RECORD VERSION

STATEMENT BY

LIEUTENANT GENERAL SEAN A. GAINEY, USA
COMMANDING GENERAL,
U.S. ARMY SPACE AND MISSILE DEFENSE COMMAND

AND

COMMANDER,
JOINT FUNCTIONAL COMPONENT COMMAND FOR INTEGRATED MISSILE DEFENSE

BEFORE THE

SUBCOMMITTEE ON STRATEGIC FORCES
COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

SECOND SESSION, 118TH CONGRESS

ON FISCAL YEAR 2025 AUTHORIZATION REQUEST FOR MISSILE DEFENSE

MAY 8, 2024

NOT FOR PUBLICATION UNTIL RELEASED BY THE COMMITTEE

Introduction

Chairman King, Ranking Member Fischer, and distinguished members of the Subcommittee, thank you for your continued support for our Soldiers, Civilians, and Families and your continued support for the Army, U.S. Space Command (USSPACECOM), Department of Defense (DoD), and the space and missile defense community. Thank you also for inviting me to highlight the importance of space and missile defense capabilities and ongoing enhancements that enable the defense of our Nation, forward stationed and deployed forces, allies, and partners.

Since January of this year, I have had the privilege of commanding U.S. Army Space and Missile Defense Command (USASMDC) and Joint Functional Component Command—Integrated Missile Defense (JFCC IMD) and acting as the Senior Commander (SC) for both Fort Greely, Alaska, (FGAK) and U.S. Army Garrison-Kwajalein Atoll (USAG-KA). I also serve as our Army's lead enterprise integrator for air and missile defense (IAMD).

It is no secret that our competitors are growing in capability and capacity, particularly in the areas of nuclear, space and missile systems, and in the forefront, ballistic missile threats will continue to increase in complexity. Competitors' ballistic missiles are more mobile, survivable, reliable, and accurate with longer ranges; and hypersonic glide vehicles delivered by ballistic missiles are a developing threat that will inevitably challenge current missile defense systems. They are fielding more advanced missiles in greater numbers to not only deter the United States from intervening in a regional conflict but also to target the U.S. homeland. The National Defense Strategy (NDS), Nuclear Posture Review (NPR), and Missile Defense Review (MDR) recognized these dynamic changes in the security environment and the imperative to strengthen our integrated deterrence using all our strategic capabilities.

Missile prelaunch survivability is also likely to increase as adversaries strengthen their denial and deception measures and increasingly base missiles on mobile platforms.

Furthermore, increasing technical and operational countermeasures continue to challenge defensive systems against ballistic missiles.

The cruise missile threat to U.S. forces is also increasing. While most current land-attack cruise missiles (LACMs) remain subsonic, supersonic and hypersonic missiles have already been deployed, and LACMs will also have increased survivability by minimizing radar signatures and/or using countermeasures.

Europe—and frankly the globe—faces a Russian Federation with about 1,400 deployed nuclear warheads on intercontinental ballistic missiles (ICBMs) and submarine launched ballistic missiles (SLBMs). Despite arms control limitations and resource constraints, development of new ICBMs and SLBMs remains a high Russian priority, and they are expected to retain the largest force of strategic ballistic missiles outside of the US.

In the Indo-Pacific, the People's Republic of China (PRC) has the most active and diverse ballistic missile development program, producing technologically advanced systems, selling ballistic missile technology, and expanding the reach of its ballistic missiles to deter foreign powers in future conflict.

Similarly, the Democratic People's Republic of Korea (DPRK) is also developing long-range ballistic missiles that can threaten the U.S. and its allies. They continue testing new ICBMs, intermediate-range ballistic missiles, solid-propellant short-range ballistic missiles, an SLBM, and a medium-range ballistic missile while maintaining a large short-range ballistic missile (SRBM) inventory.

