GEN James C. McConville
Army Chief of Staff (R)

Ensuring War-Winning Future Readiness for AMD Forces

"We are getting it done. In the future, we are not going to be outgunned, we are not going to be outranged and we are not going to be outmaneuvered on the battlefield."

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Perspective

While it has always been an exciting time to be an air defender, the present day challenges the Army faces in air defense require, rapid, persistent transformation as never before. The Army has made great strides the last few years in terms of enhancing our modernization and readiness efforts across the range of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) functions. Technology has matured to the point where we are now able to physically manifest the vision of integrated air defense pioneers 40 years ago were only able to conceptualize.

This is the greatest and most complex modernization of our air and missile defense capability since the Cold War, centered on connecting sensors, shooters and a common mission command system. Ultimately, it is about giving our warfighters capabilities sooner and increasing the options available in order to keep pace with our adversaries, making their challenges more complex.

Designing the Army of 2040

The Air & Missile Defense Cross Functional Team focuses on transforming our air and missile defense force and developing new capabilities supporting the Army modernization priorities. Our competitors have been investing in unmanned aircraft and missile systems, requiring us to rapidly modernize and transform our air and missile defense capabilities. While our progress and our efforts have been significant, they are one piece of the overall Army Futures Command's (AFC) focus to build the Army of 2030 and design the Army of 2040. AFC is transforming the Army to ensure war-winning future readiness. Guided by the AFC imperative to design the Army of 2040, we are partnering with Army, multi-service, and multinational military partners as well as our industry partners to transform air and missile defense capabilities to better enable our forces to

maintain a significant edge over our adversaries in the future.

With essential input and feedback from our warfighters, we are creating capabilities that will remain relevant well into the next decade and beyond. The value of Soldier-centered design is that it deliberately brings Soldiers into the development process in regular and meaningful ways. These events provide an opportunity for Soldiers who are in formations now, and may be on the battlefield tomorrow, to provide valuable input to industry representatives, testers, researchers and acquisition experts on the capabilities the force will need to fight and win. Soldier engagements help pinpoint overlooked end-user issues and confirm or dispel the need for development teams to address real or perceived technological challenges. Soldier touchpoints inform requirements, facilitate rapid iteration of prototypes and ensure the Army is meeting Soldiers' tactical and operational needs.

We are strengthening a legacy of excellence that will underpin warfighters' ability to win anytime, anywhere, against any foe. We continue to be well supported by our military and industry partners from higher headquarters, Army Futures Command, our Army Senior Leaders and Army Staff/Secretariat. In the trenches, we continue to work very closely with Program Executive Office Missiles & Space, as well as Army Capability Managers, the Rapid Capabilities and Critical Technologies Office, and Army Test and Evaluation Command. With a common vision in mind, we have partnered to develop and refine the requirements that allow the Program Managers to mature those systems that best meet warfighter needs.

Army Integrated Air and Missile Defense (AIAMD)

AIAMD remains our top priority. The IAMD Battle Command System (IBCS) is the material component of the overall AIAMD system. IBCS provides common mission command across all Army AMD echelons, improves combat identification, provides flexibility in task organization, and improves joint integration. AIAMD replaces multiple disparate command and control systems, enabling improved coordinated engagements, positive control of sensors and weapons, friendly protection, and shared situational understanding. IBCS open architecture enables the rapid integration of both legacy and developmental sensors/shooters, providing the force with capabilities to defeat emerging threats in a Multi-Domain Operations scenario. IBCS completed Initial Operational Test & Evaluation in 1st Quarter FY23 that will inform the Initial Operational Capability and the Full-Rate Production decisions. Additionally, IBCS participated in Project Convergence 22 with U.S., other service, and multinational partners.

Lower-Tier Air and Missile Defense Sensor (LTAMDS)

LTAMDS delivers sensor capability to counter advanced threats and take full advantage of the Patriot Missile Segment Enhancement (MSE) capability. LTAMDS serves as a sensor node on the Integrated Air and Missile Defense (IAMD) Battle Command System (IBCS) network. LTAMDS provides a significant increase in range and coverage capability over current Patriot Radar The development of a new 500kW large tactical power system is an integral part of the LTAMDS solution in order to enable it to meet full radar performance requirements. In 2023, initial prototypes were delivered to the test range (White Sands Missile Range) for contractor testing and the U.S. Government is conducting a technical analysis on the test data. The LTAMDS program is on path to meet legislative requirements.

