The Backbone of U.S. Joint Operations

Army Roles in the Indo-Pacific

ABBY DOLL, YVONNE K. CRANE, GIAN GENTILE, D. SEAN BARNETT, JOHN GORDON IV, TIMOTHY R. HEATH, JEFFREY W. HORNUNG, MARK HVIZDA, SALE LILLY, BRADLEY MARTIN, DAVID A. OCHMANEK, STEPHANIE ANNE PILLION, BARRY WILSON, EMILY YODER

ARROYO CENTER

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ABOUT THIS REPORT

This research documents research and analysis conducted as part of a project entitled Operational Narratives for the Army in INDOPACOM, sponsored by Deputy Chief of Staff, G-8, U.S. Army. The purpose of the project was to identify and describe possible competition and warfighting operational narratives for the U.S. Army in the Indo-Pacific in the 2035 timeframe.

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Summary

THE INDO-PACIFIC region will continue to present a myriad of challenges through its geography and political environment, affecting the ability of the U.S. Joint Force to project power and operate within the theater. Overall, the U.S. Army offers a wide breadth of potential unique, supporting, and reinforcing contributions to these joint military challenges. This breadth, however, can come at the cost of clarity as the U.S. Army seeks to communicate its value in the region. Thus, this report seeks to provide an engaging and structured narrative to more clearly describe the Army's role throughout the region and in 2035.

To outline future Army roles, missions, and functions in the region, we developed the following three scenarios that span from competition occurring today to potential crisis and conflict in the year 2035:

1) **Distant Border Clash: Competition and Crisis in the Aksai Chin Region** explores how the U.S. Army can develop military relationships with emerging partners in competition and provide non-combat support during crisis with limited to no access.

2) **Coercive Belligerence: Competition, Crisis, and Conflict in the South China Sea** explores how the U.S. Army can provide support to allies and the Joint Force in maritime crises, despite initial reluctance to allow additional U.S. combat power on allied territory prior to an overt Chinese attack.

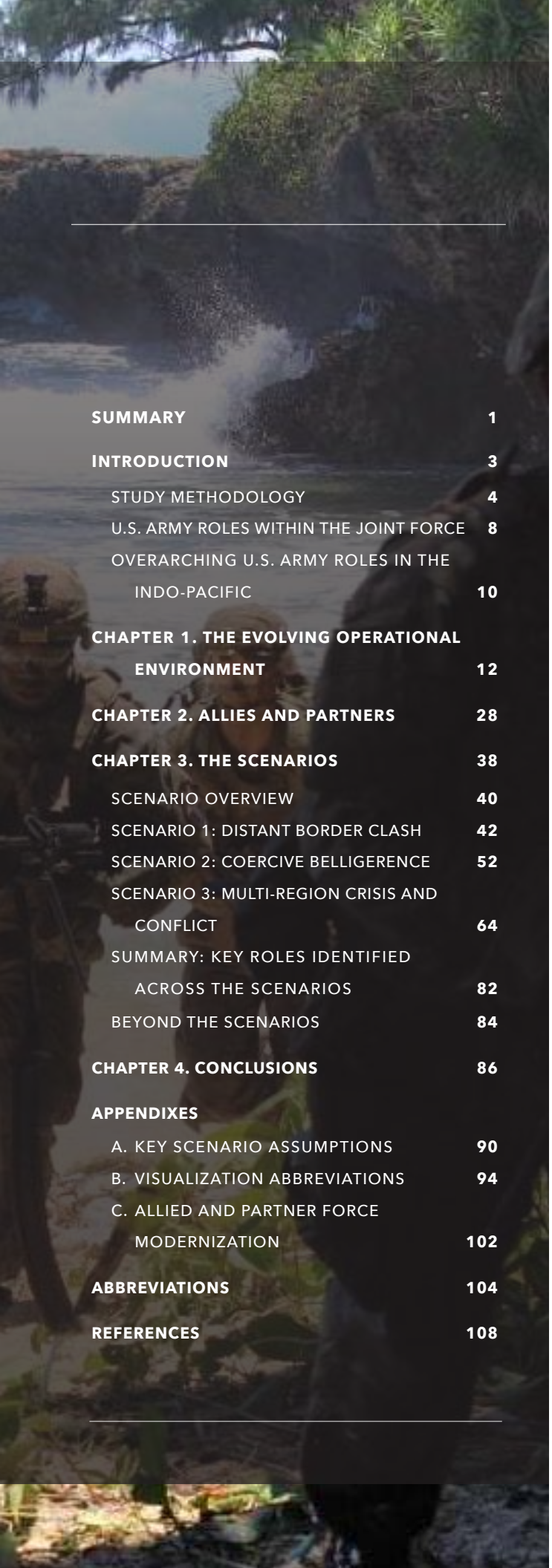
3) **Multi-Region Crisis and Conflict: Competition, Taiwan Strait Conflict, and Simultaneous Korean Peninsula Crisis** outlines an Indo-Pacific scenario where simultaneous crisis and conflicts occur, stressing the Joint Force through overlapping and distinct operational challenges across both.

Through a series of tabletop exercises and workshops and a compilation of prior research, the three scenarios provide a narrative backbone to communicate the complexity and effects of the U.S. Army's foundational contributions to joint and multinational operations in the Indo-Pacific. Although each scenario presented unique challenges or tailored Army roles, the following three overarching role categories emerged as critical across the analytic scenario set and the continuum of peacetime, crisis, and conflict in the Indo-Pacific region:

- **Foundational joint enabler:** As Joint Force operational concepts become more disaggregated and conflict more rapid, the Army has a role in ensuring that the Joint Force has enduring and integrated combat power.

- **Joint kinetic fight:** The Army's direct role in the joint kinetic fight will depend heavily on posture and the nature of the target set, but because of the likely velocity and theater reach of future conflicts, the Joint Force will need assistance in persistent intelligence, surveillance, and reconnaissance; target discrimination; and the protection of joint assets and infrastructure.

- **Strengthening and leveraging relationships:** The Army's role in strengthening allied and partner engagement and military relationship-building is critical in countering Chinese competition and conflict capabilities.



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REPORT OUTLINE The following introductory sections outline the methodology used to derive the U.S. Army roles—which includes an extensive literature review, a workshop, scenario development, and tabletop exercises—followed by a summary of roles that we identified for the U.S. Army in the Indo-Pacific and the three overarching U.S. Army thematic roles that frame the narratives that emerged from the study.

The two chapters that follow, "The Evolving Operational Environment" and "Allies and Partners," provide foundational context and show potential trends, enduring constraints, and Indo-Pacific ally and partner dynamics that will shape where, when, and how the Joint Force might operate within the theater. From these insights, we developed an analytic set of scenarios that seek to highlight operational demands, opportunities, and gaps.

The three scenarios in Chapter 3 provide a common frame of reference for the audience to understand the potential range of the U.S. Army's Indo-Pacific roles across the continuum of conflict with China. The scenarios comprise a summarized narrative and a suite of detailed infographics that visualize key events and U.S. Army roles that emerged from each scenario.

The final chapter revisits the three overarching U.S. Army roles defined in the framework, outlines common or unique missions and tasks that emerged from the study, and concludes with recommendations for the U.S. Army in the Indo-Pacific region.

Introduction

THE U.S. ARMED FORCES (or Joint Force) face unique strategic and operational challenges across the Indian and Pacific Oceans. For the past several decades, the region—known to the U.S. Department of Defense (DoD) as the Indo-Pacific Command (INDOPACOM)—has evolved into an increasingly critical region of the world. INDOPACOM contains more than 60 percent of the global population, seven of the ten largest militaries, and half of the ten largest manufacturing economies.

Amid this dynamism, stability and political and economic freedom in the Indo-Pacific are increasingly threatened by mounting disputes, authoritarianism, internal crises, and the growing severity of climate change effects. Driving many of these challenges, three of the United States' most stressing adversaries—the People's Republic of China (PRC), Russia, and North Korea—are located within the region, alongside the enduring threats of violent extremists and non-state actors.

The national security implications of the Indo-Pacific region are significant and wide-reaching, which has led DoD to define INDOPACOM as its priority theater. The Joint Force, however, must contend with geographic challenges to force projection—time, distance, and limited land areas from which to operate—to address the increasingly sophisticated threats of a bellicose North Korea, an opportunistic Russia, and an ambitious China. Driven by an authoritarian regime, China in particular looms as the most stressing threat because of its regional ambitions, broad geopolitical reach, and sheer military power. Today, China possesses several qualitative and quantitative advantages that erode the U.S. military's geopolitical position in the region. U.S. Secretary of Defense Lloyd Austin has described China as "the only country that can pose a systemic challenge to the United States" across multiple dimensions of national power.[1] Looking forward to 2035, these challenges are likely to grow.

The U.S. Army offers an evolving set of unique, reinforcing, and supporting roles to face these operational challenges in INDOPACOM, seeking to provide the backbone for sustained U.S. military joint operations across competition, crisis, and conflict. The wide breadth of the Army's potential roles, however, can obscure explicit understanding of what, when, where, and how the U.S. Army provides key contributions in the Indo-Pacific region as part of the Joint Force or with allies and partners. This report and accompanying infographics seek to clearly communicate those key contributions, buttressed by research and analysis. ◆

[1] In Austin's words, "[i]t means that China is the only country that can pose a systemic challenge to the United States in the sense of challenging us, economically, technologically, politically and militarily" (as quoted in Jim Garamone, "Official Talks DOD Policy Role in Chinese Pacing Threat, Integrated Deterrence," *DOD News*, June 2, 2021).

Study Methodology

The U.S. Army is an interdependent element of the Joint Force. We used several approaches to identify, assess, construct, and communicate narratives on the Army's role in the Indo-Pacific in 2035. These approaches included

1) a **literature review** on future trends that could affect the Army's roles in the Indo-Pacific and existing discourse regarding Army roles and missions in the region
2) **seminar-style tabletop exercises** (TTXs), three internal with RAND Corporation subject-matter experts and one with external U.S. Army and allied and partner participants—that identified and evaluated potential Army roles across three scenarios
3) a **workshop** conducted with RAND researchers with expertise on the Indo-Pacific region and joint military operations to explore how future trends could introduce opportunities and constraints to achieving U.S. military goals in the region
4) **data and information visualizations** of findings from the TTXs, workshop, and literature review.

It is important to note that source material supporting possible narratives for this study is all unclassified. Therefore, we are limited in how we describe specific U.S. and adversary capabilities and ongoing internal operational planning. However, we sought to take a high-level view that is not contingent on single systems or operational plans when exploring Army roles, with resulting narrative themes having broad applicability across all potential classification levels.

Literature Review

First, we identified potential trends that could shape the regional landscape and affect where, when, and how demands for the future U.S. Joint Force might emerge. We focused on four major trend categories: technological, economic, demographic, and environmental. To gain a comprehensive outlook, we supplemented official unclassified U.S., allied, and partner government future global security projections with specialized forecasting literature on each trend category.[2] The results of this literature review are throughout this report.

Next, we surveyed recent literature to identify key debates about the Army's role in the Indo-Pacific today and in the future.[3] The Army's own narratives regarding its role in the region have evolved over time, shifting from emphasis on the Army's foundational role in conflicts on the Korean Peninsula to its potential contributions through long-range fires against maritime, air defense, and command and control (C2) targets. Most recently, Secretary of the Army Christine Wormuth described the Army

[2] Official government forecasts consulted included, but were not limited to, Joint Chiefs of Staff, *Joint Operating Environment (JOE) 2035: The Joint Force in a Contested and Disordered World*, July 14, 2016; and National Intelligence Council, *Global Trends 2040: A More Contested World*, March 2021.

[3] Key sources referenced here included (but are not limited to) *U.S. Army Pacific, America's Theater Army for the Indo-Pacific*, September 2021; Chief of Staff of the Army, *Army Multi-Domain Transformation: Ready to Win in Competition and Conflict*, Headquarters, Department of the Army, March 16, 2021; Chief of Staff of the Army, *The Army in Military Competition*, Headquarters, Department of the Army, March 1, 2021; Nathan P. Freier and John H. Schaus, "INDOPACOM Through 2030," *Parameters*, Vol. 50, No. 2, Summer 2020; Nathan P. Freier, John Schaus, and William G. Braun III, *An Army Transformed: USINDOPACOM Hypercompetition and US Army Theater Design*, U.S. Army War College, July 17, 2020; Michael J. Mazarr, James Dobbins, Derek Eaton, and John P. Godges, *U.S. Army Roles, Missions, and Optional Postures for Competing with China in the Indo-Pacific*, RAND Corporation, 2021, Not available to the general public; Molly Dunigan, Michelle Grisé, John J. Drennan, Sandra Kay Evans, Ashley L. Rhoades, Eric Robinson, Meagan L. Smith, and Jonathan Welch, *Gaining the Edge: Identifying and Leveraging Frameworks to Enable Army Contributions to Competition*, RAND Corporation, RR-A1235-1, forthcoming; and Jonathan P. Wong, Michael J. Mazarr, Nathan Beauchamp-Mustafaga, Michael Bohnert, Scott Boston, Christian Curriden, Derek Eaton, Gregory Weider Fauerbach, Joslyn Fleming, Katheryn Giglio, Dahlia Anne Goldfeld, Derek Grossman, Timothy R. Heath, John C. Jackson, Michael E. Linich, Eric Robinson, Lisa Saum-Manning, Ryan A. Schwankhart, Michael Schwille, Stephan B. Seabrook, Alice Shih, and Jonathan Welch, *New Directions for Projecting Land Power in the Indo-Pacific: Contexts, Constraints, and Concepts*, RAND Corporation, RR-A1672-1, 2022.

as the "linchpin service for the Joint Force" because it addresses Chinese threats, establishes and protects bases, provides theater-level logistics support, and integrates C2 functions. In addition to the Army's long-range fires, she emphasized the organization's role in restoring "the territorial integrity of our allies and partners" using more-traditional Army maneuver capabilities, such as combat vehicles and rotary aviation. Because the Army is the "most prominent service" among those of many key allies and partners in the Indo-Pacific region, it is, Wormuth asserts, uniquely positioned to enhance those military-to-military relationships.[4]

Across Army and broader discourse, the primary debates about the validity, priorities, and impact of the Army roles described previously primarily center on three main themes: (1) predictions of future concepts and capabilities coming to fruition; (2) the likelihood of allies and partners providing access and freedom of operations; and (3) whether the Army plays unique, reinforcing, or supporting roles in the region. These debates shaped the assumptions within our three scenarios.

FUTURE CONCEPTS AND CAPABILITIES

The first debate addresses the feasibility of prospective Army capabilities that underpin its proposed future concepts. The U.S. Army has embarked on an ambitious modernization program to support its multi-domain operations, and new systems have been explored in experiments and demonstrations.[5] Several key multi-domain capabilities, however, are still to be fielded or rely on enablers that are not available or in enough supply within the Army and the Joint Force, such as sufficient quantities of long-range fires and long-range intelligence, surveillance, and reconnaissance (ISR) in contested areas. Across our own research and scenario exploration, we assumed that the U.S. Army's existing modernization priorities would successfully reach the Army's planned goals.[6] Similar assumptions of other Joint Force capabilities were derived from publicly available sources and subject-matter expertise of the research team. Within the following narrative, we will identify roles that might depend on capabilities that have not been fielded yet.

RESEARCH AND METHOD

- Collection and categorization of over 50 RAND-developed INDOPACOM scenarios since 2012
- Literature review on future trends
- Literature review on existing Army narratives for today and 2035 time frame
- Internal seminar TTXs for each scenario examining different operational demands
- Competition workshop identifying future trends that may affect the Army in 2035
- External seminar TTX exploring each scenario with Army participants

ACCESS AND FREEDOM OF OPERATIONS

The second debate entails the likelihood of allies and partners providing access and freedom of operations.

[4] As quoted in Evan Ochsner, "Army Would Play Critical Role in Conflict with China, Wormuth Argues," *Inside Defense*, December 1, 2021.

[5] See, for example, Ethan Sterenfeld, "Army Includes Seven Battlefield Scenarios in Project Convergence," *Inside Defense*, November 11, 2021.

[6] The full list of 35 (31+4) modernization programs is controlled unclassified information. These modernization priorities are categorized under long-range precision fires (LRPF) next-generation combat vehicles; future vertical lift, network, air and missile defense; and soldier lethality. The Army has also established an ISR Task Force. Factors that could influence realization of these priorities in the future could include reevaluation of these priorities' applicability and support of requirements in INDOPACOM versus U.S. European Command (EUCOM) and budgetary pressures (U.S. Army, "Army Modernization Strategy: Investing in the Future," 2021a; U.S. Army, "Annex 2. Annual Modernization Guidance FY22," 2021b, Not available to the general public.

One strength of the United States' expeditionary power is its global network of allies and partners. However, these allies and partners have their own interests, priorities, and threat perceptions that might not align directly with those of the United States. Such differences could constrain the willingness of these countries to allow forward posture or crisis deployments of U.S. military forces. Historically, because of the Army's unit sizes and reliance on other services for strategic lift and China's abilities to contest sealift and airlift into the theater, the Army faces difficulty in rapidly deploying in operationally relevant time frames in the region if not already forward postured. However, movement toward smaller, more tailorable force package concepts, such as multi-domain cells or the use of rotational or prepositioned posture options, offer promise in alleviating this dilemma. Within our research, we explored how U.S. Army roles might differ depending on access assumptions.

UNIQUE, REINFORCING, OR SUPPORTING ROLE

The final debate within the literature centers on attention paid across Army roles that are unique to, reinforcing, or supporting other joint forces and capabilities.[7] Unique roles are those in which Army capabilities have direct effects and in which the U.S. Army has a comparative advantage relative to other U.S. joint forces and involved allied or partner forces. Reinforcing roles also have direct effects but are additive to capabilities provided by other U.S. joint forces and allied or partner forces. Supporting roles facilitate the resiliency or effectiveness of direct effects delivered by other U.S. joint force or involved allied or partner forces. Taken from a single service perspective, one might view such role characterizations as a zero-sum game in the bureaucratic competition for resources and influence on operational concepts and strategy. However, taken from a joint- and theater-level perspective, each type of role can represent a vital requirement for providing sustained advantages in competition and conflict against a near-peer adversary. We consider all possibilities in our research to gain a comprehensive view of U.S. Army contributions in the region.

Scenario Selection

After surveying the literature, we evaluated over 50 Indo-Pacific military scenarios used in RAND research since 2012. This evaluation yielded a wide array of potential problem sets that the U.S. Joint Force could face in 2035, such as large-scale combat, limited crises, irregular actions by state adversaries, terrorism, piracy, state failure, insurgencies, and natural disasters. The U.S. Joint Force could confront these across the wide expanse of the Indo-Pacific, from Oceania to Northeast, Southeast, South, and Central Asia. This scenario review emphasized how assumptions about military capabilities and objectives of all parties involved can shape how regional problems unfold. The reviewed scenarios also varied in their assumptions on access for U.S. military forces—and what they are allowed to do when on allied or partner territory. As noted previously, these assumptions can either support or constrain the way in which the U.S. Joint Force conducts operations.

To identify a wide array of potential Army roles, we constructed three scenarios that varied in terms of geographic location, placement on the competition-

[7] Literature reviewed included but was not limited to Michael Raska, "Strategic Competition for Emerging Military Technologies: Comparative Paths and Patterns," *PRISM*, Vol. 8, No. 3, 2019; Daniel C. Billing, Graham R. Fordy, Karl E. Friedl, and Henriette Hassestrom, "The Implications of Emerging Technology on Military Human Performance Research Priorities," *Journal of Science and Medicine in Sport*, Vol. 24, No. 10, October 2021; Alexander Kott and Philip Perconti, "Long-Term Forecasts of Military Technologies for a 20–30 Year Horizon: An Empirical Assessment of Accuracy," *Technological Forecasting and Social Change*, Vol. 137, December 2018; and Joint Chiefs of Staff, 2016.

conflict continuum, access and freedom of operations within and from allied and partner territory, overall U.S. objectives, and potential non-kinetic and kinetic demands for the Joint Force. Overall, these scenarios are not meant to be predictive or evaluated individually. They were designed as an analytic set of varying operational problems and constraints to provide a wide exploration of possible Army roles in the theater.

Seminar Tabletop Exercises

The development of the scenarios helped drive additional research and hypothesis exploration of how the future scenarios could begin and evolve. Several seminar TTXs were conducted to explore how interplay of U.S., allied and partner, and adversary decisions could affect outcomes in the scenarios. Seminar TTXs are semistructured exercises, bolstered by subject-matter expert (SME) participation, that allow for flexible exploration into how and why interactions may unfold. SMEs on China and regional allies and partners provided reactions and counteractions to the actions described by participants who considered the U.S. military perspective.

The team first conducted three seminar TTXs, one for each scenario with RAND SMEs on China, other Indo-Pacific countries, and operations across multiple military domains (air, ground, maritime, space, and cyber). From this, we derived candidate narratives that emerged within each scenario and common themes that emerged across the scenarios. To supplement and refine these insights, we invited Army personnel and representatives from allied countries to participate in a follow-on, abbreviated seminar TTX where they could add to, clarify, or challenge the narratives and assumptions that emerged from each of the three scenarios in the internal TTXs.

Internal Workshop

To supplement the seminar TTXs, we conducted an internal workshop on future trends and the Army's role in competition in the Indo-Pacific with a variety of RAND SMEs. The workshop included two activities that each began with an individual, rapid ideation brainstorming session followed by group discussion. Overall, the two activities centered on the following questions:

- How may future trends create opportunities or increase risk for overall U.S. military competition goals in the Indo-Pacific?
- What roles can the Army play in seizing the opportunities or mitigating the risk for U.S. military competition in the future?

In addition to informing our understanding of potential future strategic and operational environments, insights also revealed additional roles that the Army could play across all three scenarios.

Communicating Roles

Our culminating effort is a synthesis of the research and findings in a highly visual report that will function as a tool for the Army to develop and communicate to stakeholders the roles that it will bring to the INDOPACOM theater. Evaluating various communication techniques, behavioral research found that visuals are processed 60,000 times faster than text alone.[8] This provides a communication advantage to aid in the comprehension of dense narrative streams and the operational complexity of the Indo-Pacific theater. ◆

[8] 3M, "Polishing Your Presentation," pamphlet, 1997.

U.S. Army Roles Within the Joint Force

OVERVIEW OF GENERAL U.S. ARMY ROLES

The U.S. Army is an interdependent element of the U.S. Joint Force and serves as the foundation on which the U.S. military conducts land operations.[9] The Army supports the Joint Force in four overarching roles: shaping operational environments, deterring conflict, prevailing in large-scale ground combat, and consolidating the gains of military operations on the ground.[10] The Army accomplishes this by setting and sustaining the theater for the Joint Force; integrating national, multinational, and joint power on land; and executing combined arms operations and special operations. When not engaged in direct conflict, the Army focuses its efforts on operations to prepare for and deter war.[11]

The Army requires joint capabilities, such as strategic lift, joint fires, and ISR. In turn, the Joint Force requires the Army's capabilities to succeed across the multiple domains of air, land, maritime, space, and cyber.[12]

The Army also supports the other services, combatant commands, and multinational forces with such capabilities as communications, intelligence, C2, rotary-wing aviation, air and missile defense, logistics, and engineering.[13]

[9] Army Doctrine Publication (ADP) 1, *The Army*, Headquarters, Department of the Army, July 31, 2019, p. 1-1.
[10] ADP 1, 2019, p. 2-4.
[11] ADP 1, 2019, p. 1-1.
[12] ADP 1, 2019, p. 1-1.
[13] ADP 1, 2019, p. 2-3.

U.S. ARMY ROLES IN INDOPACOM

Executing successful military operations against a great power in INDOPACOM demands a Joint Force that can flex beyond its traditional roles and demonstrate a willingness to integrate capabilities across the services.[14] Looking at this challenge, the Secretary of the Army has characterized the Army's likely future roles in the theater through the following five core tasks:

1) serving as the backbone service for the Joint Force and building up, operating, and defending staging areas and bases
2) sustaining the Joint Force across long distances with communications, distribution networks, and munitions stockpiles
3) providing C2 through Joint Task Force headquarters and the Army's substantial planning and operations capacity
4) providing ground-based long-range fires using its long-range hypersonic weapons, mid-range capability, and precision strike missiles against targets ashore and afloat
5) potentially executing counterattacks using maneuver forces to restore the territorial integrity of allies or partners.

Beyond these five core tasks, the Army also provides Defense Support to Civil Authorities for a variety of contingencies on the U.S. homeland, including manmade and natural disasters. The Army is seeking to modernize and field capabilities to address the INDOPACOM's existing and future challenges while simultaneously looking to pre-position additional assets and gain greater access in countries across the region to be able to effectively employ those capabilities.[15]

Through TTXs, workshops, and an assessment of completed research—and framed by the three analytic scenarios—we identified the following primary roles for the Army in the Indo-Pacific region:

1) **foundational joint enabler**
2) **support joint kinetic fight**
3) **strengthen and leverage relationships with allies and partners.**

In the following pages, these primary roles or themes will be defined. ◆

[14] John Schaus, Nathan Freier, Michael Cable, and Dana Tucker, "In the Pacific, US Army Must Be a Running Back Who Blocks," *Defense News*, May 20, 2019.
[15] Center for Strategic and International Studies, "China Power: Up for Debate 2021—Keynote Remarks by Secretary Christine Wormuth," video, YouTube, December 1, 2021.

Overarching U.S. Army Roles in the Indo-Pacific

These major themes will run throughout this report, its scenarios, and its accompanying infographics. Moreover, in addition to the Army's roles within these three themes, the Army continuously conducts a variety of activities across the theater and in the United States that serve to support joint operations.

Joint enabler

ENSURING JOINT MILITARY COMBAT POWER IS ENDURING AND INTEGRATED ACROSS THE REGION AND THROUGHOUT A CONFLICT

Adversary capabilities will continue to make joint operational concepts more disaggregated and conflict more rapid. These trends will further complicate operational demands across the region and within individual countries, stressing logistics distribution, air defense and ground security, communications, and C2. Overall, given the size, capabilities, and historical experience of the Army, it is uniquely placed to lead in coordinating and providing this decisive support. As crises and conflicts become increasingly theater-wide and global, the Army will help ensure joint military combat power is enduring and integrated across the region and throughout a conflict. In addition, the Army has important roles in addressing post-crisis and conflict demands through reestablishing territorial control or assisting in or coordinating civil-military relations and reconstruction efforts.

PHOTO: U.S. and Indian Army troops conduct a joint field training exercise for Yudh Abhyas 21 at Joint Base Elmendorf-Richardson, Alaska. (Alejandro Peña/U.S. Air Force)

Joint kinetic fight

CONDUCTING TACTICAL AND OPERATIONAL SUPPORT TO TARGET AND DELIVER NONLETHAL OR LETHAL EFFECTS

Fires allow the Joint Force to deliver specific lethal or nonlethal effects on a target at range. To execute successful fires, the Joint Force requires several different capabilities—not only the artillery, aircraft, or naval weapons, but the ability to find, identify, and track adversary targets. The Indo-Pacific region in particular presents challenges to joint fires through its distinct maritime-focused geography, reach of adversary capabilities, and a target-dense environment. Key targets for the Joint Force include maritime vessels, air defenses, logistics and command nodes, and advancing adversary ground forces. The value of Army ground-based LRPF depends greatly on positioning, survivability, and whether LRPF could bring an operationally significant volume of fire against adversary forces. In addition, a potentially significant Army contribution is the tactical and operational integration of multiple cyber, space, and electronic warfare intelligence sources to support joint targeting.

Strengthen and leverage relationships

INTEGRATING REGIONAL DETERRENCE THROUGH ALLIED AND PARTNER RELATIONSHIP- AND CAPACITY-BUILDING

The Army's role in allied and partner engagement and military relationship-building is critical to U.S. efforts to counter China's coercive activities and growing military capabilities. The United States will require allies and partners to enhance regional, integrated deterrence and support almost every contingency. Armies are the most prominent service in many Indo-Pacific countries, providing the U.S. Army with opportunities to help shape those countries' joint strategies and operational concepts and provide crucial coordination between partner and joint forces during conflict. Through training and other military engagements, the Army can not only help enhance allied and partner conventional capabilities but also assist in strengthening military and civilian resilience and responses to increasingly sophisticated Chinese gray zone activities. ◆

Chapter 1

To view the roles that the U.S. Army might play in a future Indo-Pacific Command (INDOPACOM) scenario, it is important to have a baseline understanding of the factors and trends that will shape this region over time. This chapter describes the overarching factors and forces that shaped the operational environment of the three scenarios that are outlined in this study.

Military activities and operations do not happen in a vacuum. Political, economic, and environmental factors shape how, when, where, and why military power may be applied. Looking ahead, China's growing leverage in the region across the instruments of national power increases the susceptibility of allies and partners to Chinese political and economic pressure.

This increased risk and enduring flashpoints place greater demands on the Joint Force to ensure strong and capable relationships.

Bolstering this pressure, China's military capabilities have evolved significantly over the past three decades. China has pursued a determined path toward transforming its military into a modern force that can project power throughout the Indo-Pacific and potentially globally as well. The speed of overarching technological trends will also significantly shape the operational environment in the years ahead.

The Joint Force will need to operate in a more distributed but connected manner for survivability, placing greater demands on such enablers as logistics, protection, and command and control (C2). Engaging Chinese forces with joint fires with sufficient mass, precision, and coordination will require combined efforts across the services.

PHOTO: U.S. Army paratroopers conducting a joint field training exercise for Yudh Abhyas 21 at Joint Base Elmendorf-Richardson, Alaska, October 28, 2021, to increase readiness through bilateral military-to-military engagements. (Alejandro Peña/U.S. Air Force)

The Evolving Operational Environment

China's power increasingly shapes the international order, challenging U.S. interests and influence across the domain of national power. Although the rivalry manifests across the globe, the Indo-Pacific theater remains the epicenter. For the United States, focus on the region is less a matter of choice than a strategic imperative. The Indo-Pacific contains some of the world's busiest trade routes, major manufacturing hubs, key resources, and largest democracies. Over this economic dynamism loom the world's largest militaries, four nuclear-armed nations, and long-standing disagreements.

National power derives not only from military might but also economic and political influence. China's growing political, economic, and military power will continue to foster a complex rivalry in the region—a complexity that will shape how the U.S. military operates to support U.S., allied, and partner interests. As we look forward to 2035, this complexity will shape where, when, and how tensions—and demands for military capabilities—will emerge and grow.

Increasing Economic Rivalry

With the shock and uncertainty of the coronavirus disease 2019 (COVID-19) pandemic, the Indo-Pacific region's economy appears to have better weathered its effects, contracting only 1.5 percent compared with the global economy's 3.2 percent. Across the region, however, several factors, including vaccination rates, lockdown policies, and dependency on contact-intensive services or industries, have led to variations in recovery rates. Overall, the region has deepened its intraregional trade relationships: Supply chains have become increasingly localized, and the economies of the Association of Southeast Asian Nations (ASEAN) have become China's largest trading partner for the first time, exceeding the European Union.[16]

> Chinese political and economic pressure can affect Indo-Pacific countries' ability to challenge territorial encroachment in disputed areas, enforce environmental or political freedom standards, and host and support U.S. activities and military forces.

China's growing leverage in the region increases the susceptibility of allies and partners to Chinese political and economic pressure. Such pressure can affect their ability and incentives to challenge China's

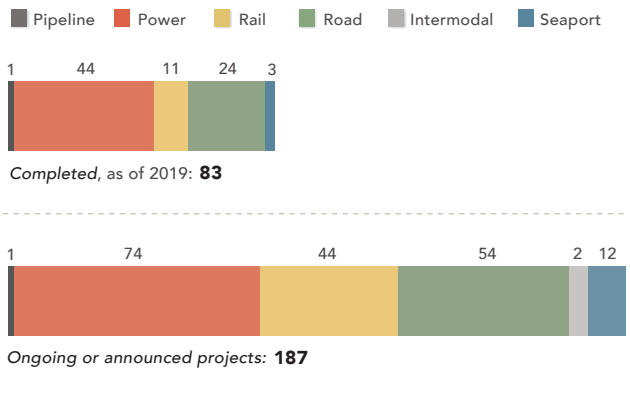
[16] Wonsik Choi, Jeongmin Seong, Oliver Tonby, and Jonathan Woetzel, "Five Windows of Opportunity for Postpandemic Asia," blog post, McKinsey and Company, October 18, 2021.

CHINA'S AMBITIOUS PURSUIT OF GEOPOLITICAL INFLUENCE, PP. 16–17

territorial encroachment in disputed areas, enforce environmental or human rights standards, and host and support U.S. activities and military forces.

