



Soldiers with the 17th Field Artillery Brigade fire three M142 HIMARS during a combined joint live-fire demonstration at Shoalwater Bay Training Area in Queensland, Australia, 22 July 2023. This demonstration launched Talisman Sabre, the largest bilateral military exercise between Australia and the United States, advancing a free and open Indo-Pacific by strengthening relationships and interoperability among key allies and enhancing their collective capabilities to respond to a wide array of potential security concerns. (Photo courtesy of the U.S. Army)

# Foreword

Gen. Charles A. Flynn, U.S. Army

China's test of an antisatellite system in 2007 did more than shatter an aging weather satellite and launch debris throughout near space.<sup>1</sup> The display of this newfound capability awakened the world to the reality that space is now a warfighting domain. Long the topic of science fiction and the imaginations of many, conflicts in space were once thought to be hypothetical and far-fetched. Now, they are real. Nearly everyone relies on capabilities and services provided by satellites—from military applications, communications

networks, financial transactions, and international commerce to personal use.

From a military standpoint, however, it is important to recognize the implications of space as a warfighting domain while keeping in mind that capabilities and services in space begin and end on the ground. For example, the internet access provided by Starlink in war-torn Ukraine has allowed its government to gain international support, its military to communicate on the battlefield, and its people to remain connected with

each other and the outside world.<sup>2</sup> None of this would be possible without the terminal connecting the user to the assets in orbit.

Moreover, missiles have proven their utility since Germany employed the V-2 in World War II. The ease of use and ready availability of missile technology has seen the propagation of missile employment to all corners of the globe. In 2021, China tested a hypersonic missile that partially orbited the earth, reinforcing the rapid pace of change in the capabilities that advanced militaries can bring to bear for both deterrence purposes and, should conflict arise, for precision strike on targets at ever-increasing ranges.<sup>3</sup> More recently, on 7 October 2023, Hamas's all-out assault on southern Israel began with a rocket barrage numbering in the thousands of rounds.<sup>4</sup>

Missile defense has clearly become a fundamental necessity—and the need is growing rapidly for capabilities that counter the extended ranges, increasing volumes, and hypervelocities of modern missiles. Similarly, the next generation of unmanned systems and their novel application presents new dilemmas in the form of swarm technology, low signatures, and the like.

Two years of war in Ukraine and the conflict that erupted suddenly in Israel provide sober reminders that wars are violent, often longer than we expect, unpredictable, and very human. The last thing we need is another war, particularly in the theater where I have spent most of the last decade—the Indo-Pacific.

Our *National Defense Strategy* calls on the U.S. joint force to deter conflict—and, if necessary, be in a position to fight and win—through three pillars of integrated deterrence, campaigning, and building enduring advantage.<sup>5</sup> Deterrence is built upon the foundation of capability, posture, messaging, and will. Considering the changing character of war and the evolving nature of conventional threats, the Army's space and missile

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defense capabilities are essential to maintaining and strengthening the joint force's combat credibility, thus signaling U.S. resolve and presenting a credible deterrent to our adversaries.

Discussions over capability typically involve advanced munitions, platforms, weapons systems, or other equipment. However, while those aspects are important, the design of formations that must integrate them with the joint force and employ them against a thinking, evolving adversary is arguably the most critical.

The Multi-Domain Task Force (MDTF) is the signature formation for the Army's "continuous transformation"—one of Army Chief of Staff Gen. Randy George's four focus areas—which offers critical space, air, and missile defense capabilities as part of a broader suite of means that synchronize the joint force's delivery of kinetic and nonkinetic effects.<sup>6</sup> When I was the Army deputy chief of staff for operations, plans, and training, the MDTF began as a way to explain what the Army was doing to operationalize our multidomain operations concept, now doctrine. However, it has since proven its value in ways we did not anticipate at the time.

By building the organization first, instead of fielding new technology to a legacy unit, the Army was able to learn and develop its tactics, techniques, and procedures to inform the full range of associated requirements in-stride, commonly referred to as DOTMLPF-P.<sup>7</sup> Consequently, the Army created an organization that has exercised, rehearsed, and "debugged" the new technologies for the joint force's immediate benefit upon fielding.

