



1st Battalion, 1st Air Defense Artillery, establishes a command-and-control center to coordinate missile defense operations against ballistic missile threats 16 July 2022 during Talisman Sabre 2022 in Australia. Exercise Talisman Sabre is conducted biennially and is the largest combined training event between the Australian Defence Force and the U.S. military. (Photo courtesy of the U.S. Army)

How Army Air Defense Underpins the Military Component of Integrated Deterrence

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In the introduction to his 2020 book *The Kill Chain: Defending America in the Future of High-Tech Warfare*, Christian Brose, a senior policy advisor to Sen. John McCain from 2009 to 2014, paints a realistic and concerning picture for U.S. forces operating in the Indo-Pacific. While discussing a possible conflict in the Indo-Pacific, he describes a scenario in which

America's forward bases in places like Japan and Guam would be inundated with waves of precise ballistic and cruise missiles. The few defenses those bases have would quickly be overwhelmed by the sheer volume of weapons coming at them, with many leaking through. Those bases would have no defense against China's hypersonic weapons, which can maneuver unpredictably, fly at five times the speed of sound, and strike their targets within minutes of being launched. As all of these missiles slammed into US bases, they would destroy fighter jets and other aircraft on the ground before US pilots could even get them airborne. They would crater runways, blow up operations centers and fuel storage tanks, and render those US forward bases inoperable. If any aircraft did manage to escape the Chinese missiles, it would be forced to relocate to another base in the region, which itself would come under attack. It would look like a US evacuation.¹

Many defense experts and government officials believe Brose's prediction could be accurate; peer and near-peer adversaries in the Indo-Pacific have embraced the antiaccess/area denial (A2/AD) strategies enabled by the type of precision strikes described in *The Kill Chain*.²

In response to this unprecedented threat evolution, President Joseph Biden's 2022 *National Defense Strategy* lays out a grand strategy of integrated deterrence based on a whole-of-government approach to deterring open conflict among great powers in the Indo-Pacific theater.³ The concept of deterrence is not new—the idea of mutually assured destruction has been a part of U.S. military strategy and doctrine since the 1960s.⁴ The *National Defense Strategy* expands the concept of deterrence beyond the use of nuclear weapons. Integrated deterrence entails working seamlessly across warfighting domains, theaters, the spectrum of conflict, all instruments of

U.S. national power, and our network of alliances and partnerships. Tailored to specific circumstances, it applies a coordinated, multifaceted approach to reducing competitors' perceptions of the net benefits of aggression relative to restraint. Integrated deterrence is enabled by combat-credible forces prepared to fight as needed and win, and it is backstopped by a safe, secure, and effective nuclear deterrent. Although integrated deterrence is a whole-of-government approach, the Army plays a specific and crucial role within the military aspect of the framework in the Indo-Pacific theater—ground-based air defense.

Army air defense forces will play an integral role in any conflict in the Indo-Pacific. With most of its forces stationed in the continental United States, the joint force will flow forces into theater at the onset of crisis or conflict in support of the combatant commander. In a theater where all adversaries have employed extensive A2/AD networks, Army air defense forces are critically required to persistently protect U.S. force flow and the infrastructure it relies on. This also is not a new concept—the Army has provided ground-based air defense enabling the joint force dating back to World War II. As threats evolved throughout the decades, Army air defense forces have undergone several modernization efforts.

Maj. Gen. Brian W. Gibson, U.S. Army, commands the 94th Army Air and Missile Defense Command responsible for strategically deploying combat-ready forces and theater-level air and missile defense integration in support of the joint force. Gibson's decorated career spanned the globe with notable air and missile defense contributions to U.S. Central Command, U.S. European Command, and most recently, the Indo-Pacific area of operation.

Maj. Seth Gilleland, U.S. Army, is the force management officer for the 94th Army Air and Missile Defense Command. He has worked on the Enhanced Integrated Air and Missile Defense (IAMD) System on Guam initiative as well as with several stakeholders across U.S. Indo-Pacific Command to develop posture initiatives for other high priority IAMD requirements, and he has advocated with the Joint Staff and Missile Defense Agency to improve the Terminal High Altitude Area Defense system capabilities.