While economic growth of the United States and its major allies is projected to continue, their relative economic power in relation to China's is estimated to diminish over time.[17] Perhaps the most ambitious and visible effort by China to increase economic engagement is its Belt and Road Initiative (BRI). Initiated in 2013, the BRI brand has been applied to infrastructure projects and associated technology spanning 60 countries worldwide; China and affiliated organizations had spent an estimated $200 billion on the project as of 2020. Future projections of its expansion vary because of the effects of the COVID-19 pandemic, probability estimates of projects' successful conclusion, and willingness of the international community to continue welcoming such ventures. While expansive, BRI projects have had mixed success rates: Some projects stalled or were canceled, and there were instances of corruption, environmental degradation, unsustainable debt for recipient countries, and negative public sentiment. While long-term effects of the COVID-19 pandemic remain to be seen, optimistic estimates prior to the pandemic predicted total BRI expenditures will rise to $1.2–1.3 trillion by 2027.[18]

ESTIMATED COMPLETED AND PROJECTED BRI PROJECTS IN THE INDO-PACIFIC REGION (2019 AND 2030)



SOURCE: Reconnecting Asia, "Reconnecting Asia Project Database," webpage, Center for Strategic and International Studies, May 14, 2021.

NOTE: Potential future completed projects includes those that are listed as announced, in preparatory works, or under construction. Power includes powerplants and three transmission projects in future category.

Part of China's drive with BRI and other economic investments comes from its desire to alleviate energy vulnerabilities. For example, China imports 11 million barrels of oil per day, and 80 percent passes through the Malacca Strait.[19] As China's energy consumption grows, China seeks to reduce its reliance on this potential chokepoint through investments in the Kazakhstan-China and Myanmar-Yunnan pipelines.

THE DIGITAL SILK ROAD

In addition, through its Digital Silk Road program, a component of BRI that was announced in 2015, China is pursuing the greater reach of Chinese information, communications technology, and practices in both developing and developed economies.[20] For example, it is estimated that Chinese firms have supported smart city development projects in 106 countries worldwide, including many Indo-Pacific countries.[21] Such technologies include surveillance, network infrastructure, big data networks, advanced energy management, and financial technology systems. China is also exporting 5G

[17] According to gross domestic product (GDP) data from World Bank "GDP (current US$)," webpage, undated.
[18] Andrew Chatzky and James McBride, "China's Massive Belt and Road Initiative," blog post, Council on Foreign Relations, January 28, 2020.
[19] Eleven million barrels per day as of December 2020 (CEIC, "China Crude Oil: Imports," webpage, undated). Malacca Strait statistic is from 2016 (Chen Aizhu and Meng Meng, "UPDATE 2—China Crude Oil Imports Shatter Record, Top U.S. Intake," Reuters, April 12, 2017).
[20] Joshua Kurlantzick and James West, "Assessing China's Digital Silk Road Initiative: A Transformative Approach to Technology Financing or a Danger to Freedoms?" interactive webpage, Council on Foreign Relations, undated.
[21] Katherine Atha, Jason Callahan, John Chen, Jessica Drun, Kieran Green, Brian Lafferty, Joe McReynolds, James Mulvenon, Benjamin Rosen, and Emily Walz, *China's Smart Cities Development*, U.S.-China Economic and Security Review Commission, January 2020.

mobile technology across the Indo-Pacific, including to the Republic of Korea (ROK), the Philippines, Thailand, and Indonesia. In addition, Myanmar, Nepal, and Kyrgyzstan will receive fiber-optic cable connections to China.[22] While these investments can help to alleviate digital development gaps worldwide, concern has risen that China is also exporting technological practices that support authoritarian practices, such as pervasive government surveillance and internet control.[23] Chinese civil-military fusion policies also engender worries that proliferation of these communication and digital technologies will allow greater opportunities for Chinese digital espionage and coercion.

In tandem with China's increasing ability to exert economic and information influence in the region, growing climate change and demographic challenges also will place new demands on allies and partners as they seek to protect their interests.

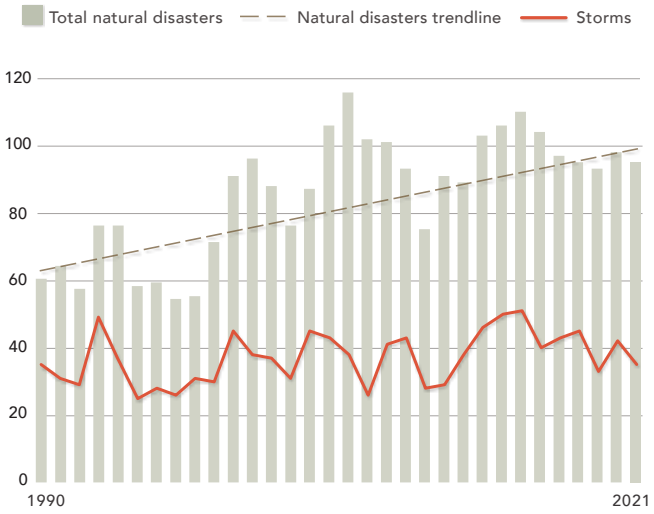
A SHIFTING ENVIRONMENTAL AND DEMOGRAPHIC LANDSCAPE

The U.S. Department of Defense (DoD) has stated that "climate change is reshaping the geostrategic, operational, and tactical environments, with significant implications for U.S. national security and defense," not only in the Indo-Pacific region but globally as well.[24] As these implications grow, the United States and its allies and partners likely will devote attention and resources toward preventing and mitigating their effects.

Although climate change does not appear to have increased the number of severe storms in the Indo-Pacific region, such storms have steadily increased in intensity. The number and length of natural disasters and extreme heatwaves have also increased, with the number of people exposed to such events increasing by 125 million between 2000 and 2016. Extreme temperatures place renewable water sources at risk and can cause other public health issues. Over the coming decades, rising sea levels also will threaten key coastal areas and economic centers in many Indo-Pacific countries, including U.S. allies and partners.[25] Climate change will stress governance and economic structures across Indo-Pacific countries, potentially exacerbating

TRENDS IN NATURAL DISASTERS IN THE INDO-PACIFIC REGION (1990–2021)

The overall number of natural disasters has been trending upward for decades. According to the United Nations (UN), the Asia-Pacific has accounted "for 31% of weather, climate, and water-related disasters, for nearly half of all deaths and one-third of associated economic losses."



SOURCE: International Disaster Database, homepage, undated; UN News, "Climate and Weather Related Disasters Surge Five-Fold over 50 Years, but Early Warnings Save Lives—WMO Report," September 1, 2021.

NOTE: Natural disasters included are storms, drought, extreme temperature, and flood. This figure represents natural-disaster data for Bangladesh, Bhutan, Brunei, Cambodia, China (mainland), India, Indonesia, Japan, North Korea, South Korea, Laos, Macao, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Philippines, Sri Lanka, Taiwan, Thailand, Timor-Leste, and Vietnam.

[22] David Sacks, "China's Huawei Is Winning the 5G Race. Here's What the United States Should Do to Respond," blog post, Council on Foreign Relations, March 29, 2021; John Lipman, "China's Long and Winding Silk Road," blog post, International Institute for Strategic Studies, January 25, 2019.
[23] Jonathan E. Hillman, "Techno-Authoritarianism: Platform for Repression in China and Abroad," testimony before the Congressional-Executive Commission on China, November 17, 2021.
[24] DoD, *Department of Defense Climate Risk Analysis*, report to the National Security Council, October 2021.
[25] Madhurima Sarkar-Swasigood, Sanjay Srivastava, Sung Eun Kim, Maria Bernadet K. Dewi, Laura Hendy, and Sapna Dubey, *Resilience in a Riskier World: Managing Systemic Risks from Biological and Other Natural Hazards*, United Nations Economic and Social Commission for Asia and Pacific, Asia-Pacific Disaster Report 2021, 2021; and Shira Efron, Kurt Klein, and Raphael S. Cohen, *Environment, Geography, and the Future of Warfare: The Changing Global Environment and Its Implications for the U.S. Air Force*, RAND Corporation, RR-2849/5-AF, 2020.

Influence

China's ambitious pursuit of geopolitical influence

This visualization examines dimensions of China's ambition to gain global geopolitical allegiance and security through economic and technological levers.

Projected BRI investment by 2027:

~$1.2–1.3 trillion

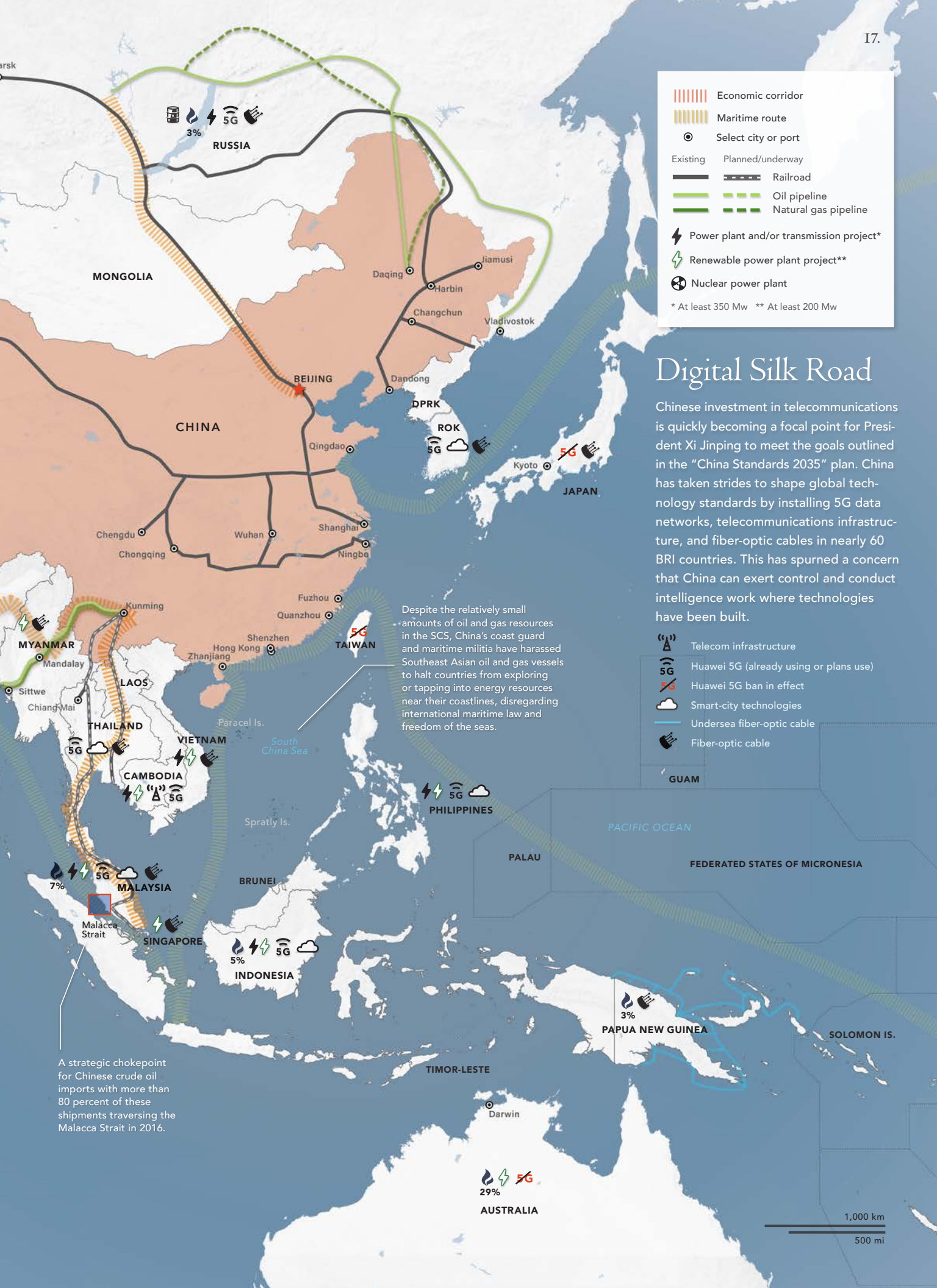
INVESTMENT + INFRASTRUCTURE

Over the past 15 years, China has made massive global investments in mega-projects, including the construction of a vast network of transportation routes to support its objective to enhance trade, investment, and economic integration between China and developing nations. This economic connectivity spans 130 countries, which together encompass more than 60 percent of the world's population and one-third of global GDP. If successfully completed in the future, such projects could increase world trade between 1.7 and 6.2 percent, increasing global income by 0.7 to 2.9 percent. However, trade and foreign direct investment in BRI corridor economies are 30 and 70 percent below potential, respectively. Several recipient countries face debt unsustainability and environmental risks. Social tensions also have arisen in response to influxes of migrant workers to construct and run infrastructure projects.

SOURCES OF ENERGY

To reduce the risks involved with its high reliance on overseas energy imports, China is heavily investing in crude oil and natural gas pipeline construction, specifically, a network that offers alternatives to the Straits of Hormuz and Malacca. As of 2019, almost two-thirds of Chinese BRI spending was funneled into the energy sector, with amounts totaling over $50 billion. Securing the energy sector also bolsters China-centric regional connectivity among cities, resources, and industrial supply chains, establishing the energy infrastructure required to power Chinese enterprises.

SOURCES: For a list of infographic references, see pp. 110–111.
NOTE: For infographic abbreviations, see p. 94.



Digital Silk Road

Chinese investment in telecommunications is quickly becoming a focal point for President Xi Jinping to meet the goals outlined in the "China Standards 2035" plan. China has taken strides to shape global technology standards by installing 5G data networks, telecommunications infrastructure, and fiber-optic cables in nearly 60 BRI countries. This has spurned a concern that China can exert control and conduct intelligence work where technologies have been built.

- Telecom infrastructure
- 5G — Huawei 5G (already using or plans use)
- 5G — Huawei 5G ban in effect
- Smart-city technologies
- Undersea fiber-optic cable
- Fiber-optic cable

Despite the relatively small amounts of oil and gas resources in the SCS, China's coast guard and maritime militia have harassed Southeast Asian oil and gas vessels to halt countries from exploring or tapping into energy resources near their coastlines, disregarding international maritime law and freedom of the seas.

A strategic chokepoint for Chinese crude oil imports with more than 80 percent of these shipments traversing the Malacca Strait in 2016.

The 2022 U.S. Army Climate Strategy states that "climate impacts will disrupt Army activities, displace individuals and communities, and increase the frequency of crisis deployments."[26]

internal social instability and forced migration. Conflicts can erupt over competing demands for limited resources, such as clean water, fisheries, and key minerals. Relatedly, demand is also likely to rise for multinational humanitarian assistance and disaster relief (HADR) operations carried out by the U.S. government and Joint Force along with allied and partner countries. China has been developing HADR transportation and operational capacity—though far more limited than the United States'—that it will also be able to use in future regional disasters.

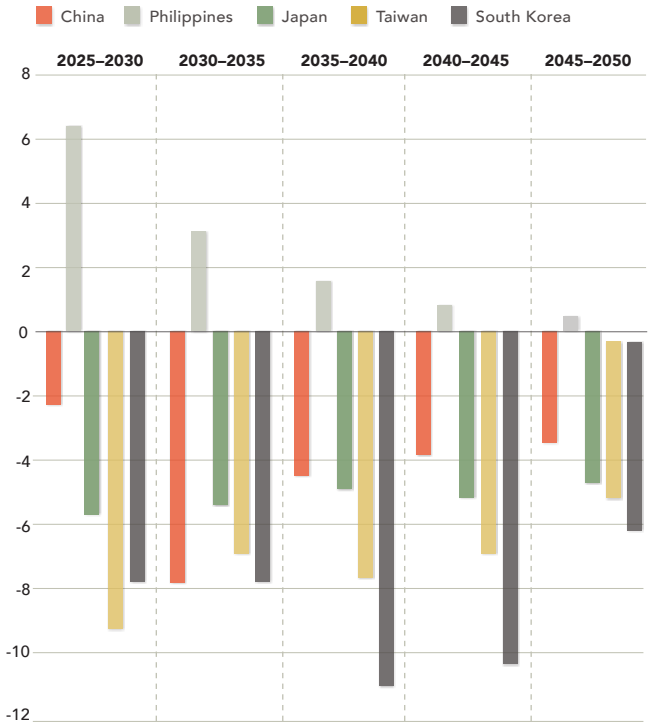
The populations affected by shifting political, economic, and environmental trends are also changing significantly. Globally, beyond 2035, (1) lower birth rates will lower the population level and (2) greater longevity will age the population. Such demographic trends can have significant military effects, including a lower military-age population to fill ranks, higher competition with other sectors for talent, and budgetary competition with defense investments while countries care for their older populations. Simultaneously, while population growth rates fall, urbanization rates continue to rise.

Indo-Pacific countries are not immune to these trends. China faces a demographic crisis: The numbers of military-age males are forecast to drop dramatically through 2050, at which time the number of retirees in the country will have increased by 50 percent. A drop in the birth rate is normal as countries develop and become wealthy, but China's has been made more dire by a one-child policy initiated in 1979. Taiwan, Japan, Thailand, and particularly South Korea also will face similar demographic challenges over the

SAMPLING IN MALE POPULATION (2025–2050), AGES 15-45

(in percentages)

Forecasts predict that the number of South Korean men enlisting for their mandatory military service each year will fall from 330,000 in 2020 to 186,000 by 2039.

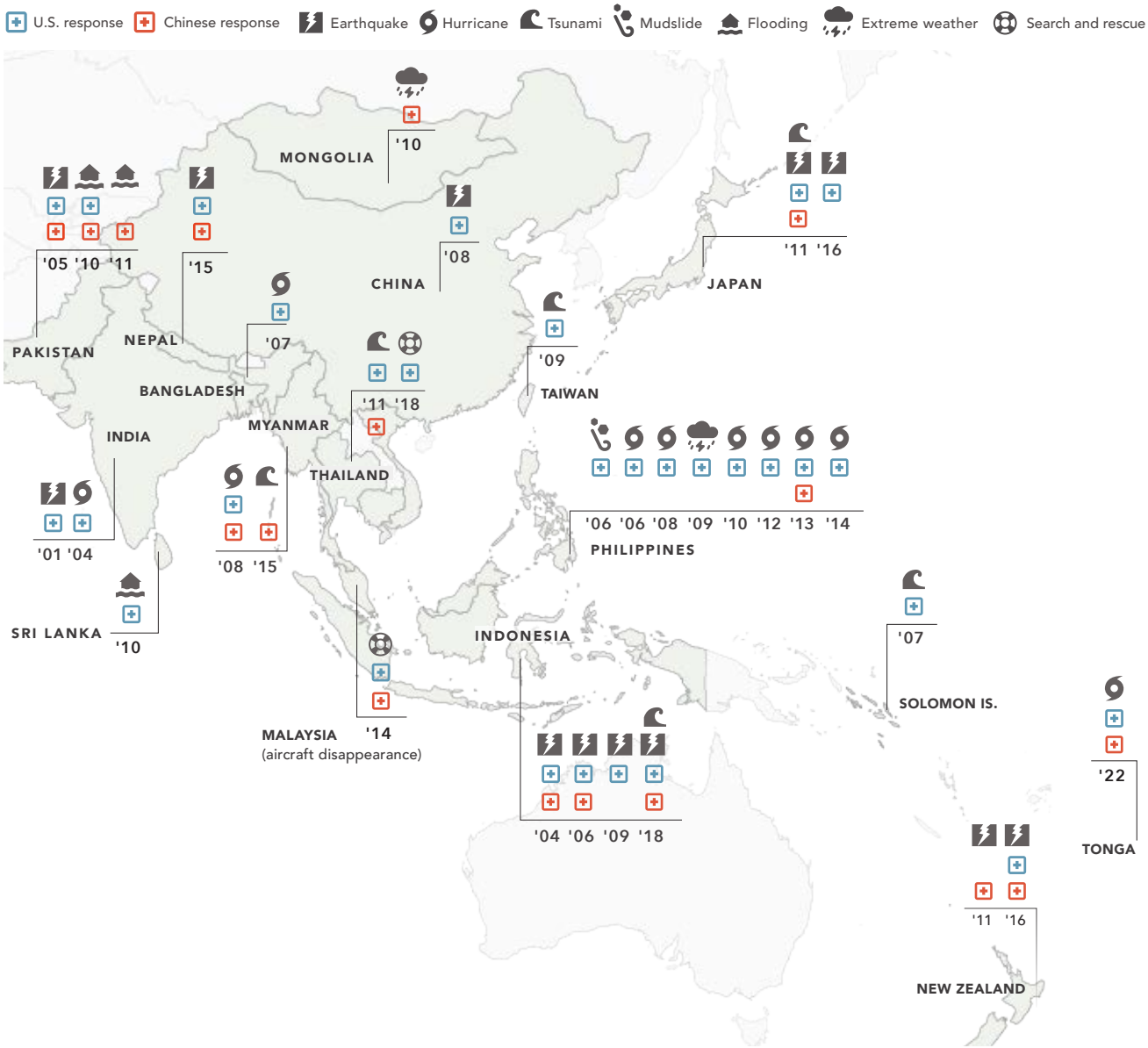


SOURCES: Derived from File PPP/POPAGESEX-M: Male population by five-year age group, region, subregion and country, 2020–2100; Probabilistic Population Projections based on the United Nations, Department of Economic and Social Affairs, *World Population Prospects 2019: Highlights*, 2019; Chung Min Lee, "South Korea's Military Needs Bold Reforms to Overcome a Shrinking Population," in Chung Min Lee and Kathryn Botto, eds., *Demographics and the Future of South Korea*, Carnegie Endowment for International Peace, 2021.

[26] Office of the Assistant Secretary of the Army for Installations, Energy and Environment, *U.S. Army Climate Strategy*, U.S. Department of the Army, February 2022.

HADR MISSIONS CONDUCTED BY THE UNITED STATES AND CHINA, RESPECTIVELY (2000–2022)

In past INDOPACOM HADR missions, the U.S. Army provided transport rotary-wing aviation, field hospitals, and other logistics support. China's equipment acquisition has included strategic lift and rotary-wing aviation capabilities—conducive for supporting HADR—and China has begun assisting in more regional HADR missions in the past decade. To date, however, China's regional HADR operations have been limited in size and complexity when compared with those of the United States. China's support largely has entailed a few transport aircraft loads of supplies at major commercial airports.



SOURCES: Cristina L. Garafola and Timothy R. Heath, *The Chinese Air Force's First Steps Toward Becoming an Expeditionary Air Force*, RAND Corporation, RR-2056-AF, 2017; Matthew Southerland, *The Chinese Military's Role in Overseas HADR: Contributions and Concerns*, U.S.-China Economic and Security Review Commission, July 11, 2019; Center for Excellence in Disaster Management and Humanitarian Assistance, *USINDOPACOM Foreign Disaster Response in the Indo-Asia-Pacific, June 1991–June 2019*, undated; Catherine Wong, "Chinese Military Planes Deliver Emergency Supplies to Tsunami-Hit Tonga," *South China Morning Post*, January 27, 2022; UN News, 2021.

NOTE: HADR operations in India include a mission in the Indian Ocean. Map excludes the People's Liberation Army's response to the crisis in the Maldives in 2014 and delivery of supplies to Malaysia during floods in 2015.

OPERATIONAL ENVIRONMENT IN THE AOR, PP. 22–23

Militaries will find it increasingly harder to hide from adversary eyes and discern useful information from the increased amounts of data collected.

coming decades. Such demographic challenges' effects on military capabilities, however, could be offset by increased inclusion of women in the armed forces, and concerted investment can recruit top talent and realize modernization offsets for more-limited manpower. These demographic changes will not only lead to downward pressure on countries' military sizes: An increasingly aging population will place demands on national budgets that will compete with military readiness and investments.

OVERARCHING TECHNOLOGICAL TRENDS

Technology continues to develop at a rapid pace, affecting the character of human interactions and increasing the complexity and potential cost of war. New technologies will boost perception, processing, and cognition abilities, allowing for greater depth, speed, and complexity of information about human behavior. These advancements include artificial intelligence (AI), big data analytics, virtual reality, the Internet of Things, and the rise of ubiquitous sensors (increased opportunities for electronic surveillance). Militaries will find it increasingly harder to hide from adversary eyes and discern useful information from the increased amount of data collected.

Parallel or even more-rapid developments in the civilian sector will both fuel and further blur lines between civilian and military application. Such developments can complicate identification and targeting of adversary capabilities as situations become more ambiguous. Robotics and unmanned systems, autonomy, hypersonics, proliferated satellite constellations, directed energy, additive manufacturing, and synthetic biology manufacturing will continue to enhance technological performance. As unmanned systems, autonomy, and hypersonics become more prevalent, it is unclear how countries will change how they view military risks. For example, will countries be more willing to employ unmanned systems than put their own troops in danger? How will countries manage inadvertent escalation with the fielding of autonomous systems?[27] Will the speed and maneuverability of hypersonics continue to challenge defenses, incentivizing countries to strike first in crisis and conflict before their adversary can?

The weaponization of information is evolving as a battleground in competition, crisis, and conflict as the world becomes even more connected. Such tactics as the increased use of social or other virtual media and the proliferation of fake news and deepfakes are becoming more pervasive during steady-state competition. As global reliance on networks and new technologies expand, vulnerabilities to cyberattacks will permeate both civilian and military spheres.

The U.S. Army, through its modernization priorities and such efforts as Project Convergence, is seeking to harness the benefits of these emerging technological trends, particularly through application within its Multi-Domain Task Force (MDTF) concepts and the Multi-Domain Effects Battalion (MDEB). However, as the United States seeks to benefit from these new technologies, so, too, does China.

[27] Yuna Huh Wong, John M. Yurchak, Robert W. Button, Aaron Frank, Burgess Laird, Osonde A. Osoba, Randall Steeb, Benjamin N. Harris, and Sebastian Joon Bae, *Deterrence in the Age of Thinking Machines*, RAND Corporation, RR-2797-RC, 2020.

Contested Military Operations

CHINA'S MILITARY RESPONSES

To bolster and defend its growing influence, China has undertaken a concerted effort in the past decades to enhance its military capabilities. China paid particular attention to U.S. demonstrations of force projection, precision-guided weaponry, and networked operations during the 1990s and early 2000s in Operation Desert Storm and operations in the Balkans. The 1996 Taiwan Strait Crisis, when the United States sent a carrier strike group (CSG) through the Taiwan Strait as an overt demonstration and challenge to China, also influenced China's ambitions to complicate U.S. military power projection in the region.

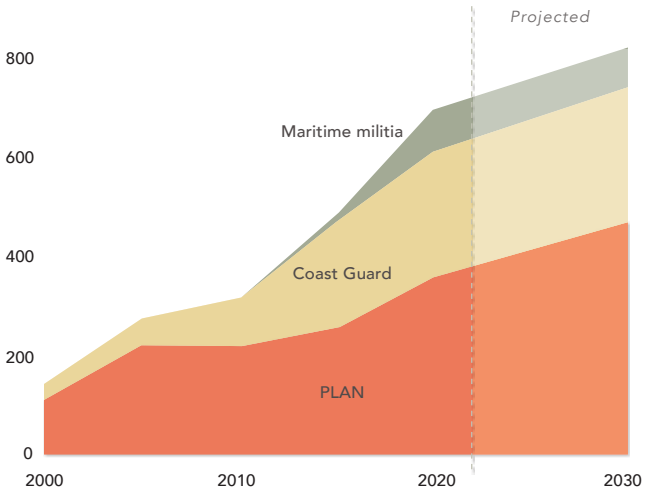
U.S. military power projection relies heavily on the country's relationship with its long-standing allies and partners in the Indo-Pacific region. This advantage, however, is increasingly counterbalanced by the distances and vulnerability of operating bases and surface ships (such as aircraft carriers or amphibious ships) to China's conventional missile threat. The Chinese military, across all PLA components, has made concerted advances in stockpiling, accuracy, and range, making forward-positioning and concentration of U.S. air, naval, and ground forces extremely risky—if not deadly—in a heated crisis, forcing the Joint Force to operate from greater distances or while greatly dispersed. U.S. military forces, however, are not threatened only by missiles; China's increased cyber and space capabilities also threaten the United States' heavy reliance on information systems to integrate its military assets and operations.

China is also enhancing its own ability to project military power in the region, supported by the numerically largest navy fleet in the world and increased numbers of air transports. In addition, China has enhanced its potential basing options through island development in the South China Sea (SCS) and using its economic and political leverage to increase the probability of military access in other countries.[28]

These capabilities have been demonstrated through increased military exercises and posturing. Naval and "maritime militia" platforms have been partaking

GROWTH OF CHINA'S MARITIME FORCES

The People's Liberation Army Navy (PLAN) is a standout of China's military transformation. In only two decades, the PLAN tripled in size and is the world's largest navy. Its vessels include modern surface combatants, submarines, aircraft carriers, amphibious assault ships, and large coast guard cutters.



SOURCE: U.S. Marine Corps, U.S. Navy, and U.S. Coast Guard, *Advantage at Sea: Prevailing with Integrated All-Domain Naval Power*, December 2020.

[28] Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China 2021: Annual Report to Congress*, U.S. Department of Defense, 2021.

INDOPACOM
Operational Environment in the AOR

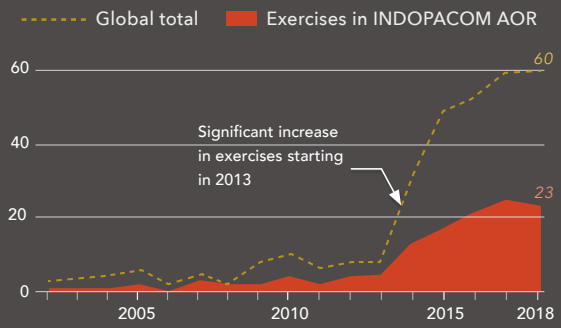
This visualization depicts the challenging operational environment in the INDOPACOM area of responsibility (AOR) that the Joint Force faces against China. China is not only developing long-range strike and air defense systems that can threaten U.S., allied, and partner forces, but it is also expanding its security relationships with countries in the AOR and around the world. This security relationship-building includes arms sales, port and other infrastructure investments, and military diplomacy, which includes exercises and port visits. These expanded security relationships go hand in hand with China's economic and political efforts to build influence in the AOR and with key partners overseas.

PLA'S EXPANDING REACH AND PRESENCE

Since 2002, China has focused on developing power-projection capabilities beyond China's near periphery to secure national security assets, maintain open sea lines of communication, and advance its international policy objectives. Investments and construction in key ports across the region often align with buildup and investment in military infrastructure, extending from Cambodia to Equatorial Guinea. These steps help build China's potential for projecting forces and capabilities across the Indo-Pacific region or impede capability use by the United States in crisis or conflict.

If China has developed infrastructure in certain countries in the region for commercial purposes, China has additional political and economic levers to pressure for military access and usage. Its success, however, will depend on host country regulations, economic strength, and willingness to resist this pressure.

PLA INTERNATIONAL MILITARY EXERCISES (2002–2018)



SOURCE: Phillip Saunders, Kenneth Allen, and John Chen, *Chinese Military Diplomacy, 2003–2016: Trends and Implications*, National Defense University Press, 2017.

SOURCES: For a list of infographic references, see pp. 111–112.
NOTE: For infographic abbreviations, see p. 94.

EUCOM
CENTCOM
KAZAHKSTAN
TAJIKISTAN
AFGHANISTAN
PAKISTAN
49.1%
NEPAL
BHUTAN
INDIA
BANGLADESH
19.8%
MYANMAR
11.0%
THAILAND
3.2%
SRI LANKA
MALDIVES
DIEGO GARCIA
CENTCOM
INDOPACOM
AFRICOM

CHINA'S FOREIGN MILITARY SALES

Pakistan, Bangladesh, and Myanmar have been the primary recipients of China's arms exports for decades and represent a combined 63.4 percent of China's conventional weapons sales since 2010. The top five Asian recipients are depicted on the map. Notably, Thailand, a U.S. Bilateral Defense Treaty partner, is the fourth-largest importer of Chinese weapons.

