Aegis and Israeli systems, correlated and combined overhead and terrestrial sensor data, extended engagement ranges far beyond internal weapon system radars resulting in improved system level performance.

As part of a future layered defense construct within the Missile Defense System, we will build upon C2BMC to deploy a more scalable, operational open architecture to increase data processing capabilities, improve missile defense system performance, and enable situational awareness for senior commanders and battle management and command and control for operational warfighters throughout a mass raid situation. C2BMC will also expand the existing, globally deployed network to integrate more sensors and shooters and provide secure, physical communication data links for all new sites.

There is a growing Warfighter demand for enhanced joint force capabilities to combat threats across the continuum of air, cruise, ballistic and hypersonic missiles. MDA, as the Integrated Air and Missile Defense (IAMD) Technical Authority, is engineering and prototyping the Joint Tactical Integrated Fire Control (JTIFC) architecture focusing on multi-domain, cross-Service kill chains, enabling true “right sensor, right shooter” capability to counter emerging threats. JTIFC enhances integrated fire control capabilities across the Services and agencies by essentially “connecting” existing sensors, command and control systems, and weapons at the tactical level.

JTIFC efforts include MDA's Joint Track Management Capability (JTMC) Bridge, which is designed to connect Army, Navy, Marine Corps, and Air Force weapons, sensors, and fire control networks into a Joint Integrated Fire Control Network. The JTMC Bridge is on a path to field with the Army Integrated Battle Command System (IBCS), Navy Cooperative Engagement Capability (CEC), and Air Force Tactical Operations Center – Light (TOC-L) Programs of Record in 2027-2028.

This JTIFC architecture has been demonstrated at multiple Combatant Command and Service exercises, to include the successful intercept of a cruise missile during Army Flight Test 6 in 2021. Recurring Service exercises include the Army's annual Project Convergence (Capstone 5 upcoming), U.S. Indo-Pacific Command's biennial Valiant Shield and Operation Sling Stone, and U.S. Northern Command's Northern Edge. Future JTIFC capabilities to be engineered and planned for delivery to the Services' programs include the fusion of combat identification features from all sensors, force level engagement coordination, and distributed electronic protection capabilities. The Guam Defense System builds on the JTIFC core architecture and future capabilities, ensuring joint weapons and sensors are integrated for layered area defense. Recognizing that a more effective force is integrated and interoperable with allies and partners, JTIFC can enable cross-Nation kill chains in support of evolving warfighting concepts and security partnerships.

**Space is Vital to Future Missile Defense**

We must continue to integrate and leverage the space domain as we sharpen our focus today to develop and deliver the next generation missile defense system. The exploitation of space supports a missile defense posture that is more effective, resilient,

and adaptable to known and unanticipated threats. The proximity, persistence, and precision of space-based missile defense assets offers a truly transformative capability.

To ensure rapid gap coverage, MDA has developed prototypes designed with Warfighter capabilities in mind. The MDA Hypersonic and Ballistic Tracking Space Sensor (HBTSS) program, for example, is helping to close the gap by supporting detection and tracking of hypersonic weapons and providing multi-domain support to the Overhead Persistent Infrared (OPIR) enterprise architecture. HBTSS, which provides fire control quality data to support engagements, is proving to be a critical element of our future hypersonic kill chain. Currently, HBTSS has collected over half a million images, to include data collected from test targets, targets of opportunity, and real-world events. Additionally, the HBTSS program has made remarkable development achievements. It implemented a new enterprise ground system in just 36 months; rapidly designed and built two satellites within 36 months; conducted the first accelerated National Security Space Launch within 12 months in collaboration with the Space Force; and participated in its first test within 119 days of launch. MDA will continue to grow its collaboration with the Space Force to develop and deliver this vital capability to the future Proliferated Warfighter Space Architecture.

