Enduring Threats and Enduring Presence

Integrated Air and Missile Defense in the U.S. Central Command Area of Responsibility

Col. Glenn A. Henke, U.S. Army

ntegrating air and missile defense forces in the U.S. Central Command (USCENTCOM) area of responsibility (AOR) spans all phases of conflict, from competition to large-scale combat operations (LSCO). Much like in the other geographic combatant commands, this integration occurs with multiple partners and allies against a backdrop of emerging threats and external competitors. These partners pursue integrated air and missile defense (IAMD) solutions tailored to address their unique requirements, which challenges broad discussions of regional integration in favor of more precise and discrete outcomes for common defense of mutual interests. Unique to USCENTCOM, U.S. forces face lethal air and missile threats from Iranian forces and their proxies who have conducted (and continue to conduct) attacks against American troops. This reality raises the urgency of all integration efforts and creates challenges not faced by forces serving in other geographic combatant commands.

The Threat

The 2022 National Security Strategy assessed that Iran remains a critical strategic concern due to the regime's continued hostility to U.S. interests and active interference in the affairs of its neighbors. In addition

to their robust missile and unmanned aircraft systems (UAS) capabilities, groups across the region supported by Iran have demonstrated both the means and intent to attack U.S. forces. These groups range from militant groups operating in Iraq and Syria to proto-state actors like the Houthis in Yemen, with some measure of territorial control within existing states.

These actors wield a broad range of threat capabilities, including tactical ballistic missiles (TBM), cruise missiles, and UAS. Hostile forces have employed many of these systems against U.S. and allied forces, sometimes with lethal effect. In 2020, Iran launched multiple TBMs against two U.S. bases in Iraq.² Iran has continued to launch ballistic missiles against Kurdish forces in Iraq, with the most recent attack occurring in 2024.3 One of Saudi Arabia's largest oil refineries suffered a significant complex attack by Iranian cruise missiles and lethal UAS in 2019.4 Houthi forces are by far the most prolific TBM users in the region, launching frequent attacks against both Saudi Arabia and the United Arab Emirates (UAE) for nearly a decade. Saudi Arabia credits the Houthis with more than 430 TBM and 851 UAS attacks against the kingdom since 2015.5 Houthi forces have also launched several ballistic missile and UAS attacks against the UAE during the same period. In



A Patriot surface-to-air missile is fired on 7 November 2017 at the NATO Missile Firing Installation in Chania, Greece. The U.S.-made Patriot weapon system is used by numerous U.S. allies around the world and is a crucial component of integrating air and missile defense in the U.S. Central Command area of responsibility. It has been employed successfully by Saudi Arabia and the United Arab Emirates in defense against Iranian-backed Houthi missile and drone attacks. (Photo by Officer Candidate Sebastian Apel, German Air Force)

January 2022, a terminal high altitude area defense (THAAD) battery operated by UAE missile defense forces successfully intercepted missiles launched against the southern portion of the country in two separate attacks, the first-ever combat engagement by the THAAD system.⁷ While Iranian-made UAS employed in Ukraine have focused global attention on this threat, UAS attacks have been a regular feature in the Middle East for some time. Militant groups have launched one-way-attack UAS against U.S. bases for several years, intensifying since October 2023, with some attacks resulting in U.S. casualties.⁸

One point worth emphasizing is that these attacks all occurred in what current U.S. joint doctrine would describe as the "competition phase" and not during large-scale conflict. These limited attacks have demonstrated only a small sample of the extant capabilities that could be brought to bear by Iranian military or proxy forces in a crisis that would drive the ruling regime to employ more of its extensive

arsenal. While much of the international community remains understandably focused on Iran's nuclear aspirations, the regime has invested significant resources into building lethal ballistic missiles, cruise missiles, and UAS. The Center for Strategic and International Studies (CSIS) credits Iran with the "largest and most diverse missile arsenal in the Middle East, with thousands of ballistic and cruise missiles."

Partners and Allies

Ever since the U.S.-led coalition expelled Iraqi forces from Kuwait in 1991, nations across the region have endeavored to build their own missile defense capacity. Kuwait understandably led this trend and remains one of our longest-enduring ballistic missile defense (BMD) partnerships. Saudi Arabia and UAE have also built robust missile defense forces armed with U.S.-built Patriot and THAAD systems that they have employed successfully in recent years to defend their interests against Houthi attacks. The CSIS

Missile Defense Project estimates that Saudi forces intercepted 177 missiles launched by the Houthis between 2015 and September 2020 (when CSIS ceased collecting data). Qatar and Bahrain are presently fielding U.S.-built BMD systems to deal with many of the same threats from across the region.