Top five Indo-Pacific recipients of Chinese military sales

% Share of global military sales

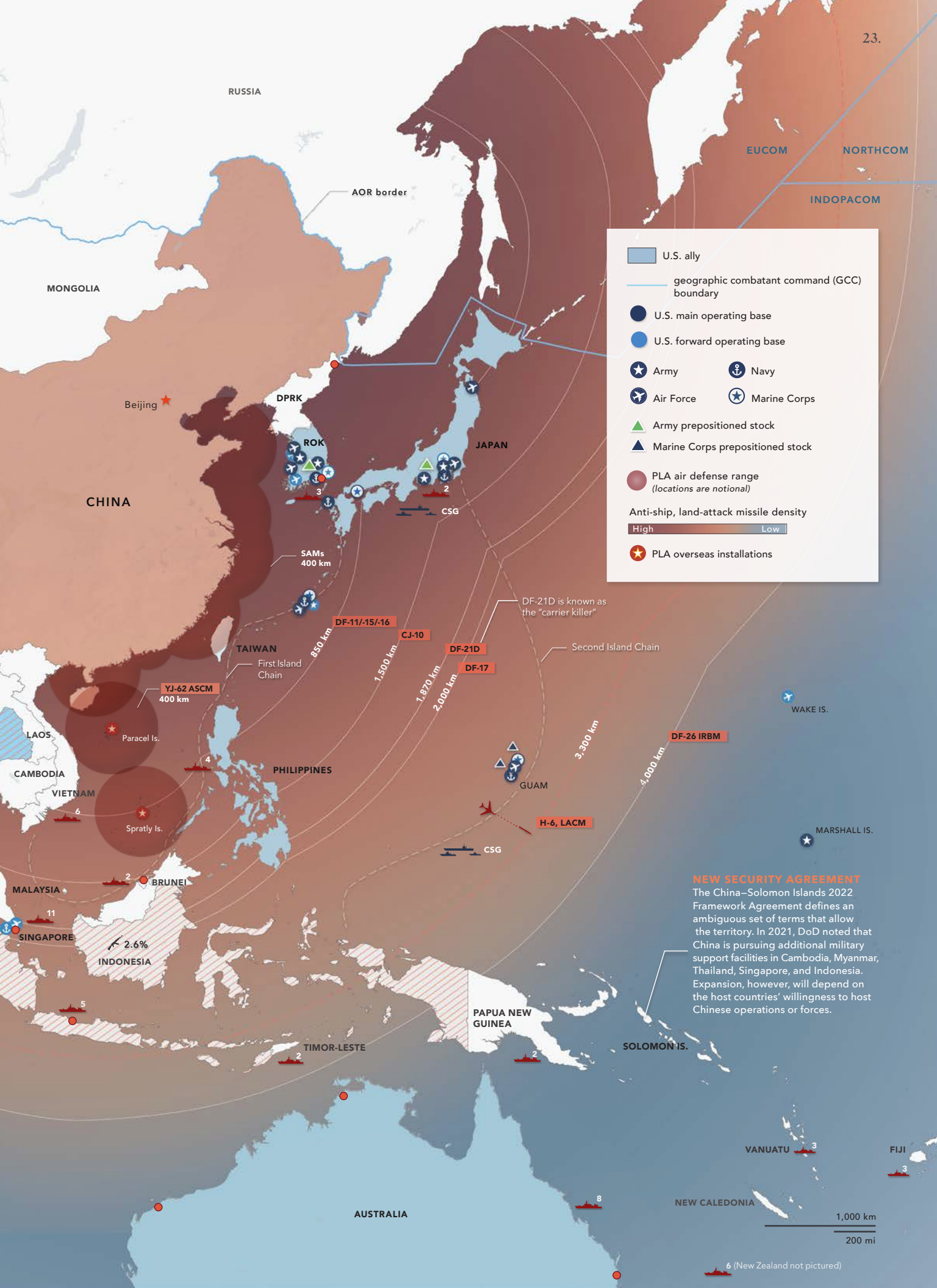
STRATEGIC PORT ENGAGEMENT

Chinese engagement in overseas ports has accelerated through BRI investment and construction. Many overseas ports are owned and operated by Chinese enterprises. These ports offer a variety of economic and potentially military benefits, such as strategic positioning, overseas logistics supply lines, operational control, and potential dual use for military and trade purposes.

Chinese port engagement

Majority port owner or operator

Number of PLAN port calls (2002–2018)



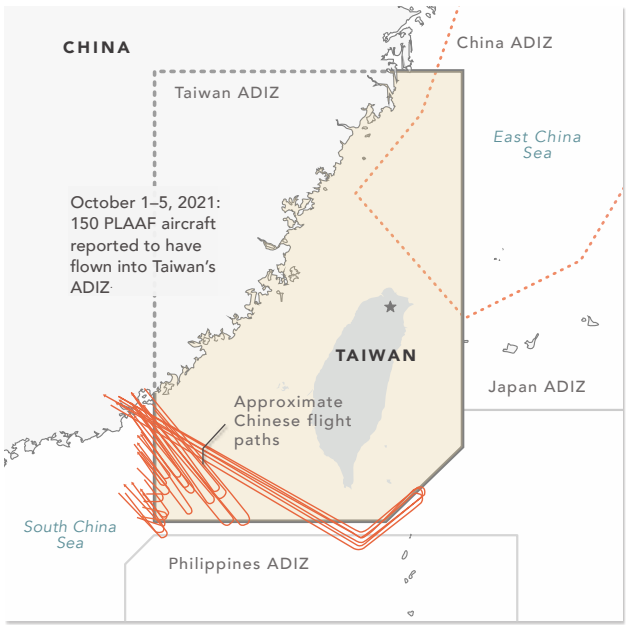
NEW SECURITY AGREEMENT

The China–Solomon Islands 2022 Framework Agreement defines an ambiguous set of terms that allow the territory. In 2021, DoD noted that China is pursuing additional military support facilities in Cambodia, Myanmar, Thailand, Singapore, and Indonesia. Expansion, however, will depend on the host countries' willingness to host Chinese operations or forces.

The Chinese military, across all components has made concerted advances in the stockpile, accuracy, and range, making forward-positioning and concentration of U.S. air, naval, and ground forces extremely risky, if not deadly, in a heated crisis.

CHINESE INCURSIONS INTO TAIWAN AIRSPACE

The PLAAF increased its tempo of flight patrols and the number of aircraft involved in the Taiwan air defense identification zone (ADIZ) in 2021. This flight frequency has strained the responding Taiwan air forces and facilitated Chinese probing of Taiwan's defenses. The normalization of such behavior over time could reduce the ability to interpret indications and warnings of Chinese attack in a crisis.



SOURCES: (Top) Flight paths are based on Taiwanese Ministry of National Defense reports and the Stockton Center for International Law (Taiwanese Ministry of National Defense, data compiled by Bloomberg. Data as of December 26, 2022). Gerry Doyle, Anand Katakam, Ben Blanchard, and Marco Hernandez, "The Skies over the South China Sea," Reuters, October 19, 2021.

in increased activity in disputed territorial waters within the East China Sea (ECS) and SCS. Exercises simulating island seizures by the PLAN have nearly doubled, from 13 in 2020 to 20 in the first half of 2021.[29] People's Liberation Army Air Force (PLAAF) flight patrols also surged in 2021, to nearly 950 from approximately 280 sorties the prior year, increasingly contesting and probing Taiwan's airspace. The flight patrols reveal China's expanding variety of aircraft, including fighters, early warning and control aircraft, anti-submarine aircraft, and long-range H-6 bombers.[30] China is investing in enhanced military capabilities and is already applying them, not only to hone its joint operational effectiveness but also to send a signal to the United States and its allies and partners.

U.S. OPERATIONS IN INDOPACOM

In short, the INDOPACOM AOR is uniquely challenging for the United States, covering more of the globe than any of the other geographic combatant commands. Even with existing transportation capabilities, it takes time to cross the Pacific. Fighter aircraft and bombers from the U.S. homeland can reach the theater in one or two days; however, a CSG and an Army brigade (BDE) on cargo ships require substantially more time. These realities are unlikely to change by 2035. To effectively respond to large-scale threats, quickly developing threats, or both, the United States will require forward presence in the region and greater defenses and support along the Second Island Chain, which stretches from the islands of Japan to Guam and then beyond Palau.

The services are also developing and testing operational concepts where forces are distributed for

[29] Kristin Huang, "South China Sea: Beijing Ramps Up Drills and Tests Its Ability to Seize an Island," *South China Morning Post*, September 9, 2021.
[30] Thomas J. Shattuck, "Assessing One Year of PLA Air Incursions into Taiwan's ADIZ," *Global Taiwan Brief*, Vol. 6, No. 20, October 20, 2021.

survivability but can still mass effects on adversary forces. These include the U.S. Air Force's (USAF) ACE, the U.S. Marine Corps (USMC) EABO, the U.S. Navy's (USN's) DMO, and the U.S. Space Force's (USSF) concept of proliferated low-earth orbit (PLEO).

In tandem, the Army is developing concepts to operate in a contested environment. MDTFs have a core, the MDEB, which combines ISR, cyber, space, and electronic warfare capabilities. The Army seeks to employ smaller multi-domain cells created from this core and the MDTF's LRPF and air defense capabilities across the theater as forward presence and response forces in a crisis.

Anything fixed in place or readily targeted because of a large signature is at serious risk, not only directly from the initial volleys of a war from China's deep inventory of land-attack missiles and surface-to-air missiles but over time as predictable flows of supplies and reinforcements also are targeted. It will be extremely difficult for the U.S. Joint Force to flow large numbers of forces or even resupply before or during the early stages of the war. The access and denial challenges are significant for the United States, but they are not insurmountable.

To a very large degree, what is in theater is what the Joint Force will have available at the outset of conflict in this contested environment. Air defense systems will grow in sophistication and effectiveness, but they will also have to cope with weapons launched in waves of large numbers. Overall, the advantage goes to systems that are hard to locate, have a modest logistics footprint, are available in

EMERGING JOINT OPERATING CONCEPTS

Consolidated military forces that are either fixed or with limited mobility present attractive targets for Chinese anti-access capabilities. Thus, each service is developing operating concepts that have smaller force footprints and disaggregated capabilities, all dispersed but connected across a wide operating area. In doing so, they hope to increase the cost of Chinese strikes and avoid single points of failure. Dispersal, however, comes at the cost of efficiency, placing a greater burden on logistics, communications, and C2.

USAF AGILE COMBAT EMPLOYMENT (ACE):

Fighter, ISR, and refueling aircraft and their support disperse from primary, large air bases to operate across clusters of airfields with varying austerity.

USN DISTRIBUTED MARITIME OPERATIONS (DMO):

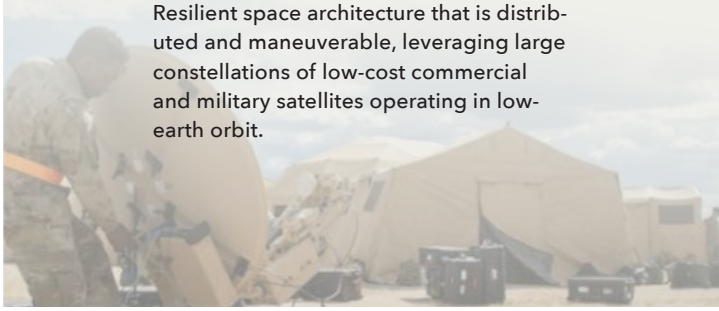
Smaller, linked unmanned and manned surface and undersea platforms coordinate ISR, targeting, weapons delivery, and other missions across wide geographic areas.

USMC EXPEDITIONARY ADVANCED BASING OPERATIONS (EABO):

Small, low signature units—each focused on either littoral combat, logistics, or anti-air missions—operate across temporary locations and are supported by DMO.

USSF PROLIFERATED LOW-EARTH ORBIT (PLEO):

Resilient space architecture that is distributed and maneuverable, leveraging large constellations of low-cost commercial and military satellites operating in low-earth orbit.



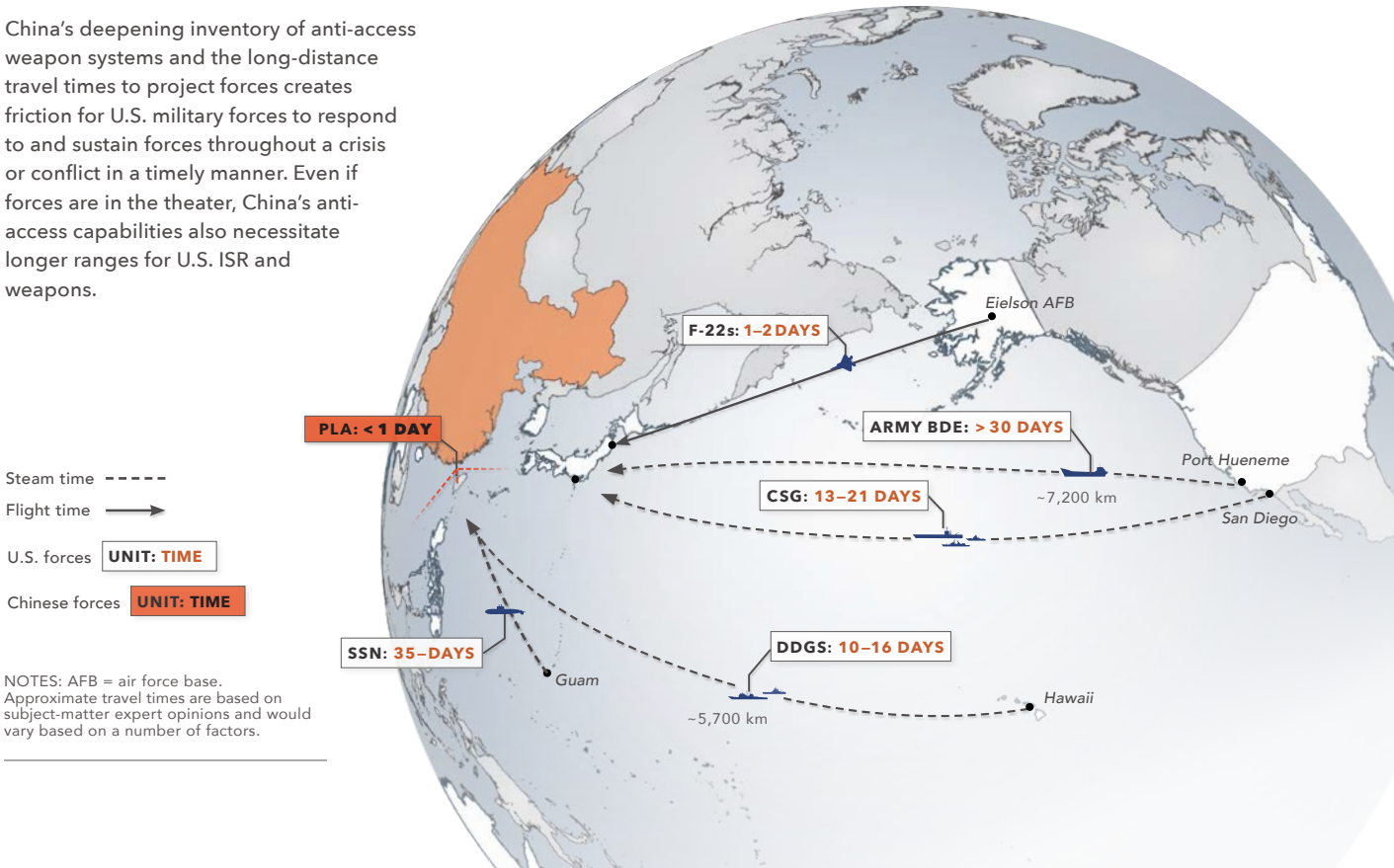
large numbers, and do not rely on near-constant updates from networks.

The Joint Force is seeking to reduce its vulnerability through not only more-distributed operations but also longer-range precision weapons delivered from outside the areas of densest Chinese missile coverage. Each delivery method, however, comes with strengths and trade-offs. Surface naval vessels and bombers can fire large salvos of munitions, but as high-value targets, they typically must station far away, limiting their responsiveness. Submarines and other undersea platforms are hard to find but can carry only limited weapons before requiring reloading. Land-based fires can use terrain to increase survivability and, if positioned forward, can provide more-responsive strikes on time-sensitive targets. The Indo-Pacific's primarily maritime geography, however, limits where these ground-based fires can range adversary targets and complicates maintaining deep magazine depth.

Survivability, responsiveness, and magazine depth are not the only hurdles that the Joint Force will face. The vulnerability of networks and space-based systems is well documented at every level of classification. As U.S. forces pursue more-distributed concepts, the reliance on these vulnerable assets for support will continue to increase. As noted in the 2021 DoD China Military Power report, China will contest space, cyber, and the electromagnetic spectrum, complicating ISR, targeting, and coordination among U.S., allied,

THE "TYRANNY OF DISTANCE"

China's deepening inventory of anti-access weapon systems and the long-distance travel times to project forces creates friction for U.S. military forces to respond to and sustain forces throughout a crisis or conflict in a timely manner. Even if forces are in the theater, China's anti-access capabilities also necessitate longer ranges for U.S. ISR and weapons.



NOTES: AFB = air force base. Approximate travel times are based on subject-matter expert opinions and would vary based on a number of factors.

Overall, the advantage goes to systems that are hard to locate, have a modest logistics footprint, are available in large numbers, and do not rely on near-constant updates from networks.

and partner militaries. These degradations will make it difficult to find, identify, track, and guide weapons to key targets, particularly if U.S. forces operate from long ranges for survivability. China will also likely employ decoys or present large numbers of possible targets, stressing already limited U.S. munition inventories. AI and advanced autonomy could improve the ability of U.S. weapons to discriminate higher-value targets among the clutter. Such capabilities, however, can be used by one's adversary to create more-complex deceptions.

The challenges that the U.S. military faces in the Indo-Pacific region are numerous and complex. As we look forward to 2035, emerging trends likely will continue to complicate the regional environment in which the U.S. military and U.S. Army will operate to support U.S., allied, and partner interests. To address the challenges ahead, the U.S. Army must support and seek support from all the levers of national government to bolster deterrence and ensure freedom of operations in the region. ◆

PHOTO: I Corps soldiers arrive at Anderson Air Force Base, Guam, for the Forager 21 exercise, July 10, 2021. The exercise focuses on the U.S. Army's capability to rapidly deploy personnel and equipment to project power in the Indo-Pacific region. (Sgt. David Resnick/U.S. Army)

Chapter 2

An evolving operational environment, described in Chapter 1, also sits within a broader landscape involving U.S. allies and partners in the Indo-Pacific. That landscape plays an especially prominent part for the U.S. Army and Joint Force and how they work alongside allies and partners, such as Japan and India.

The 2022 U.S. Indo-Pacific Strategy emphasizes the need for unprecedented cooperation with regional allies and partners to build the collective capacity to respond to (1) emerging challenges and (2) China's desire to reshape regional rules and norms at the expense of other countries in the theater.

The strategy focuses on a concept of integrated deterrence—using all levers of national power to build and pursue "strong and mutually reinforcing coalitions" with U.S. allies and partners to build resilience against political coercion, strengthen coalitions, advance development and economic integration, and respond to climate change and pandemic threats.[31]

Supporting these efforts is the strategy's call to bolster Indo-Pacific security. But for the U.S. military to support regional security challenges, it must do so with an understanding of strategic trends shaping the theater, including allies' and partners' priorities and initiatives.

Such understanding forms the bedrock for the relationships that undergird the U.S. Joint Force's interoperability with other Indo-Pacific forces during operations in competition and conflict. Access and freedom of operations will continue to prove critical to enabling joint operations because of the region's expanse and largely maritime environment.

[31] Joseph R. Biden, Jr., *Indo-Pacific Strategy of the United States,* White House, February 2022.

PHOTO: Philippine army soldiers participate in a live fire exercise with U.S. Army soldiers during joint training exercise Balikatan 2015 at Fort Magsaysay, Philippines. Bilateral training exercises improve the readiness of both armed forces, help maintain a high level of readiness, enhance military-to-military relations and combined combat capabilities. (Spc. Steven Hitchcock/U.S. Army)

Allies and Partners

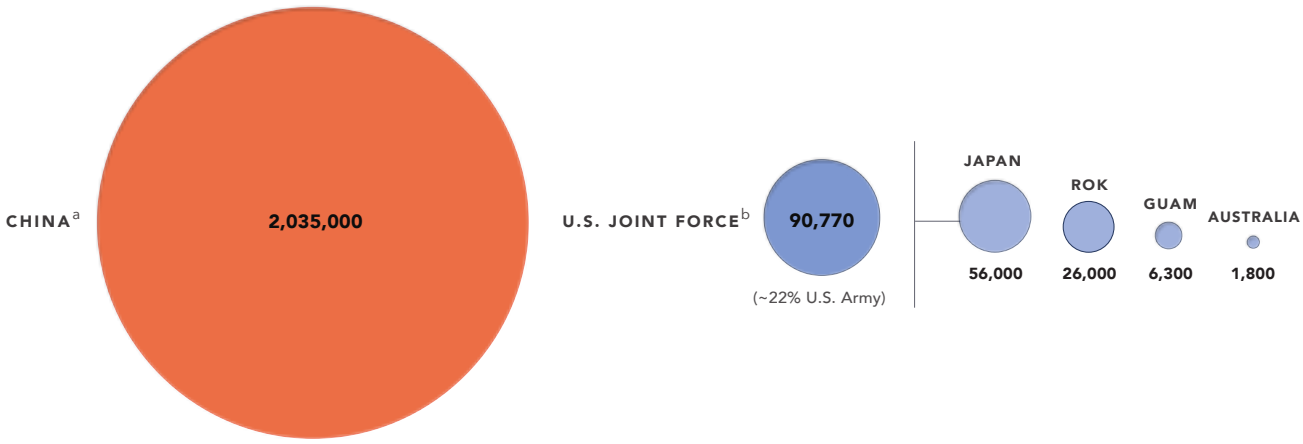
Strengthening Relationships and Building Capacity

Unlike in Europe, where the North Atlantic Treaty Organization (NATO) brings together allies under shared security interests, U.S. military alliances and partnerships in INDOPACOM are primarily linked through a web of bilateral relationships. Such efforts as the Quadrilateral Security Dialogue between the United States, India, Japan, and Australia and multinational exercises potentially might thicken the web's strands, but it is unlikely that there will be significant multilateral security arrangements in the theater by 2035. Despite this, the emerging integrated deterrence concept reinvigorates attention toward a key strength of the United States: its global network of allies and partners. For the military, strong alliances and partnerships rest on a foundation of military-to-military relationships and interoperable capabilities. While DoD conducts significant activities in the region, a whole-of-government approach is required to foster military access and aligned security goals.

U.S. MILITARY PRESENCE ON ALLIED AND PARTNER TERRITORY

Despite having five treaty allies in the region, the United States enjoys a permanent presence only on two of them. The largest U.S. presence is in Japan, which is home to about 56,000 active-duty U.S. service members, including 2,500 Army personnel. The second-largest presence is in Republic of Korea (ROK), which hosts about 28,500 active-duty personnel and DoD civilians,

APPROXIMATE CHINESE AND U.S. JOINT ACTIVE-DUTY FORCES IN THE INDO-PACIFIC, 2021



SOURCES: Active Duty Master File, Reserve Common Components Personnel Data System, Defense Manpower Data Center (DMDC), "Number of Military and DoD Appropriated Fund Civilian Personnel Permanently Assigned: By Duty Location and Service/Component," September 30, 2021.

[a] Estimate represents active duty forces on mainland China. They do not include Chinese paramilitary forces (national guard, border troops, etc.) estimated at 660,000. While there are no public estimates of the current number of Chinese forces on the Spratly and Paracel Islands, the islands have housing and facilities indicating some level of military presence.

[b] Estimate represents active duty forces in the INDOPACOM AOR. The DMDC data only reflect personnel who are permanently assigned for duty at these locations. Starting in December 2017, the data no longer include personnel on temporary duty or deployed in support of contingency operations. These are forward-stationed active duty Army personnel.

the vast majority of whom are in the U.S. Army. Although Australia is home to joint facilities, such as Pine Gap, it does not host any permanent U.S. presence; rather, it hosts approximately 1,800 troops, mainly U.S. marines who are stationed in the country on a rotational basis. Although the United States routinely sends troops to train bilaterally with military counterparts in Thailand and the Philippines, there are no permanently deployed U.S. military units stationed in those countries.

Allied and partner willingness to support U.S. force presence and operations is not guaranteed in peacetime, crisis, or conflict, because each country has its own priorities, stakes, and threat perceptions that may not always align with those of the United States.

There are also non-treaty allies that are home to small U.S. military units. For example, the U.S. Navy maintains a logistical command unit, the Logistics Group Western Pacific, in Singapore, and conducts ongoing rotational deployments of littoral combat ships and P-8 Poseidon aircraft in the city-state. Also, while Palau, a member of the Compact of Free Association with the United States, hosts only a small rotational USMC task force called Task Force Koa Moana, Palauan leadership have publicly welcomed a bigger U.S. presence.[32]

Access and Freedom of Operations

Arguably, for the Joint Force to operate effectively in the theater, access to and freedom of operations in regional partners' territory, airspace, and military facilities will be critical. Allied and partner willingness to support U.S. force presence and operations, however, is not guaranteed in peacetime, crisis, or conflict because each country has its own priorities, stakes, and threat perceptions that may not always align with those of the United States.

In such countries as Australia, Japan, and ROK, the United States already bases troops during peacetime—either permanently or rotationally—and shares Status of Forces Agreements (SOFAs) with these countries. In the Philippines, an Enhanced Defense Cooperation Agreement (EDCA) enables the United States to have rotational military presence, but access is limited to five specified Armed Forces of the Philippines (AFP) bases.[33] Thailand also grants the United States access to Sattahip Naval Base and the U-Tapao Air Base, an important logistics hub for U.S. forces, but this access is not guaranteed.[34] In the past, Thailand has refused access for some non-combat U.S. operations, such as humanitarian relief to the Rohingya ethnic group in Myanmar during that country's 2015 ethnic cleansing campaign.[35]

There are also agreements elsewhere with non-treaty partners that define U.S. access in peacetime. For example, Singapore grants U.S. access to Changi

[32] Philip Regina, "President of the Republic of Palau," U.S. Army, April 5, 2022.
[33] United States and Republic of the Philippines, Agreement Between the Government of the Republic of the Philippines and the Government of the United States of America on Enhanced Defense Cooperation, Quezon City, April 28, 2014.
[34] Royal Thai Embassy, "Government Expanding U-Tapao Airport to Boost Logistics," press release, April 18, 2016; and Emma Chanlett-Avery, Ben Dolven, and Kirt Smith, *Thailand: Background and U.S. Relations*, Congressional Research Service, IF10253, updated June 17, 2020.
[35] Jittipat Poonkham, "The Bamboo Breaks: Thailand's Diplomatic Challenge," blog post, University of Melbourne, September 10, 2021; and Zachary Abuza, "America Should Be Realistic About Its Alliance with Thailand," *War on the Rocks*, January 2, 2020.

AGREEMENTS, TREATIES, AND PARTNERSHIPS

THE UNITED STATES' formal agreements and national rules and regulations in the Indo-Pacific region are mechanisms that could help increase the likelihood of military access and freedom of operations. These include mutual defense treaties, logistics and intelligence cooperation agreements, training and technology exchange arrangements, or SOFAs. Political context, however, will dictate how these agreements are applied at a given time.

MDT MUTUAL DEFENSE TREATY
This form of agreement commits countries to provide mutual military aid if either faces external armed attack.

SOFA STATUS OF FORCES AGREEMENT
These agreements generally establish a framework under which U.S. military personnel operate in a foreign country.

CLSSA COOPERATIVE LOGISTICS SUPPLY SUPPORT AGREEMENT
As part of overall defense cooperation between two militaries, these agreements create frameworks for countries to provide logistical support for one another.

CHINA's partnerships are rooted in a non-alliance policy: Only one official ally has a mutual defense clause with China—North Korea. Nonetheless, China has made diplomatic strides to grow a network of various strategic partnerships across the globe and Indo-Pacific region that scale in significance from "friendly cooperative" to "comprehensive strategic partnerships." This network is still incommensurate to U.S. alliances but can provide a means to counter U.S influence and pressure, maintain stability in China's backyard, and possibly provide China a foundation to create an alliance in the future. The focus of the table at right is on this highest level of partnership:

CSP COMPREHENSIVE STRATEGIC PARTNERSHIPS
This form of partnership entails the full spectrum of economic, political, and military cooperation and coordination on regional and international affairs.

SOURCES: Compiled from U.S. Department of State, "Treaties in Force," webpage, undated; R. Chuck Mason, *Status of Forces Agreement (SOFA): What Is It, and How Has It Been Utilized?* Congressional Research Service, RL34531, March 15, 2012; Quan Li and Min Ye, "China's Emerging Partnership Network: What, Who, Where, When and Why," *International Trade, Politics and Development*, Vol. 3, No. 2, 2019.

Formal ally U.S. CHINA

	UNITED STATES			CHINA
	MDT	SOFA	CLSSA	CSP
AUSTRALIA	X	X	X	
JAPAN	X	X	X	
KOREA	X	X	X	
PHILIPPINES	X	X	X	
THAILAND	X		X	X
PALAU		X	X	
MARSHALL IS.	X	X		
MICRONESIA	X	X		
SINGAPORE		X	X	X
MONGOLIA		X	X	
BRUNEI		X	X	
MALAYSIA		X	X	X
MALDIVES		X	X	
PAPUA NEW GUINEA		X	X	
SRI LANKA		X	X	
INDIA			X	
TONGA			X	
NEW ZEALAND			X	
BANGLADESH		X		
SOLOMON IS.		X		X
TIMOR-LESTE		X		
CAMBODIA		X		X
NEPAL			X	
SAMOA			X	
INDONESIA			X	X
NORTH KOREA				X
LAOS				X
VIETNAM				X
MYANMAR				X
NIUE				
TUVALU				
BHUTAN				
COOK ISLANDS				
FIJI				
KIRIBATI				

Naval Base and Paya Lebar Air Base, but all ship and aircraft requests for those venues require diplomatic clearance requests.[36] The United States enjoys a Logistics Exchange Memorandum of Agreement (LEMOA) with India, which grants the United States access to Indian naval and air bases for logistics support, refueling, and services.[37]

ACCESS BEYOND PEACETIME

In a contingency, the ability of the United States to access and operate from allied and partner territory for combat operations will likely become more difficult

Allies and partners might choose to hedge to avoid escalation during a crisis, not allowing additional U.S. forces or operations on their territory until Chinese kinetic strikes occur.

depending on whether that country is attacked or its vital interests are at stake. Allies and partners, however, might choose to hedge to avoid escalation during a crisis, not allowing additional U.S. forces or operations on their territory until Chinese kinetic strikes occur. Such 11th-hour force requests could place significant constraints on U.S. deployments.

In addition, if the United States requests access to conduct combat operations in defense of another state, the United States will find very few countries willing to concur with a few possible exceptions. As operations from their territories make them a target, allies and partners could request additional protection from the United States, such as air and cyber defenses.

AUSTRALIA As an ally that has fought in every major war alongside the United States, Australia recently signed a new military agreement that expanded U.S. access to its northern military facilities, not specifying that access is expected only in peacetime. That said, no combat access would be approved without Australian concurrence.

PACIFIC ISLANDS Access to facilities in Palau is likely because the country's leadership has openly offered to host new U.S. military facilities, including ports and air bases. Although it is not explicitly stated, Palauan concurrence would likely be necessary for combat operations to be launched directly from Palau's shores. Palau, along with the Republic of the Marshall Islands and Federated States of Micronesia, are also signatories to the Compact of Free Association with the United States.[38] The Compact allows the United States to operate armed forces on their territories, after negotiation, in exchange for protection.

JAPAN For Japan, much will depend on how Tokyo defines an unfolding situation. If it views a situation as only having an important influence on Japan's security, then U.S. access could be restrained. If, however, Tokyo defines a situation as a threat to Japan's survival, then access is more likely assured. That said, like Australia, if Japan is not attacked, according to a 1960 Exchange of

[36] U.S. Department of State, "U.S. Security Cooperation with Singapore," fact sheet, last updated August 10, 2022.
[37] Ankit Panda, "India, US Sign Logistics Exchange Agreement: What You Need to Know," *The Diplomat*, August 30, 2016.
[38] U.S. Department of the Interior, "Compacts of Free Association," webpage, undated; USCompact.org, "About the Compact of Free Association," webpage, undated.

Notes about the implementation of their security treaty, the United States agreed to engage in "prior consultation" with Japan if it seeks to use its forces from its bases in Japan for combat operations not directly related to the defense of Japan.[39]

THAILAND, INDIA, SINGAPORE The response of Thailand, India, and Singapore is more uncertain given their penchant for balancing relations between great powers or seeking neutrality. Thailand, for example, despite being a treaty ally that grants the United States access to Sattahip Naval Base and U-Tapao Air Base, has refused access for U.S. operations in the past. Singapore, despite the U.S. Navy maintaining a logistical command unit at Sembawang Wharf and being granted access to Changi Naval Base and Paya Lebar Air Base, requires that all ship and aircraft submit diplomatic clearance requests, which Singapore could reject if it seeks to avoid involvement in a regional conflict.[40] In spite of the existence of the LEMOA, it is uncertain whether India would allow the United States to exercise this agreement during a wartime situation in which India is not involved.

ROK, PHILIPPINES, INDONESIA, VIETNAM Other states, including treaty allies ROK and the Philippines and such important regional partners as Indonesia and Vietnam, are unlikely to grant the United States access to military facilities to conduct combat operations in defense of another actor. This reluctance stems from a desire to avoid entrapment in a regional conflict not related to their own security and long-standing efforts to seek neutrality or balance in their economic and security relations with the United States and China. ROK is home to a permanent U.S. presence, but because these units are assigned to ROK and are there to defend the host nation, their deployment for combat elsewhere would need to consider the risk of decreased defenses on the Korean Peninsula and political relations with ROK.

Overall, access and freedom of operations in allied and partner territory are foundational conditions for the Army to conduct military activities in peacetime and in conflict, given the range, capabilities, and nature of Army operations. Geography and terrain will remain driving factors in military planning, even with the technological developments that will emerge in the 2035 time frame. Access and freedom of operations, however, are political decisions made by host governments. Thus, diplomatic negotiations and other engagement by the U.S. Department of State and other governmental bodies are critical enablers for Joint Force deterrence and combat operations.