To continue providing critical protection against the proliferated modern threats the joint force faces today, Army air defense is undergoing yet another modernization initiative known as Army Integrated Air and Missile Defense (AIAMD), the most significant and sweeping modernization effort yet.

The first step of the AIAMD concept aims to integrate engagement operations centers, Sentinel air surveillance radars, and Patriot missile system radars and launchers across an integrated fire control network. The engagement operations centers provide the operating environment for soldiers to monitor and direct sensor employment and the engagement of air and missile threats. Central to AIAMD is the Integrated Battle Command System, which will enable the Army to integrate current and future air and missile defense (AMD) sensors and weapons into a common integrated fire control capability within a distributed “plug-and-fight” network architecture. As AIAMD implementation moves forward and evolves, the integration of current and future AMD technologies into an integrated fire control system provided by AIAMD will enable the U.S. Army to have a more comprehensive situational understanding of air threats. This single air picture will allow for more effective coordination between different AMD systems, resulting in increased defended area—critical in an operational environment as large as the Indo-Pacific. Furthermore, by integrating different AMD systems into a single networked architecture, AIAMD reduces support costs while providing enhanced training opportunities for soldiers. This plug-and-fight architecture allows for modular components to be easily added or removed from the system as needed.⁵

Modernizing Army air defense forces has additional benefits. While air defenders conduct the “protection” warfighting function in joint doctrine, these same forces execute the “fires” warfighting function in Army doctrine alongside their field artillery counterparts. This nuance is an important distinction, as Army air defense units contribute to and even conduct offensive fires as they deliver lethal and nonlethal effects on targets. AIAMD will enhance the role air defense units play in the fires warfighting function by providing air defenders with unprecedented amounts of data from the operational environment via network-enabled sensor fusion. This increased situational understanding

will enable execution of a broad range of missions in the fires warfighting function, from defensive counterair operations that detect, identify, intercept, and destroy adversary air threats, to the provision of time-sensitive targeting data enabling left-of-launch operations, thus reducing the threats that air defenders ultimately face. The reciprocal relationship between the offense and the defense, central to the idea of the fires warfighting function, is highlighted by air defense’s support to the Air Force’s Agile Combat Employment strategy.⁶ Designed to mitigate the risk inherent to operating inside a modern A2/AD environment, the Air Force will operate from a series of “hubs” and “spokes” in a dispersed manner, ensuring flexibility and survivability in the Indo-Pacific theater. Army air defense forces will provide robust protection of Agile Combat Employment’s main operating hubs, ensuring continued operations in the highly contested environments anticipated in the Indo-Pacific theater. Army air defense’s contributions to deliberate and dynamic targeting, combined with direct offensive and defensive fires, again highlights the Army’s value to the joint force.

Modernization is not the only line of effort Army air defense units are pursuing to contribute to the strategy of integrated deterrence. If conflict unfolds in the Indo-Pacific, our adversary will likely operate with the advantage of interior lines as they employ a deliberate defense.⁷ Modernization alone is not sufficient to mitigate the challenges the joint force will face. The geographical reality of the Indo-Pacific theater dictates that combat-credible forces be postured forward in theater to enable integrated deterrence. Again, the goal of integrated deterrence is to prevent conflict from occurring, not win once it starts. Accomplishing that goal cannot be done by continental U.S.-based forces that will arrive once crisis has already happened. Gen. Charles Flynn, the U.S. Army Pacific commander, reaffirmed this in a recent article:

Having forces forward in the region is important for the Army not just because of the work done with allies and partners, but also the ability to understand the environment and conditions that they must operate in. ... Providing a persistent presence forward in the region is part of that posture equation. We do have to have those forces forward, we have to be there to understand the

environment and the conditions that we're operating in.⁸

As Flynn stated, the Army must posture its air and missile defense units forward to enable the building of relationships with key allies and partners in the region. The current strategy of stationing Army air defense units to flow into theater with the units they are supposed to protect and enable is not viable in this region and against peer and near-peer adversaries. Forward-postured Army air defense units to work side by side with our allies and partners is the key to ensuring deterrence holds in the region and ultimately ensures a free and open Indo-Pacific that benefits all.