In the Middle East, Iran has ballistic missile and space launch development programs, which will result in increased ballistic missile force lethality. Iran's ballistic missile force exercises extensively hone wartime operational skills and tactics, and their space program progress could accelerate their path to achieving ICBM capabilities given the inherently similar technologies.

Our competitors increasingly leverage their space capabilities and complex missile systems, including unmanned systems, to legitimize their domestic and international agendas. With lower barriers to entry than ever, we can see a future that promulgates directed energy, autonomous systems, machine learning, and a further increase in distributed operations. Indeed, as demonstrated in the current conflicts and at the forefront of the next war, missiles will certainly be employed for increasingly tactical objectives— the missile threat is growing, and we must continue to build a resilient force and adapt to deter and defeat it.

As the commander of USASMDC and JFCC IMD, I am advocating for smart investment in the mission areas of space and IAMD, while also developing other ways—like missile defeat—to deter our competitors. Not only must we deny them the benefit of their potential strikes through resilience and countermeasures as the NDS directs, but we must also credibly communicate our capabilities and capacity to instill doubt in crisis and complicate the adversary decision calculus.

At USASMDC, our mission is to develop and provide current and future global space, missile defense, and high-altitude capabilities to the Army, the joint force, and our allies and partners. We must enable multi-domain combat effects and enhance deterrence, assurance, and detection of strategic attacks to protect the Nation. USASMDC is the U.S. Army's Service component command (ASCC) for three combatant commands (CCMDs): U.S. Space Command (USSPACECOM), U.S. Northern Command (USNORTHCOM) for ground-based midcourse defense (GMD), and U.S. Strategic Command (USSTRATCOM). At USASMDC, our vision is that of "ONE TEAM," achieving our shared objectives via collaboration, feedback, assessment, and smart adaptation to continue demonstrating value to warfighters, our Army, our joint interservice and interagency teammates, our Nation, and our allies and partners.

Of course, we cannot do this alone. We integrate our efforts across the globe with organizations like the Missile Defense Agency (MDA), U.S. Space Force (USSF), Army Futures Command, Army Rapid Capabilities and Critical Technologies Office (RCCTO),

and Program Executive Offices (PEOs), spanning a myriad of space, missile defense, and high-altitude requirements of the operational environment.

Recent Developments

The President's 2023 Unified Command Plan (UCP) seamlessly transferred the responsibility for missile defense, including JFCC IMD, from USSTRATCOM to USSPACECOM in April of last year.

In October of last year, the Secretary of Defense (SECDEF) assigned the 100th Missile Defense Brigade (MDB) to USNORTHCOM. As a result, USASMDC became ASCC to USNORTHCOM for the GMD mission.

The *Army Space Vision Supporting Multidomain Operations* was signed last December by the Secretary of the Army, the Chief of Staff of the Army, and the Sergeant Major of the Army. It specifies the Army's role of integrating joint and coalition space capabilities into our operations while simultaneously interdicting adversary space capabilities.

Throughout third and fourth quarters of Fiscal Year (FY) 2023, USASMDC ensured successful transfer of the Theater Missile Warning mission to USSF's Space Operations Command (SPoC) Missile Warning—Delta 4. Official mission transfer occurred on October 1, 2023, with USASMDC providing residual support and manning to the Joint Tactical Ground Station (JTAGS) sites through April of this year. The realignment of theater missile warning to our sister service enabled USASMDC to take on new mission sets focused on providing close space support to the tactical warfighter while still meeting our joint and coalition responsibilities. Four Army companies will officially case their colors on April 15, 2024, after nearly a quarter century of providing dedicated theater support to the joint and coalition forces worldwide.

One of the first opportunities occurred to integrate Army space-cyber-special operation forces (SOF) capabilities in May 2023. This took place during Army SOF National Training Center Rotation, and during this rotation, the fusion of Army space elements

with SOF units in support of their missions in an operational environment was completed successfully. USASMDC supported SOF elements through the production of space-enabled effects and products, and these elements were also invaluable in the joint operations center (JOC) targeting process.