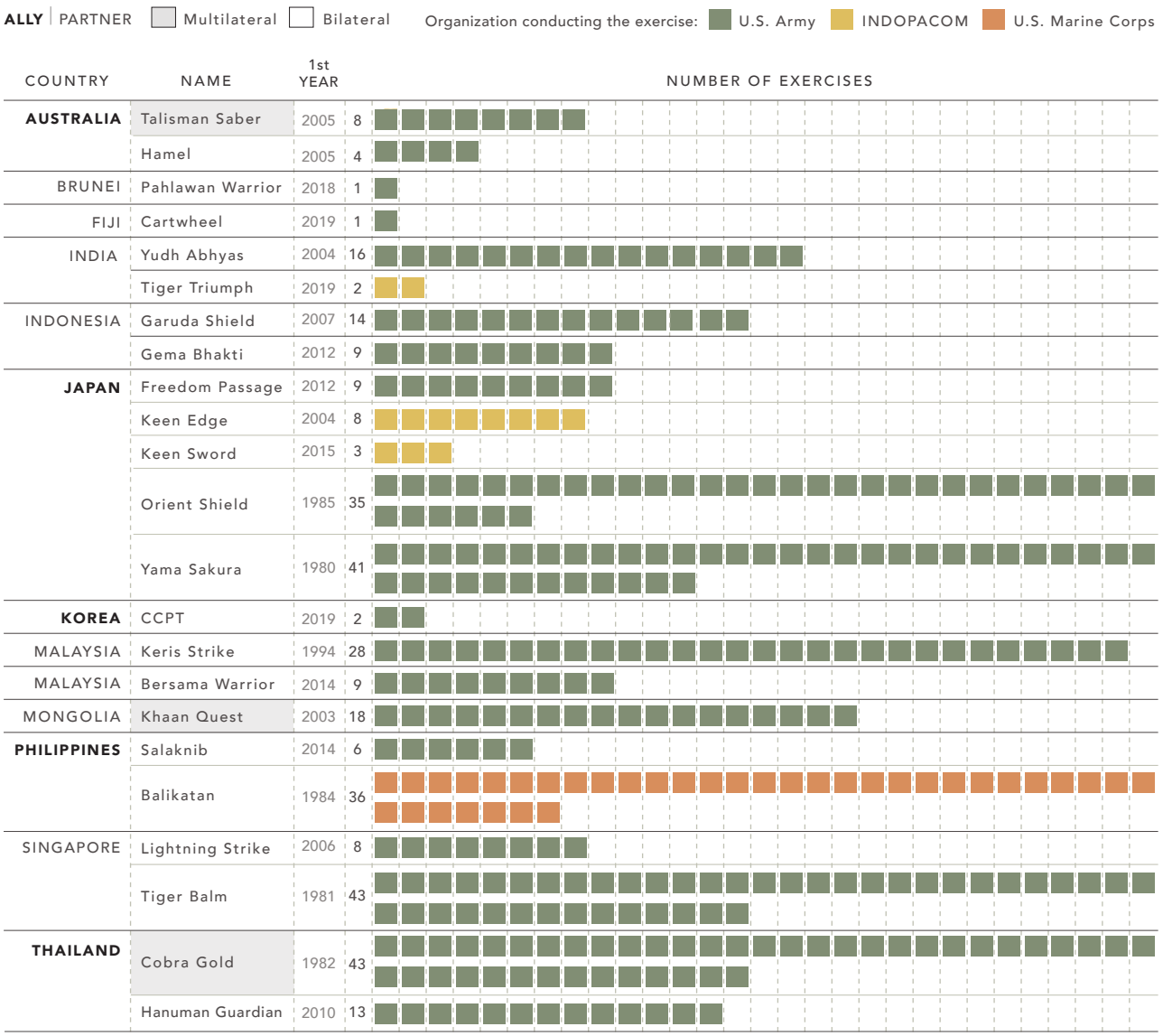
Relationships and Security Cooperation Activities

MILITARY EXERCISES

Military-to-military relationships are key to advocating for and realizing the benefits of access and freedom of operations. In 2014, the Pacific Pathways exercise series began linking existing

[39] Jeffrey W. Hornung, *Japan's Potential Contributions in an East China Sea Contingency*, RAND Corporation, RR-A314-1, 2020.
[40] Dewey Sim, "Singapore Renews Military Bases Pact with US Amid Deepening Defence Ties with China," *South China Morning Post*, September 14, 2019.

SELECT INDO-PACIFIC EXERCISES INVOLVING THE U.S. ARMY AS HOST OR LEAD SERVICE (1980–2021)



SOURCE: Data from authors' discussions with U.S. Army Pacific (USARPAC) G37 Exercises Division, May 2022.

NOTES: CCPT = Combined Command Post Exercise. Other select ROK-US major exercises include Team Spirit (1974–1993), Foal Eagle (1997–2017), and Ulchi-Freedom Guardian (2009–2017). Large-scale exercises with ROK were discontinued in 2018 and were only resumed as this report went to publication.

exercises into a single rotation for participating units.[41] Defender Pacific, scheduled to begin in 2020 but scaled back because of the COVID-19 pandemic, will now be renamed Operation Pathways to build on Pacific Pathways' legacy. Operation Pathways will include division-level exercises

[41] Jen Judson, "Pacific Pathways in 2020 Lead to Oceania," *Defense News*, October 14, 2019.

with a greater joint focus.[42] These efforts extend forward presence of U.S. Army units in the theater and provide the INDOPACOM commander with options for contingencies. Overall, the most significant joint, multilateral, and bilateral exercises occur with five treaty allies: Japan, ROK, Australia, Thailand, and the Philippines. Exercises that include a heavy presence of U.S. Army units in the past include

JAPAN
Yama Sakura, Orient Shield, and Rising Thunder with Japan Ground Self Defense Force

ROK
Combined Forces Command exercises previously named Ulchi-Freedom Guardian, Foal Eagle and Key Resolve, and now renamed Dong Maeng, with ROK's armed forces

AUSTRALIA
Talisman Sabre with Australian Defense Forces

PHILIPPINES
Balikatan with the Armed Forces of the Philippines

THAILAND
Hanuman Guardian with the Royal Thai Army.

The United States also promotes—and participates in—several regional multilateral exercises that include these treaty allies alongside other allies and partners. This includes Cobra Gold, hosted by Thailand (about 30 countries participating); KOMODO, hosted by Indonesia (more than 30 countries participating); and Malabar, with rotating hosts (India, Japan, and twice with Australia). Importantly, such states as Japan, Australia, and India also conduct security cooperation (SC) efforts in the region that are targeted toward strategic competition. These exercises and engagements not only offer opportunities for synergy with U.S. efforts but also fill in the gaps where U.S. efforts might not reach. One such effort is Australia's Indo-Pacific Endeavour program (IPE). Since 2017, IPE has focused on engagement, training, improved interoperability, and capacity-building among Pacific Island countries.

Military-to-military relationships are key to advocating for and realizing the benefits of access and freedom of operations.

OTHER SECURITY COOPERATION ACTIVITIES

Aside from training opportunities and HADR exercises, other SC efforts include senior-level visits; official exchanges; equipment transfers and support for domain awareness capabilities; education opportunities; and support for maintenance, operations, upgrades, and technical training.

Two notable U.S. Army programs include the State Partnership Program (SPP) and the Security Force Assistance Brigade (SFAB) engagements.[43] Under SPP, National Guard units from individual states have long-term pairings with specific countries to conduct a wide variety of civil-military and SC activities. In addition, the 5th SFAB in INDOPACOM deploys small advisory teams who specialize in maneuver, field artillery, engineering, or logistics to help build partner capacity.[44]

[42] Judson, 2019.
[43] National Guard, "State Partnership Program," webpage, undated.
[44] Thomas Brading, "5th SFAB: More Missions, Fixed Indo-Pacific Presence Ahead," Army News Service, February 25, 2021.

SPP–PARTICIPATING U.S. STATES AND COUNTRIES

National Guard personnel may remain in their units for 10 to 20 years, allowing for more consistent and deep relationships with their Indo-Pacific military counterparts. Such established relationships help to foster trust needed to work together in crises and an understanding of each other's security priorities.

	YEAR ESTABLISHED
PHILIPPINES – HAWAII AND GUAM	2000
THAILAND – NEVADA	2002
MONGOLIA – ALASKA	2003
INDONESIA* – HAWAII	2006
BANGLADESH – OREGON	2008
CAMBODIA – IDAHO	2009
VIETNAM – OREGON	2012
TONGA – NEVADA	2014
MALAYSIA* – WASHINGTON STATE	2017
FIJI – NEVADA	2018
NEPAL – UTAH	2019
TIMOR-LESTE – RHODE ISLAND	2021
PAPAU NEW GUINEA – WISCONSIN	2021

SOURCE: National Guard, undated.

* Indicates countries that participated between 2014 and 2019.

In a contingency, these advisory teams can serve as liaisons between U.S. and partner forces, which can help alleviate coordination shortfalls that arise from a lack of technological interoperability.

FOREIGN MILITARY SALES

Cooperation with regional militaries extends into other areas as well, such as arms sales and SC activities. The United States has approved foreign military sales (FMS) projects with many countries in the Indo-Pacific region, though the level of activity varies dramatically. Some countries, such as New Zealand, have done very little procurement via FMS, while Japan was the largest single customer in fiscal year (FY) 2020: It had five cases, worth an estimated $27.9 billion. Taiwan, while not recognized as a country, receives regular military assistance from the United States under the terms of the Taiwan Relations Act. Recent significant acquisitions have included the High Mobility Artillery Rocket System (HIMARS), M1A2 Abrams tanks, MQ-9B unmanned aerial vehicles (UAVs), and F-16C/D aircraft.

Although China is a net exporter of military arms, it lags significantly behind the United States and Russia, which globally exported six and four times as much as China from 2010 to 2020, respectively. This trend is also reflected in the Indo-Pacific, despite the region receiving the vast majority of China's total arms sales. According to DoD, buyer hesitation likely comes from perceptions that Chinese equipment is "of lower quality and reliability," although lower prices, donations, and flexible payment options help to increase the equipment's attractiveness.[45]

Military developments among allies and partners will prove vital in the deterrence of and response to peacetime security concerns, crises, and major conflict in the Indo-Pacific. To realize integrated deterrence, however, the U.S. military must foster interoperability and relationships with allied and partner militaries, particularly as capability gaps may widen in the future because of accelerated technological trends.

[45] Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China 2021: Annual Report to Congress*, U.S. Department of Defense, 2021.

Without forward access, the Army's ability to contribute to the joint fight and thus provide a larger array of options to military and political leadership will be limited, given rapid deployment challenges and the ranges of key kinetic and non-kinetic capabilities.

A Foundational Network

Joint Force operations will be significantly degraded without the cooperation and capabilities of Indo-Pacific allies and partners. To conduct deterrent and combat missions, the U.S. military, particularly the Army, depends on foundational access to and the ability to operate within and from allied and partner territory. As of this writing, U.S. posture is weighted heavily in Northeast Asia, supplemented by rotational and episodic presence through exercises, engagements, and demonstrations elsewhere in the region. Without forward access, the Army's ability to contribute to the joint fight and thus provide a larger array of options to military and political leadership will be limited because of rapid deployment challenges and the limited ranges of key kinetic and non-kinetic capabilities. Also, military capabilities of allies and partners will prove crucial, considering the breadth and scale of possible military operations in the region.

To fully leverage the benefits of these combined capabilities, however, the U.S. Joint Force will need to foster interoperability, build partner capacity, and continue to cultivate relationships with allies and partners, roles in which the Army can offer significant contributions. Overall, the involvement of allies and partners will be the primary driver of opportunities and constraints presented to joint operations and the U.S. Army roles highlighted in the following scenarios and supporting visualizations. ◆

Chapter 3

THE SCENARIOS

IDENTIFYING U.S. ARMY ROLES IN THE INDO-PACIFIC **39**

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BEYOND THE SCENARIOS **84**

PHOTO: Waves crash over the side of a U.S. Army landing craft utility (LCU) during a training mission named Operation Spartan Mariner. (Maj. M. Gamble See/U.S. Army)

The Scenarios

Identifying U.S. Army Roles in the Indo-Pacific

The following pages lay out three possible future scenarios set in 2035 and the years leading up to them, during which the U.S. Army can perform important roles and functions as part of a joint or multinational force. These Indo-Pacific scenarios will span the continuum from day-to-day enduring rivalry to crisis and conflict. Note that the scenarios are to be viewed as a set, crafted to present plausible operational problems, constraints, and an array of possible Army contributions.

The highlighted roles are organized within the themes of this report's overarching role framework:

1) **the Army's role as foundational joint enabler**
2) **the Army's role in the joint kinetic fight**
3) **the Army's role while strengthening and leveraging relationships.**

The three scenarios are hypothetical projections of future possibilities. They are not predictions. The roles, missions, and functions of the U.S. Army as part of a Joint Force summarized in the three framework themes described previously are therefore contingent on several factors and conditions. One critical contingent factor is *posture*, the political decisions by allied and partner countries in the region that define the type of access that the U.S. Army has. Another contingent factor is capability developments. In the scenarios, it is assumed that the U.S. Army and Joint Force priorities and plans for modernization (e.g., new mid- and long-range fires and low-cost, reusable, and expendable UAVs) have reached full operational capability. In conjunction with military modernization, the final factor is the future trends—as outlined in prior chapters—that encapsulate military technology, the geopolitical environment, demographics, and climate change, which will shape the future operational environment.

These contingent elements are woven throughout the events, actions of actors, military capabilities, and conditions depicted in the scenarios and supporting visualizations and infographics. ◆

Scenario Overview

We constructed the following plausible scenarios to incorporate an array of operational problems and constraints, providing a wide exploration of possible Army roles in the theater. For example, we sought to vary geographic location, emphasis throughout the competition-conflict continuum, access and freedom of operations within and from allied and partner territory, overall U.S. objectives, and potential demands on the Joint Force. These scenarios, however, are not meant to be predictive or evaluated individually. They serve both to provide a common frame of reference for our research and to establish a concrete narrative structure for our readers to understand Army roles.

(Key assumptions for each scenario are on pp. 90–93.)

LOCATION OF SCENARIOS

SCENARIO 1

Distant Border Clash

COMPETITION, CRISIS

The first scenario—Distant Border Clash—covers a broad swath of time during competition between the present day and 2035. Rising tension simmers between India and China over a 13-year period across their contested border region, culminating in a crisis in the contested province of Aksai Chin. China sees the region as a strategic corridor for access into Tibet, while India seeks to halt Chinese encroachment into other northern Indian regions. In this scenario, the U.S. Army participates in important partnership activities with the Indian Defense Forces during the competition phase. During the crisis phase of the scenario, when Chinese and Indian military forces are engaged at the Aksai Chin border, the U.S. Army provides important supporting assets and capabilities to the Indian Defense Forces. The Army's support, however, is constrained by Indian reticence to allow significant U.S. military presence on its territory, necessitating a reliance on lower-visibility capabilities.

SCENARIO 2

Coercive Belligerence

COMPETITION, CRISIS, PRE-CONFLICT

Scenario 2 shifts operational focus to a South China Sea (SCS) crisis involving an belligerent China acting aggressively against island features claimed by both China and the Philippines. The scenario opens after increasing tensions erupt and an opportunistic China occupies the Second Thomas Shoal with "civilian" fishing vessels, which, in reality, are military vessels posing as civilian ones. The crisis mounts as both sides begin posturing military forces. The Philippines, however, is initially reticent to allow additional U.S. military presence—that is, until kinetic strikes begin, which necessitate a rapid U.S. deployment. Initially, the U.S. Army provides key liaison, ISR, cyber, and space support. Once the Philippines welcomes U.S. combat actions, U.S. Army rotary-wing aviation, long-range fires, and unmanned aerial ISR degrade China's air defenses, assist the Joint Force in parsing the cluttered maritime environment, and hold China's forward-deployed forces and potential reinforcements at risk.

SCENARIO 3

Multi-Region Conflict

COMPETITION, CRISIS, CONFLICT

Scenario 3 combines a Chinese military invasion of Taiwan with a military crisis on the Korean Peninsula, erupting nearly simultaneously. Combining these two stressing scenarios helps to illuminate not only key tensions that would arise in supporting both but also allows for direct comparison between the demands for Army capabilities. During the scenario, while the U.S. Joint Force defends Taiwan against the Chinese invasion, a Democratic People's Republic of Korea (DPRK) air defense system shoots down a Republic of Korea (ROK) fighter aircraft in the Yellow Sea. This DPRK action causes an escalatory spiral in which DPRK, ROK, and the United States posture military forces to try to force concessions and de-escalate the crisis in their favor. In this scenario, the U.S. Army plays a fundamentally critical role in enabling the joint operations in the straits to defend Taiwan through sustainment operations in Japan and across the theater. Likewise, as the Korean Peninsula crisis escalates, the U.S. Army emerges as uniquely qualified to play a leading role on the peninsula, which also allows the Pacific Joint Force Commander to apply greater focus and resources on the Taiwan conflict.

Scenario I

Distant Border Clash

COMPETITION AND CRISIS IN THE AKSAI CHIN REGION

Distant Border Clash explores how the U.S. Army can develop military relationships with emerging partners in competition and provide non-combat support during crisis with limited or no access.

COMPETITION: 2023–2033

Straddling northeastern India and southwestern China, the mountainous Aksai Chin region is an area of accelerating strategic competition between New Delhi and Beijing. Both this simmering border dispute and a growing distrust of China's BRI around India's periphery help prolong the rule of the nationalist Bharatiya Janata Party (BJP) in New Delhi. By 2024, BJP leaders declare a national strategy to more assertively protect Indian territorial sovereignty and actively resist Beijing's creeping expansion into New Delhi's sphere of influence. This strategy extends to tentatively strengthening ties with the Quadrilateral Security Dialogue ("the Quad"), which includes the United States, Australia, India, and Japan, as a counterbalancing force.

Throughout the 2020s, increased Chinese arms sales to and BRI activities in Pakistan—coupled with Indian pressure on Sri Lanka to limit the PLA Navy's (PLAN's) access to its ports—further inflame regional tensions. Brawls, raids, and near-fatal clashes increasingly characterize exchanges between the Indian military and PLA units along the Line of Actual Control (LAC). China builds new, hard-surface road networks that inch closer to the contested Aksai Chin territory. Much to India's alarm, these routes facilitate the PLA's year-round, all-weather movement into and throughout the area.

Through the Quad, India approaches the United States for assistance in bolstering its military deterrent. The United States responds by selling additional AH-64E attack helicopters, AGM-84 anti-ship missiles, and P-8 maritime patrol aircraft to the Indian military. Moreover, both countries formalize the Tiger Triumph exercises between their armies, navies, and air forces, while the Quad members' Malabar naval drills similarly expand. The U.S. Army also provides its Indian partners with advanced training in rotary-wing aviation, and counter–improvised explosive device (C-IED) and counter–unmanned aircraft system (C-UAS) tactics, and both armies hone combined arms maneuver approaches in cold climatic conditions during the Yudh Abhyas exercises. New Delhi's long-standing defense ties with Moscow, however, strain the burgeoning U.S.-Indian defense relationship. Of particular concern for Washington is the expansion of joint Russo-Indian production of the BrahMos cruise missile and Indian acquisition of multiple S-400 surface-to-air missile (SAM) systems.

By 2030, the PLA's posture in the Aksai Chin balloons as infantry, special operations forces (SOF), UAVs, and even short-range ballistic missiles (SRBMs) rotate or permanently deploy to the area. New Delhi petitions the U.S. military for ISR

Key scenario assumptions are on p. 90. References are on pp. 113–114.

VISUALIZATIONS ON PP. 46–49

support with monitoring the LAC and the wider Aksai Chin region in hopes of increasing warning time for a potential PLA offensive. India also permits the U.S. Army to conduct brief, non-combat rotational deployments to its northeastern regions.

Although these exercises are focused on executing HADR missions and testing the LEMOA, they provide the U.S. and Indian armies with additional training opportunities in large-scale logistics, combat engineering, and coordinated unit maneuver through complex terrain. However, India rejects U.S. offers to deploy combat units onto its soil, seeking to maintain its "strategic autonomy" approach to combat operations and military strategy.

CRISIS: 2035

PLA soldiers periodically harass Indian troops stationed along the LAC until the Chinese Communist Party (CCP) issues an ultimatum to the defenders in 2035: *India must leave its LAC fortifications or be evicted by force.* When India refuses to comply, the PLA targets them with high-powered microwaves and UAV-launched riot-control aerosols. Although these engagements are non-lethal, they severely disorient the Indian defenders. New Delhi responds by deploying UAVs to identify targets for kinetic artillery strikes against the PLA's directed-energy (DE) weapons. The U.S. Army's ISR capabilities, particularly networked high-altitude balloons and UAVs—coupled with liaison support within Indian Army headquarters—help India identify, target, and strike PLA ground forces. China then launches an infantry assault into the LAC fortifications following a preparatory artillery bombardment. Unrelenting, BJP leaders refuse to concede this battle to the CCP and continue to flow forces to eastern Ladakh and along the LAC.

OPERATIONAL PROBLEMS

» REMOTELY SUPPORTING A PARTNER'S MILITARY OPERATION

Politically restricted from deploying combat units to Indian territory, the U.S. military must determine how it can best support New Delhi's military operation from afar—without encroaching on its desired strategic autonomy.

» INTEROPERABILITY CONCERNS

New Delhi's long-standing ties to the Russian defense industry will inhibit the U.S. military's willingness to fully integrate with its Indian partners; accordingly, Washington must identify ways to foster interoperability without jeopardizing its own technological advantages.

» NAVIGATING AN INACCESSIBLE AND INHOSPITABLE BATTLESPACE

Washington must leverage the Army's engineering and logistical capabilities to assist New Delhi in deploying and sustaining large combat formations within the desolate highlands of the Aksai Chin. Cold temperatures, harsh weather, and altitude acclimatization present additional challenges for both military equipment and personnel.

» INFORMATION CONFRONTATION

New Delhi views the Aksai Chin dispute not as a local issue but as the physical manifestation of a broader geopolitical struggle against Chinese hegemony. Accordingly, India explicitly requests the U.S. military's support in countering China's narrative and persuading the international community to accept its claims to the contested region.

Scenario I

Despite these violent exchanges, neither Beijing nor New Delhi shows signs of capitulation, but both sides also seek to avoid full-scale conventional or nuclear war. Furthermore, the inhospitable climate forces all combat operations to cease during the winter months and in some cases, reverses gains achieved by either combatant. U.S. leaders forecast a prolonged heated conflict in the Aksai Chin region, but nevertheless they insist on supporting their Indian partners in their efforts to halt China's encroachment.

Throughout this protracted land conflict, the U.S. Army continues to provide liaison support to assist with ISR, but also offers defensive cyber capabilities to aid the Indian military in hardening its assets. U.S. Army psychological operations (PSYOPs) units or public affairs officers also collaborate with their Indian counterparts to track and counter China's global narrative. ◆

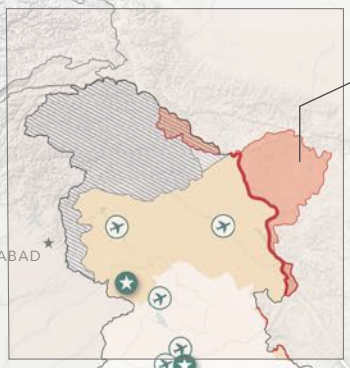
Key scenario assumptions are on p. 90. References are on pp. 113–114.

PHOTO: Srinagar-Leh Highway is one of the only two roads that connect Ladakh with the rest of India, the other being the Leh-Manali Highway, an all-weather road, estimated to complete construction by 2025. Heavy snowfall at the highest passes blocks traffic, cutting Leh from Ladakh for some six months each year. (Simon Berger/Flikr)

SCENARIO 1

Competition Phase

KEY EVENTS AND ARMY ROLES



AKSAI CHIN
About 38,000 square kilometers of uninhabited land in Aksai Chin, occupied in 1962, is still in the possession of China.

CHINA

ISLAMABAD

AFGHANISTAN

PAKISTAN

NEPAL

NEW DELHI

INDIA

BANGLADESH

DHAKA

Kolkata

MYANMAR

NAYPYIDAW

Mumbai

Andaman + Nicobar Is. (IND)

SRI LANKA

MALDIVES

MALÉ

Line of Actual Control (LAC)

Aksai Chin (China-administered, claimed by India)

Jammu + Kashmir, Ladakh (India-administered)

Kashmir (Pakistani-administered, claimed by India)

Arunachal Pradesh (India-administered, claimed by China)

★ Capital

Major Indian bases

- Command/HQ
- Army
- Air Force
- Navy
- Joint

U.S. base

600 km
125 mi

3

In mountain warfare, the use of land forces is critical in offsetting constraints on airpower (e.g., high-altitude and weather risks) and limited line of sight for aerial ISR and strikes. Both the U.S. and Indian armies have gained operational experience and learned best practices by training in extreme cold weather and terrain in Alaska and in the Himalayas during Yudh Abhyas.

4

For over ten years, the Asia-Pacific C-IED Fusion Center provided military exchanges, training events, and advisement to countries across the Indo-Pacific region. U.S. Army Pacific (USARPAC) continues to incorporate C-IED exercises in its allied and partner engagements.

KEY EVENTS: 2023–2033
(IN YEARS)

U.S. PRC India

Chronology

Depicted on infographic

1 — 2023
China completes linking the Xinjiang-Tibet Road to National Highway G219, which runs along most of the China-India border.

2 — 2024
While hosting the Quad Summit, India signals greater interest in military cooperation, referencing aggressive encroachment by China regionally.

3 — 2025
Yudh Abhyas exercise series held, focusing on combined arms maneuver in cold climate conditions.

4 — 2026
Fatal IED incidents continue to increase in Jammu-Kashmir. U.S. and India begin more intensive C-IED training and exercises.

IDENTIFIED ARMY ROLES

ROLES FRAMEWORK

ACTIVITY

- Exercise/training
- Force deployment
- Posture
- Combat operations

Annual exercise
Conditions do not support

JOINT ENABLER

JOINT KINETIC FIGHT

STRENGTHEN + LEVERAGE RELATIONSHIPS

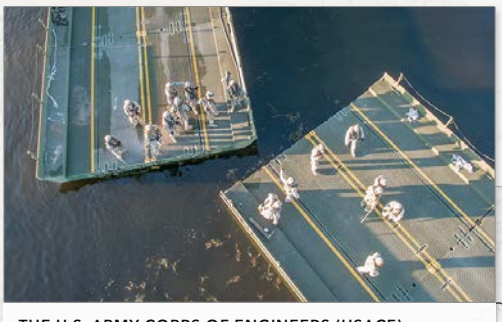
INTELLIGENCE / MDEB MI –

CYBER DEFENSE + ISR / MDEB Information Defense, Digital Liaison Detachment,

GROUND MANEUVER / Infantry Bns, Cos – Indian and

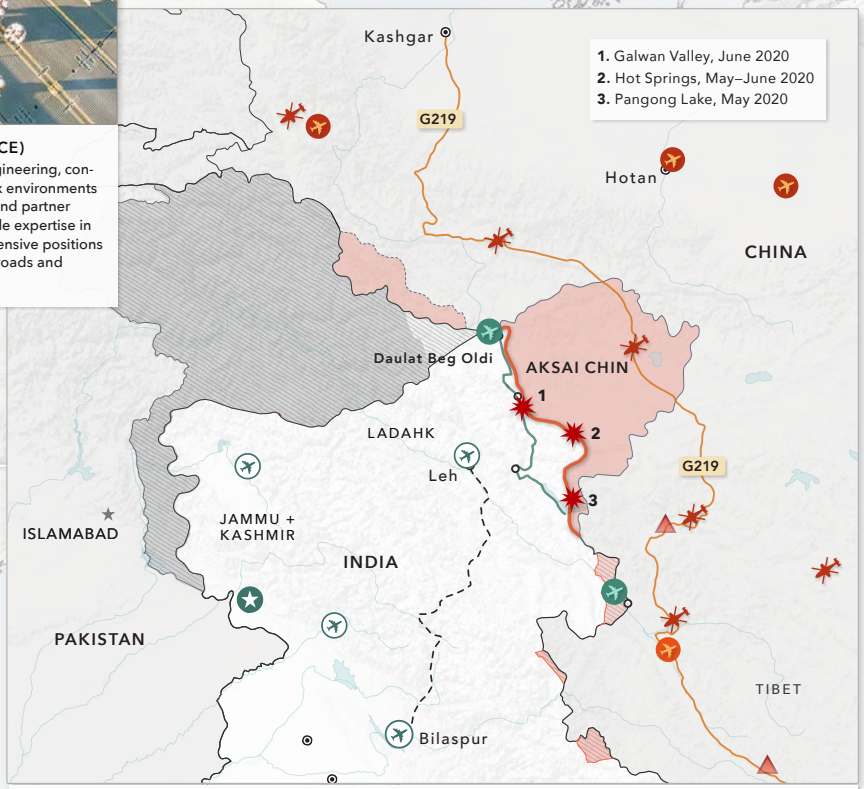
C-IED / EOD Bns, Cos – Great

SOURCES: For a list of infographic references, see pp. 113–114.
NOTE: For visualization abbreviations, see pp. 94–96.



THE U.S. ARMY CORPS OF ENGINEERS (USACE)
USACE has delivered military and civil solutions in engineering, construction, and operations in some of the most complex environments on earth. Combat engineers have worked with allied and partner forces in more than 100 countries worldwide to provide expertise in natural disaster preparation and recovery, ground defensive positions (e.g., obstacles and fortification), and military-grade roads and bridges in harsh climates and terrains.

After decades of conducting UAS operations in Afghanistan and Iraq (> 771,000 combat hours in Operation Iraqi Freedom alone), the U.S. Army has honed an ability to conduct UAS aerial ISR (A-ISR) and strike missions in austere and complex mountainous environments. Army personnel can conduct demonstrations and share UAS best practices and tactics with partners.



THE CONTESTED AKSAI CHIN REGION: A RACE TO GAIN TACTICAL ADVANTAGE
Both India and China have made a concerted effort to build up infrastructure (roads, rail, barracks, and airfields) and deploy and upgrade military capabilities near the 4,057-kilometer LAC. In an effort to gain tactical advantage and defend what each country claims as its rightful territory, the construction has sparked flare-ups between Indian and Chinese forces in the region since the 1960s. With a 3.5 times larger defense budget and a GDP six times as large, China's investment and construction of the G219 highway, helipads, and airstrips bordering India has given China a mobility advantage in the region. This has compelled India to play catch-up, building new roads, bridges, and rail lines, capable of carrying heavy military equipment, and Daulat Beg Oldi airfield, the highest-elevation airfield in the world at 16,614 feet.

Line of Actual Control (LAC) — Darbuk-Shyok-Daulat Beg Oldi road — Bilaspur Leh railway
Forward airfield — Helipad — Air defense — Recent India-PLA confrontations

5 A confrontation between Chinese and Indian forces along the LAC results in 3 Indian and 2 PRC soldiers' deaths.

6 India asks the United States for assistance in bolstering its military deterrent and defensive posture near the LAC.

7 Bangladesh–China–India–Myanmar forum talks stall under increasing suspicion by India of China's regional intentions.

8 BrahMos II missile, co-developed with Russia, reaches full operating capability.

10 UAS training and an infantry combat component included for the first time during Tiger Triumph.

9 PLA UAS detachments and SOF forward deploy to Aksai Chin; SRBMs and infantry units begin rotating in area for exercises.

11 Progress on strategic rail lines in Ladakh region stalls, impeding Indian military mobility improvement.

12 PLA conducts largest high-altitude exercise to date in Tibetan plateaus.

2027 2028 2029 2030 2031 2032 2033

LOGISTICS / Port opening, inland distribution, military police – Focus on LEMOA in support of joint combined exercise

Develop and monitor indications and warning of Chinese ground forces in the Western Military District; collected from Army/Joint ISR

ENGINEERING / Horizontal Construction, USACE – Indian and U.S. armies train together on obstacle-clearing, bridging, defensive positions, and maneuver in mountainous terrain

FMS SUPPORT / USASAC, Aviation Attack Recon and General Support Bns – Sale of AH-64E and UH-60 helicopters to Indian Air Force, with multi-year training, maintenance, and technical support

MI – Security cooperation efforts to build military cyber defense capacity

U.S. ground forces continue to exchange best practices on cold weather and arctic operations during Yudh Abhyas

er inclusion of C-IED networks and attacks training during exercises and military-to-military engagements

ROTARY-AVIATION / Aviation Attack Recon and General Support Bns – Increased scope and complexity of advanced rotary-wing aviation in high-altitude, extreme weather terrain

UAS / Gray Eagle Co, Tactical UAS Platoons – Training on UAS operations in mountainous terrain

LOGISTICS / HADR – Rotations in NE India emphasize large-scale logistics

SCENARIO 1

Crisis Phase

KEY EVENTS AND ARMY ROLES

KAZAKHSTAN
KYRGYZSTAN
MONGOLIA
AFGHANISTAN
PAKISTAN
NEW DELHI
NEPAL
BHUTAN
INDIA
HANOI
LAOS
CAMBODIA
SRI LANKA
COLUMBO
LAC

★ Capital

Major Indian bases

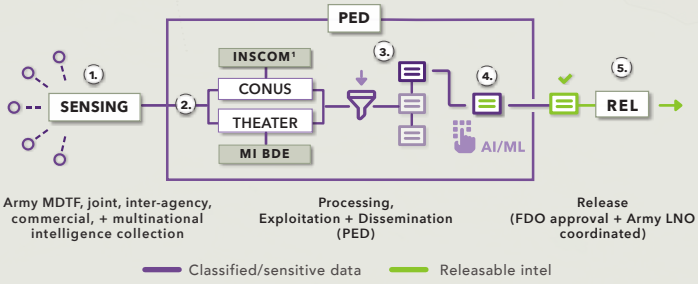
- Command/HQ
- Army
- Air Force
- Navy
- Joint

CSG
ESG

500 km
100 mi

1 4 8

FLOW OF ACTIONABLE INTELLIGENCE



Army MDTF, joint, inter-agency, commercial, + multinational intelligence collection

Processing, Exploitation + Dissemination (PED)

Release (FDO approval + Army LNO coordinated)

Classified/sensitive data — Releasable intel

ARMY MILITARY INTELLIGENCE: SHARING WITH ALLIES AND PARTNERS

Intelligence-sharing is indispensable to conducting joint and multinational global military operations. It can have a decisive effect when providing I&W to an ally or partner (see feature at right) or even to conduct counter-terrorism operations during peacetime. With an intelligence-sharing agreement in place—such as the U.S.-India BECA—the generalized process for the Army to provide NRT imagery for situational awareness and targeting information entails five basic steps: **(1)** Collection of sensor data from Army A-ISR, joint, and national-level ISR assets, **(2)** data is sent for PED in theater (e.g., 311th MI Bde or MDTF MI Co) and in CONUS (i.e., INSCOM/intelligence agencies), **(3)** data is processed and critical intelligence identified (i.e., GEOINT image), **(4)** matching imagery is pulled by a human or AI/ML and relevant intelligence added to unclassified source, **(5)** the FDO clears intel and the Army LNO coordinates release.