Following an extremely successful HBTSS program, we are pursuing the same approach in developing the Discriminating Space Sensor (DSS) to perform birth-to-death tracking and discrimination of in-flight ballistic missiles and their payload objects. MDA will launch a DSS prototype satellite in 2029, followed by on-orbit test and demonstration of DSS capabilities to inform future space-based architecture and design requirements. The DSS prototype will demonstrate the technology required to track

ballistic missiles from space birth to death while discriminating lethal objects from non-lethal objects, with the final operational DSS system design to be decided by the Space Force. MDA will expand the demonstration of critical DSS capabilities to provide the United States an interim capability to defend against ballistic and other advanced missile threats from peer, near-peer, and rogue adversaries.

Finally, President Trump's January 27, 2025 Executive Order highlighted the need to develop cutting-edge, next generation, kinetic and non-kinetic capabilities that will include a focus on the development of space-based interceptors (SBI) capable of boost phase defense. A space engagement layer would complement land- and sea-based defenses. MDA stands ready to work closely with the Space Force and other stakeholders on the development and delivery of the SBI architecture. From a missile defense architect and developer perspective, a space-based missile defense layer would offer numerous benefits, including a persistent on-call global presence, which would reduce the risks associated with hostile missiles launched with little or no notice from different regions around the world.

**Leveraging Advanced Technologies for Future Capabilities**

MDA is rapidly developing, demonstrating, and transitioning disruptive missile defeat capabilities to deter, degrade, and destroy adversary threats. MDA is using the rapid development of prototypes to develop and demonstrate disruptive, "game-changing" capabilities, with incremental capability off-ramps to the Warfighter. We recently unveiled a new framework to streamline the acquisition of missile defense technologies. One significant part of this framework is the use of a Multiple Authority Announcement (MAA), which consolidates a broad range of procurement authorities

and methods, such as Other Transactions, Commercial Solution Openings, Procurement for Experimental Purposes, Cooperative Research and Development Agreements, grants, and research and development agreements. The MAA, which was released last month, is an acquisition approach gear towards reaching non-traditional defense contractors. However, it does not prevent traditional defense contractors from participating when they have solutions that could potentially meet the Government's needs. The MAA seeks responses from a broad set of innovative technology companies to develop capabilities that allow MDA to better manage complex design and integration challenges and accelerate critical decision making. The combination of a competitive environment with simplified procurement processes and continued leverage of MDA's unique acquisition authorities will strengthen our ability to accelerate overall timelines and deliver operational capability to the Warfighter.

The Agency is developing a multi-layered defensive architecture to counter hypersonic threats in defense of the homeland. This architecture leverages advanced sensors for early warning, identification, and persistent tracking of hypersonic threats. MDA is analyzing several initiatives to address these threats, including: enhancing persistent tracking of unpredictable targets, improving communication systems, adapting fire control strategies, and developing new kinetic interceptors with exceptional agility in extreme aerothermal environments. Additionally, MDA is exploring non-kinetic solutions and payloads to effectively neutralize hypersonic threats.

MDA is collaborating across the DoD Special Projects enterprise to synergize resources and leverage residual missile defense capabilities. Our advanced Modeling, Simulation, and Analysis laboratory provides element- and component-level

performance assessment up to mission-level analysis at all levels of classification. The lab is on a growth path to federate the models across the DoD, providing an integrated approach to missile defeat.

MDA is prioritizing the integration of Directed Energy (DE) systems into the Missile Defense System, which would reduce the burden on kinetic interceptors and augment existing capabilities. In 2024, the Directed Energy Independent Assessment Team recommended MDA reestablish efforts to develop and deploy DE systems. MDA also initiated work on a phased, long-range detect and track rapid prototype, coupled with a kill laser. Conceptually, a High Energy Laser can thin out the number of objects in an attack, lower the cost per kill, and provide a nearly unlimited magazine. MDA is on a path to demonstrate progressively higher High Energy Laser power levels, with incremental capability off-ramps to Service partners on the path to an objective capability. MDA also supports a joint DoD effort to determine the effectiveness of High Energy Laser weapon systems against a series of dynamic targets. In 2024-2025, the Probability of Weapons Effectiveness Experiment successfully engaged and negated a series of dynamic targets in crossing and head-on profiles. Finally, High Energy Laser for Regional Airborne Defense (HELRAD) explores the application space for state-of-the-art directed energy systems as they apply to future MDA architectures, identifying opportunities for MDA's future DE programs. MDA will continue to partner across the DoD and Intelligence Community to ensure a seamless left-through-right-of-launch integration effort in defeating missile threats.