As of September 2023, the USASMDC Force Tracking Mission Management Center (FT MMC) began executing its joint force tracking (FT) mission on behalf of USSPACECOM, which provides continuous FT data services to combatant commanders, U.S. Government agencies, and designated coalition partners in support of command and control, situational awareness, and fratricide reduction. The FT MMC receives data from over 70 different tracking device manufacturers, converts that data into a common message format, and disseminates a tailored data feed out to authorized end users across the Department of Defense and U.S. Government. This allows end users to concentrate on their mission sets while the FT MMC concentrates on force tracking data at an enterprise level. The FT MMC currently processes friendly force tracking (FFT), tagging, tracking and locating (TTL), and personnel recovery (PR) data with over 300,000 devices under management, generating approximately 21 million messages per day.

Pacific Sentry/Space Sentry 23 (PS/SS23), was a tier I exercise where USASMDC provided support to USINDOPACOM and USSPACECOM. USASMDC used PS/SS23 to integrate space control planning teams with USSPACECOM forward elements to provide joint non-kinetic targeting data. USASMDC also integrated with the Australian Defense Force space component throughout the exercise. The exercise demonstrated that the methods used to disseminate intelligence over secure means did not adequately replicate standard intelligence dissemination and that USASMDC will work with the Department of the Army to define the requirement, mitigate risk, and satisfactorily resource USSPACECOM’s intelligence requirements.

Keen Edge 24 (KE24), was a USINDOPACOM lead exercise, with support from USSPACECOM and capability and planners from USASMDC. Furthermore, this

exercise also supported the coordination of two coalition partners. One of the lessons learned from this exercise was that the number of target aim points (NLRPs) were limited for the exercise, which resulted in the underutilization of space capabilities due to the lack of NLRPs.

In the near term, USASMDC supports several other events. The USASMDC Center of Excellence, Technical Center, and 1st Space Brigade participated in the Project Convergences Capstone 4 (PCC4) experiment to further explore future space capabilities such as the Theater Strike Effects Group (TSEG). USASMDC will also provide forces and full staff participation in Austere Challenge/Global Lightning/Vigilant Shield 24 (AC/GL/VS24). AC/GL/VS24 is USEUCOM's focused Tier I exercise. USSTRATCOM and USNORTHCOM integrated into USEUCOM's battle rhythm, and USSPACECOM will provide a response cell. USASMDC will also conduct external evaluations for the 1st Space Brigade and 100th GMD Brigade during this event, this will be the first tier I that USASMDC formally supports USNORTHCOM as an ASCC. The USEUCOM AOR is the backdrop for the exercise with limited impact to the homeland to support USNORTHCOM objectives. Finally, USASMDC continues direct integration with United Kingdom Space Command to provide space augmentation to USASMDC mission requirements and possibly provide liaison support in the United Kingdom.

Space Operations

As space, cyber, and SOF continue to work together, 1st Space Brigade capitalized on engagements with U.S. Army Special Operations Command (USASOC) to experiment with new tactical space control technology. Over the past 18 months, the brigade task organized to support a shift towards more expeditionary systems to operate in the corps' extended deep areas of conflict. Recalibrated formations such as the Army space control planning team and tactical experimentation team led these initiatives. The Army space enterprise is considering all options, including integration of existing commercial and government off-the-shelf technologies to demonstrate concepts that fulfill the current demand for a ruggedized, tactical space control system. These new, small form factor systems fit in just a few man-portable cases and employ a team of five Army

space professionals. Space Soldiers utilized these systems to provide real-time space effects in a variety of experimentation exercises to include Project Convergence 22, Command Overland, USASOC capabilities exercise, two multi-lateral airborne trainings, and multiple Sage Eagles.