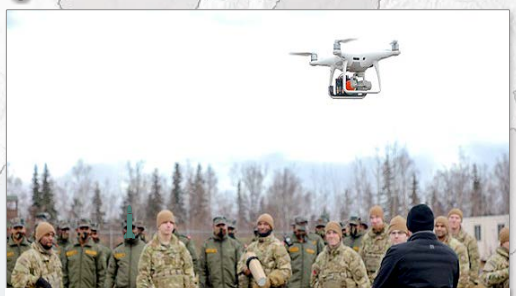
¹INSCOM PED Bn under 116th MI Bde at Ft. Gordon, GA.

OTHER U.S. POSTURE HIGHLIGHTS

GUAM
MDTF 1a, HQ (MDEB ERSE and Information Defense Companies), **Air Defense** (IFPC and Patriot Bty), **Engineering Co**
——
Heavy lift aircraft, tankers

DIEGO GARCIA
SOF Co, Composite Watercraft Co, Air Defense (Patriot Btys)
——
C-17s, C-130s, 2 AWACS, 4 B-52s, 6 4th-generation fighters

5



COUNTER–SMALL UNMANNED AERIAL SYSTEMS (C-sUAS)

As UAS technologies proliferate, these systems create new risks and challenge DoD's ability to protect and defend critical infrastructure and personnel. The U.S. Army was designated by DoD as Executive Agent for C-sUAS to lead and facilitate department-wide development of C-sUAS operational concepts and capabilities and support U.S. allies and partners. The Army has already been conducting C-sUAS demonstrations and training with the Indian Army during the Yudh Abhyas exercise series.

KEY EVENTS: 2034–2035
(IN MONTHS)

U.S. PRC India

Chronology — Depicted on infographic

1 **AUG 2034** — India and U.S. expand BECA for geospatial cooperation, allowing further coordination and support of A-ISR and navigational systems.

2 **NOV** — 20th iteration of Yudh Abhyas exercise series held; emphasis on C-sUAS training conducted.

3 **APRIL 2035** — PLA soldiers increasingly harass Indian troops stationed along the LAC, escalating tensions.

4 **MAY** — India requests U.S. Army IMINT and SIGINT for better I&W of PLA troop movements in the region.

IDENTIFIED ARMY ROLES

ACTIVITY

- Exercise/training
- Force deployment
- Posture
- Combat operations

Annual exercise
Conditions do not support

ROLES FRAMEWORK

JOINT ENABLERS

~ **INTEL DATA FUSION** / MDEB N

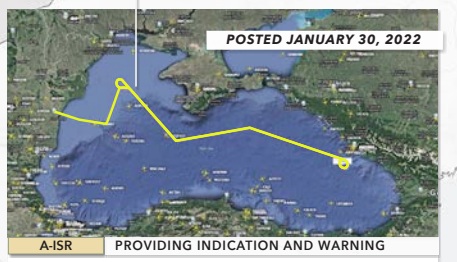
~ **INTELLIGENCE** / 500th Military

JOINT KINETIC FIGHT

STRENGTHEN + LEVERAGE RELATIONSHIPS

⋈~ **C-sUAS** / M-SHORAD, Infantry — Training Indian Army on identification and

SOURCES: For a list of infographic references, see pp. 113–114.
NOTE: For visualization abbreviations, see pp. 94–96.



A-ISR PROVIDING INDICATION AND WARNING

The Airborne Reconnaissance and Target Exploitation Multi-mission System (ARTEMIS) is a manned A-ISR prototype equipped with the High Accuracy Detection and Exploitation System (HADES), an upgraded multi-intelligence signals and collection sensing system that can detect, recognize, identify, and track threats. This capability has already demonstrated its potential by detecting and providing I&W to Ukraine before Russia's 2022 invasion. (Image: Flightradar24)

DPRK

ROK

JAPAN

4

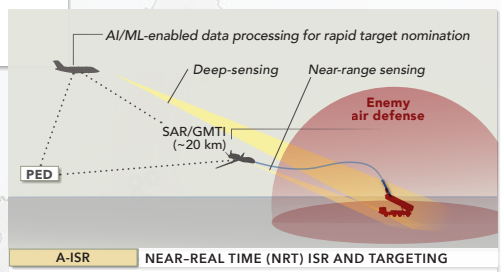
ARTEMIS

The business jet profile allows it to fly higher (~41,000 ft), longer, and faster than the U.S. Army's existing generation of ISR aircraft, and it can be perceived as a civilian aircraft.

8

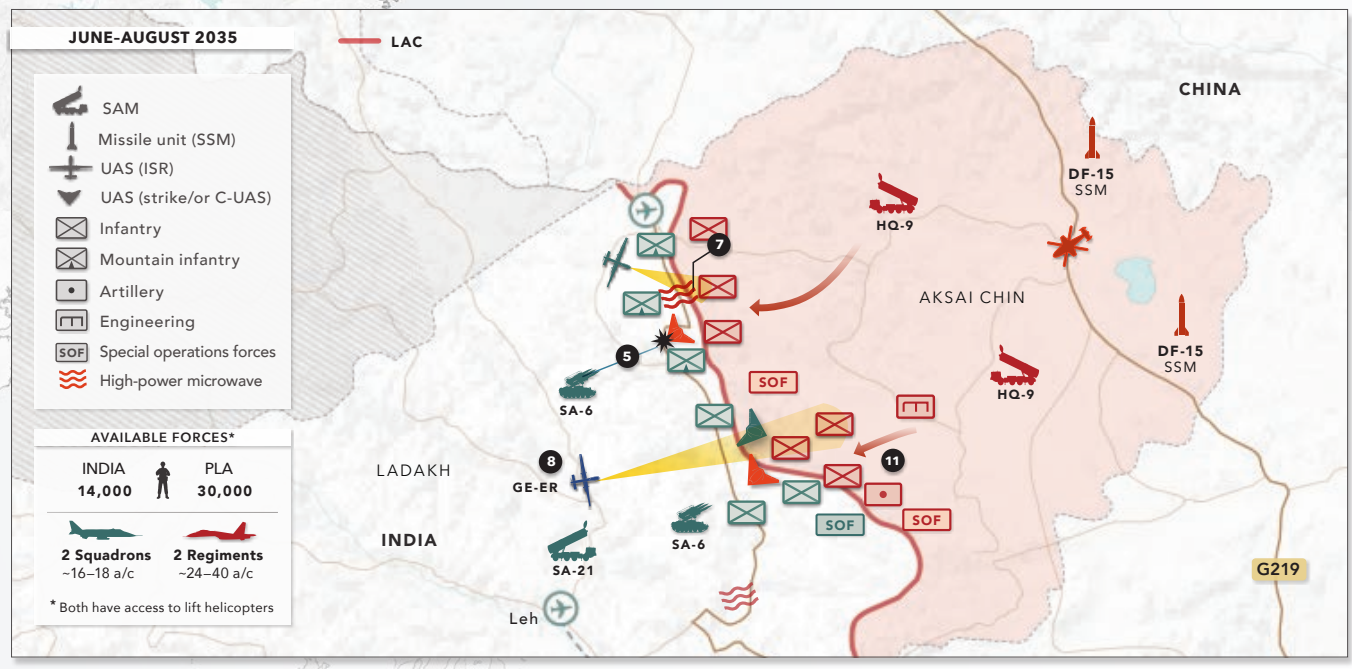
MQ-1C GRAY EAGLE-ER

The Gray Eagle-Extended Range (GE-ER) is an Army next-generation UAS with longer-range and -dwell capabilities, providing tactical persistent reconnaissance, surveillance, and target acquisition (RSTA) and can be armed with precision munitions for strike missions.



A-ISR NEAR-REAL TIME (NRT) ISR AND TARGETING

The combination of the manned HADES concept and unmanned GE-ER platform can provide a multilayered, mid-range suite of signals intelligence (SIGINT), synthetic aperture radar (SAR) imaging, and ground moving target indicator (GMTI) sensing for persistent NRT reconnaissance, surveillance, and high-accuracy targeting information to joint and friendly forces.



5 **JUNE** — Indian air defense forces successfully shoot down four PLA UASs crossing the LAC into Indian territory.

6 — CCP issues an ultimatum in early 2035: India must leave its LAC fortifications or be evicted by force.

7 — India refuses to comply; PLA targets fortifications with DE and UAS-launched riot-control aerosols.

8 **JULY** — Army ISR coupled with liaison support at Indian Army HQ help Indian forces identify, target, and strike PLA ground forces.

9 — New Delhi responds by deploying UASs to identify targets for kinetic strikes against the PLA DE weapons.

10 — U.S. Army PSYOPs units and PAOs collaborate with Indian counterparts to track and counter PRC's global narrative.

11 **AUG** — PRC launches a preparatory artillery bombardment followed by an infantry assault into the LAC fortifications.

12 **SEPT** — Neither Beijing nor New Delhi show signs of capitulation; inhospitable climate eventually pauses combat operations.

MICO – Task force on Diego Garcia embeds with Joint Force to provide intel fusion support

Intelligence Brigade (MIB) - Theater, INSCOM – Provides Joint Force with estimates of likely avenues of approach and tactics given past patterns of PRC exercises

~ **AIR DEFENSE / Patriot Bty** – Defends airfields at Diego Garcia where USAF is deploying ISR and combat air patrol sorties

engagement of adversary UASs

~ **CYBER DEFENSE / Expeditionary cyber and electromagnetic activities team, Cyber Protection Team** – Defensive cyber capabilities

~ **LIAISON, INTEL / SFAB, digital liaison detachment** – Assists with intelligence-sharing between Indian and joint forces

~ **PSYOPs / PSYOP Detachment** – Collaborate to counter China's global narrative

SCENARIO 1

Key Insights: Army Roles in the Indo-Pacific

As illustrated by the Distant Border Clash scenario, the U.S. Army can provide discrete military assistance to an ally or partner country who is independently engaged in conflict. Specifically, the U.S. Army can leverage its expertise in non-combat capabilities, such as aerial ISR (A-ISR) operations, engineering, and security force training to enhance the capabilities of friendly countries who are reticent to request full-scale U.S. military intervention. What follows are several key insights that we discerned from this scenario.

›› The U.S. Army can offer small, tailored, and discrete military assistance forces.

Unlike the deployment of aircraft squadrons or surface ships, the positioning of small numbers of Army advisors on foreign soil can help support U.S. military and political objectives without attracting significant international attention or unnecessarily triggering escalation. In addition, the Army does not require a forward presence to support a friendly country who is embroiled in a local conflict; bolstering other efforts of the Joint Force, the U.S. Army can train soldiers in the United States or in third-party countries, execute defensive cyber operations without boots on the ground, and share ISR data from outside the operational area.

›› Some lessons of the Global War on Terrorism era can apply to large-scale combat operations.

Throughout the past two decades of counter-insurgency and counter-terrorism operations, the Army has cultivated unique expertise that also holds relevance for large-scale combat operations. For example, the U.S. Army's competence in operating UAVs in difficult environments—such as urban centers in Iraq and mountain passes in Afghanistan—can be shared with partner countries to improve their own UAS proficiency. The Army's latest deployments have also equipped it with the skills to execute substantial construction projects in austere and even contested environments. Accordingly, partner countries can benefit from the logistical and operational lessons learned by Army engineers during the United States' most recent contingencies.

›› The U.S. Army can contribute non-kinetically.

Army cyber, ISR, and PSYOPs capabilities will support allied, partner, and Joint Force success at scale in 21st-century combat. The U.S. Army must not overlook the importance of investing in these non-kinetic capabilities when planning for modernization because these capabilities provide a specific type of combat capability that simply cannot be achieved with fires, armor, or infantry. If the U.S. Army truly wants to become a multi-domain force, it must continue to improve capabilities outside those traditionally associated with land power.

›› Partner engagement brings mutual benefits.

Aside from bolstering the combat effectiveness of a partner country, U.S. Army security force assistance missions also will spur positive learning within the service itself. By supporting a foreign military, the Army can gain valuable knowledge about the operational environment and the capabilities and disposition of the adversary. Such insight will enable the Army to learn the lessons of the next war without suffering the casualties associated with actually fighting it. ◆

SCENARIO 1 KEY ASSUMPTIONS

Assumptions listed on p. 90 must hold true for the Army to play these roles and are favorable toward regional allies and partners giving the U.S. Army and Joint Force the access required in the way the scenario unfolds.

PHOTO: The 11th battalion of the Jammu and Kashmir region and the U.S. Army's 2-3 infantry battalion kick of the bilateral exercise Yudh Abhyas in India on February 8, 2021. (Staff Sgt Joseph Tolliver/U.S. Army)

Scenario 2

Coercive Belligerence

COMPETITION, CRISIS, AND CONFLICT IN THE SOUTH CHINA SEA

Coercive Belligerence explores how the U.S. Army can provide support to allies and the Joint Force in maritime crises, despite initial allied reluctance to allow additional U.S. combat power on allied territory prior to an overt Chinese attack.

COMPETITION: 2023–2033

Among the quiet atolls of the SCS, restive disputes begin to grow in frequency and volume. Rising Chinese energy demands, coupled with delayed overland pipeline projects, intensify China's gaze toward the SCS's potential oil and gas reserves and the critical maritime trade routes that run through the SCS. Overfishing and rapidly degrading reefs and coral have led to increased competition and violence among fishermen; all claimants have increased their coast guard and naval responses.

Alarmed by growing regional militarization in the SCS, the Philippine government intensifies rhetoric regarding its island claims, referencing past international legal rulings and international maritime agreements more frequently. In response, Chinese officials publicly caution that "a small country," such as the Philippines, should not make unreasonable demands of its neighbors. Arbitrary detentions of Philippine citizens in China and frequent "popular boycotts" of Philippine goods by Chinese citizens further deteriorate opinions toward China among the Philippine populace.

As Philippines-China relations deteriorate, United States–Philippines relations improve. As the Philippines embarks on its five-year Horizon III military modernization program in 2023, the U.S. Army supports the Joint Force in building its military cyber defense capacity and trains the Armed Forces of the Philippines (AFP) in ISR collection for the AFP's recently acquired Hermes UASs.

The United States and the Philippines continue their annual bilateral Army exercise, Salaknib (Shield in Ilocano), and multilateral joint exercise, Balikatan (Shoulder-to-Shoulder in Tagalog). In 2025, U.S., Philippine, and Australian senior military leaders attend these exercises' highly publicized opening ceremonies, celebrating their tenth and 40th iterations, respectively. Unmanned systems continue to proliferate both commercially and militarily, and information operations increase in sophistication and reach as the population of the Philippines continues to remain among the top global users of social media.

The U.S. Army increases its security cooperation (SC) activities using counter–small unmanned aerial systems (C-sUAS), public affairs, and open-source intelligence data analysis to identify and expose fake or altered information regarding "benign" Chinese and "aggressive" Philippine military activities. HADR exercises continue; the U.S. Army provides large-scale logistics capacity development to help the Philippines respond to increasingly severe weather events.

In 2028, the Philippines elects a president who increases cooperation with the United States and backs out of several BRI projects. The MDT and

Key scenario assumptions are on p. 91. References are on pp. 114–115.

VISUALIZATIONS ON PP. 56–61

Visiting Forces Agreement remain in effect, and the EDCA is extended. Because of the restrictions of the Philippines' constitution, U.S. forces still are not allowed to permanently base in the Philippines, although the Philippine government authorizes a higher rate of rotation of visiting U.S. forces. Military exercises increase in size and length, more greatly emphasizing maritime domain awareness, attack and transport rotary-wing aviation operations, and shore-to-ship fires concepts for its increasing BrahMos missile inventory. To reduce U.S. sea and airlift costs for the increased activities, the Philippines allows the United States to maintain equipment sets at the Antonio Bautista and Mactan Air Bases; these sets include resupply trucks, medium tactical vehicles, and transport trailers. MDTF fires, MDEB forces air defense, and rotary-wing aviation units begin regularly using these sets in northern Luzon and Palawan. In 2030, the U.S. Army begins exercising contested logistics and air defense operations for USAF ACE exercises across Basa and Benito Ebuen Air Bases.

Concerned about the United States' increased cooperation with the Philippines, China begins significant land expansion of the artificial Scarborough Shoal and Macclesfield Bank islands between 2030 and 2034. The PLA moves additional military forces onto occupied islands to include armed and ISR UASs, long-range surface-to-air missiles (SAMs) (HQ-9), DF-15 SRBMs, and CJ-10 cruise missiles. The U.S. Army's Theater Fires Element and joint intelligence fusion capabilities in Hawaii monitor the SCS activities for indicators and warning of hostile intent and identify potential targets in the event of a conflict. Chinese leaders routinely denounce the United States for "trying to contain China" and accuse Washington of orchestrating conflicts between China and its neighbors. Overall, China–United States

OPERATIONAL PROBLEMS

» **BLURRED LINES BETWEEN CIVILIAN AND MILITARY**
Regional maritime presence in the SCS has become denser with increased fishing, coast guard and military patrols, and the growing presence of Chinese maritime vessels (600 per day in the SCS). This mixing of vessels introduces ambiguity of identifying civilian, law enforcement, or military entities.

» **GROWING AIR, AIR DEFENSE, AND NAVAL THREAT**
Enabled by "island-building" dredgers, China has increased the number of aircraft, surface-to-air, and maritime platforms across its occupied islands. This buildup further widens the military power gap between China and other claimants within the SCS.

» **INTEROPERABILITY SHORTFALLS**
Although the Philippines has modernized its military through the acquisition of BrahMos anti-maritime missile launchers, Hermes UASs, and off-shore patrol vessels, the United States and Philippines continue to face interoperability hurdles in command, control, communications, and intelligence; fires; and logistics; necessitating strong relationships and liaison presence to overcome technical challenges.

» **DISTRIBUTED ISLAND LOGISTICS**
With 2,100 inhabited islands, the Philippine military and rotating U.S. forces must rely on air and maritime vessels to maneuver and support military units across the country.

» **LIMITED U.S. MILITARY ACCESS**
Rotational presence and prepositioned equipment have enabled a longer U.S. presence in the Philippines; the inability to permanently forward-station units limits the responsiveness of the U.S. military in a crisis.

Scenario 2

relations deteriorate through increasing political and economic clashes, including ongoing visa and property-blocking sanctions on Chinese officials and entities associated with human rights abuses in Xinjiang and intermittent spikes in tariff and counter-tariff "trade wars."

CRISIS: 2035

In June 2035, a fierce typhoon washes away the collapsed rusting hulk of the Sierra Madre (a Philippine "garrison" maintained on the structure) beached on Ayungin (Second Thomas) Shoal. Philippine civilian resupply ships rushing to reoccupy the island find two Chinese fishing trawlers, later confirmed to be maritime militia, occupying the area and declaring the area "historical Chinese fishing grounds." As an uneasy standoff ensues, a Chinese coast guard vessel arrives, positioning itself between the Chinese and Philippine vessels. A Philippine coast guard vessel quickly joins; exchanges become increasingly heated between the ships and their respective governments.

Over the following week, dozens of Chinese fishing boats stream in as Manila and Beijing deploy coast guard and naval vessels one for one around the area. After a near-ramming incident, Beijing demands that no Philippine military or civilian vessels can approach within 12 nautical miles (nm) and that violations against China's "administrative control" would be met with force.

The Philippine government cautiously balances showing resolve with avoiding escalation, ordering vessels to pulse close to but not within the declared boundary. The Philippine president requests U.S. ISR, liaison, and cyber support. The president remains reticent, however, to allow a multi-domain fires cell rotating in northern Luzon to reposition south or the deployment of additional U.S. combat forces. U.S. Army liaison officers (LNOs), SFAB teams, and MDTF cyber cells provide advisory support in Manila and Bautista, and facilitate military-to-military coordination between the Philippines and the U.S. Joint Force. In conjunction with other joint ISR assets, the Army provides UASs, MDTF ground-based space assets, and high-altitude balloons on Palawan and Mindanao. Meanwhile, the U.S. Navy moves a CSG, expeditionary strike group (ESG), and submarine assets to the east of the Philippines.

CONFLICT: 2035

A Chinese naval vessel opens fire on a Philippine coast guard offshore patrol vessel. Immediately, the full truth of what sparked the encounter is unclear, with competing claims between the Philippine and PRC governments regarding whether the vessel was within the 12-nm declared boundary. As images of the attack flood social media and news networks, the Philippines invokes the MDT, worried about expansion of the conflict to other Philippine-claimed contested islands in the SCS.

A U.S. Reaper drone conducts a retaliatory strike on the Chinese naval asset that fired on the Philippine vessel. Following this, the United States declares that after 72 hours, Chinese assets in the SCS will be held at risk by long-range fires if China continues to impede or attack Philippine vessels. However, hundreds of Chinese maritime militia and civilian fishing vessels begin flooding into the area, and a U.S. surveillance drone is shot at by short-range air defenses.

The next week, additional non-kinetic MDTF space, cyber, and electronic warfare (EW) capabilities flow to Palawan from Joint Base Lewis-McChord (JBLM) and Hawaii via airlift, followed by the fires multi-

Key scenario assumptions are on p. 91. References are on pp. 114–115.

domain cell and supporting assets from Northern Luzon via watercraft. Flowing in a week later, U.S. Army UAS and rotary-wing aviation (Future Attack Reconnaissance Aircraft [FARA] and Future Long Range Assault Aircraft [FLRAA]), coordinating via manned-unmanned teaming, assist the Joint Force in discriminating maritime militia and Chinese naval and coast vessels from civilian fishing vessels. The U.S. Army fires supplement the Navy vessels that are closer to the Philippines and USAF platforms deploying to Australia, providing a persistent and more responsive—albeit less voluminous—fire support capability against potential Chinese maritime and island-based targets. The U.S. Army also deploys cruise missile defense and high-altitude balloon early-warning sensors to increase defenses for U.S. and Australian air force assets bedded down on Australian airfields.

The Philippines also begins mobilizing its military, including readying its anti-ship missiles. It also bolsters its defenses on Thitu, another of its administered islands in the SCS. The U.S. Army provides continued liaison support between the U.S. joint and Philippine forces to compensate for limited interoperability between their systems.

China launches a concerted information operations (IO) campaign to try to degrade the Philippines' confidence in its and the United States' ability to challenge China's claims, emphasizing the narrative that China is only responding in self-defense to aggressive actions against its citizens and rightful territory. Given increasing vulnerability to resupply and reinforcement to the SCS from the mainland, however, China seeks to diffuse the situation while ensuring a level of victory. Through diplomatic channels, China proposes scheduled tit-for-tat removal of naval and coast guard vessels from the area, as well as "encouragement" for the Chinese fishing vessels to disperse—all on the condition that the Philippines agrees, in the interim, to not replace the Sierra Madre structure. ◆

SCENARIO 2

Competition Phase

KEY EVENTS AND ARMY ROLES

MYANMAR

LAOS

THAILAND

CAMBODIA

★ Capital

Maritime boundaries and claims

Exclusive economic zone (EEZ)
EEZs allow countries to regulate the natural resources in the waters within their boundaries

- Philippines
- China "Nine-dash line"
- Vietnam
- Malaysia
- Brunei
- Taiwan

Territorial claims

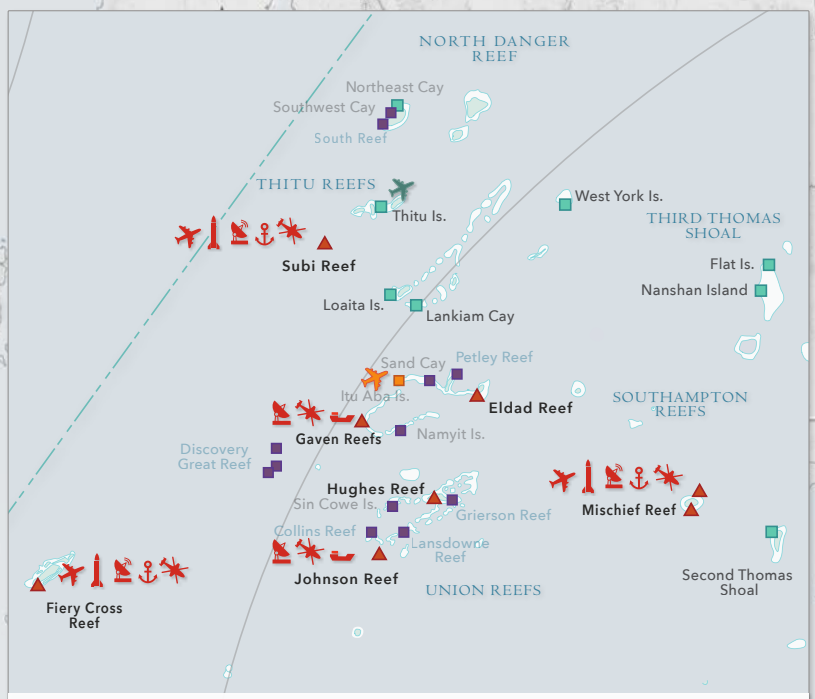
- China
- Vietnam
- Philippines
- Malaysia

Philippine basing

- Army
- Division
- Air Force
- Navy
- EDCA bases

250 km
100 mi

4



SOUTH CHINA SEA CLAIMS AND PLA MILITARIZATION

Starting in 2013, China began to build artificial islands around seven SCS reefs that it claimed as its territories. Over time, the islands have been militarized with facilities and capabilities, as depicted with icons on the map above. By 2034, the PLA military buildup on occupied islands includes additional 4th- and 5th-generation aircraft, strike and ISR UASs, short- (HQ-12) and long-range (HQ-9) SAMs, DF-15 SRBMs, two infantry battalions (~1,200 soldiers), SOF, and YJ-12b coastal defense missiles capable of ranging the Philippines and Singapore (see YJ-12b range ring on main map).

Airfield · Missile system · Radar · Large harbor · Small harbor · Helipad

KEY EVENTS: 2023–2034
(IN YEARS)

U.S. · PRC · Philippines

Chronology · Depicted on infographic

2023 — 1 — Philippine Horizon III modernization program begins.

2024 — 2 — "Visa and property-blocking" sanctions are placed on Chinese officials and entities for human rights abuses.

2025 — 3 — 10th and 40th iteration of U.S.-Philippine exercises Salaknib and Balikatan occurs.

2026 — 4 — 5 — 6 — Allies demand that China upholds international maritime legal rulings and agreements.

IDENTIFIED ARMY ROLES

ACTIVITY

- Exercise/training
- Force deployment
- Posture
- Combat operations

Activity or investment
Ongoing rotation

ROLES FRAMEWORK

JOINT ENABLERS

- **SET THE THEATER** / SDDC, USARPAC 8th TSC, RSGs – Plan and conduct exercising of
- **ENGINEERING, INFRASTRUCTURE CONSTRUCTION** / Horizontal Construction Cos – Transport

JOINT KINETIC FIGHT

- **JOINT INTEROPERABILITY** / MDEB, theater-level MDO Ass

STRENGTHEN + LEVERAGE RELATIONSHIPS

- **CYBER DEFENSE + ISR** / MDEB, digital liaison detachments – Security cooperation efforts to build military cybe
- **JOINT INTEROPERABILITY** / Exercise Salaknib – Exercise continuing on annual basis
- **ALLIED + JOINT INTEROPERABILITY** / Exercise Balikatan – Exercise continuing on annual basis

SOURCES: For a list of infographic references, see pp. 114–115.
NOTE: For visualization abbreviations, see pp. 96–98.

CHINA

TAIWAN

5

Highly publicized clashes between rival national fishing vessels in the SCS lead to increased maritime and coast guard patrols (PRC, Philippines, Vietnam, Taiwan, Malaysia).

Macclesfield Bank

11

Scarborough Shoal

YJ-12B
ASCM/GLCM
400–500 km

VIETNAM

EEZ boundary (200 mi)

South China Sea

4 5

Spratly Is.

FORT MAGSAYSAY

BASA

PHILIPPINES

Prepositioning activity sets prior to a crisis affects airlift requirements.

- To lift an MDTF HIMARS Bn:
  36 C-17 Equivalents
- Prepositioning the HIMARS Bn Forward Support Co:
  Saves 17 C-17 Equivalents
- Forward-positioning a Distribution Co from an MDTF Bde Support Bn:
  Saves 27 C-17 Equivalents

10 HIMARS

MACTAN-BENITO

ANTONIO-BAUTISTA

PALAWAN

EDCA prohibits permanent basing of U.S. forces and limits rotational deployments and prepositioning of equipment, supplies, and materiel to five bases.

LUMBIA

9

U.S. Army MDEB forces' air defense begins to use equipment sets and demonstrates HIMARS capabilities—a system interoperable with LRPF ranging 15 to 499+ km on Philippine AB.

MALAYSIA

Arbitrary detention of Philippine citizens and "popular boycotts" of Philippine goods in China occur.

The Philippines agrees to expand U.S.-Philippine exercises and allows U.S. equipment sets on EDCA bases.

U.S. Army unit rotations in exercises, including MDO fires, cyber, and space cell, extended.

HIMARS battalion, transportation, and fuel assets are stored at Bautista and Mactan Air Bases.

Expansion efforts begin at Scarborough Shoal and Macclesfield Bank; include long-range AD and SRBMs.

The third tariff/counter-tariff "trade war" in six years between the U.S. and PRC begins.

7 8 9 10 11 12

2027 2028 2029 2030 2031 2032 2033 2034

RSOI at all ABs and ports

ation and infrastructure (e.g., training areas, airfields, ports)

⋈ **RSOI, AIR DEFENSE / Army watercraft, Inland Cargo Transportation Co, Patriot/IFPC –** Exercising contested logistics and AD for USAF ACE exercises

▸▸ + **SET THE THEATER / Forward Support + Distribution Cos –** HIMARS sets at select ABs

~ + **ISR / MDEB TFE, MDEB MI –** Target development of PRC SCS forces and infrastructure, monitor for indicators and warning

ets – Increasing participation in joint exercises in the Philippines addressing PRC gray zone and island seizure scenarios

r defense capacity and train in A-ISR collection

(2029 – U.S. Army rotations grow in size, extended durations of 3–4 months / emphasis on attack and transport rotary-wing, shore-to-ship fires)

(2029 – U.S. Army rotations grow in size, extended durations of 3–4 months)

~ **IO + CYBER DEFENSE / MDEB cyber + digital liaison detachment (DLD) –** Enhance intel and IO to counter PRC misinformation

⋈ **LOGISTICS / ESCs, RSG, Sustainment Bdes –** Security cooperation and exercise effort to address internal logistics

SCENARIO 2

Crisis Phase

KEY EVENTS AND ARMY ROLES

CHINA

TAIWAN

HAINAN IS.

Amphib lift

CSG

SSN

Paracel Is.

Macclesfield Bank

Scarborough Shoal

SOF

South China Sea

IFPC

MANILA

DCO MI SFAB

SOF

PHILIPPINES

Spratly Is.