In 2020, President Donald Trump updated the Unified Command Plan to shift Israel from the U.S. European Command (USEUCOM) AOR to the USCENTCOM AOR.¹¹ Israel and the United States have long partnered on building BMD capacity to defend the country, with Israeli forces using Patriot and their own home-built systems developed with U.S. support and funding. These systems include Iron Dome, David's Sling, and Arrow. The 2020 Abraham Accords, during which UAE and Bahrain agreed to recognize Israel's sovereignty and right to exist, began the initial steps of normalizing Israeli relationships with some Gulf Arab states.¹² The effect of these two developments added one of the world's most BMDcapable nations as a potential partner for the countries in the region. While the ultimate results of these changes remain to be seen, particularly in the aftermath of the Gaza crisis beginning in October 2023, Israeli BMD capability and systems have the clear potential to accelerate capacity building across the USCENTCOM AOR in the years to come.

The Air and Missile Defense Fight

With an active and growing threat, U.S. forces cannot build a "break glass" capability for the simple reason that the glass is already broken. The USCENTCOM IAMD enterprise operates continuously and must maintain the ability to expand as required through all phases of conflict. As with all geographic combatant commands, joint doctrine provides the defensive counterair framework to organize air and missile defense, as described in Joint Publication 3-01, Countering Air and Missile Threats.¹³ Under this construct, the combined forces air component commander (CFACC) is the supported commander for air and missile defense, responsible for integrating AMD forces and effects. In this capacity, the CFACC serves as the area air defense commander (AADC) for the joint force commander, developing the area air defense plan for the joint force commander and supervising daily execution of these operations. In the

USCENTCOM AOR, the U.S. Air Forces Central commander fills these doctrinal roles.

The Army provides significant support to the AADC, primarily with the 32nd Army Air and Missile Defense Command (AAMDC). The 32nd AAMDC commanding general serves as the deputy area air defense commander to the CFACC, responsible for integrating all Army AMD capabilities and supporting the integration of joint and combined capabilities. The 32nd AAMDC also leads all combined and joint AMD planning to develop options for the AADC to present to the USCENTCOM commander for decision. Like all AAMDCs, the 32nd AAMDC commanding general also serves as the theater army air and missile defense coordinator and senior air defense artillery (ADA) commander for U.S. Army Central in its role as both the combined forces land component commander and Army Service component command to USCENTCOM. As the senior ADA commander, the 32nd AAMDC commander exercises control over most Army AMD forces in the region.

Unique amongst the three active component AAMDCs, the 32nd AAMDC also serves as the global force provider for active component AMD on behalf of U.S. Army Forces Command. Unlike the AAMDCs assigned to USEUCOM and U.S. Indo-Pacific Command,

the 32nd AAMDC is both service retained and aligned with USCENTCOM. I will address the implications of this force provider role later in this article.

Current Operations

With this framework in place, the USCENTCOM commander maintains the capabilities to pursue assigned strategic objectives. Since the end of Operation Desert Storm in 1991,

Col. Glenn A. Henke, U.S. Army, serves as the military deputy director for the Joint Counter-Small Unmanned Aircraft Systems Office, a direct report unit to the vice chief of staff of the Army. He previously served as the deputy commanding officer of the 32nd Army Air and Missile Defense Command, a division-level warfighting headquarters aligned with U.S. Central Command that is also the Army's force provider for Active Component air and missile defense forces.



(Figure courtesy of the Joint Counter-Small UAS Office)

Figure. Unmanned Aircraft System Groups

the United States has maintained a near-continuous presence of U.S. Patriot units in the region, with only a short gap between the elimination of the Iraqi TBM threat in 2003 and the ascendency of the Iranian TBM threat, which drove the United States to reintroduce U.S. Patriot units in 2006, where they have remained ever since.¹⁴

Beyond Patriot units, the Army has deployed numerous short-range ADA capabilities to the region. This includes the Counter-Rocket, Artillery, Mortar (C-RAM) system based on the Navy's Phalanx system used to defend ships against air threats. C-RAM units first deployed to Iraq in 2010 and have remained in use ever since. In 2021, C-RAM units defended U.S. retrograde operations at Kabul's Hamid Karzai International Airport following the collapse of the U.S.-backed government. As UAS threats have proliferated, the Army has upgraded the C-RAM system to address some UAS platforms. The United States also employs Stinger-based Avenger weapons systems and continues to field additional counter-UAS capabilities across the region.