In these venues, Army space operator crews provided on-the-move support to SOF entities by leveraging smaller, more maneuverable technology at the ODA level. The 1st Space Brigade's Soldiers integrated capabilities and space operations into scenarios to demonstrate how space, cyber, and SOF can work together to support multi-domain and full-spectrum operations, providing SOF and the joint force with an enhanced ability to see, sense, stimulate, strike, and assess across the spectrum. SOF partners enable space Soldiers to gain the necessary placement and access to operate tactical Army space control systems in support of operations within denied, degraded, and disrupted austere operating environments.

To enable and achieve the Army Space Vision, USASMDC is investigating the establishment of an Army Space Operations Branch to deliver specialized, highly trained, and certified Soldiers with the experience and expertise to provide relevant and timely effects on the battlefield in support of maneuver commanders.

In parallel, USASMDC is championing the Army Space Training Strategy. This strategy provides a framework to educate and train the force, not otherwise trained in space operations, to integrate space knowledge, skills, and tasks into professional military education, maneuver training centers, and home station training with the requisite training devices while simultaneously taking an Army enterprise approach to prepare the force to fight, and win, in a contested multi-domain environment.

While technological advances can and will disrupt adversary position, navigation, and timing (PNT) and communications capabilities, we must also employ technological advances to interdict adversary space-based capabilities that provide surveillance and reconnaissance. By collaborating with joint partners, we can further integrate space and

high-altitude capabilities to the tactical edge while our science and technology (S&T) efforts continue underway to ensure dominance in space control, deep sensing, and increasing the survivability and capability of our sensing systems.

Integrating space operations into missile defense operations, and vice versa, is of utmost importance to our national security. Increasingly, space and missile defense enterprises depend on and enhance each other. Given recent trends, it has become apparent we cannot effectively contribute to strategic deterrence or respond in crisis if we approach the multi-domain environment with differing business sectors or phases of an operation. Yesterday's military relied on space for warning and targeting, and yesterday's military relied on missile defense to protect the force. Today, space and missile defense integration must be at the very start of our prototyping, concept development, and application—across and in concert with our Army, joint, and coalition partners. This integrated approach is both cost effective *and* mission effective.

IAMD

S&T investments in high-energy lasers (HEL) executed by USASMDC led to the fielding of the Palletized High Energy Laser (P-HEL) and the Directed Energy Maneuver Short Range Air Defense (DE M-SHORAD) systems by the RCCTO. We must continue S&T efforts to increase lethality; reduce size, weight, power, and costs; increase magazine depth; and increase the range-to-effect of high-energy laser weapon systems. USASMDC also continues collaborating with the RCCTO to ensure delivery of HEL systems that are reliable and affordable.

USASMDC will also continue to provide hypersonic test support to the RCCTO and Navy Conventional Prompt Strike Program Offices and develop hypersonic targets for testing of new and existing IAMD capabilities. USASMDC is prepared to support MDA development of the Guam Defense System (GDS) by providing military operator doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P) analysis and operator requirements support to MDA's acquisition process, development, and fielding.

Additionally, the Missile Defense Agency (MDA) provided software and hardware (HW) deployment of version CX4.0 across the fleet of Terminal High-Altitude Area Defense (THAAD) forward-based mode radars (AN/TPY-2), providing enhancements to initial hypersonic defense tracking, dynamic discrimination architecture, cybersecurity, electronic protection, objective debris mitigation, and spurious track mitigation.

MDA also completed MILCON activities for the construction of Missile Field 4 at FGAK and is currently installing and testing launch support equipment in each of the silo interface vaults. These activities will continue through the end of calendar year 2024. Furthermore, the additional 20 silos in MF4 will create flexibility for ground system operations and sustainment and will support the subsequent fielding of 20 Next Generation Interceptors in the future.