Maneuver Short-Range Air Defense (M-SHORAD)

Our Army's M-SHORAD development efforts have continued on schedule and are producing results. As a system, M-SHORAD supports warfighters at the tactical level. It provides air protection to maneuver formations to counter a wide range of air threats, from unmanned aerial systems to rotary- and fixed-wing aircraft. M-SHORAD is about developing challenges or complexities for our adversaries, while creating options for tactical and operational commanders in a ground fight. As of this publication date, we have fielded all or most of a full battalion

of M-SHORAD to 5th Battalion, 4th Air Defense Artillery Regiment in Germany. This unit has been putting a platoon of vehicles through its paces the past two years and is ready to complete its fielding this year. Directed Energy M-SHORAD (Increment 2 prototypes are being fielded in 2Q-3Q FY23 to 4-60 ADA at Fort Sill (and Yuma Proving Ground) for testing and training.

Indirect Fire Protection Capability (IFPC)

Our Enduring IFPC system provides the capability to defend fixed and semi-fixed assets against sub-sonic cruise missile and UAS threats, with a residual capability against fixed and rotary wing aircraft. The system provides 360-degree protection to support and protect maneuver formations and the ability to simultaneously engage threats arriving from different azimuths. The IFPC system fills the gaps between tactical short-range air defense and strategic air and missile defense such as the Patriot and the Terminal High Altitude Area Defense System. In 2022, the first Iron Dome battery shipped to Joint Base Lewis-McChord. We anticipate the initial fielding of Enduring IFPC (Increment 2) in 2023. The enduring IFPC program will be compatible with the Army's Integrated Battle Command System (IBCS) and the Sentinel Radar.

Counter-small Unmanned Aerial Systems (C-sUAS)

In 2022, C-sUAS became part of our AMD portfolio our portfolio as a fifth signature effort. Our competitors have invested heavily in unmanned aircraft, so U.S. forces require capabilities to perform C-sUAS missions to deny threat sUAS (groups 1-3) the ability to detect, surveil, target, attack, and disrupt U.S. forces across all domains. C-sUAS is a combined arms requirement requiring combinations of technologies and TTPs, developed and refined through experimentation, analysis, and collaboration. Our capability development efforts focus on providing a networked, scalable, and tailorable suite of capabilities to the force commander (for mounted, dismounted, fixed and semi-fixed operations) that support a layered defense and incorporate active, passive, and deep sensing. Such capabilities enhance the ability of our warfighters to integrate C-sUAS capabilities with kinetic and electronic warfare to successfully operate across the full range of military operations. In 2022, the CFT developed a near-term funding strategy prioritization plan to support research, development, test and evaluation requirements for the (fiscal) years 2023-2025.

Way Ahead

Our efforts to transform air and missile defense capabilities today and in the future are a critical piece of the larger Army transformation efforts to build the Army of 2030 while designing the Army of 2040. The solution set requires that we develop and provide a tiered and layered mix of capabilities that enables our warfighters to defeat the complex threats posed by our adversaries. We must revisit longstanding doctrinal and organizational constructs which may be rendered irrelevant by new capabilities and rigorous analysis. Likewise, we must aggressively continue to explore new opportunities that are created by the promise of modernized equipment as a part of the data centric joint force. There is no silver bullet solution to building this air and missile defense capability for our forces. It is a challenging, demanding problem set that requires keen minds, new ways of thinking, collaboration, and a warfighter focus. I encourage you to seek out opportunities to participate in this tough but rewarding challenge to transforming YOUR air and missile defense force!

Five of our systems mentioned above—AIAMD, M-SHORAD, DE M-SHORAD, IFPC and LTAMDS-- represent the air and missile defense community's significant contribution to "24 in '23", the Army's vision to get 24 systems into the hands of Soldiers in 2023. It is truly a great time to be an air defender in our Army!