**Homeland Defense**

For homeland defense, MDA continues to improve performance of the fielded Ground-based Midcourse Defense (GMD) system, which recently celebrated its 20 year anniversary of 24/7 defense of the homeland. In 2025, we will deploy capability to increase battle-space via a change to the Ground Based Interceptor (GBI) that enables firing only two of the three solid rocket motors along with discrimination improvements to improve overall system performance against more complex threats with countermeasures. Additionally, MDA is continuing development and testing of the Next Generation Interceptor (NGI), which is the future replacement for the GBI fleet. The NGI's modular design will facilitate upgrades to address evolving threats and provide a substantial increase in firepower given the multiple kill vehicles on board. Additionally, NGI will provide a reduced cost-per-kill through its increased efficiency, reliability, and availability, providing greater magazine depth.

We received authority to proceed into the Product Development Phase with the NGI program in September 2024 and have enjoyed many successes thus far in this new phase of development. However, there are some challenges we are addressing given the complexity of the NGI weapon system. Beyond the expected design challenges, we have experienced unanticipated programmatic, technical, and producibility challenges that are driving increases to the estimated development and deployment schedule. The earlier-than-planned down-select in April 2024 had a significant impact on NGI's supply chain. Upon learning of the early down-select, NGI suppliers moved quickly to limit fiscal exposure and, in some instances, stopped development work on critical NGI components while waiting for the final down-select decision. The combination of these

supply chain impacts along with post-COVID-induced inflation have adversely impacted the program. In addition, we have experienced significant development and manufacturing challenges with the solid rocket motor cases to be used in qualification testing. Solid rocket motors are on the critical path to executing the first flight test of the NGI. These development and supply chain challenges required us to develop a comprehensive NGI re-plan schedule. The result is key milestones have shifted to the right.

Despite these challenges, the NGI program continues to move forward while still enforcing technical rigor and a “fly before you buy” approach to deliver this critically important capability. The NGI program will execute an All Up Round Critical Design Review in first quarter FY 2027 on the way to completing two rigorous flight tests in FY 2029. This will provide USNORTHCOM with an opportunity to declare an Initial Operational Capability no later than FY 2030. To demonstrate confidence and to reduce program risk, MDA is exploring options for a flight test demonstration in 2028.

Concurrent with NGI development, MDA is upgrading the legacy fielded homeland defense system ground components supporting the GBI fleet to ensure seamless NGI compatibility to address the evolving threat. The ground weapon system monitors the health and status of interceptors, conducts pre-launch activities, performs engagement planning, tasks interceptors at launch, provides in-flight updates to the interceptor, and ensures communication connectivity between all of the launch sites and ground-based sensors. We have synchronized the ground weapon system development schedule with the NGI re-plan schedule. Together, these two programs have an

executable path forward to provide USNORTHCOM with improved capability and capacity against the 2030+ advanced peer, near-peer, and rogue nation threats.

From a sensor perspective, MDA added Long Range Discrimination Radar (LRDR) for Space Domain Awareness in December 2024. LRDR is currently preparing for an operational flight test, Flight Test Other (FTX)-26a, in the third quarter of FY 2025. LRDR will use an updated software build to improve discrimination performance against additional threats while adding hypersonic defense tracking capability. MDA is partnering with Space Force, USNORTHCOM, and US Space Command (USSPACECOM) to accelerate fielding these LRDR capability improvements. MDA plans to complete the LRDR transition and transfer process with the Space Force in 2025.

Finally, we will deliver a new C2BMC capability to USNORTHCOM and US Indo-Pacific Command (USINDOPACOM) in summer 2025, including faster user interface responsiveness and improvements allowing USNORTHCOM to receive GMD real-time fire control options, improving USNORTHCOM Commander decision-space timing. In FY 2026, we plan to upgrade space track processing timelines, improving defense against large raids and reporting on hypersonic threats to potential missile defense shooters.

