



Air and Missile Defense . . . An Integral Part of Army and Joint Transformation

We will provide joint and combined-arms warriors with mission-tailored capabilities to dominate, enable and exploit the third dimension battlespace and integrate operational protection in support of the Unit of Action (Brigade Combat Team), Unit of Employment and joint commanders and coalition forces in the future operational environment.

MG Michael A. Vane, Commanding General
U.S. Army Air Defense Artillery Center and Fort Bliss

As the senior leadership of the Department of Defense (DoD) and the Army outlines and executes force transformation, Army Air and Missile Defense has likewise initiated a synchronous transformation vision, concept, plan and actions to support both joint and Army transformation goals and overmatch the asymmetric aerial threats of the 21st century. This transformation will provide the vital “protection set” for the future Army Units of Action/Units of Employment (UA/UE) and the Joint Force. The end-state goals of this transformation are scalable, modular and tailorable Future Force air and missile defense (AMD) task forces with a force-wide warrior ethos, joint and expeditionary mindset and joint AMD system of systems.



The Avenger system is a lightweight, highly mobile and transportable surface-to-air missile/gun weapon system. It provides mobile, short-range air defense protection against air and land attacks.



Combat-proven protection from adversary theater ballistic missiles (TBMs) is provided by the Patriot system.

AMD transformation will enable the modern warfighter to fully integrate in a comprehensive and lethal battlefield through the use of cutting-edge, network-centric command, control, communications, computers and intelligence (C4I) and weapons technologies.

Key to implementing this air defense transformation is a new plan—U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-3-01.94, *The United States Army Air and Missile Defense Concept and Operational and Organizational Plan for the Future Force*, approved in September 2004—that builds upon the AMD Transformation Vision and details a path to efficiently and effectively achieve that vision. The AMD operational and

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Terminal High-Altitude Area Defense (THAAD) provides a unique capability for wide area defense against ballistic missiles at higher altitudes and longer ranges.

organizational (O&O) plan describes the Future Operational Environment, the area-denial and anti-access strategies adversaries will employ, and the asymmetric aerial capabilities they will use against joint and coalition forces. It identifies the changes AMD will make in the areas of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) to transform to a strategically integrated, responsive, deployable, agile, versatile, lethal, survivable and sustainable force—a multifunctional force that is a critical enabler and indispensable contributor to the Future Force.

Any discussion of changes in Army Air Defense evolution must contain its contribution to the Joint Force. The Joint Chiefs of Staff have focused on Air and Missile Defense as an essential component of DoD transformation, directing the development of a Joint Integrating Concept (JIC) for Integrated Air and Missile Defense (IAMD). The IAMD JIC outlines the right “integration of capabilities among six broad mission areas into a holistic approach that provides interrelated, end-to-end solution sets for countering air and missile threats”—the capabilities required to fully

integrate a joint AMD force on the ground, in the air and at sea. The incorporation of these service capabilities will provide the joint force commander (JFC) with interdependent AMD systems that have the optimal ability to counter asymmetrical and anti-access threats on the modern battlefield.

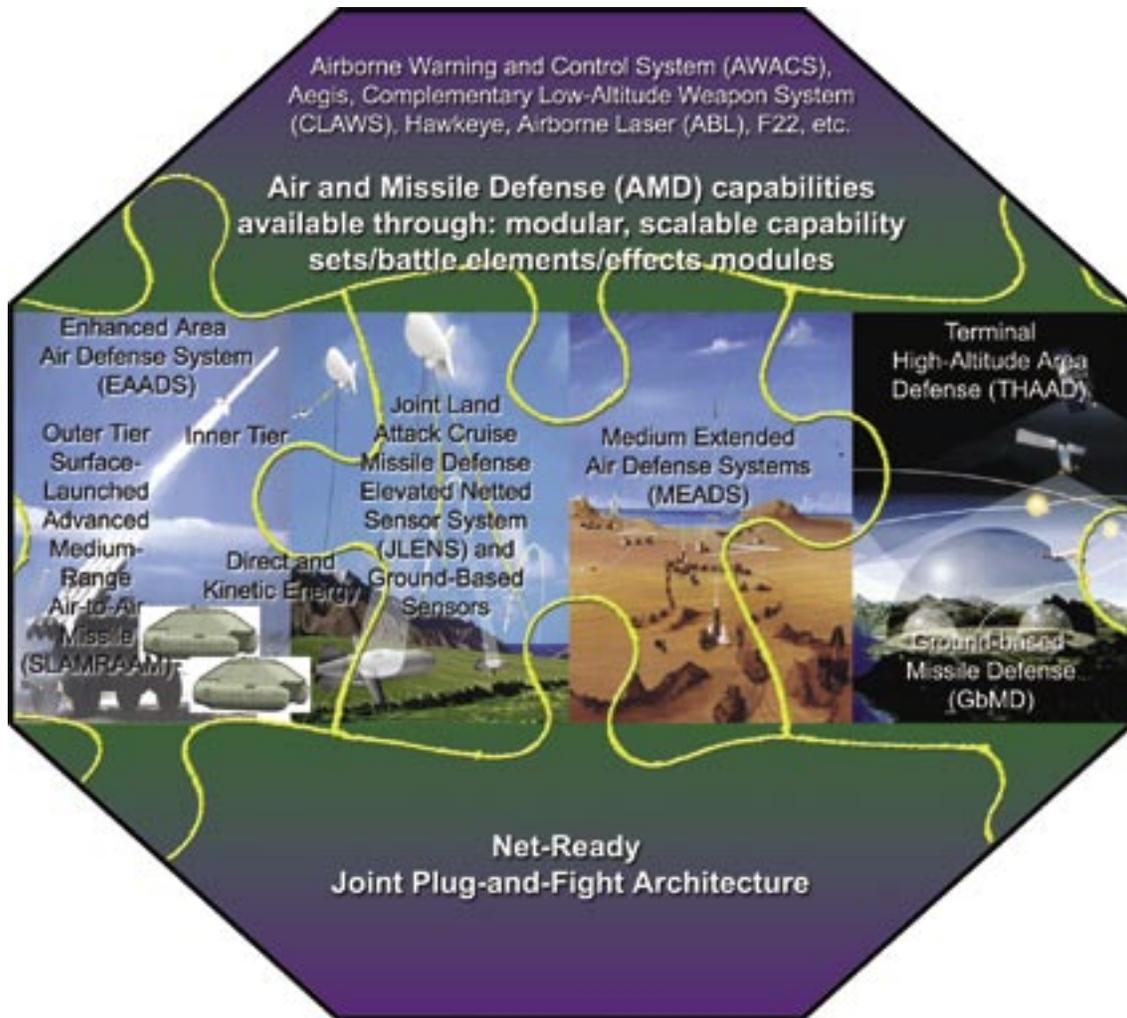
Underpinning the Army AMD Concept and O&O as well as the IAMD JIC is an ongoing Joint Capability Integration Development System (JCIDS)-compliant analysis that explores multiservice programmed capabilities required to implement a holistic, interdependent Air and Missile Defense supportive of the National Military Strategy of 1-4-2-1.* This analysis has yielded four mission sets for Army AMD that range from global missile defense and homeland defense to theater- and tactical-level AMD protection.