PALAWAN

VPM

VPM

MINDANAO

CSG

ESG

MALAYSIA

- Capital
- Philippine outpost
- Chinese outpost
- EDCA bases
- SAM
- Missile unit (SSM)
- UAS (ISR)
- UAS (strike/or C-sUAS)
- ASCM
- Infantry
- Artillery
- Signals
- **SOF** Special operations forces
- Equipment activity set

U.S. MDEB

- Space cell
- HAB
- **MI** Military intelligence
- **DCO** Defensive cyber operations

500 km

100 mi

KEY EVENTS: 2035
(JUNE–JULY)

U.S. PRC Philippines

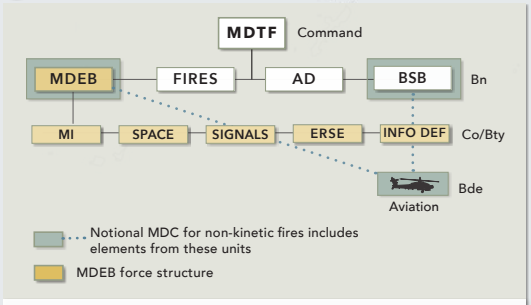
Chronology Depicted on infographic

2035

JUNE

1. Severe storm washes away the Philippine garrison *Sierra Madre*.
2. Chinese maritime militia posing as civilian fishermen occupy area surrounding the Second Thomas Shoal.
3. A PRC coast guard (CG) vessel arrives to protect maritime militia.
4. Philippine CG and naval vessels arrive and uneasy standoff ensues.

8



MDTF–MULTI-DOMAIN CELLS (MDCs) + MDEB

An operational concept for the MDTF is to operate in cells or MDCs that combine elements from fires, AD, aviation, ISR, space, and cyber units to create purpose-built, smaller-footprint capabilities forward.

The MDEB integrates traditional signals and MI with capabilities in space, electromagnetic spectrum, cyberspace, and information space. *(See diagrams at right.)*

1

IDENTIFIED ARMY ROLES

ACTIVITY

- Exercise/training
- Force deployment
- Posture
- Combat operations

Activity/investment

Conditions do not support

ROLES FRAMEWORK

JOINT ENABLERS

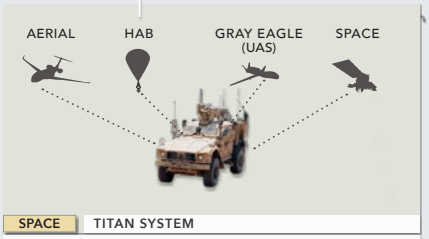
JOINT KINETIC FIGHT

STRENGTHEN + LEVERAGE RELATIONSHIPS

+ **JRSOI /** 8th TSC, SDDC – Work with ho

SOURCES: For a list of infographic references, see pp. 114–115.
NOTE: For visualization abbreviations, see pp. 96–98.

9



SPACE | TITAN SYSTEM

The main equipment for the Space Control Company is the Army's Tactical Intelligence Targeting Access Node (TITAN)—a fielded, scalable, and modular deep sensing ground station—that collects and processes information from space, aerial, and terrestrial sensors to provide intel and targeting information to the Joint Force.

Capable of operating at 60,000 ft in the Earth's stratosphere

ERSE | HELEIOS PROGRAM

The High-Altitude, Long-Endurance, Intelligence Observation System (HELEIOS) program is evaluating HABs that can fly over enemy territory to provide ISR, relay data, improve line of sight ground communications, and jam enemy electronic systems.

OTHER U.S. ARMY POSTURE IN SCENARIO:

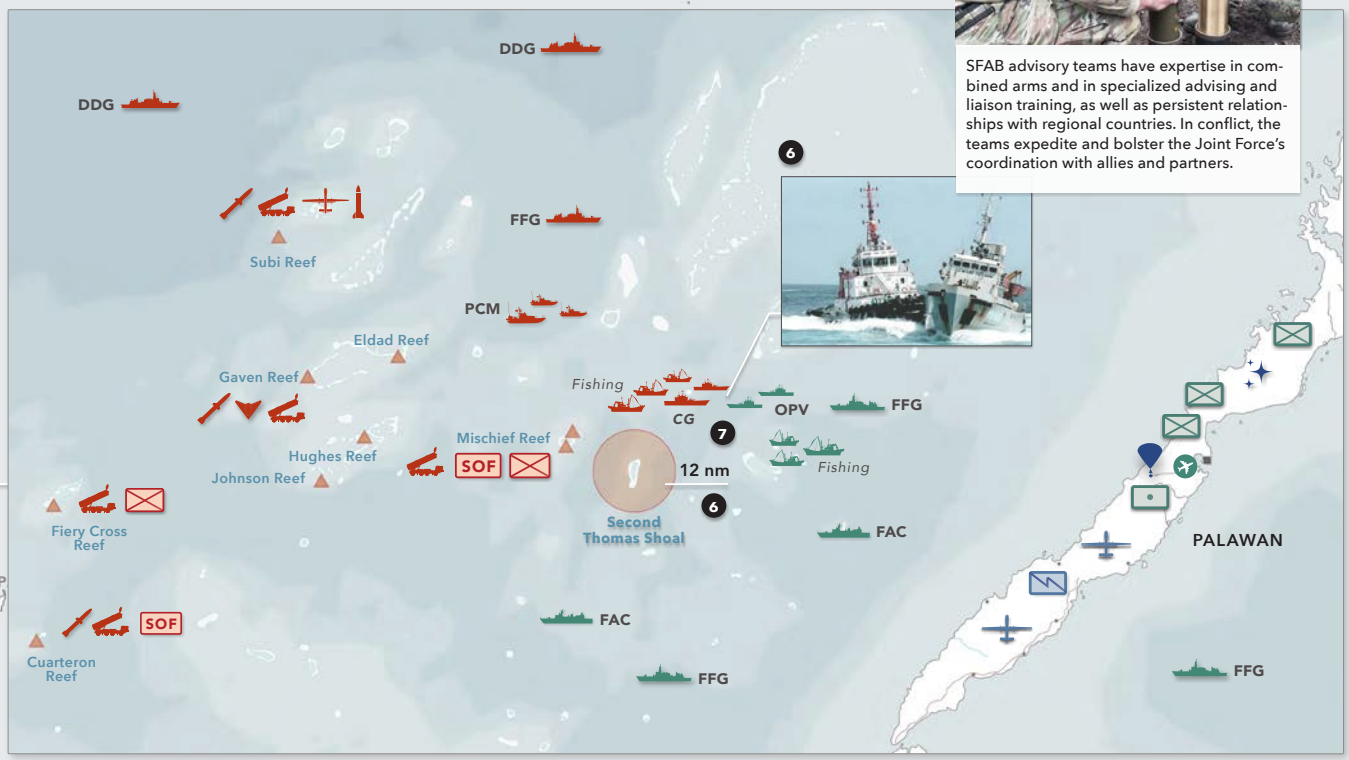
JAPAN **MDTF 1a (HQ, MDEB, BSB)**, **APS 4** (+Composite Watercraft Co), **TFE**, **Air Defense** (Patriot Bn and IPFC Bty), **UH-60, CH-47** Cos

U.S. **MDTF 1b (Fires, ADA)** JBLM Washington, **MDTF 3 (HQ, MDEB, BSB)** Hawaii, **MDTF 4** Alaska

GUAM **Air Defense** (THAAD, Patriot, and IPFC btys)

8

SFAB advisory teams have expertise in combined arms and in specialized advising and liaison training, as well as persistent relationships with regional countries. In conflict, the teams expedite and bolster the Joint Force's coordination with allies and partners.



6

5 Dozens of PRC fishing, CG, and naval vessels deploy around the area; Philippine CG and naval vessels deploy.

6 After near-ramming incident, China announces a 12-nm exclusion zone around the shoal.

7 Philippines orders its vessels to pulse close to but outside the 12-nm zone; requests non-kinetic military assistance from the United States.

8 Army LNOs, SFAB teams, and MDTF cyber cells begin to provide support in Manila and Bautista.

9 USAF provides surveillance UASs, and the U.S. Army deploys the space, cyber, and ERSE elements of its MDEB.

10 A U.S. CSG and ESG position to the southeast of Mindanao.

11 Preparations begin in the event the crisis escalates and the Philippines requests combat assistance.

JULY

~ + **ISR / MDEB Signal + ERSE Co** – Monitor PRC SCS activities from Bautista AB, Palawan

st nation to prepare air bases and ports to receive additional joint forces

+ **LOGISTICS / Forward Support Co (HIMARS Bn), Distribution Co** – Additional EAS readied and staged to support potential kinetic operations

~ **ISR, I&W / ISR, MDEB Space Co, HAB teams** – Provide space surveillance, collection and processing, and early warning from Manila

~ **LIAISON SUPPORT / SFAB Advisory Teams** – Advise, coordinate intelligence-sharing and airspace deconfliction, and prep for conflict

~ **INTEL, CYBER / MDEB MI, Defensive Cyber Platoon** – Integrate with Philippine forces at Bautista to advise and assist with intel

SCENARIO 2

Conflict Phase

KEY EVENTS AND ARMY ROLES

CSG

Macclesfield Bank

SOF

Scarborough Shoal

SSN

LUZON

Patriot

MANILA

DCO MI SFAB

PHILIPPINES

South China Sea

6

Army watercraft, such as LSVs, LCUs, LCMs, and the next-gen MSV-Light (concept pictured above), can provide essential intra-theater transportation, operate within shallower SCS waters because of shallow draft, and provide enabling capabilities, such as C-sUAS and ISR.

4

China's massive fishing fleet has aggressively overfished regional seas. According to the UN, China's fleet hauls in ~20 percent of the global annual catch. The fishing fleet can also be used to assert presence, similar to China's maritime militia, to flood a zone and disrupt freedom of navigation.

SOF

Spratly Is.

PALAWAN

6

Fires

An MDTF fires cell with supporting assets and PrSM munitions is an example of a small-footprint capability that can be transported on Army watercraft or C-17 or C-130 sorties.

MINDANAO

CSG

ESG

- Chinese outpost
- SAM
- Missile unit
- UAS (ISR)
- ASCM
- Infantry
- Artillery
- Signals

KEY EVENTS: LATE JULY–AUGUST, 2035
(IN WEEKS)

U.S. PRC Philippines

Chronology ○ Depicted on infographic

1. PRC frigate opens fire on Philippines CG vessel it claims had entered the exclusion zone.
2. The Philippines invokes the MDT, mobilizes military, and requests U.S. combat capabilities.
3. USAF Predator drone conducts a retaliatory strike on attacking PRC vessel; CSG and ESG arrive.
4. Hundreds of Chinese maritime militia and civilian fishing vessels flood into area; PLA shoots down a U.S. surveillance drone.

2035 — JULY – WEEK 4

IDENTIFIED ARMY ROLES

ACTIVITY

- Exercise/training
- Force deployment
- Posture
- Combat operations

Activity/investment

ROLES FRAMEWORK

JOINT ENABLERS

~ + **ISR** / MDEB Signal + Extended Range Sensing and Effects Co – Monitor PRC SCS activities

JOINT KINETIC FIGHT

STRENGTHEN + LEVERAGE RELATIONSHIPS

~ **AIR DEFENSE** / Patriot - Minimum Engagement Package – Protect na

~ **LIAISON SUPPORT** / SFAB Advisory Teams, International LNOs – Help co

SOURCES: For a list of infographic references, see pp. 114–115.
NOTE: For visualization abbreviations, see pp. 96–98.

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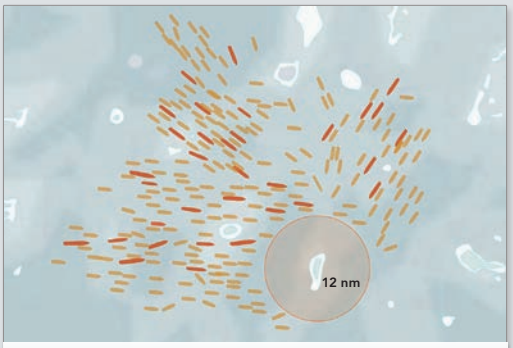


OPERATIONAL PROBLEM: TARGET DISCRIMINATION

China will clutter the area with a mix of civilian and fishing boats, maritime militia, decoys, CG, and naval vessels, complicating the Joint Force's ability to discriminate between civilian and military targets. Ambiguous PRC maritime authorities regarding use of force also complicate the Joint Force's response. The Army's rotary-wing aircraft, paired with UAS, are well suited for this environment because they can fly at lower altitudes and enable a direct human-in-the-loop visual confirmation of targets for the Joint Force.

PLA vessel PRC civilian fishing vessel

SIMILAR HULLS

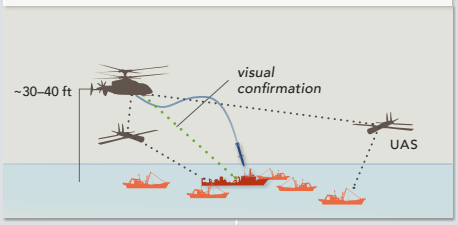
People's Armed Forces Maritime Militia (PAFMM) vessel

PRC fishing vessel

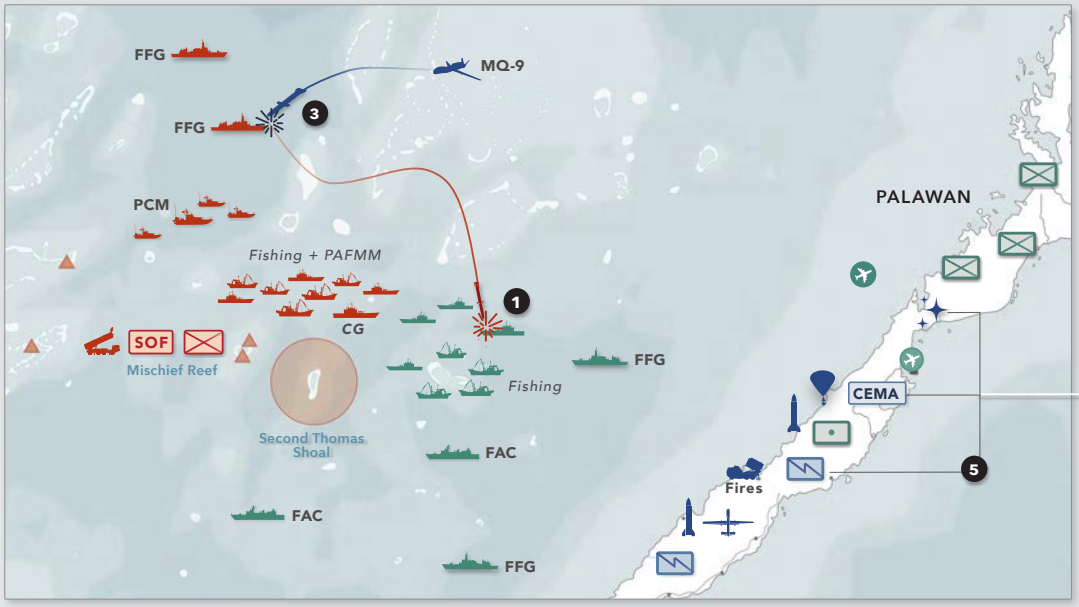
10

FARA/FLRAA FUTURE VERTICAL LIFT

The Army's FARA and FLRAA rotary aviation capability will provide a lower-altitude air domain option, taking advantage of enemy AD systems optimized for hitting high-flying aircraft. Flying at 220 knots and out to 400 km in combat, FARA would deploy air-launched effect payloads (e.g., UAS or loitering munitions) used for targeting, EW, ISR, or long-range fires, or act as decoys.



"HUMAN-IN-THE-LOOP" DISCRIMINATION



The Army's emerging concept of expeditionary cyber and electromagnetic activity teams will staff echelons from brigade up to provide cyber, EW, intelligence, and IO support and effects.

5 Additional Army non-kinetic MDEB cells (space, cyber, EW) travel via airlift to Palawan.

6 MDTF fires cell rotating in northern Luzon moves to Palawan via Army watercraft.

7 Philippines reposition BrahMos anti-ship missiles to the west and onto Thitu Island.

8 USAF bombers, F-35s, tankers, and Army IFPC and HABs are deployed to Australia.

9 The Army provides ongoing liaison support to compensate for limited interoperability between U.S. and Philippine forces.

10 FARA and FLRAA arrive in the Philippines to supplement joint ISR and provide added aerial fires capability.

11 PRC begins a global IO campaign to boost its self-defense messaging.

12 PRC offers deal of tit-for-tat vessel removal from area stipulating that Philippines does not build up infrastructure on the shoal.

AUGUST – WEEK 1 | WEEK 2

~ **ISR / MDEB Space Co + MI Co** – Assist joint and Philippine forces with intelligence fusion and targeting from Palawan

+ ~ **AIR DEFENSE, ISR / IFPC Platoons, HAB Teams** – Provide protection for USAF aircraft and assist with early warning

+ ~ **FIRES, AIR DEFENSE / MDTF HIMARS Btys, IFPC platoons** – Increase air defense and time-sensitive anti-ship fires capabilities from Palawan

+ ~ **ISR, FIRES / FARA, FLRAA Rotary-Wing Aviation Bns** – Supplement joint ISR and aerial fires capabilities in SCS

~ **ISR / Gray Eagle Co** – Support Joint Force in target identification and discrimination

ational-level assets in Manila

ordinate ISR, fires, and logistics operations between U.S. joint and Philippine forces, compensate for limited interoperability

SCENARIO 2

Key Insights: Army Roles in the Indo-Pacific

The Coercive Belligerence scenario outlines how the U.S. Army can provide support to allied militaries, strengthen Joint Force targeting in complex environments, and bolster U.S. and allied deterrence and signaling during a crisis to pre-conflict. Below are the insights on key roles illuminated by this scenario.

›› **U.S. Army LNOs, SFAB teams, and the MDTF can provide continuous liaison support between the U.S. joint and Philippine forces to enable operational coordination during a crisis.**

In-person liaison coordination and communication can compensate for limited interoperability between national militaries. SFAB teams, given their persistent presence and regional expertise, can more quickly and deeply integrate into allied army and other joint forces. In addition, the MDTF's MDEB capabilities can deliver tailored and integrated cyber, signals, space, and extended-range sensing and effects locally to U.S. joint and Philippine forces. The integration of such capabilities at a lower level can assist in more-timely warning, targeting, and military responses.

›› **The U.S. Army's smaller UASs and its rotary-wing aviation assets can help the Joint Force discriminate high-value targets within cluttered environments without relying on tactical air platforms.**

Manned-unmanned teaming can help increase rotary-wing aviation survivability while UASs provide forward surveillance and helicopter crews provide human visual confirmation of ISR feeds. Gray Eagle–sized UASs were uniquely useful by helping the United States identify targets without relying on attack aircraft—a potentially more escalatory option. Finally, high-altitude balloons (HABs), depending on the sensor payloads, can provide wide ISR coverage or linked, line-of-sight communications to help identify key areas to conduct the visual search and identification.

›› **Forward-deployed U.S. Army fires provided an additive capability to the larger potential volume of the Navy and Air Force and more responsiveness to quickly evolving and mobile targets within a relatively fixed and dense local area.**

Repositioned Army fires on Palawan threatened denial of Chinese resupply and reinforcement. However, if the crisis had escalated further, Army fires could have targeted key maritime assets, air defenses, and other enabling SCS assets through long-range fires (e.g., HIMARS, with precision strike missiles [PrSMs], Maritime Strike Tomahawk [MST], or some combination thereof).

›› **The U.S. Army theater preparations to receive joint combat forces can help alleviate the 11th-hour posture dilemma, in which allies and partners exercise caution when allowing U.S. military forces onto their territory during a crisis because of the perceived risk of conflict escalation.**

By the time the crisis shifts into a more unambiguous threat—usually through a kinetic strike—the window of time for U.S. forces to move into position to respond could become greatly compressed, both in terms of conflict acceleration and risk to deploying forces. Given this, the Army and other services must consider force package building blocks that present optically less contentious capabilities but enable quicker deployment, reception, and employment of combat forces. The Army can provide defensive and logistics capabilities to establish a foundation on which joint combat forces can later quickly deploy and become more rapidly combat capable. ◆

SCENARIO 2 KEY ASSUMPTIONS

Assumptions listed on p. 91 must hold true for the Army to play these roles and are favorable toward regional allies and partners, giving the U.S. Army and Joint Force the access required in the way the scenario unfolds.

PHOTO: U.S. Army and Philippine soldiers take their positions as U.S Army senior leaders arrive during a combined live fire exercise in support of Salaknib at Colonel Ernesto Rabina Air Base in the Philippines, March 21, 2022. (SPC Joshua Oller/U.S. Army)

Scenario 3

Multi-Region Crisis and Conflict

COMPETITION, TAIWAN STRAIT CONFLICT, AND SIMULTANEOUS CRISIS ON THE KOREAN PENINSULA

Multi-Region Crisis and Conflict outlines an East Asia scenario where simultaneous crisis and conflicts occur, initially with a Chinese invasion of Taiwan then an emerging crisis on the Korean Peninsula, stressing the Joint Force through overlapping and distinct operational challenges across both.

COMPETITION: 2023–2034

Diplomatic, economic, and military relations between the United States and Taiwan continue to expand and solidify throughout the late 2020s and into the early 2030s. While the United States continues to acknowledge the One China policy on both sides of the Taiwan Strait, it seeks to further bolster Taiwan's defenses through arms sales and increased engagements and training. Under the Taiwan Relations Act, the United States provides Taiwan additional coastal defense cruise missiles, short-range air defenses, UAVs, anti-armor munitions, and rocket artillery. Military exchanges focus on survivability, combined arms, and urban warfare.

Beijing's attempts at international misinformation campaigns against the island, intermittent economic coercion, and increasingly frequent aerial and naval incursions further harden Taiwanese popular opinion favoring independence. Internally, CCP leadership debates whether the window for possible reunification through means short of war is shrinking rapidly. Amphibious landing and air assault exercises begin increasing in size and intensity as China continues its modernization efforts.

As relations between China and Taiwan steadily deteriorate, strained tensions remain on the Korean Peninsula, shaped by stalled negotiations, continued DPRK missile development, and sporadic brandishing by North Korean leader Kim Jong Un. To maintain deterrence, the U.S. military maintains a consistent presence on the peninsula and continues to undertake combined exercises and planning with the South Korean military. As the 2020s wane, the South Korean government is forced to gradually decrease its conscription baseline to 240,000 personnel because of the increasing unpopularity of conscription, population decline, rising social welfare costs, and stalled efforts to mandate military service for women. After the People Power Party wins a large majority in the early 2030s, conservatives seek to offset the military's loss of manpower by bolstering investments in ISR, long-range strike assets, and linkages with U.S. air defense systems to better counter the DPRK missile threat. Regarding the latter, China angrily protests what it views as abdication from South Korea's 2017 "three nos,"[46] and it initiates boycotts and other economic coercion measures.

Meanwhile, North Korea reacts by increasing its missile testing and nuclear weapons program activities, meaning that both the South Korean and Japanese governments begin debating military measures to counter the perceived threat. Alarmed by the instability brewing on the peninsula, China provides North Korea with several enhanced FK-3 air defense systems, ranging 200 km, to placate Kim Jong Un's increasing paranoia.

[46] In 2017, in response to China–South Korea tensions over U.S. Terminal High Altitude Area Defense (THAAD) deployment, the ROK foreign minister announced the three nos to provide context for the action: (1) no more THAAD deployments, (2) no to South Korea joining a trilateral U.S.-Japan-ROK missile defense system, and (3) no to South Korea joining a trilateral U.S.-Japan-ROK defense pact (Christy Lee, "South Korea's THAAD Missile Shield Reconsidered After North Korean Threats," Voice of America, August 5, 2022).

Key scenario assumptions are on pp. 92–93. References are on pp. 115–118.

VISUALIZATIONS ON PP. 70–79

CRISIS: 2035

In 2035, the CCP watches with growing anxiety as the Taiwan national election candidates vociferously compete on tougher stances against Chinese influence and intimidation, an emergent top issue with the island's voters. Interpreting the rhetoric as veiled threats of an impending independence declaration, the CCP initiates a show of military force to signal its resolve. The PLA gradually begins to marshal amphibious landing craft at ports along its coastline and sends airborne and air assault units to air bases throughout the country's southeast. Strategic air defenses and radars also move toward the Chinese coast and conduct comprehensive tests of their systems. China also ramps up fighter aircraft incursions across the median line in the Taiwan Strait and begins circumnavigation flights of Taiwan by Y-9 surveillance aircraft with fighter escorts.

The constant scrambles strain the Taiwan Air Force, and after several close encounters, a PLAAF J-16 and Taiwan Mirage 2000 collide in June. As both sides flood media with accusations of aggression, the United States, alarmed by the brewing instability, publicly declares its intent to resist Chinese coercive efforts that jeopardize the security of the people on Taiwan. U.S. aircraft, AD units, and naval vessels begin flowing to Japan and Guam to signal Washington's resolve. U.S. and ROK air and naval forces carry out increased air and maritime patrols to monitor for potential North Korean opportunism during the crisis, and Taiwan begins an initial call-up of its reserve forces. Alarmed by the rapidly developing situation, the CCP resolves that the time has come to strike.

CONFLICT: 2035

Outright war between China and Taiwan commences as the PLA unleashes a massive firepower strike on the island. Aircraft, cruise missiles, and ballistic missiles pummel Taiwan, disabling air defenses and most of the

OPERATIONAL RISKS OF SIMULTANEOUS MULTI-REGION CRISIS AND CONFLICT

» **STRAINED FORCE FLOW INTO AND OUT OF THEATER**
Limited air- and sealift may require trade-offs in which the Joint Force can flow reinforcing capabilities to address both conflicts' demands. Potential demands for NEO on both the peninsula and Japan could overwhelm Joint Force capacity.

» **COMPETING MISSILE DEFENSE REQUESTS OF TREATY ALLIES HOSTING U.S. FORCES**
As hosts of U.S. forces conducting offensive operations from their soil, both Japan and the ROK may request U.S. defense from reprisal attacks against their own military and civilian assets.

» **LIMITED STANDOFF ANTI-RADIATION, -SHIP, AND -ARMOR MUNITION INVENTORIES**
Given limited magazine depth to address even the Taiwan conflict, the U.S. Joint Force commander might need to determine trade-offs in how fast operational tempo can be sustained for Taiwan and ROK defense and counterattacks.

» **INCREASED POTENTIAL FOR ESCALATION**
China may have difficulty distinguishing whether defensive and offensive military capabilities, such as A-ISR, missile defense, and fighter aircraft deploying to or re-positioning in the ROK are threats to its Taiwan efforts.

» **ADVERSARIES WILL BE CAPABLE OF STRIKING THE U.S. HOMELAND**
The Joint Force commander must be mindful in both situations of tripping potential redlines for nuclear and conventional homeland strikes. China will be capable of striking U.S. territory with ballistic and cruise missiles from land, air, and sea, and DPRK may have limited ICBM capability.

Scenario 3

Taiwan Air Force before it can take to the sky. Fuel-air explosive munitions and multiple launch rocket system barrages from mainland China devastate Taiwan ground units, who are positioned along the northwestern coastline, before those units can establish fortified defenses. China also strikes military runways on Okinawa and warns Japan against allowing military operations from its soil. Japan, however, declares the situation to be an existential threat and states its intent to assist the United States in the defense of Taiwan, including allowing additional deployments of U.S. forces and munitions. Washington deploys U.S. Army SOF to the island to assist Taiwan's forces and support joint fires targeting. The U.S. Army also activates long-range hypersonic weapon (LRHW) batteries in the Indo-Pacific theater. The U.S. President directs U.S. forces to protect the besieged regime in Taipei, prevent the PLA from securing a lodgment on Taiwan, and defend allied countries and the U.S. homeland from Chinese attacks. USAF aircraft begin dispersing among bases in Japan, Australia, and Guam for survivability, and carrier strike groups (CSGs) shift out of range of China's anti-ship ballistic missiles.

The next day, as the entire region reels from China's attacks, air defenses in the southwestern portion of the North Korean target and destroy a ROK fighter aircraft near the island of Yeongpyong-do. Officials in Pyongyang declare that aircraft sorties had begun illegally traversing the inter-Korean military demarcation line and that further "aggressive acts" would force North Korea to "annihilate the U.S. imperialists, Japanese reactionaries, and South Korean puppets at one stroke." As Chinese firestrikes rain down on Taiwan for a second day, Seoul, fearing that inaction would embolden Kim Jong Un, orders a series of retaliatory airstrikes against the air defense unit that conducted the attack. China watches this quickly unfolding military crisis on the peninsula with shock and presses Pyongyang to end the crisis quickly because China's resources and attention are fixated on its Taiwan invasion.

These attacks eliminate SAM sites in southwest North Korea, but they begin to creep northward toward Pyongyang as the mobile air defense units retrograde. North Korea forcefully protests, interpreting the South Korean airstrike as a prelude to an attack to neutralize its leadership and nuclear weapon capabilities, and it begins repositioning military forces southward. The DPRK's Korean People's Army (KPA) fires 50 240-mm rockets from hardened positions in the Kaesong Heights toward an ROK army base at Uijeongbu—a few miles north of Seoul. Hundreds of panicked civilians from the area begin streaming south. To prevent further attacks, South Korea requests U.S. support with eliminating targets in the Kaesong Heights, a commitment to not divert U.S. military forces from the peninsula, and additional missile defense batteries. Meanwhile, the PLA deploys two divisions of landing forces across the Taiwan Strait aboard hundreds of small amphibious craft, civilian vessels, and roll-on, roll-off ships.

The Joint Force commander faces a multifaceted dilemma: Confronted with the immediate need to repel China's assault, the commander must defend a U.S. treaty ally (Japan) and protect Guam and Hawaii while defending another U.S. treaty ally (ROK) and establishing deterrence against further DPRK provocations. Deployment force flows strain to fulfill urgent demands for munitions, air defenses, military aircraft, ground-based long-range fires, and logistics support forces, all while being further slowed by Chinese cyber interference into commercial and DoD information systems that are used to plan and coordinate the deployment—the majority of which reside on unclassified networks. Also mindful of widening the conflict with China to Korea, the Joint Force commander decides to rely on already forward-

Key scenario assumptions are on pp. 92–93. References are on pp. 115–118.

VISUALIZATIONS ON PP. 70–79

deployed U.S. Forces Korea (USFK) forces to manage the peninsula crisis. The 8th Army and 7th Air Force, alongside the ROK military, begin carrying out retaliatory strikes on the Kaesong Heights. Anti-radiation and anti-armor munitions for suppressing North Korean air defenses, however, begin to dwindle as resupply is prioritized for the Taiwan fight.

USAF bombers and unmanned systems deliver standoff munitions and unmanned systems against Chinese ships moving across the Taiwan Strait. The USN and USAF are conducting pulsed operations—surging forces forward in a brief window to conduct strikes or bring in additional fighters. U.S. tactical air aircraft engage PLAAF aircraft over Taiwan's airspace, resulting in losses on both sides. Ground-based fires await degradation of China's air dominance and ISR before beginning to move in range of Chinese targets from Japan's southwest islands. Outside the immediate conflict area, U.S. Army forces provide base defense and runway repair in Japan and Guam and establish theater-wide logistics networks. Taiwan ground forces struggle to conduct a counterattack on landing Chinese forces, threatened by ubiquitous PRC A-ISR cueing and aerial and rocket fires as they move from hide positions. The PLA eventually establishes a beachhead on the northwestern coast of Taiwan, although it has suffered significant attrition from U.S. and Taiwanese mines, missiles, and torpedoes. The PLA moves to next seize a port to support resupply operations.

Meanwhile, following the ROK-U.S. combined strikes on the Kaesong Heights, North Korea launches a limited ground assault and seizes the northern South Korean city of Cheorwon, a few miles south of the demilitarized zone (DMZ). North Korea announces that it will consider pulling back forces once the United States and South Korea ensure that there are no additional strikes or incursions into North Korea. The United

OPERATIONAL PROBLEMS

TAIWAN

» **CLUTTERED ENVIRONMENT AND CONTESTED ISR**
China likely will employ decoys, civilian vessels, and smaller craft in its amphibious invasion force to confuse U.S. targeting from standoff ranges. Urban areas and internally displaced civilians will also complicate rules of engagement for U.S. long-range fires.

» **INITIAL PRC AIR DOMINANCE OVER TAIWAN AND THE STRAIT**
Taiwan military forces will face attrition from the air or MRLs from mainland China, supported by A-ISR. Challenging PRC air dominance will require time and likely significant attrition of U.S. aircraft because of PLAAF numbers, nested PRC air defenses, and attacks on U.S. and Japanese air bases.

» **INCREASED PROTECTION AND LOGISTICS DEMANDS FOR DISPERSED FORCES**
Survivability concepts developed in response to China's increasing anti-access and area denial (A2/AD) capabilities, such as ACE, will require additional air defenses, ground security, engineering support, and transportation to maintain operational tempo.

KOREAN PENINSULA

» **MASS ARTILLERY THREAT TO ROK POPULATION CENTERS**
The DPRK has significant medium- and long-range artillery firing capabilities from hardened artillery sites and tunnels in complex terrain, threatening ROK cities and complicating U.S. and ROK's ability to find and target the batteries.

» **AVOIDANCE OF WIDENING CONFLICT**
China may not be able to distinguish forces engaged in ROK's defense from those engaged in the Taiwan fight. Additional naval or air assets and operations on the peninsula may be interpreted by China as potential threats, leading U.S. forces in ROK to become targets of PRC strikes.

Scenario 3

States and South Korea consider non-combatant evacuation operations (NEO) from other locations along the DMZ. U.S. armored forces begin advancing to the area.