**Regional Defense**

Globally deployed sea-based and land-based Aegis BMD capabilities are critical to the Nation's defense of our deployed forces, allies, and partners against a wide variety of short-, medium-, and intermediate-range missile threats. MDA continues to design improvements to the Aegis BMD capability, improving Sea Based Terminal

(SBT) defense, advancing weapon system and missile reliability, and enhancing Aegis BMD engagement capacity and lethality. We will continue to develop Aegis BMD weapon system software to enhance functionality and leverage more-capable radars and National Technical Means.

Aegis Baseline 9.2.4 (with BMD 5.1.5) is still on track to meet certification in third quarter FY 2025. Once certified, this baseline is expected to deploy to 14 U.S. Navy ships. BMD 5.1.5 adds capability for Sea-Based Terminal Increment 3, increased ballistic and hypersonic threat space, expanded hypersonic tracking and Link 16 reporting, enhanced space domain awareness, and discrimination architecture improvements. MDA is on track to meet our SM-3 Blk IB and IIA deliveries for FY2025, having completed 54 new production deliveries and 35 recertifications across all variants.

MDA has received supplemental funding in both FY 2024 and FY 2025 to procure replacement missiles for those expended in combat operations, as well as an increase in FY 2025 funding to continue production of SM-3 Block IB missiles. MDA is proactively working to minimize and mitigate expected SM-3 Block IB production gaps while the Prime contractor works to complete its proposal in support of a synergy buy. With FY 2024 and FY 2025 funds, MDA is moving forward to award this contract for procurement of SM-3 Block IB missiles by the end of calendar year 2025.

MDA is committed to developing a layered defense against rapidly evolving threats, with a particular focus on countering regional hypersonic missiles. Today, Aegis BMD ships are equipped with SBT capability, which is tested, certified, and deployed, including an initial defensive capability against hypersonic threats. MDA has

been working closely with the Navy to develop field and upgrade SBT defenses to counter advanced threats. With the successful Flight Test Aegis Weapon System (FTM)-32 in March 2024 and the FTX-40 successful demonstration this past March, we moved another step closer to making SBT Increment 3 an operational capability, improving our capability against some hypersonic threats.

The Glide Phase Intercept (GPI) development program represents a key element in defeating the rapidly evolving hypersonic threat of the layered defense strategy. GPI will expand the area defensible against these threats and account for expected future developments by our adversaries. Developing and fielding GPI capability is essential to countering not only the hypersonic threats we face today but also those anticipated in 2035 and beyond. MDA's plan for GPI development meets a critical need for the warfighter and can be leveraged to deliver this capability in defense of the homeland and can be accelerated with adequate resources. Additionally, we are seeking a layered approach with other kinetic and non-kinetic effects to accelerate the defeat of the hypersonic threat as part of the MDA Hypersonic Defense Task Force.

In May 2024, MDA and Japan Ministry of Defense (MoD) signed a formal Cooperative Development arrangement to jointly develop and mature the GPI. This strategic collaboration leverages Japan's world-class expertise in key missile components, particularly in advanced propulsion and aerodynamic control technologies. Cooperative development of the GPI will deliver a critical capability to counter threats in the USINDOPACOM region for both Japan and the United States.

As mentioned last year, previous Department priorities and funding decisions drove MDA to move forward with carrying out the prototype project with a single

interceptor developer in September 2024, opposed to two, in contrast to our approved acquisition strategy. As a result, the program schedule moved right to 2035 and the overall programmatic risk is high. MDA is working diligently with our partner, Japan, and our industry partner to shore up the program and look for any opportunities to accelerate and burn down risk as soon as possible. In addition to GPI interceptor development, MDA continues to develop enhancements to the mature and capable Aegis Weapon System. These software-only enhancements will enable seamless integration of the GPI interceptor by leveraging existing Aegis capability to engage and kill threats based on remote sensor data.