The Army Air and Missile Defense Command (AAMDC) in the Indo-Pacific, the 94th AAMDC, has demonstrated the powerful potential of combining forward-postured Army air defense forces with modernized integrated air and missile defense (IAMD) capabilities. Through a series of joint exercise and experimentation initiatives in theater such as Valiant Shield, Northern Edge, Balikatan, and Talisman Sabre, the 94th AAMDC has demonstrated how Army air defense forces can employ and experiment with modernized capabilities forward-postured alongside our allies and partners to contribute to integrated deterrence. Over the last two years, the 94th AAMDC

has deployed AMD forces west of the international dateline, integrated them into the theater's IAMD architecture, and conducted a series of joint and combined live fires with the joint force and our allies in the Philippines and Australia. This is in addition to the daily contributions to integrated deterrence made by consistent combined and bilateral AMD operations with our allies in Japan and the Republic of Korea. Improving the posture of Army air defense units in the Indo-Pacific theater will only increase the effectiveness of the contributions made toward integrated deterrence, and if deterrence fails, the warfighting capability and capacity of the regions IAMD architecture.

Ultimately, integrated deterrence is a strategy aiming to prevent conflict from occurring in an era of renewed great-power competition. The U.S. Army's air defense forces are uniquely postured to contribute to the military's efforts as the foundation of that strategy. Employing those forces with the right capability requires decisive action and investment now. While forward-posturing modernized Army air defense forces now, ahead of conflict, will be costly, failure to do so will lead to a failure of deterrence. In a theater and time as consequential as the Indo-Pacific is now, the cost of conflict in terms of money and lives would dwarf the investment required to sustain deterrence. ■

Notes

1. Christian Brose, *The Kill Chain: Defending America in the Future of High-Tech Warfare* (New York: Hachette Books, 2020), xiii.

2. Michele Pearce, Stephanie Barna, and Alexander Hastings, "Key Takeaways from the House Armed Services Committee Hearing on the Chinese Communist Party Threat to U.S. National Defense," Inside Government Contracts, 10 February 2023, <https://www.insidegovernmentcontracts.com/2023/02/key-takeaways-from-the-house-armed-services-committee-hearing-on-the-chinese-communist-party-threat-to-u-s-national-defense/>.

3. Office of the Secretary of Defense, *2022 National Defense Strategy* (Washington, DC: Department of Defense, 2022), <https://uploads.mwp.mprod.getusinfo.com/uploads/sites/23/2022/11/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.pdf>.

4. Tom Metcalfe, "What Is Mutual Assured Destruction?," LiveScience, 18 March 2022, <https://www.livescience.com/mutual-assured-destruction>.

5. Nathaniel Pierce, "Army Integrated Air and Missile Defense System Achieves Full Rate Production," Army.mil, 11 April 2023, https://www.army.mil/article/265686/army_integrated_air_and_missile_defense_system_achieves_full_rate_production.

6. Air Force Doctrine Note 1-21, *Agile Combat Strategy* (Maxwell Air Force Base, AL: Curtis E. LeMay Center for Doctrine Development and Education, 23 August 2022), https://www.doctrine.af.mil/Portals/61/documents/AFDN_1-21/AFDN%201-21%20ACE.pdf.

7. Charles Flynn and Sarah Starr, "Interior Lines Will Make Land Power the Asymmetric Advantage in the Indo-Pacific," Defense One, 15 March 2023, <https://www.defenseone.com/ideas/2023/03/interior-lines-will-make-land-power-asymmetric-advantage-indo-pacific/384002/>.

8. Caitlin M. Keney, "General Makes Case for Army's Role in the Indo-Pacific," Defense One, 12 October 2021, <https://www.defenseone.com/threats/2021/10/general-makes-case-armys-role-indo-pacific/186045/>.