In the Taiwan Strait, U.S. long-range bombers and submarines have decremented Chinese reinforcements and impeded resupply with a steady application of standoff strikes. Army engineers also have repaired runways in Japan and Guam, enabling the United States to increase its generation of fighter sorties. Revitalized U.S. airpower soon breaks Chinese air dominance over Taiwan, providing cover for surviving Taiwanese ground units to reposition and resupply. However, the costs of withstanding the initial Chinese blow have been extremely steep for the allies. While over half of Chinese airpower and nearly all PLAN surface ships have been destroyed, the United States has lost a significant number of fighters from air-to-air combat over Taiwan and strikes on military air bases in Japan and Guam. On the ground, the PLA advances slowly as logistics are interdicted and U.S. ground- and air-launched anti-armor munitions attrit its combat vehicles.

During the next phase of the conflict—roughly two weeks after the opening Chinese salvos—the PLA moves long-range SAM systems to Taiwan to protect its lodgment from harassment by U.S. airpower. In Taipei, U.S. SOF detachments help prepare the remaining Taiwan reserves and populace for armed resistance. Hoping to stall the PLA offensive as it enters Taiwan's sprawling capital city, Taiwanese defenders shift to guerilla and urban warfare tactics. China transitions to a primarily infantry fight, engaging the urban defenders and shifting combat forces to control the Taiwan populace in its areas of control. With U.S. airpower attriting China's sustainment convoys from the mainland, its southern advances slow and eventually halt, although Chinese forces continue to dig in and fortify their beachhead along the northwestern coast of Taiwan.

On the eastern coast of the Korean Peninsula, the KPA mobilizes two divisions and threatens to invade southward across the DMZ in a feint to trigger negotiations with Seoul. In the central sector, KPA forces occupying Cheorwon build fortifications adjacent to schools, hospitals, and other civilian centers to inhibit U.S. and ROK airstrikes against them. The allies deploy UASs to provide ISR over the city and detect any additional KPA units that might cross the DMZ to reinforce the Cheorwon salient. In the central sector at Cheorwon, the U.S. Army positions an armored brigade combat team to join ROK Army units for a combined counterattack into the city. Wishing to dictate the confrontation's end on its own terms, Pyongyang calls for renewed negotiations. It offers to withdraw KPA troops from the city if the U.S.-ROK alliance will let them leave unharmed and cease fires into its territory.

Washington and Seoul ultimately agree to these terms, and the first KPA units begin retrograding northward. Once the KPA units withdraw from Cheorwon, U.S. Army chemical, biological, radiological, and nuclear (CBRN) and explosive ordnance disposal (EOD) units comb the city for any weapons of mass destruction (WMD) or explosives possibly left behind by North Korean soldiers. In the east, the KPA begins to withdraw the force that feigned an invasion, and South Korea deploys additional capabilities in the DMZ to verify the KPA's withdrawal. The immediate conflict on the Korean Peninsula has ended, but the fight for Taiwan drifts toward a lower-intensity protracted conflict. Remaining Taiwan forces and willing citizenry engage in irregular warfare tactics against Chinese forces but struggle to maintain momentum because resupply to the island faces Chinese interdiction. Shifts to "humanitarian assistance" cargo from mainland China complicates U.S. Joint Force targeting of Chinese military resupply efforts. ◆

Key scenario assumptions are on pp. 92–93. References are on pp. 115–118.

PHOTO: An M142 High Mobility Artillery Rocket System (HIMARS) launches a PrSM with an extended range beyond 400 km at White Sands Missile Range, New Mexico. The Army is also collaborating with the Navy to develop a land-based Tomahawk and Standard Missile-6 (SM-6) capability to augment its long-range precision arsenal. (U.S. Army)

SCENARIO 3

Competition Phase

KEY EVENTS AND ARMY ROLES

PAKISTAN

NEPAL

INDIA

LAOS

THAILAND

CAMBODIA

- Capital
- U.S. main operating base
- U.S. forward-operating base
- Army
- Air Force
- Navy
- Marine Corps

Locations are approximate

250 km

100 mi

2

COMPARATIVE DAYS OF RESERVE TRAINING*

= 10 days of training XY = Length of conscription

Taiwan 4 mos	4	Current
> 4 mos	14–28	Proposed
ROK 2 yrs	9	
Australia N/A	60	Minimum
Japan N/A	15	Regular reserve
	90	Rapid reaction
U.S. N/A	114	

*Over 3 years

TAIWAN'S OVERALL DEFENSE CONCEPT: RESERVE FORCES

Taiwan's Overall Defense Concept relies heavily on the mobilization of its reserve forces. Taiwan has sought to improve its reserve capabilities by establishing the All-Out Defense Mobilization Agency and expanding refresher training, but capability gaps remain. Through such programs as SPP, the U.S. Army can provide advice to Taiwan that is focused on strengthening reserve and non-commissioned officer capabilities and management and training via military exchanges and exercises.

1 6

FMS NOTIFICATIONS 2017-2022	MAJOR GROUND SYSTEMS
Taiwan: ***$19.2 billion***	M1A2 Abrams M109A6 Paladin HIMARS launchers Stinger missiles
Japan: ***$39.0 billion***	
ROK: ***$6.7 billion***	AGM-114R Hellfire PAC-3 missile

THE ARMY'S ROLE IN FOREIGN MILITARY SALES

The U.S. Army Security Assistance Command (USASAC) develops and manages Army security assistance programs and FMS. USASAC offers a "total package approach," providing equipment, training, maintenance support, spare parts, and other services to ensure long-term capability, interoperability, and an enduring relationship between the United States and allied and partner militaries.

KEY EVENTS: 2024–2033
(IN YEARS)

U.S. PRC Taiwan DPRK ROK

Chronology ○ Depicted in infographic

2024 — 1 — United States agrees to provide Taiwan additional missiles, AD, and artillery.

2025 — 2 — United States and Taiwan increase military engagements, including high-level officer exchanges and bilateral exercises.

3 — China increases size and scope of amphibious landing, air assault, and urban warfare exercises.

2026 — 4 — USFK and ROK restart large-scale military exercises focused on interoperability and CBRN on the peninsula.

IDENTIFIED ARMY ROLES

ACTIVITY

- ⋈ Exercise/training
- ▸▸ Force deployment
- \+ Posture
- ~ Combat operations

Ongoing rotation
Taiwan/ROK activity
Taiwan activity
ROK activity

ROLES FRAMEWORK

JOINT ENABLERS

⋈ **SET THE THEATER /** SDDC, USARPAC 8th TSC, RSGs – Plan and conduct exercising of RSOI concepts across

JOINT KINETIC FIGHT

~ + **ISR /** TFE, MDEB MI – Target development of PRC and DPRK forces and infrastructure, monitor for I&W

STRENGTHEN + LEVERAGE RELATIONSHIPS

⋈ **INSTITUTION-BUILDING / Army National Guard and Reserves** – The U.S. Army assists ROK Army with non-c

⋈ ~ **INTEROPERABILITY, Fires Btys**

⋈ **INSTITUTION-BUILDING /** Army Hawaii National Guard – U.S. and Taiwan armed f

SOURCES: For a list of infographic references, see pp. 115–118.
NOTE: For visualization abbreviations, see pp. 98–101.

BEIJING
DPRK
PYONGYANG
Sea of Japan
SEOUL
Yellow Sea
ROK
JAPAN
TOKYO
East China Sea
Okinawa (JP)
Ryukyu Is. Archipelago
CHINA
TAIPEI
TAIWAN
Taiwan Strait
MANILA
VIETNAM
PHILIPPINES
Guam (U.S.)

4

In 2018, the ROK Ministry of Defense estimated that the DPRK had between 2,500 and 5,000 tons of chemical weapons. U.S. Army CBRN units regularly exercise with their ROK counterparts in detection and decontamination of chemical agents because of the heightened threat. The U.S. Army is also the Executive Agent of the U.S. Chemical and Biological Defense Program.

7

LIVE-FIRE ROCKET ARTILLERY DRILL

In 2021, the U.S. Army and Japan Ground Self-Defense Force (GSDF) conducted a live-fire rocket artillery drill together for the first time. Given ranges of future Army long-range fires, Army systems will need to be forward-deployed on either the southwest Ryukyu Islands or in the northern Philippines to range targets in the strait and on Taiwan. Exercises with the U.S. Army and GSDF will be key to honing combined long-range fires concepts for a potential Taiwan or defense-of-Japan scenario.

Taiwan's population density is one of the highest in the world, with 673 people per square kilometer and 78.9 percent of the population residing in urban environments that run along the west coast of Taiwan.

5

Should China successfully land forces on Taiwan, it will face significant urban sprawl and the dense mega-city of Taipei. Primarily a ground force mission, an urban operation entails working with terrain with tall buildings and underground tunnels, limited line of sight for wide ISR coverage, and congested civilian populations. The U.S. Army can work together with its Taiwan counterparts to develop and train on urban tactics to slow and increase the cost of PRC advances.

URBAN OPERATIONS

5 United States and Taiwan conduct military exchanges focusing on survivability, combined arms, and urban warfare.

6 Final deliveries of M1A1 tanks, MQ-9s, Paladins, Harpoon Block II missiles, and HIMARS to Taiwan.

7 Japan fields longer-range surface-to-surface fire systems and conducts live-fire drills with U.S. Army.

8 ROK conscription baseline reaches all-time low of 240,000 personnel.

9 Chinese aircraft incursions across the strait's median line reach all-time high.

10 DPRK conducts extensive testing of ICBMs, and Kim Jong Un statements become increasingly bellicose.

11 ROK People Power Party majority increases investments in ISR, long-range strike, and air and missile defense interoperability with the United States.

12 PRC provides DPRK with the FK-3 air defense system.

2027 2028 2029 2030 2031 2032 2033

Japan and ROK bases and supply points

WIDE-AREA SECURITY, AIR DEFENSE / Infantry, IFPC, Patriot – Exercise air defense operations for USAF ACE in Japan, Guam

INTRA-THEATER, INLAND TRANSPORTATION / Army watercraft, ground transport/distribution units – Exercise contested logistics across Japan and Guam

INTEROPERABILITY / 1st MDTF – 1st MDTF and 3rd Marine Littoral Regiment exercises focused on interoperability between Army MDO and USMC EABO

AIR + MISSILE DEFENSE / 94th AAMDC, Patriot/IFPC – Air defenses on Guam are bolstered by 30 mobile MRC launchers (SM-6, -3)

ommissioned officer reforms through SME exchanges, training, and exercises

, AWS – Exercises Orient Shield, Yama Sakura – Exercises expand and include more-complex long-range live fires, contested littoral logistics, and AD operations (rotations grow in size and duration)

orces establish an SPP to help improve Taiwan's reserve institutions, capabilities, and mobilization capacity

INTEROPERABILITY / 8th Army, USASAC – Develops and integrates a U.S.-ROK MDO concept through combined doctrine and exercises

CAPACITY-BUILDING / Eng., arty, infantry units – U.S. Army hosts Taiwan armed forces (HI/AK) to train for command post exercises, tactical survivability, urban warfare tactics, and artillery support

SCENARIO 3

Crisis Phase

CHINA PREPARES TO INVADE TAIWAN

PAKISTAN

NEPAL

BHUTAN

BANGLADESH

INDIA

CAMBODIA

VIETNAM

- ★ Capital

Major Chinese mainland bases

- Theater Army HQ
- Group Army
- Military District
- Theater Air Force HQ
- Air base
- Bomber Division HQ
- Transport Division
- Theater Navy HQ
- Marine HQ

Major U.S. overseas bases/locations

- Main operating base
- Forward operating base
- Army
- Air Force
- Navy
- Marine Corps

- Defense fuel support point (DFSP)
- Petroleum, oils, lubricants (POL)
- Ammunition supply point (ASP)

Locations are approximate

500 km
100 mi

KEY EVENTS: 2034–2035
(IN WEEKS)

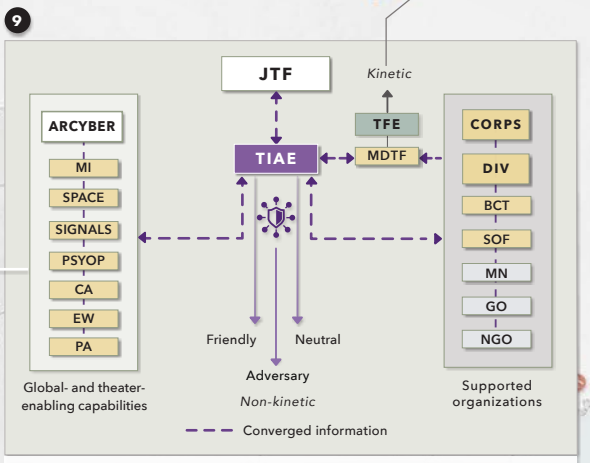
U.S. PRC Taiwan DPRK ROK

Chronology ○ Depicted in infographic

9

The U.S. Army has dedicated career series and soldier functional areas that focus on the information environment, including the 37 series for PSYOP and FA30s IO. Army PSYOP forces receive specialized training in language, culture, and influence techniques, while IO officers are trained to integrate across military information support operations (MISO), military deception (mildec), and PSYOP.

9



THEATER-WIDE INFORMATION ADVANTAGE

IO coordination across the Joint Force is a herculean task. In a Theater Army (TA) alone, there are currently 15 units that address IO. The U.S. Army is experimenting with the TIAE, a unit that converges theater-level information-related capabilities—from Cyber, EW, PSYOP, Civil Affairs (CA), Public Affairs (PA), to OPSEC and space operations—into a single formation. TIAE is designed to rapidly coordinate information to support decisionmaking; inform and influence friendly and adversary attitudes, perceptions, and behaviors; and protect information to gain and maintain an "information advantage" in competition through conflicts.

1 **2034** — Anxiety grows as Taiwan's national election candidates compete on tougher stances against PRC influence and intimidation.

2 **2035** — CCP responds with a strategic information campaign reporting pro-Beijing content and begins a show of military force.

3 — China ramps up fighter aircraft incursions across the median line in the strait and begins circumnavigation flights of Taiwan.

4 **JUNE** — China claims that training maneuvers of amphibious landing are "standard training" and mobilizes assets to seven eastern ports.

IDENTIFIED ARMY ROLES

ACTIVITY

- ⋈ Exercise/training
- ▸▸ Force deployment
- \+ Posture
- ~ Combat operations

- Taiwan/ROK activity
- Taiwan activity
- ROK activity

ROLES FRAMEWORK

JOINT ENABLERS

~ + **ISR, I&W / MDEB Space, ERSE Assets and HAB Teams** – Provide aerial and space surv

~ + **IO/TIAE / Theater IO Group, IO Field Support Teams** – Fuse, coordinate, and execute

JOINT KINETIC FIGHT

~ + **ISR / TFE, MDEB MI** – Target development of PRC and DPRK forces and infrastructure, monitor for I&W

STRENGTHEN + LEVERAGE RELATIONSHIPS

~ **LIAISON SUPPORT / 5 SFAB Advisory Teams, digital liaison detachment** – Advise and help

~ **AIR DEFENSE / THAAD, Patriot, IFPC** – Integrate with and supports Japan and ROK IAMD

SOURCES: For a list of infographic references, see pp. 115–118.
NOTE: For visualization abbreviations, see pp. 98–101.

As of 2022, the PLA has six amphibious combined armed brigades within the 72nd, 73rd, and 74th group armies. In 2021, the PLA conducted an estimated 32 amphibious training activities and six sea deployment exercises with civilian RO/ROs at the battalion level or below. New PLA aviation, air mobile, and SOF brigades have also been introduced since 2017, enhancing China's invasion options.

SETTING THE PENINSULA

The USFK 8th Army conducts RSOI and theater sustainment operations (e.g., fuel, ammunition, and resupply) for ROK-U.S. combined forces to ensure a quick res-pone to threats on the peninsula.

Class V* — 25 ASPs

+9 ammunition depots
+115 prepos. stock points

Class IIIB — 16 DFSPs

~90,000,000 gal of fuel

* Sites listed are for ground munitions only.

DPRK

S. KOREA

JAPAN

Busan-Jinhae is the primary port receiving ammunition via sealift.

USAF prepositioned advanced unmanned aerial assets disperse.

USARJ management and coordination of fuel and ammunition on Japan and Okinawa entails movement from

Class V — 5 ASPs

3,335,000 lb
of net explosive weight

Class IIIB — 13 DFSPs

409,000,000 gal
of diesel and jet fuel

DFSP POL ASP

CHINA

East China Sea

Taiwan ADIZ not recognized by the United States

"Median" line

Okinawa (JP)

TAIPEI

TAIWAN

Taiwan ADIZ

Approximate area where most PLA incursions have occurred.

SYNCHRONIZING JOINT LOGISTICS AND SUSTAINMENT

Dispersal for survivability, adversary strikes, and competing host nation demands will stress the Joint Force's transportation requirements as it strives to maintain its operational tempo on Japan. USARJ is responsible for managing all common user logistics transportation (e.g., contracted trucks, buses) on mainland Japan in support of the Joint Force, DoD agencies, and GSDF, ensuring that all supplies, equipment, and personnel get to their operating locations quickly.

U.S. deterrent force deployments commence.

South China Sea

PHILIPPINES

Guam (U.S.)

5 U.S. intel confirms that six PLA airborne and air assault Bdes along the eastern coast of China are on high alert.

6 One of the PLA intrusions across the median line results in a Taiwan Mirage 2000 and PLAAF J-16 collision.

7 Taiwan begins to mobilize reserve army forces and places its air and coastal defense systems on high alert.

8 U.S. and ROK air and naval forces increase air and maritime patrols because of fears of DPRK opportunism during heightened regional tension.

9 China conducts cyber-attacks on Taiwan govt and military networks and an information campaign targeting Taiwan's force mobilization and populace.

10 United States executes influence campaign to disrupt Chinese decision-making cycle and IO campaign.

11 D–7, unambiguous warning, the United States begins flowing aircraft, air defense units, and naval vessels to theater.

JULY

eillance, collection and processing, and early warning from Japan and Korea

IO across echelons in support of Joint Force commander

~+ **JRSOI /** 8th TSC, SDDC – Work with Japan to prepare air bases and ports to receive additional joint forces

~+ **EW /** MDEB, HAB Teams – Degrade short- to medium-range PRC ISR assets over strait and Taiwan

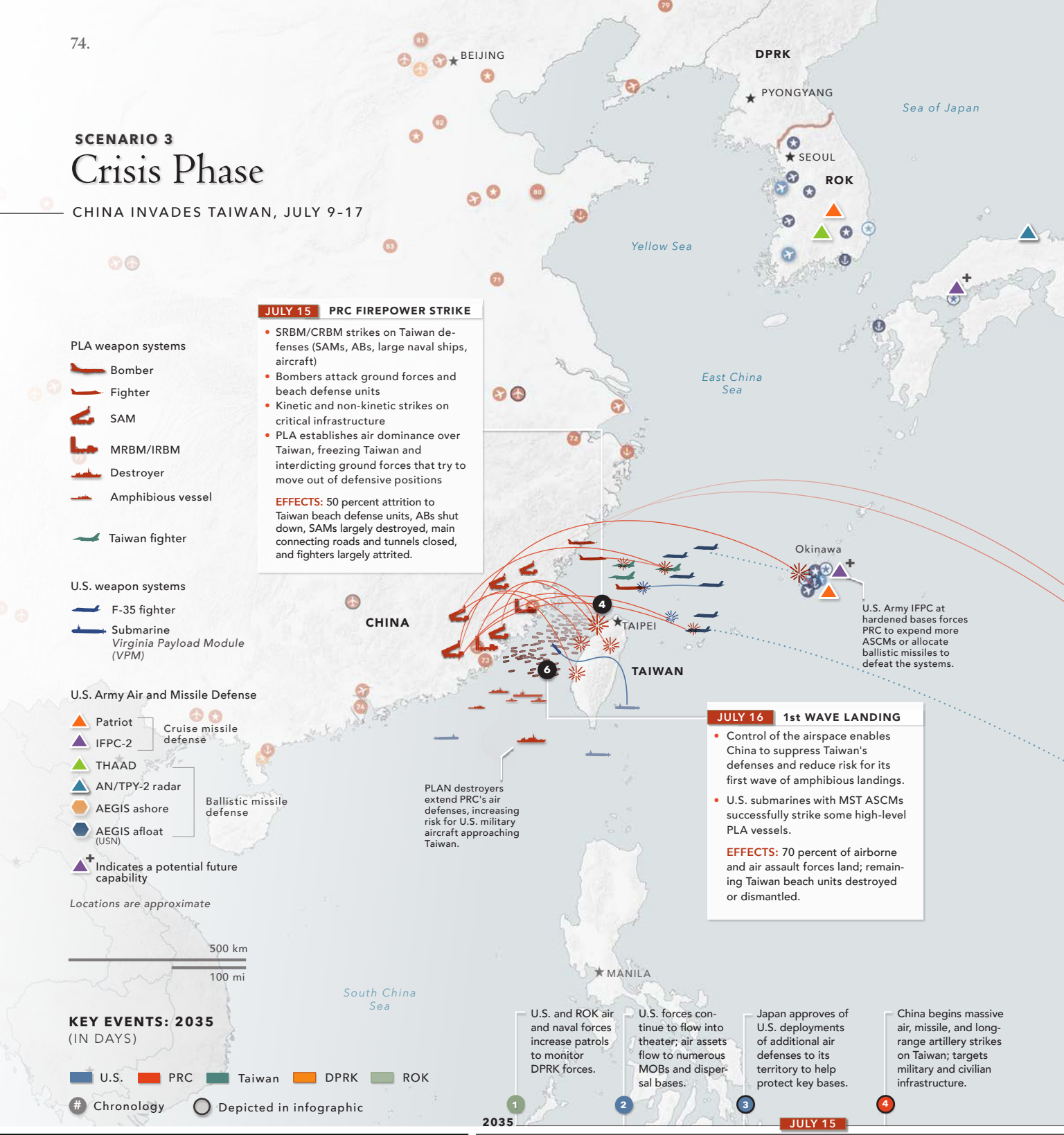
o coordinate early warning and conflict intelligence-sharing between U.S. and Taiwan armed forces

systems

SCENARIO 3

Crisis Phase

CHINA INVADES TAIWAN, JULY 9–17



IDENTIFIED ARMY ROLES

ACTIVITY

- Exercise/training
- Force deployment
- Posture
- Combat operations

- Taiwan/ROK activity
- Taiwan activity
- ROK activity

ROLES FRAMEWORK

JOINT ENABLERS

~ + **ISR, I&W / MDEB Space, ERSE Assets + HAB Teams** – Provide aerial and space surveillance, collection and p

~ + **IO/TIAE / Theater IO Group, IO Field Support Teams** – Fuse, coordinate, and execute IO across echelons in

~ + **JRSOI / 8th TSC, SDDC** – Work with Japan to prep ABs and ports to receive additional joint forces

~ + **EW / MDEB, HAB Teams** – Degrade short- to medium-range PRC ISR assets over the strait and Taiwan

JOINT KINETIC FIGHT

~ + **ISR / MDEB TFE, MDEB MI** – Target development of PRC and DPRK forces and infrastructure, monitor adversary

~ + **TARGETING / Army SOF, Liaison Teams** – U.S. forwa

STRENGTHEN + LEVERAGE RELATIONSHIPS

~ **LIAISON SUPPORT / 5 SFAB Advisory Teams, digital liaison detachment** – Advise and help coordinate early warni

~ **AIR DEFENSE / THAAD, Patriot, IFPC** – Integrate with and support Japan and ROK IAMD

SOURCES: For a list of infographic references, see pp. 115–118.
NOTE: For visualization abbreviations, see pp. 98–101.

JAPAN

TOKYO

10 The Army's 10th Support Group helps coordinate RSOI and contingency sustainment.

ESG

CSG

INTRA-THEATER LIFT

Runnymede-class LCU: 10.5 knots, approx. 350 ton lift, over-the-shore and on-and-off loading.

Saipan

~120 nm from Guam

Tinian

~105 nm

1 round trip to Tinian/Saipan a day saves ~23 C-130 sorties

5 9 AIR BASE DEFENSE – 94TH AAMDC

U.S. ARMY AIR AND MISSILE DEFENSE

Joint and layered integrated air and missile defense (IAMD) at ABs need to respond to existing and future threats, such as PLA cruise and ballistic missiles and hypersonic weapons. The Army's 94th Army Air and Missile Defense Command (AAMDC)–headquartered in Hawaii–fields advanced air defense capabilities, including THAAD, IFPC-2, Patriot, and AEGIS–and persistent sensor coverage to defend critical assets in the Indo-Pacific theater and the U.S. homeland.

Andersen AB *"Hub"*

NB Guam

Guam

Dispersal base: *under construction* / *potential*

U.S. ARMY SUPPORT TO OTHER SERVICES

Army logistics and air defense support will be critical in ensuring that USAF can generate sorties at a rate to accomplish this mission in a contested environment. This demand will likely increase with the implementation of the ACE concept with aircraft flowing from hubs to theater-wide dispersal bases. The Army can provide distribution of ammo, fuel, and construction supplies for hardening measures on airfields, either through its own organic watercraft and rotary-wing aircraft or by coordinating contract and host nation support. In addition, the Army can bolster Joint Force capacity in rapid runway repair and EOD.

12 RAPID RUNWAY REPAIR

EXPLOSIVE ORDANCE DISPOSAL

Ballistic missiles can shower hundreds of runway penetrating submunitions on an AB. U.S. Army EOD and engineer teams can strengthen USAF organic capabilities.

9

CSG

ESG

Guam

CSG

En route

x 5

5 PRC strikes Okinawa; Japan declares situation to be an "existential threat" to its defense.

6 1st wave of hundreds of PLA amphibious assault: Militia vessels, and thousands of fishing boats head east across the strait.

7 U.S. conducts cyberattacks against PRC ports supporting the amphibious invasion.

8 Taiwan fighters and U.S. F-35s from Japan and Guam (with refueling) engage PLAAF aircraft with significant losses.

9 PRC continues cruise and ballistic missile strikes on airfields in Japan and Guam.

10 USARJ helps establish RSOI of forces flowing into Japan.

11 Taiwan defense forces remain pinned by PRC air and MRLs strikes as PRC amphibious units begin landing on Taiwan beaches.

12 U.S. Army assists USAF with runway repair and coordinates movement of supply in Japan and Guam.

JULY 16 JULY 17

processing, and early warning from Japan and Korea

support of Joint Force commander

+ **THEATER DISTRIBUTION / 8th TSC, ESC, AWS, Inland Transportation, Port Opening/Operations** – Estab./support distribution network for high-volume sustainment flows from dispersed joint locations

~ + **AIR BASE RESILIENCY + REPAIR / Horizontal engineering, POL, infantry units** – Protect against and mitigate effects of PRC attacks against U.S. ABs distributed in ACE concept

force activities

rd observers and/or liaisons embedded with Taiwan intelligence pass targeting information on landing PRC forces to joint fires assets

~ **AIR + MISSILE DEFENSE / THAAD, Patriot, IFPC Btys** – AMD at joint, Japanese, and Korean military bases and key land-based firing positions

ng and conflict intelligence-sharing between U.S. and Taiwan forces

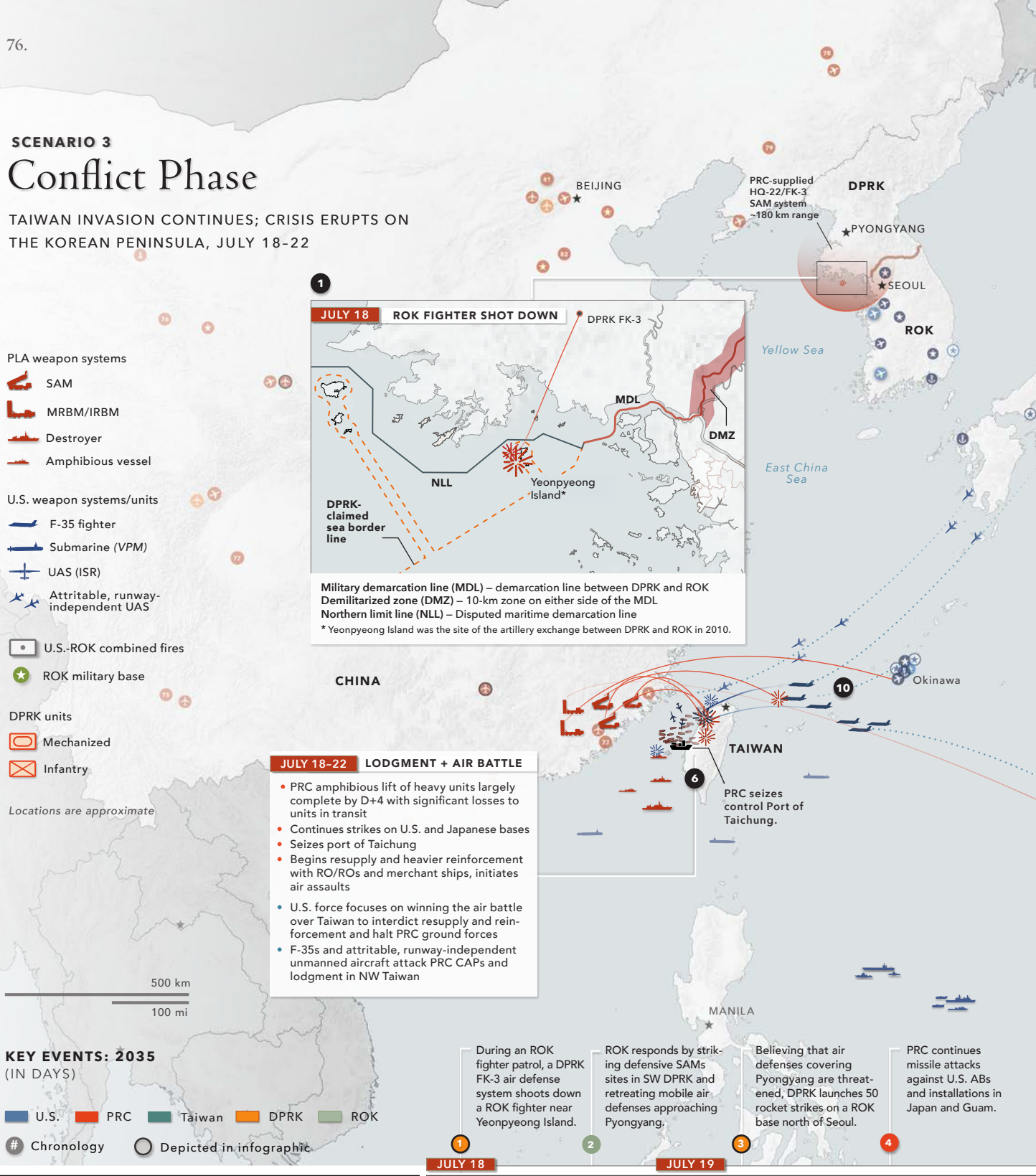
~ + **ISR / MDEB Space Co, MI Co** – Assist joint and Japanese forces with intelligence fusion and targeting

systems

SCENARIO 3

Conflict Phase

TAIWAN INVASION CONTINUES; CRISIS ERUPTS ON THE KOREAN PENINSULA, JULY 18–22



KEY EVENTS: 2035
(IN DAYS)

U.S. PRC Taiwan DPRK ROK

Chronology ○ Depicted in infographic

1 — JULY 18 — During an ROK fighter patrol, a DPRK FK-3 air defense system shoots down a ROK fighter near Yeonpyeong Island.

2 — ROK responds by striking defensive SAMs sites in SW DPRK and retreating mobile air defenses approaching Pyongyang.

3 — JULY 19 — Believing that air defenses covering Pyongyang are threatened, DPRK launches 50 rocket strikes on a ROK base north of Seoul.

4 — PRC continues missile attacks against U.S. ABs and installations in Japan and Guam.

IDENTIFIED ARMY ROLES

ACTIVITY
- Exercise/training
- Force deployment
- Posture
- Combat operations

Taiwan/ROK activity
Taiwan activity
ROK activity

ROLES FRAMEWORK

JOINT ENABLERS

~ **ISR, I&W** / MDEB Space, ERSE Assets + HAB Teams – Provide aerial and space surveillance, collection and pro
~ **IO, TIAE** / Theater IO Group, IO Field Support Teams – Fuse, coordinate, and execute IO across echelons in su
\+ **THEATER DISTRIBUTION** / 8th TSC, ESC, AWS, Inland Cargo Transportation Co, Port Opening/Operations – Establish
~ **EW** / MDEB, HAB Teams – Degrade short- to medium-range PRC and DPRK ISR assets over the strait, Taiwan, a
~ **COMMAND, CONTROL, + COMMUNICATIONS** / 1st Signal Bde – Establish and maintain signal and network
~ + **AIR BASE RESILIENCY + REPAIR** / Horizontal engineering, POL, infantry units – Protect against and mitig

JOINT KINETIC FIGHT

~ + **ISR** / TFE, MDEB MI – Target development of PRC and DPRK forces and infrastructure, monitor adversary fo
~ + **TARGETING** / Army SOF, Liaison Teams – U.S. forward observers and/or liaisons embedded with Taiwan intellige
~ **AIR + MISSILE DEFENSE** / THAAD, Patriot, IFPC Btys – AMD at joint, Japanese, and Korean military bases and key land

STRENGTHEN + LEVERAGE RELATIONSHIPS

~ **LIAISON SUPPORT** / 5 SFAB, Advisory SOF – Advise and help coordinate counterattack, survivability, and irregu
~ + **COMBINED GROUND SUSTAINMENT, WHNS COORDINATION** / 19th Expeditionary Sustainment Comm
~ **AIR DEFENSE** / THAAD, Patriot, IFPC – Integrate with and support Japan and ROK IAMD systems
~ + **ISR** / MDEB Space Co, MI Co – Assist joint and Japanese forces with intelligence fusion and targeting
~ + **AIRSPACE + TARGET DECONFLICTION** / JTAC – Helps to coordinate U.S. joint fires support and timing of

SOURCES: For a list of infographic references, see pp. 115–118.
NOTE: For visualization abbreviations, see pp. 98–101.