The UAS threat is clearly the most visible growth portfolio in our adversaries' capabilities, which, in turn, has driven significant efforts to develop defeat options by the United States and partners. The Department of Defense designated the Army as the executive agent for defeating Groups 1-3 UAS, that, in turn, established the Joint Counter-Small UAS Office (see figure). USCENTCOM has C-UAS capabilities across the region to defend U.S. forces. While kinetic, electronic warfare, and directed energy capabilities

are critical, optimizing how these systems are integrated into a layered defense has proven to be the more significant planning task. Given the range of threats and tactics available to Iran and proxy groups, no single system can provide a comprehensive defense by itself. In short, there are no "silver bullets" in the counter-UAS fight. Instead, commanders must take all capabilities and employ them intelligently while looking for every opportunity to innovate.

As the United States employs a broad range of AMD capabilities, partners and allies continue to build and employ capabilities to address the range of threats. The United States supports these efforts in three broad categories. The first is through the initial capability fielding, particularly in cases of U.S. foreign military systems, where we provide fielding teams to assist. During fielding activities, partners receive both materiel and operator training. The second category begins once units begin to employ the new AMD capabilities. In this phase, the United States supports capacity-building through exercises and combined training events intended to enhance interoperability. Capacity building efforts typically occur over many years and signify U.S. commitment to its partners.

The third category covers broader regional integration efforts. In this case, conversations about integration require precision and must focus on specific goals. This prevents the term "integration" from becoming too vague to be useful. To paraphrase a panel discussion during the 2023 U.S. Army Fires Symposium, the key questions are to determine *what* is being integrated and for *what purpose*. ¹⁹ Meaningful integration

efforts cannot describe broad end states. Instead, they must be more precise and discrete. One example is the Middle East Air Defense Initiative.²⁰ In spite of the expansive name that suggests a comprehensive effort, it is focused on establishing a shared regional air picture available to partners and allies through the Combined Air Operations Center at Al Udeid Air Base in Qatar.²¹ This one example demonstrates the need to constrain and, therefore, focus integration efforts in order to achieve desired objectives. Broad and seamless integration remains elusive for a number of reasons, not the least of which is cost. In some cases, the limiting factor is our partners' relations with each other. The recently healed split with UAE and other Gulf Arab states offers one example of these types of challenges.

Large-Scale Combat Operations

Addressing the persistent air and missile threat in the USCENTCOM AOR requires significant organizational energy and leadership. In this environment, the gravitational pull of current operations certainly has the potential to become all-consuming for headquarters staffs rightfully focused on solving pressing problems. However, like all geographic combatant commands, USCENTCOM must be prepared to respond to a broad range of contingencies that could tip into LSCO. The addition of Israel to the USCENTCOM AOR also brings the responsibility to execute operations in that country if directed by national leadership.

Routine exercises with partners and components provide the best opportunities to prepare for potential LSCO. These exercises typically provide U.S. and partner forces training opportunities nested within theater security cooperation objectives, some of which primarily focus on IAMD. Whether a specific exercise or training event mimics what may be required during LSCO is largely beside the point. Training with partners is more about building relationships and identifying future combined training requirements than perfecting any given operational task.

When training headquarters staffs, AMDfocused exercises must provide a range of "bad days" for the training audiences. Like all units, headquarters staffs require stressful training environments to achieve desired readiness objectives. The more robust the exercise, with broad component participation and a fully committed higher headquarters stimulating the event through decision-making (and all the supporting mechanisms that support decision-making), the more effective the training. This is as true for AMD exercises as for any other type of operation. Since any fight in USCENTCOM AOR will undoubtedly include a robust air and missile threat, this is truly foundational training.

Theater-level AMD exercises generally train on two separate levels. In the first level, those units specifically tasked to execute the air and missile defense fight will practice the specifics of their craft. This includes the air component command (under U.S. Air Forces Central) in its role as the area air defense commander (and supported commander for air and missile defense), the maritime component command (under U.S. Naval Forces Central Command) executing Aegis ballistic missile defense, and the Army air defense units operating under the control the 32nd AAMDC. At this level, these exercises focus on both active defense to defeat inbound threats and attack operations to defeat threats before they can be launched.