MF4 enhances interceptor capacity to defend the homeland against long-range ballistic missile attack. The expansion of MF4 increases the footprint of the Missile Defense Complex (MDC) on FGAK, and this increased footprint, along with additional assets, will require increasing physical security assets including personnel and devices. Security personnel requirements have been historically achieved through RFF or mobilized National Guard units from the lower 48 states, and security devices such as cameras, badging, and detection systems will also need to increase based on the expansion.

And finally, USASMDC also continues to ensure site security at FGAK, fielding additional C-sUAS systems in defense of the MDC. Several systems are now employed, and we continue to ensure that we have the most streamlined legal authorities and reporting practices to showcase these capabilities. Moreover, the 49th Missile Defense Battalion, 100th Missile Defense Brigade, and USASMDC continue to coordinate to provide updated, state-of-the-art technology in the continuous effort to defend the MDC against C-sUAS threats.

Senior Commander

The mission of the senior commander is to “care for Soldiers, Families, and Department of the Army Civilians, and to enable unit readiness.” Therefore, the senior commander will routinely resolve installation issues with Army Material Command (AMC) and, as needed, the associated ASCC or Direct Reporting Unit. The senior commander also uses the garrison command as the primary organization to provide services and resources to customers in support of accomplishing this mission. All applicable commands support the senior commander in the execution of senior commander responsibilities; therefore, the senior commander is the commander supported by Army Materiel Command’s Garrison Command and affiliated Installation Management Command (IMCOM) director, other installation service providers, and tenants.

I routinely work with the IMCOM director in the Pacific region, regarding concerns and investments at FGAK and USAG-KA. The Fort Greely Community Activity Center has been modernized and has new services that include a new coffee cafe and bar area, greatly improving the community’s food and drink options and providing a safe and relaxing environment. Moreover, ground will be broken this year to add an indoor playground expansion to the activity center by late 2025. Additionally, the garrison continues to support 24-hour operations and intends to improve its aging infrastructure with efforts underway to de-centralize heating in all the buildings and become more energy resilient and less dependent on utility providers in the future. This is to combat projected increased energy costs across Alaska over the next 10 years.

FGAK’s and USAG-KA’s locations are crucial to our national security. Fort Greely is ideally situated in Alaska to address security challenges in Northeast Asia. Kwajalein is home to a U.S. Army garrison and the Ronald Reagan Ballistic Missile Defense Test Site, which is a vital site in the Pacific Islands region – a strategically crucial part of the broader Indo-Pacific.

The Compacts of Free Association between the United States and the Republic of the Marshall Islands, the Federated States of Micronesia, and Palau facilitate our strategic partnership with each of these nations. Under these agreements, the United States has

the rights of strategic denial and assured access. In return, we serve as the defense force for these countries. Kwajalein's Reagan Test Site protects key space assets, contributes to space domain awareness for USSPACECOM, and enables mission essential, missile operational and developmental test capability for USSTRATCOM. However, this unique place and its one-of-a-kind capabilities require significant investment now and in the future. In January of this year, for example, one of the U.S. Army Garrison's islands, Roi-Namur, was inundated by a series of rogue waves. Half of Roi-Namur, home to most of the Reagan Test Site's radars, was flooded, causing millions of dollars in damages to an already weakened infrastructure and leaving its radars inoperable for weeks.

Kwajalein's unique position brings joint value, and joint value requires joint investment. Therefore, USASMDC is committed to leading this effort for the Joint Force. We are actively evaluating command relationships and resourcing processes for efficiencies to revitalize this important multi-domain operations mission in the Pacific for the decades ahead.

However, even as I highlight the challenging decades ahead and USASMDC makes incredible strides in these essential, no-fail missions, I want to reiterate that our most important assets are the thousands of Soldiers, Sailors, Airmen, Marines, Guardians, Civilians, and Contractors who deploy and employ our IAMD system—and the families that sacrifice to make their efforts possible. Our "ONE TEAM," family mindset at USADMDC has been foundational to our success and empowers mission accomplishment.

I appreciate the opportunity to address missile defense matters and look forward to addressing your questions.