The MDTF is purpose-built to operate in periods of competition as well as conflict, so it must be positioned forward in theater—under the authorities of the combatant commander—to operate. When operating forward, the organization can see, sense, and understand the environment and will soon possess all the necessary pieces along the kill chain to find, fix, finish, and assess targets in any domain either through organic delivery or another joint shooter. So as mid-range capabilities are enhanced over time, employment of kinetic-effect munitions within the theater in the near future translates to increased credibility and thus a threat-deterrent effect.<sup>8</sup>

Ukraine has demonstrated that the U.S. capabilities work, even against new and advanced technologies. In May 2023, Ukrainian forces successfully



Gen. Charles Flynn, U.S. Army Pacific commanding general, visits Guam 26 July 2023. Flynn met with soldiers and the leadership of Echo Battery, 3rd Air Defense Artillery Regiment, Task Force Talon, to discuss the mission and the quality of life in Guam. (Photo courtesy of the U.S. Army)

employed a Patriot missile to down the Russian Kinzhal missile—a weapon President Vladimir Putin described as “invincible.”<sup>9</sup> The air defense battalions are similarly fielding and employing advanced capabilities in the form of counter-unmanned aircraft systems, short-range air defense (SHORAD), including mobile-SHORAD and directed energy SHORAD, in addition to the combat-tested Avenger, Patriot, and Terminal High Altitude Area Defense (THAAD) systems.

While the MDTF is not the only formation to employ space, air, and missile defense capabilities, it offers a glimpse into the future of deterrence and warfighting for the joint force. Yet many of the Army’s other space organizations along with legacy air and missile defense formations still form the backbone of an integrated air and missile defense network by providing command and control, multitier protection, and intelligence support to targeting. The 94th Army Air and Missile Defense Command is a theater-enabling command under the theater Army that offers lower, mid, and upper tier defense capabilities in forward locations in Korea

and Japan, which are critical for allowing the United States to fulfill its treaty obligations. Furthermore, the air defenders in Guam—a U.S. territory and key power projection node—perform our most sacred mission of all, defense of the homeland.

As mentioned previously, leveraging the Army’s capabilities across all domains, including space, fundamentally relies on posture. Areas that provide positional advantage are the reason that key terrain is in fact key. Therefore, the Army’s basic purpose of seizing, holding, and defending key terrain has not lost its importance considering the ongoing changes in the character of war fueled by the prominence of data, artificial intelligence, and other information age technologies.

Meanwhile, dispersion causes targeting dilemmas for adversaries and multiplies advantages for friendly forces, because as George has said, land forces have the unique advantage of “hiding in the clutter.”<sup>10</sup> This is especially important in the Indo-Pacific theater because China’s antiaccess/area denial arsenal is designed primarily to defeat naval and air power, and secondly to disrupt and degrade space and cyber. It is not, however,



designed to find, fix, and finish distributed, mobile, networked, lethal, and reloadable land forces.

Because space-based effects begin and end on the ground, it is worth considering the asymmetric advantages land forces provide not only to generate those effects, but perhaps more importantly, to also protect and defend the key nodes and critical capabilities—on key terrain—that make it possible for the rest of the joint force to do so. This, of course, involves implications not only for conventional deterrence but nuclear deterrence (e.g., early warning, targeting, communications) as well.

Nearly all the joint force's advanced platforms rely on the Army's space and missile defense capabilities, whether it's a ship operating at sea or an advanced aircraft beyond sight of land. I often refer to these capabilities, along with many others like theater logistics

and command and control at echelon, as foundational capabilities that only the Army provides the joint force at depth and scale. And speaking of scale, the Army happens to be the biggest consumer of space capabilities.

The point here is the men and women who comprise the Army's space and missile defense—particularly in this new era of renewed interstate conflict and long-term strategic competition—provide some of the most critical capabilities to support, enable, and protect the joint force along with our allies and partners while performing the most consequential mission of all—defending the United States and protecting the American people. Renewing our collective appreciation for not only these critical capabilities but also the implications of space as a warfighting domain are essential to carry forward in training, campaigning, and future battlefields. ■

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## Notes

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