At the second level, USCENTCOM and its component commands execute the totality of combat operations outside the direct AMD fight but considering the effects of possible enemy attacks on friendly forces. For instance, if a specific base is the primary target of Iranian ballistic missiles, the affected component (or components) must adjust their plans in the aftermath of these attacks. These exercises further inform the development of future plans and options in order to provide the USCENTCOM commander the maximum level of flexibility to achieve U.S. objectives in the region. This is in marked contrast to the U.S. Army's Mission Command Training Program Warfighter exercises used to train corps and division staffs. In these exercises, the scenario is designed to stimulate training objectives, not test the validity of any specific war plan. In theater-level exercises executed by geographic combatant commands, the validity of plans themselves are part of the assessment process.

Tensions

A 2023 report discussed the challenges facing U.S. Army ADA units. This report highlighted the gap

between supply and demand that has endured for decades, concluding that the "simple, pure math" suggests that the United States has far more air defense requirements than the Army has capacity. Some groups like the Missile Defense Advocacy Alliance have suggested that the Army needs to immediately reprioritize force structure to deal with this reality, and that the Department of Defense (DOD) mission area itself requires a "fundamental review." The war between Russia and Ukraine has reinforced both the criticality of air defense and the effectiveness of the Patriot system in particular.

Unlike U.S. Indo-Pacific Command and USEUCOM, USCENTCOM has no forward-stationed Army ADA units. Every Patriot, C-RAM, and Avenger formation serving in the region since the end of Operation Desert Storm in 1991 deployed from the United States (and sometimes from other geographic combatant commands). Under any force generation model, this continued commitment ties up large portions of the Army's AMD forces, making them unavailable for other requirements. As previously mentioned, the 32nd AAMDC also serves as the Army's global force provider for active component AMD forces. This puts the command in the unique situation of having to provide military advice to meet USCENTCOM objectives that may directly impact its mission to provide trained and ready forces for U.S. Army Forces Command when balanced with global requirements. As the AAMDC supporting USCENTCOM responsible for all Army AMD forces in the region, the 32nd AAMDC is primarily providing forces to itself in its warfighting role.

Regional integration with partners and allies offers a potential way to mitigate this gap between supply and demand. In theory, partners can replace U.S. units with their growing AMD capacity. This regional integration certainly offers opportunities, although this comes with two extremely important caveats. The first caveat is the capabilities of systems such as Patriot, which are ultimately point or small-area defense systems that can cover a discretely defined geographic area (such an airbase). These systems cannot provide wide-area defense, and those systems that can provide this type of defense (such as THAAD) face limitations on the threats they address. Critics of the Patriot system usually overlook this point; the system

will only engage direct threats to the defined defended asset. In short, nonengagements of threats impacting outside the defended asset are a conscious decision and not a bug in the system.

This reality leads to the second caveat, which is the geopolitical requirements of the partners themselves. Without exception, every nation builds air and missile defense capacity primarily to defend its own interests. With point and small-area defense systems, every defended asset decision requires acceptance of what will not be defended. None of our partners across the globe purchased Patriot or THAAD to become a force provider for the United States. These trade-off decisions are particularly acute in the USCENTCOM AOR, where our partners face the same robust Iranian and proxy threat that we face. Given the enduring presence of U.S. Patriot units across the region, Army ADA forces themselves could also be viewed as clear demonstrations of American commitment to the region; while any force posture must be viewed in totality and not focused on any specific unit type, the presence of U.S. Army ADA units remains a concrete symbol of resolve.²⁴ This perception has the potential to increase the difficulty of conversations with partners on a range of topics not limited to air defense.

Conclusion

Over the past ten years, air and missile threats to U.S. forces and American interests in the USCENTCOM AOR have continued to multiply. This should hardly surprise any observer familiar with the Army's role in the Middle East since the end of the 1991 Gulf War. Operation Desert Storm made the Patriot widely known and ADA forces a near continuous feature of posture decisions from then until now. The current air and missile threats are also multiplying against our allies and partners, who are accelerating their own efforts to build robust air and missile defense capabilities. It is worth highlighting that Israel, UAE, and Saudi Arabia's AMD forces are combat-tested and proven against persistent lethal threats. Importantly, all of this is occurring against the backdrop of competition for influence with China and Russia. Based on Iran's TBM and UAS inventory alone, future LSCO in the region have the near certain potential to see missile and air attacks that make Russian attacks on Ukraine seem small in comparison.