Surface-Launched Advanced Medium-Range Air-To-Air Missile (SLAMRAAM) provides an extended battlespace, beyond-line-of-sight, non-line-of-sight engagement capability to counter cruise missiles, unmanned aerial vehicles (UAVs), unmanned combat aerial vehicles (UCAVs), and rotary-wing and fixed-wing threat aircraft.

* “The 2004 [National Defense Strategy] directs a force sized to defend the homeland, deter forward in and from four regions, and conduct two, overlapping ‘swift defeat’ campaigns. Even when committed to a limited number of lesser contingencies, the force must be able to ‘win decisively’ in one of the two campaigns.” (From Joint Chiefs of Staff, *National Military Strategy of the United States of America 2004: A Strategy for Today, A Vision for Tomorrow*, available online at <http://www.bits.de/NRANEU/docs/NMS2004.pdf>.) For more information about JCIDS, see “A New Look at Requirements: The Joint Capabilities Integration and Development System” by Courtney Wirwahn, AUSA National Security Watch 04-1, 20 October 2004, at www.ausa.org/ilw.

A Joint AMD Future Force System of Systems . . .



lies at the end of the journey to Army AMD transformation.

Central ideas driving joint and Army Air and Missile Defense transformation are:

- joint interdependence;
- joint systems-of-systems developments;
- tailorable, scalable, modular, rapidly deployable capabilities-based organizations;
- holistic transformation accounting for time-phased changes in doctrine, organization, training, materiel, leader development and education, personnel and facilities;
- development and refinement of relevant air and missile defense capabilities that enable U.S. forces and allies to succeed in both the contemporary and future operational environments; and
- unity of effort—modular, scalable capabilities to meet all four requirements within a single command.

Army Air and Missile Defense transformation will ensure Current and Future Forces have the requisite interdependent capabilities to: (1) see and understand the third dimension; (2) draw from and contribute to joint airspace management; (3) provide air and missile defense when and where required on the battlefield; and (4) integrate and contribute to force-wide operational force protection.

Army Air and Missile Defense transformation, now underway, addresses lessons learned from Operation Iraqi Freedom (OIF) as well as those identified in wargaming and experimentation. The transformation has focused efforts on a



Medium Extended Air Defense System (MEADS) will protect maneuvering forces and fixed installations against attack by current and next-generation theater ballistic missiles, cruise missiles, and remotely piloted and manned aircraft. The total system is designed for rapid deployment and tactical mobility.

growing threat environment that continually surfaces new, asymmetrical, nonlinear and noncontiguous threats within the global battlespace. Current experimentation efforts are leading the way with real-time solutions to counter the rocket, artillery and mortar (RAM) threat in OIF; this is a much-needed capacity for deployed U.S. forces.

Using capabilities in place today, Army AMD transformation is creating composite AMD battalions to address the needs of the Current Force in the contemporary operating environment. Additionally, as Army AMD realigns its structure it has taken on a greater missile defense role with the deployment of a more robust Patriot force in Korea. These forces will provide the stabilization necessary to that region, while advancing stationing opportunities for our forces. This type of multistation and habitually pooled relationship must be established with the

growing UA force. Opportunities for training and combat leadership development must be embraced as Army-wide forces are realigned and Soldiers see the opportunity for different assignment options. This change calls for an improved stationing of Army AMD units at different continental United States (CONUS) locations to grow the combined-arms mentality that will be necessary for the transforming Army force. For the Future Force in the future operational environment, Army AMD transformation has set in motion a sequential and progressive approach to advancing capabilities in increments over time—accounting for interdependent operational needs and technological maturity—using available resources. These changes will provide solutions for a force that moves from branch-specific and single-service capabilities to a combined force that can quickly integrate on a joint and nonlinear battlefield.

Army Air and Missile Defense transformation, like the joint and Army transformation it supports, is an essential element of DoD transformation that enables the nation and its forces to succeed in the pursuit of national goals and objectives, both in a secure homeland and abroad in support of friends and allies.



Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) enhances detection and engagement ranges with air defense weapons such as Patriot, Navy SM-2 missile, Advanced Medium-Range Air-to-Air Missile (AMRAAM) and Medium Extended Air Defense System (MEADS).

**Army Air and Missile Defense—
a capability essential to the Joint Force
now and in the future**