The Department is continuing development of a missile defense capability for the defense of Guam against diverse missile threats. In collaboration with the Navy, we are supporting the Army as they execute the USINDOPACOM requirement for a layered missile defense capability on Guam against simultaneous raids of cruise, ballistic, maneuvering, and hypersonic glide threats. MDA successfully conducted a live intercept in December 2024 of a ballistic missile target, marking the first BMD intercept test event executed from Guam. With Flight Test Experiment Aegis Weapon System (FEM)-02, the initial Aegis Guam System integrated with the new AN/TPY-6 radar and Vertical Launching System fired a SM-3 Block IIA, which intercepted an air-launched MRBM target off the coast of Guam. The AN/TPY-6 radar tracked the target shortly after launch to intercept in the first end-to-end tracking use of the radar during a live ballistic missile flight test.

The Terminal High Altitude Area Defense (THAAD) Weapon System has a proven track record of defeating incoming threats and serves as a vital component of

our Nation's layered Missile Defense System. The THAAD Weapon System is a globally transportable, ground-based missile defense weapon system that is highly effective against short-, medium- and intermediate-range missile threats inside and outside the atmosphere in the terminal phase of flight. MDA supports and sustains THAAD batteries in CONUS as well as in the USINDOPACOM and U.S. Central Command (USCENTCOM) Areas of Responsibility.

Through the end of second quarter FY 2025, in conjunction with the Army, MDA completed fielding of the global THAAD System Build 4.0 (TH 4.0) to five of seven batteries. The capabilities include enabling remote launch and enhancing integration of Patriot Missile Segment Enhanced (MSE) interceptors within a THAAD battery. These capabilities provide an increase in the defended area and greater engagement opportunities by allowing the Patriot MSE interceptors to leverage the highly effective THAAD AN/TPY-2 radar. Also, with close coordination to better support Commander USCENTCOM, MDA significantly reduced time required to provide warfighters a quick-look analysis following a THAAD Weapon System real-world event.

Starting this quarter, MDA will begin delivering THAAD Battery 8, the first U.S. battery with THAAD Configuration 3.1 hardware and THAAD System Build 5.0 (TH 5.0) software. Configuration 3.1 is the largest hardware upgrade to-date modifying over 190 components to address obsolescence and increase cybersecurity to improve weapon system performance. System-level testing will start at the end of FY 2025. THAAD Battery 8 will execute a series of rigorous test events and demonstrations culminating in Flight Test THAAD Weapon system (FTT)-26 in FY 2027 and supporting the Army's

fielding process. MDA plans to begin upgrade on the first of seven U.S. Batteries to Configuration 3.1 in the 2027 timeframe.

MDA will leverage the recently awarded THAAD Evolutionary Development Task Order to continue developing the weapon system and deliver enhanced capabilities to the Warfighter within a more agile and responsive development process. THAAD System Build 6.0 (TH 6.0) and Integrated Battle Command System (IBCS) THAAD Integration (ITI), while experiencing a delayed start due to the incremental continuing resolutions and reduction in the appropriation, will be developed within this agile process. TH 6.0 provides initial capability against non-ballistic threats and increased threat engagement space.

The Army Navy/Transportable Radar Surveillance and Control Model 2 (AN/TPY-2) is a highly transportable multi-functional, high-resolution, phased-array ground-based X-Band sensor that is highly effective at acquiring targets in the boost, midcourse, and terminal phases. AN/TPY-2 can be deployed in forward-based mode (FBM) or terminal mode (TM) configurations for THAAD fire control and engagement operations. FBM radars provide detection close to the threat origin as well as target acquisition and discrimination to the C2BMC interface to support external shooters to include: GBI, Aegis, THAAD, Patriot, and international systems. Currently AN/TPY-2 is deployed in both modes supporting operations in the USINDOPACOM, U.S. European Command, and USCENTCOM areas of responsibility.

**Allies and Partners**

Close collaboration with our Allies and partners is critical for addressing today's security challenges. MDA actively and closely engages with multiple partners across the globe to build capability and interoperability against shared missile threats.