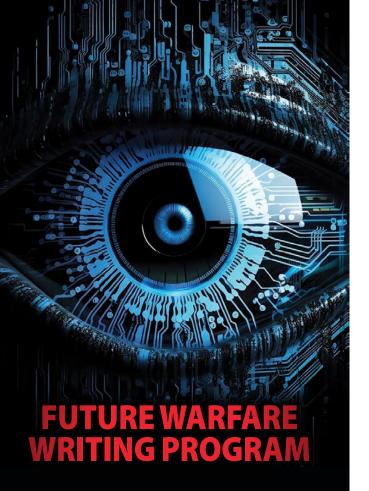
American units operating in the USCENTCOM AOR remain the only U.S. forces across the globe who face routine air and missile attacks. This challenging threat also offers the Army unique opportunities to experiment in real time with the range of AMD capabilities available to joint and combined forces. While the DOD must balance global force posture decisions in pursuit of the *National Military Strategy*, the USCENTCOM AOR and Iran remain critical to

defined strategic objectives. Although "CENTCOM fatigue" is certainly a real challenge, the region also borders China and Russia, which raises the stakes of competition. ²⁵ Given this stark reality, the Army should expect to provide some level of AMD forces to USCENTCOM during competition phase and be prepared to surge during LSCO. How the DOD and the Army balance these requirements going forward remains a critical challenge.

Notes

- 1. The White House, *National Security Strategy* (Washington, DC: The White House, October 2022), 11, https://www.white-house.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf.
- 2. Karen DeYoung, Paul Sonne, and Dan Lamothe, "Iran Launches Ballistic Missiles at Bases Housing U.S. Military Personnel in Iraq," Washington Post (website), 7 January 2020, https://www.washingtonpost.com/world/national-security/iran-launches-ballistic-missiles-at-bases-housing-us-military-personnel-in-iraq/2020/01/07/12853cae-3197-11ea-9313-6cba89b1b-9fb_story.html.
- 3. Susannah George et al., "Iranian Strikes in Iraq Stoke Fears of Further Middle East Escalation," Washington Post (website), 16 January 2024, https://www.washingtonpost.com/world/2024/01/16/iran-missile-attack-iraq-irbil-syria/.
- 4. Ben Hubbard, Palko Karasz, and Stanley Reed, "Two Major Saudi Oil Installations Hit by Drone Strike, and U.S. Blames Iran," New York Times (website), 14 September 2019, https://www.nytimes.com/2019/09/14/world/middleeast/saudi-arabia-refineries-drone-attack.html.
- 5. "Houthis Have Fired 430 Missiles, 851 Drones at Saudi Arabia since 2015 Saudi-Led Coalition," Reuters, 26 December 2021, https://www.reuters.com/world/middle-east/houthis-have-fired-430-missiles-851-drones-saudi-arabia-since-2015-saudi-led-2021-12-26/.
- 6. "Timeline: UAE under Drone, Missile Attacks," Al Jazeera, 3 February 2022, https://www.aljazeera.com/news/2022/2/3/ timeline-uae-drone-missile-attacks-houthis-yemen.
- 7. Kareem Fahim and Sarah Dadouch, "Yemen's Houthi Militants Launch New Attack on UAE as Conflict Widens," Washington Post (website), 24 January 2022, https://www.washingtonpost.com/world/2022/01/24/yemen-houthis-uae-missiles-coalition/.
- 8. Kareem Fahim et al., "U.S. Strike in Baghdad Kills Key Militia Commander, Officials Say," *Washington Post* (website), 7 January 2024, https://www.washingtonpost.com/national-security/2024/02/07/us-strike-baghdad-iranian-proxies/.
- 9. "Missiles of Iran," Center for Strategic and International Studies (CSIS) Missile Defense Project, last updated 10 August 2021, https://missilethreat.csis.org/country/iran/.
- 10. Ian Williams and Shaan Shaikh, "Interactive: The Missile War in Yemen," CSIS Missile Defense Project, 13 October 2016, https://missilethreat.csis.org/missile-war-yemen/.