Asia/Pacific. MDA uses Foreign Military Sales (FMS) to deliver the SM-3 Block IB and Block IIA interceptors to Japan and provide the weapon system components and associated software for two Japanese-built Aegis System Equipped Vessels, which will be fielded with the solid-state SPY-7 radar and an Aegis Weapon System. The first tactical SPY-7 (V)1 radar array has been installed at the Production Test Center in Moorestown, NJ, and has successfully tracked satellites and aircraft. Production of the remaining radar hardware is on track to support full system light-off by the end of FY 2025. MDA is also providing technical assistance to Australia to support its development of a Joint Air Battle Management System that will integrate Australia's air and missile defenses and enable interoperability with U.S. and other allied IAMD capabilities. MDA conducts cooperative research and development projects and studies with Japan, Republic of Korea, and Australia.

Middle East. MDA continues to foster a strong, long-standing partnership with the Israel Missile Defense Organization. MDA provides $500 million per year for engineering, development, co-production, testing, and fielding of the Arrow Weapon System, the David's Sling Weapon System, and co-production for the Iron Dome Defense System. MDA is also executing Fiscal Year 2024 $5.2B Israel Security Supplemental Funding for additional procurement of Iron Dome Defense System, David's Sling Weapon System, and Iron Beam defense systems to counter short-range rocket threats. Arrow, David's Sling, and Iron Dome proved their immense value in

Operation Swords of Iron and allow Israel to maintain their qualitative military edge against their adversaries. As a key participant in the development and negotiation of the supplemental Exchange of Letters, MDA's required U.S. workshare worth $2.750B will be brought back to the U.S. industrial base.

In support of our global partners, MDA is currently in production of seven THAAD batteries, including interceptors, for the Kingdom of Saudi Arabia (KSA) FMS case. One battery has been emplaced in Saudi Arabia, and the second is scheduled for shipment later this year. THAAD KSA battery equipment and interceptor production deliveries will continue through FY 2027. MDA also continues to support and provide additional capabilities via FMS to the two THAAD batteries of the United Arab Emirates. UAE was the first nation to employ fielded THAAD batteries during attacks from Iranian proxies. Working multilaterally with the Gulf Cooperation Council, MDA is defining recommendations for an integrated air and missile early warning architecture of sensors and command and control for the Arabian Gulf region.

Europe and North America. MDA has a number of ongoing cooperative research and development projects and studies with the Netherlands, Norway, Denmark, and the United Kingdom. MDA also works closely with NATO by providing subject-matter expertise to the NATO Communication and Information Agency for the continuous testing and interoperability of BMD systems. Last year, MDA and Canada began a study to examine potential architectures to increase missile defense capabilities of North America. This is the first cooperative project between MDA and Canada in 17 years.

**Laser Focus on the Warfighter**

None of the Agency's many efforts would be possible without continuous collaboration with the Warfighter. To that end, MDA has intensified strategic engagement with the Combatant Commands, Services, and the Joint Staff. Our Missile Defense Board of Director meetings continue to serve as the premiere senior level forums to coordinate missile defense programs and issues with the Lead Military Departments. MDA goes to great lengths to involve the Warfighter early on during the technology development and product development phases to address requirements. We also support Lead Military Department efforts to plan for Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities and Policy factors. Once the capability is fielded, close collaboration with the Services and Combatant Commands is essential to sustain and, as required, enhance that capability throughout its service life. Additionally, we back this up with real-time technical support, as demonstrated during recent real-world operations. Ensuring the Combatant Commanders and Services have what they need to fight and win will always be my top priority.

**Conclusion**

Chairman DesJarlais, Ranking Member Moulton, Members of the Subcommittee, the Missile Defense Agency is committed to attracting and building the strong, skilled workforce we need to develop and deliver this Nation's next generation missile defense system. I would like to recognize and thank the men and women who serve in our Armed Forces at home and abroad and who operate the Missile Defense System with the support of our dedicated civilian and contractor workforce. I greatly appreciate your continued support for MDA and the missile defense mission, and I look forward to answering the committee's questions. Thank you.