- 11. "Department of Defense Statement on Unified Command Plan Change," DOD press release, 15 January 2021, https://www.defense.gov/News/Releases/Release/Article/2473648/department-of-defense-statement-on-unified-command-plan-change/.
- 12. Deb Reichmann, Matthew Lee, and Jonathan Lemire, "Israel Signs Pacts with 2 Arab States: A 'New' Mideast?," Associated Press, 15 September 2020, https://apnews.com/article/bahrain-israel-united-arab-emirates-middle-east-elections-7544b322a254ebea1693e387d83d9d8b.
- 13. Joint Publication 3-01, Countering Air and Missile Threats (Washington, DC: Joint Chiefs of Staff, 6 April 2023).
- 14. Judson Gillett et al., "Training the Shield Arm: How U.S. Army Air Defense Forces Are Embracing Field Manual 3-0 and Preparing for Large-Scale Ground Combat," *Military Review* 100, no. 3 (May-June 2020): 68–76, https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2020/Gillett-Training-the-Shield/.
- 15. Christopher McFadden, "C-RAM: An Advanced Automated Point-Defense Gatling Gun," Interesting Engineering, 11 January 2021, https://interestingengineering.com/innovation/c-ram-an-advanced-automated-point-defense-gatling-gun.
- 16. Christie Smith, "Iowa Soldiers Make History in U.S. Army Air Defense Mission," U.S. Central Command, 19 January 2022, https://www.centcom.mil/MEDIA/ NEWS-ARTICLES/News-Article-View/Article/2907172/iowa-soldiers-make-history-in-us-army-air-defense-mission/.
- 17. Eric Schmitt, "Conflict in Syria Escalates Following Attack That Killed a U.S. Contractor," *New York Times* (website), 24 March 2023, https://www.nytimes.com/2023/03/24/us/politics/syria-us-contractor-killed-iran-drone.html.
- 18. U.S. Army Public Affairs, "Army Announces Release of DOD Counter-Small UAS Strategy," Army.mil, 7 January 2021, https://www.army.mil/article/242241/army announces release of dod counter small uas strategy.
- 19. U.S. Army Fires Symposium, Lawton, Oklahoma, 1–4 May 2023. The individual speakers are not identified by name, in keeping with the nonattribution rules of the symposium.
- 20. Arie Egozi, "Israel Announces Regional Air Defense Network with Middle East Partners, US," Breaking Defense, 20 June 2022, https://breakingdefense.com/2022/06/israel-announc-es-regional-air-defense-network-with-middle-east-partners-us/.
- 21. "Dana Stroul, Deputy Assistant Secretary of Defense for the Middle East, and Senior Department of Defense Leaders Participating in the United States-Gulf Cooperation Council



Call for Speculative Essays and Short Works of Fiction

Military Review calls for short works of fiction for inclusion in the Army University Press Future Warfare Writing Program (FWWP). The purpose of this program is to solicit serious contemplation of possible future scenarios through the medium of fiction in order to anticipate future security requirements. As a result, well-written works of fiction in short-story format with new and fresh insights into the character of possible future martial conflicts and domestic unrest are of special interest. Detailed guidance related to the character of such fiction together with submission guidelines can be found at https://www.armyupress.army.mil/Special-Topics/Future-Warfare-Writing-Program/.

Working Group Meetings, Hold an Off-Camera, On-the-Record Briefing from Riyadh, Saudi Arabia," DOD press briefing transcript, 13 February 2023, https://www.defense.gov/News/Transcripts/Transcripts/Article/3296875/dana-stroul-deputy-assistant-secretary-of-defense-for-the-middle-east-and-senio/.

- 22. Haley Britzky, "America's Front Line of Missile Defense Is Straining under the Demand of Global Threats," CNN, 2 July 2023, https://www.cnn.com/2023/07/02/politics/army-air-defense-russia-ukraine-china/index.html.
- 23. "It Is Time for a Fundamental Review," Missile Defense Advocacy Alliance, 7 July 2023, https://missiledefenseadvocacy.org/alert/it-is-time-for-a-fundamental-review/.
- 24. Army Doctrine Publication 1, *The Army* (Washington, DC: U.S. Government Publishing Office, July 2019), 2-1.
- 25. Patrick Tucker, "How China Is Challenging US Central Command, Digitally," Defense One, 8 December 2021, https://www.defenseone.com/technology/2021/12/how-china-challenging-us-central-command-digitally/187378/.