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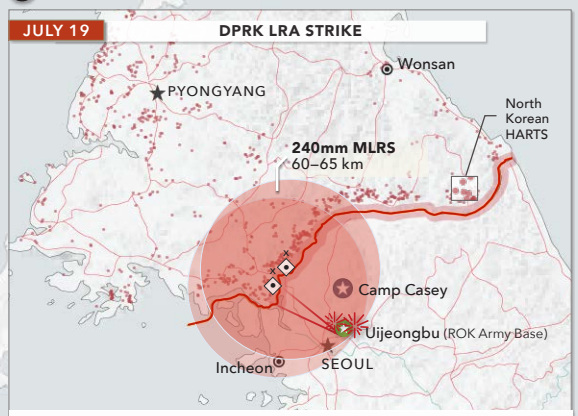
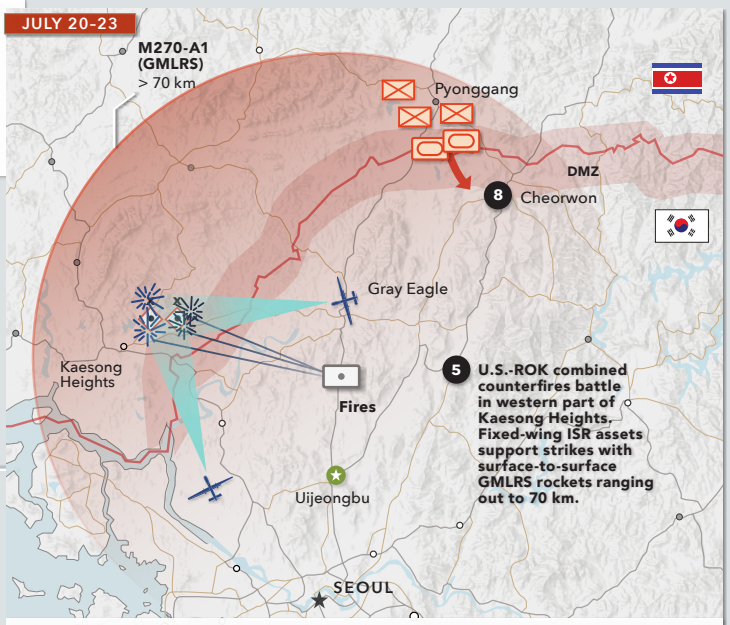


The DPRK ground force has about 14,100 artillery systems, or more than two times as many as the ROK military, with 70 percent of the systems forward deployed (south of Pyongyang and Wonsan line) in over 4,000 hardened artillery sites (HARTS) and underground bunkers. Among these artillery systems, DPRK has 5,500 long-range artillery (LRA) MRLS. Over 50 percent of the ROK population is within range of these weapons. At a maximum rate, those forward-deployed DPRK artillery units could fire 500,000 shells per hour.

12

USARPAC is the INDOPACOM-designated coordinator of theater NEO. With thousands of U.S. citizens residing in the Indo-Pacific, the scale of demand for civilian evacuations is potentially massive in the event of a major conflict. NEO exercises, such as Courageous Channel (last conducted in 2017), will be critical in planning and training in Korea, Japan, and other Indo-Pacific countries if war breaks out.

JULY 20-23



U.S. ARMY COUNTERFIRES

The mobility and fortified emplacements of the DPRK's artillery will require highly responsive detection and targeting and precision weaponry. The U.S. Army currently, and for the foreseeable future, has a single forward-deployed fires Bde in the ROK, but modernization efforts underway may increase the efficiency and lethality of Army artillery. For example, legacy or future Cluster Munition Policy—compliant sensor-fuzed weapons or submunitions could increase the lethality rate of artillery volleys. For joint fires, U.S. Army counterfire radars can assist in locating adversary fires locations, and U.S. Army UAS or fixed-wing aircraft carrying ELINT or SIGINT sensors can also help pinpoint the adversary's counter-battery radars that are not radiating.

AN/TPQ-53 COUNTERFIRE RADAR

AN/TPQ-53 is a counterfire target acquisition radar that detects and tracks enemy mortar, artillery, and rocket fires, determining the location of enemy indirect fire. The U.S. Army has operated the Q-53 in combat since 2010.

Guam

5 U.S.-ROK combined counterfires and ISR effort strikes DPRK LRA in Kaesong Heights.

6 PRC establishes a lodgment on the northern portion of Taiwan; seizes control of port.

7 Taiwan forces fall back and request U.S. joint fires and reinforcement assistance.

8 In response to ROK-U.S. strikes, DPRK launches a limited ground assault across the DMZ near Cheorwon.

10 U.S. TACAIR aircraft and manned/unmanned systems attack PRC CAPs, ground units, and ships to interdict PRC resupply/reinforcement.

11 DPRK seizes control of the city of Cheorwon.

12 ROK, Japan, and the United States begin discussing possible NEO requirements and coordination.

JULY 20 | JULY 21 | JULY 22

cessing, and early warning from Japan and Korea

pport of Joint Force commander

n and support distribution network for high-volume sustainment flows from dispersed joint locations

nd ROK-DPRK border

support for joint and combined U.S.-ROK forces

ate effects of PRC attacks against U.S. ABs distributed in ACE concept

rce activities

ence pass targeting information on landing PRC forces to joint fires assets

~+ **ISR / Gray Eagle Cos** – Reduced reliance on large-body, fixed-wing ISR for finding and targeting DPRK forces

~+ **COUNTER-BATTERY FIRES, SEAD / 210th Field Arty** – Supports ROK fires on detected DPRK artillery and air defense assets in Kaesong Heights

-based firing positions

lar warfare support efforts within Taiwan

nand – Establishes logistical distribution network for U.S.-ROK force positions and coordinates support from Korean Service Corps

U.S. fighter aircraft contesting airspace to support Taiwan ground maneuver

SCENARIO 3

Conflict Phase

TAIWAN INVASION SLOWS; DPRK LIMITED INCURSION INTO ROK REPULSED, JULY 23 AND BEYOND

6

U.S. Army SOF fill, on average, more than 60 percent of all U.S. SOF deployments worldwide and can provide specialized expertise and training for foreign SOF capabilities, occupation resistance, IO, and support to precision targeting. With an active army force of only around 165,000 personnel, Taiwan's defense will require improved mobilized reserve forces and irregular warfare tactics to slow PRC landings and advances.

CHINA

Japan would likely not allow HIMARS units to be placed in these locations during peacetime, but may do so during a conflict.

Okinawa

Ryukyu Is. Archipelago

300 km

950 km

850 km

TAIWAN

Yonaguni

Ishigaki-jima

MRC

LUZON

PHILIPPINES

PLA weapon systems
- SAM
- MRBM/IRBM
- Destroyer
- Amphibious vessel

U.S. weapon systems/units
- UAS (ISR)
- Armored brigade combat team (ABCT)
- U.S.-ROK combined armor
- U.S.-ROK combined fires
- ROK infantry

DPRK units
- Mechanized
- Infantry
- Air defense

Locations are approximate

6

TAIWAN SCENARIO | ARMY LONG-RANGE PRECISION FIRES

Army M142 HIMARS units that could be positioned in the Ryukyu Islands can provide fires and ISR capability in support of the Joint Force and Taiwan forces. PrSMs can range Taiwan and the strait, as can longer-range systems, such as the MRC from Okinawa and Luzon—which is modifying the Navy's SM-6 and Tomahawk missiles as possible ground-based versions. However, the units in the Ryukyus will be vulnerable to air- and ground-launched PRC attacks early in a Taiwan conflict. Not until PRC air dominance is effectively degraded would these units be safely forward-positioned to provide an important additive joint fires role in striking PRC land and maritime targets.

1 pod:
2 PrSM
6 GMLRS-ER

HIMARS

	RANGE (km)	TARGETS
HIMARS (PrSM)	> 500	*Air defense, maritime*
MRC	500–1,500	*Air defense, maritime, fixed infrastructure*
LRHW	~2,775	*Fixed infrastructure*

KEY EVENTS: 2035
(IN DAYS)

U.S. | PRC | Taiwan | DPRK | ROK

Chronology | Depicted in infographic

JULY 23

1 PRC combined arms brigades' advances stall as logistics continue to be interdicted by U.S. airpower.

2 U.S. ABCT joins ROK Army units for combined counterattack into Cheorwon.

JULY 24

3 PRC shifts to primarily infantry fight in urban terrain in northwestern Taiwan.

4 U.S. Army ISR and PrSMs used to conduct counter-attack and SEAD against DPRK radars.

JULY 25

5 U.S. airpower achieves contested airspace over Taiwan, with intermittent windows of air dominance.

IDENTIFIED ARMY ROLES

ACTIVITY
- Exercise/training
- Force deployment
- Posture
- Combat operations

Taiwan/ROK activity
Taiwan activity
ROK activity

ROLES FRAMEWORK

JOINT ENABLERS

~ **ISR, I&W /** MDEB Space, ERSE Assets + HAB Teams – Provide aerial and space surveillance, collection and pro
~ **IO/TIAE /** Theater IO Group, IO Field Support Teams – Fuse, coordinate, and execute IO across echelons in su
+ **THEATER DISTRIBUTION /** 8th TSC, ESCs, AWS, Inland Transportation, Port Opening/Operations – Establish and su
~ **EW /** MDEB, HAB Teams – Degrade short- to medium-range PRC and DPRK ISR assets over the strait, Taiwan,
~ **COMMAND, CONTROL, + COMMUNICATIONS /** 1st Signal Bde – Establish and maintain signal and network

JOINT KINETIC FIGHT

~ + **AIR BASE RESILIENCY + REPAIR /** Horizontal engineering, POL, infantry units – Protect against and mitiga
~ + **ISR /** TFE, MDEB MI – Target development of PRC and DPRK forces and infrastructure, monitor adversary for
~ + **TARGETING /** Army SOF, Liaison Teams – U.S. forward observers and/or liaisons embedded with Taiwan intellig
~ + **ISR /** Gray Eagle Cos – Reduce reliance on large-body, fixed-wing ISR for finding and targeting DPRK forces
~ + **COUNTER-BATTERY FIRES, SUPPRESSION OF ENEMY AIR DEFENSES /** 10th Field Arty – Supports ROK fire
~ + **CLEARING, DEFENSIVE LAND OPS /** ABCT – Prep to e

STRENGTHEN + LEVERAGE RELATIONSHIPS

~ **LIAISON SUPPORT /** 5 SFAB, Advisory SOF, JTAC – Help coordinate counterattack, survivability, I&W support, and airs
~ + **COMBINED GROUND SUSTAINMENT, WHNS COORDINATION /** 19th Expeditionary Sustainment Comma
~ **AIR DEFENSE /** THAAD, Patriot, IFPC – Integrate with and support Japan and ROK IAMD systems
~ + **ISR /** MDEB Space Co, MI Co – Assist joint and Japanese forces with intelligence fusion and targeting

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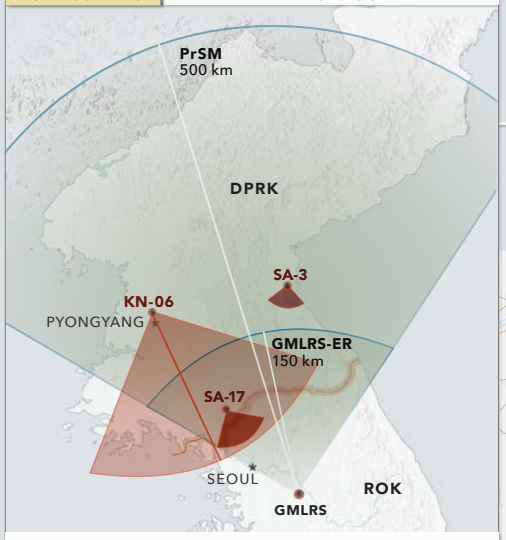
4

KOREA SCENARIO | DPRK AIR DEFENSE + U.S. ARMY LRPF



U.S. Army surface-to-surface missiles (SSMs) DPRK SAMs

The U.S. Army's guided PrSM will be fired from the M270A1 Guided Multiple Launch Rocket System (GMLRS) and the HIMARS. The system allows firing units to remain well south of the DMZ and still be capable of striking targets deep inside DPRK and reduces the risk to U.S. and ROK manned aircraft penetrating inside DPRK air space. Future increments of the PrSM will have increased capabilities with an emphasis on range, lethality, and engagement time of time-sensitive, hardened, and fleeting targets.

Inside DPRK there are large numbers of fixed air defense sites such as the older Russian SA-3 (30 km) and hundreds of additional mobile and fixed short-range SAMs. Other platforms include the SA-17 (50 km) and the indigenous modern road-mobile KN-06 (150 km), which would protect strategic assets and nuclear infrastructure.

4

FIRES C2 | AFATDS

The Army can also provide C2 for targeting data with its Advanced Field Artillery Tactical Data System (AFATDS) fires control systems, and, with improvements in interoperability, it can tie into ROK C2 systems as well. Depending on the location and the types of AD, the Army's future A-ISR platforms and sensors will also be a part of this overall C2 sensor-to-shooter system, and, potentially improved with AI.

LRPF | MDTF/MLR COORDINATION

In 2022, experimental elements of the Marine Littoral Regiment (MLR) were based in Hawaii. Future MLRs would have a Littoral Combat Team, a Littoral Anti-Air Battalion, and a Littoral Logistics Battalion. Its proposed sea denial and control focus could provide complementary capabilities alongside the MDTF.

SUPPRESSION OF ENEMY DEFENSE

SEAD, or destruction of enemy air defenses (DEAD), allows for greater control of the airspace, lessening risk for A-ISR and combat aircraft to detect and engage adversary forces. While USAF and USN can conduct SEAD/DEAD from aircraft using anti-radiation missiles, the U.S. Army's artillery and rocket systems can provide more time-sensitive engagement of detected mobile targets and allow aircraft sorties to be allocated to other missions. Cued by aerial, space, or other ISR, key current and future systems for ground-based fires, SEAD/DEAD include area effects munitions such as the Extended Range Cannon Artillery (> 70 km) and GMLRS-ER (150 km) and potential anti-radiation or multi-modal PrSM variant (> 499 km). Additionally, some of the Army's ISR systems can contribute to locating DPRK air defenses.

Army HIMARS and PrSM units move to Ryukyus and coordinate with USMC MLR units.

USFK force flow is diverted directly to Korea unless strategic loads need to be reconfigured in Japan.

Air suppression is successful within a day in area around the DPRK lodgment in Cheorwon.

DPRK demands a cease-fire and requests dialogue with ROK; ROK demands that DPRK units leave ROK territory within 72 hrs.

DPRK forces withdraw across DMZ, and U.S.-ROK forces halt strikes on the Kaesong Heights and Cheorwon.

Taiwan resistance during urban operations loses steam as lack of resupply continues.

U.S. forces continue to monitor DPRK movement; begin explosive ordnance and CBRN sweep in the formerly occupied area.

PRC operations become bogged down as they face the challenges of urban operations in Taiwan's cities.

6 7 8 9 10 11 12 13

JULY 26 JULY 27 JULY 28

cessing, and early warning from Japan and Korea

upport of Joint Force commander

pport distribution network for high-volume sustainment flows from dispersed joint locations

and the ROK-DPRK border

support for joint and combined U.S.-ROK forces

te effects of PRC attacks against U.S. ABs distributed in ACE concept

ce activities

ence pass targeting information on landing PRC forces to joint fires assets

~+ **ANTI-SHIP, ANTI-ARMOR FIRES / MDTF fires cell** – Deployed to SW Japanese islands, integrates and coordinates with MLR forces

es on detected DPRK artillery and air defense assets in Kaesong Heights

ngage and push back DPRK forces, estab. defensive line in case of further DPRK incursions into ROK

pace and target deconfliction within Taiwan

nd ~ **HUMANITARIAN ASSISTANCE / Infantry and Civil Affairs units** – Assist returning ROK population displaced by crisis

~ **POST-CONFLICT OPERATIONS / EOD, Eng., and CBRN units** – Repair damaged areas, check for CBRN use by DPRK

SCENARIO 3

Key Insights: Army Roles in the Indo-Pacific

An examination of the Taiwan Strait conflict and the simultaneous crisis on the Korean Peninsula in this scenario reveals combined insights into the Army's ability to manage two simultaneous conflicts within a single theater.

›› **The U.S. Army's logistical expertise is vital.**

In both scenarios, the Army plays a crucial role in the management of logistics in-flows across the theater. Aircraft, munitions, and other supplies will surge to Japan in the event of a crisis on either Taiwan or the Korean Peninsula. Army personnel can open additional ports and help ensure that war materiel arrives quickly where needed. For both conflicts, logistical support to operations out of and force flow into Japan proved critical.

›› **U.S. Army units can deconflict joint fires.**

Army SOF and Joint Tactical Air Controllers forward deployed with engaged allies can provide critical targeting capabilities to the Joint Force. Whether deployed to northern Taiwan or along the DMZ, Army enablers can assist with targeting standoff fires in areas denied to traditional A-ISR assets. These units also could assist with deconfliction and prevent friendly fire against both U.S. and allied ground units.

›› **U.S. Army air defense and engineer units will be in high demand.**

Whether in Korea, Japan, or Guam, the Joint Force will need to protect its ABs against a daunting Chinese threat. The PLA's massive inventory of long-range cruise and ballistic missiles threatens nearly every major U.S. AB in the theater. Air defense units equipped with Patriot missiles, Indirect Fire Protection Capability (IFPC) or Maneuver Short-Range Air Defense (M-SHORAD) systems could help mitigate the efficacy of Chinese long-range strikes. In the event that PLA strikes do penetrate these defenses, Army engineers can assist with AB repair to quickly restore sortie generation levels.

TAIWAN

From the Taiwan scenario, the Army can better understand the challenges of blunting an enemy fait accompli and ultimately working with allies and partners to reverse the adversary's gains.

›› **Early ground fires will be limited if not forward deployed.**

Planned ranges of Army fires will require their employment from either the southwest islands of Japan or north Luzon in the Philippines to affect Chinese forces invading Taiwan. In our scenario, the Philippines did not allow access, and Japan was reticent to allow U.S. ground fires positioning until after Chinese strikes occurred. Once these strikes occurred, however, China's ability to contest the area increased risk to sealift- and airlift-transporting fires units, leading the Joint Force to wait until China's assets had been sufficiently attrited before attempting the movement. Even at the later phase, however, Army fires would still play an important role in holding Chinese maritime and ground forces at risk, particularly because significant percentages of U.S. long-range air and naval munitions will have been expended.

›› **U.S. Army can blunt adversary forces with non-kinetic capabilities.**

Although political restrictions could hinder the Army's ability to immediately blunt China's invasion

with firepower, the standoff capabilities of the MDTF still can influence the fight. Within the MDTF, the MDEB possesses cyber, EW, and space assets that can provide ISR targeting intelligence fusion inside the first island chain. If ranges improve in the future, Army EW and ISR sensing can help increase the robustness of the Joint Force's situational awareness in the Taiwan Strait.

›› **Supporting Taiwan force improvements will be critical.**

The center of gravity in the fight is Taiwan's ability to withstand and slow Chinese attacks long enough for the U.S. Joint Force and willing allies and partners to mass and attack from standoff and work to degrade Chinese A2/AD coverage. The U.S. Army can work with Taiwan's military to help tailor combined arms, defense-in-depth, and irregular warfare concepts to provide Taiwan with more-resilient options to increase costs for China.

KOREA

In the Korean Peninsula scenario that is directly linked to the Chinese invasion of Taiwan, the U.S. Army allowed the in-theater Joint Force commander to focus their attention and the majority of joint resources on the Taiwan Strait.

›› **A robust U.S. Army presence on the Korean Peninsula supports immediate crisis responses.**

When the crisis erupted on the Korean Peninsula in this scenario, the U.S. Army, because of its extensive experience there since 1950, its established command structures its sustainment infrastructure and nodes in South Korea, and its combat capabilities from maneuver forces to long-range precision fires (LRPF), was able to manage the crisis in a way that did not require resources from the Joint Force elements who were fighting the Chinese invasion of Taiwan. With this kind of U.S Army architectural backbone in place in South Korea, the limited number of forces that flowed into Japan and South Korea were easily managed, and the USFK commander applied them to manage the crisis and ultimately bring it to a relatively successful conclusion.

›› **U.S. Army LRPF and ISR can play an important SEAD role.**

Although this crisis lasted only a handful of days before it ended, there were numerous kinetic exchanges between South Korea and the United States against North Korea. And in those kinetic exchanges, the U.S. Army's LRPF capabilities, especially precision strike missile (PrSM) and its ability to reach deep into North Korea, became critical strike assets for South Korean and U.S. commanders. Future Army UAS systems, such as a Gray Eagle replacement, can provide additional layers of ISR and alleviate the burden on larger, fixed-wing aircraft. Combined with counterfire radars, these systems can provide dynamic targeting to rapidly identify and engage adversary artillery and ground forces, as well as air defense systems that threaten U.S. and allied aircraft. ◆

SCENARIO 3 KEY ASSUMPTIONS

Assumptions listed on pp. 92–93 must hold true for the Army to play these roles and are favorable toward regional allies and partners giving the U.S. Army and Joint Force the access required in the way the scenario unfolds.

Summary: Key Roles Identified Across the Scenarios

The three analytic scenarios that we reviewed provide a wide sample of operational demands across the phases of conflict. The following table provides a summary of the key Army roles identified that could meet those demands if posture, capability, and other assumptions held true (see pp. 90–93). Binned by warfighting function, the table shows that the U.S. Army has the potential for a wide breadth of contributions to the Joint Force during the three phases of competition, crisis, and conflict. Several contributions, however, stood out in particular within the three scenarios: *military engagement, intelligence support through ISR and data fusion, logistics, and protection*. Without these foundational contributions, it would be more difficult for the Joint Force to conduct operations at the speed, scale, and agility needed during a future conflict against a major adversary.

It is important to note, however, that our scenario visualizations did not cover all key U.S. Army contributions. The table includes some of these contributions that might have emerged within the scenarios in italics. These, as well as other mission sets not explored in the scenarios, are listed in more detail on pp. 84–85.

ROLE FRAMEWORK

PHASES	COMPETITION			
SCENARIOS	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 1
JOINT ENABLER	**SET THE THEATER** inland transport **PORT OPENING** **I&W** aerial + ground-based **MI** **MILITARY POLICE**	**SET THE THEATER** **ENGINEERING** horizontal construction **RSOI/JRSOI** **THEATER DISTRIBUTION** inland transport, AWS **AIR DEFENSE**	**SET THE THEATER** **THEATER DISTRIBUTION** **WIDE AREA SECURITY** **AIR DEFENSE**	**INTEL-DATA FUSION** **MI** **AIR DEFENSE**
JOINT KINETIC FIGHT		**SET THE THEATER** **ISR** (MDEB TFE) **MI** (MDEB) **INTEROPERABILITY** Joint Force coordination	**ISR (MDEB TFE)** **MI** **INTEROPERABILITY** 1st MDTF **AIR + MISSILE DEFENSE**	
STRENGTHENING + LEVERAGING RELATIONSHIPS	**FMS SUPPORT** aviation, attack recon. **CYBER DEFENSE** **ISR** training/liaison **GROUND MANEUVER** training **ROTARY-WING AVIATION** **C-IED** **UAS** Gray Eagle **HADR** logistics support/training	**CYBER DEFENSE** **ISR** training/liaison **FIRES** (HIMARS) **ROTARY-WING AVIATION** **LOGISTICS** distribution, sustainment **IO** training/liaison	**INSTITUTION-BUILDING** **INTEROPERABILITY** Fires, AWS, 8th Army **CAPACITY-BUILDING** engineering, artillery, infantry	**C-sUAS SUPPORT** M-SHORAD, infantry **CYBER DEFENSE** **INTEL** liaison **PSYOP SUPPORT**

NOTE: AWS = Army Watercraft System; TFE = Theater Fires Element; I&W = indicators and warning; MI = military intelligence; C3 = command, control, and communications; RSOI/JRSOI = reception, staging, onward-movement, and integration/Joint RSOI; AMD = air and missile defense; SEAD = suppression of enemy air defense; ERSE = extended range sensing and effects; TIAE = Theater Information Advantage Element; WHNS = wartime host nation support.

WARFIGHTING FUNCTIONS

not applicable to scenario — *ITALIC* not highlighted in scenario but likely

INTELLIGENCE	ISR, I&W, space, signals; information, MI, EW
C3	interoperability, liaison support
LOGISTICS	set the theater, RSOI/JRSOI; sustainment, distribution
PROTECTION/MITIGATION	cyber defense, AMD, CBRN, wide area security; repair, engineering
MILITARY ENGAGEMENT	training, exercise, demonstration; liaison, advisory, support
MANEUVER	land control and defense, combined arms, irregular/urban warfare
FIRES/TARGETING	ground-based fires, fires and airspace coordination, maritime strike, SEAD, artillery/counter-battery

CRISIS		CONFLICT		
SCENARIO 2	SCENARIO 3	SCENARIO 1	SCENARIO 2	SCENARIO 3
ISR MDEB signal + ERSE **JRSOI** **LOGISTICS** distribution, HIMARS Battalion	**ISR/I&W** MDEB space, signal + ERSE, HAB **IO (TIAE)** **JRSOI** **EW**		**ISR/I&W** MDEB space, signal + ERSE **MI**	**ISR/I&W** MDEB space, signal + ERSE, HAB **IO (TIAE)** **JRSOI** **EW** **THEATER DISTRIB.** inland transport, army watercraft **AIR BASE RESILIENCY** repair, engineering **C3**
	ISR (MDEB TFE) **MI**		**ISR (AIR DEFENSE)** **AIR DEFENSE** **ISR** (UAS) **ISR** (FIRES) FARA, FLRAA rotary-wing aviation	**ISR (MDEB TFE)** **MI** **TARGETING** SOF, liaisons **AIR + MISSILE DEFENSE** **I&W** (UAS) **COUNTER-BATTERY, SEAD** **LAND CONTROL + DEFENSE**
ISR/I&W MDEB space, HAB **LIAISON** SFABs **INTEL/CYBER**	**LIAISON** SFABs **AIR DEFENSE** **LOGISTICS** *contracting, WHNS coordination*		**AIR DEFENSE** **LIAISON** SFABs	**LIAISON** SFABs **ISR/I&W** MDEB space **MI** **AIR DEFENSE** **SUSTAINMENT** combined ground, WHNS coordination **AEROSPACE + TARGET DECONFICTION** *HOMELAND DEFENSE* *CIVIL AFFAIRS* **NEO**

Beyond the Scenarios

Other Potential Operational Demands for the U.S. Army in the Indo-Pacific

HOMELAND DEFENSE

INDOPACOM's area of operations includes the state of Hawaii and U.S. territories, such as Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. The United States also has protectorate obligations with the Federated States of Micronesia, the Marshall Islands, and the Republic of Palau. Both China and DPRK will have the ability to strike U.S. territory in 2035. The commanding general of U.S. Army Pacific is the land component commander for homeland defense in INDOPACOM, including CBRN response and defense support to civil authorities.[46] The U.S. Army would provide not only coordination of joint and interagency efforts to support homeland defense but also key capabilities, such as air defenses, ground security, and large-scale incident response. INDOPACOM is pursuing bolstering its ground-based missile defense capability on Guam by developing a Homeland Defense Radar–Hawaii system.[47]

OPERATIONAL MANEUVER

One of the Army's baseline, historical joint contributions is prevailing in large-scale ground maneuver and consolidating gains of military operations on the ground. As Secretary Wormuth has stated, the Army could be called on in the Indo-Pacific to help restore the territorial sovereignty of our allies and partners. For example, our Korean Peninsula scenario showcased a limited maneuver response; other scenarios on the peninsula, such as regime collapse or a major North Korean offensive, would require significant ground forces to repel, attrit, and defend against adversary advances into South Korean territory. Unless already forward positioned, large-scale ground maneuver in China-involved scenarios would require the Army to be able to deploy significant infantry, mechanized, and rotary-wing aviation forces where such deployment could be highly contested, requiring significant support from the Joint Force.

COUNTER WEAPONS OF MASS DESTRUCTION

In the event of a DPRK regime collapse, the U.S. Army would play a significant role in securing DPRK's nuclear, chemical, and biological weapons before they proliferate outside the country. Prior studies have estimated that such a mission would take 250,000 ground forces to track, locate, secure, and safeguard DPRK's WMD, which could flow from numerous and distributed sites across the country.

[46] Joint Publication 3-27, *Homeland Defense*, April 10, 2018.
[47] Jen Judson, "DoD Wish List Seeks More Funds to Boost Pacific Missile Defense, Weapons Cybersecurity," *Defense News*, June 10, 2021.

OTHER ROLES

Although not examined in depth across our scenarios, the U.S. Army plays an important role in ensuring that the Joint Force meets its critical responsibilities to its soldiers, marines, airmen, and sailors. Future combat scenarios in this theater will entail evacuating and caring for large numbers of casualties and those killed in action across the theater, often within contested, complex, or austere environments. The U.S. Army has support-to-other-services responsibilities for rotary-wing and ground intra-theater medical evacuation and is the Executive Agent for single integrated medical logistics management, such as Class VIIIA (medical materials) and Class VIIIB (blood). Providing fallen service members with care and dignity, the U.S. Army is also responsible for maintaining theater-level mortuary affairs mission collection and evacuation points. Its mortuary affairs units, numbering 1,400 personnel in FY 2020, can provide additional capacity for fatality search and recovery, remains evacuation, and CBRN contamination mitigation.

The U.S. Army is pursuing several modernization efforts to assist with these future challenges, including AI-enabled medical common operating pictures across the Joint Force, synthetic biology and biodefenses, wearable medical sensors, FLRAA air ambulances, decontamination capabilities, and practices and technology to provide prolonged care on the battlefield in the event that evacuation presents too high a risk. ◆

Conclusions

Key Roles for the U.S. Army in the Indo-Pacific

Although each scenario presented unique challenges or tailored Army roles, three overarching role categories continuously emerged as critical across the analytic scenario set and the continuum of peacetime, crisis, and conflict in the Indo-Pacific region:

1) **the Army's role as foundational joint enabler**
2) **the Army's role in the joint kinetic fight**
3) **the Army's role in strengthening and leveraging relationships.**

Overall, although these roles echo what many in the existing discourse have presented, our combined narrative places greater emphasis on the Army's non-kinetic contributions to the joint fight, particularly in competition capacity-building of allied and partner militaries, logistics, ISR and the information space, and protection provided during crisis and conflict across the theater.

The U.S. Army's Role as Foundational Joint Enabler

›› **As Joint Force operational concepts become more disaggregated and the pace of conflict more rapid, the Army has a role in ensuring the Joint Force has enduring and integrated combat power.**

Such distribution of combat power will increase and complicate support demands in intra-theater and in-country logistics distribution, air defense, ground security, and allied and partner coordination for RSOI of incoming forces.

ENABLING THE JOINT FORCE IN COMPETITION

Participation of key Army logistics and protection enablers during joint exercises not only helps to refine and train joint concepts, but it can also allow those concepts to be practiced at a wider scale. For example, U.S. Army watercraft integration into USAF ACE exercises can enable expansion of the number of locations and sustainment distribution between a main hub and the dispersal bases. Persistent ISR through HABs, ground-based sensors, and intelligence integration capabilities can refine and track indicators of hostile intent, potentially widening the warning timelines for the Joint Force to react.

ENABLING THE JOINT FORCE IN CRISIS

Given its size, assigned executive functions, and historical experience, the U.S. Army is uniquely placed to lead in coordinating and providing support in crises and conflicts that will become increasingly theater-wide and global as adversary capabilities increase. Supporting joint theater preparations through the 8th Theater Sustainment Command, other logistics coordination elements, and port opening will prove critical to ensuring rapid deployment should the crisis escalate, particularly because allies and partners' reticence to initially receive U.S. combat forces could compress timelines.

ENABLING THE JOINT FORCE IN CONFLICT

To supplement other services' force protection efforts in hardening, concealment, and dispersal, ground-based air defenses will be an important additive measure to help slow friendly force attrition, increase the cost of adversary long-range strikes, or both. The U.S. Army also offers specialized capabilities that can be applied at larger scale in civil affairs, EOD, engineering, and logistics coordination capabilities to ensure the operational endurance of the Joint Force as the conflict ensues.

The Army's Role in the Joint Kinetic Fight

›› **The Army's direct role in the kinetic joint fight will depend heavily on posture and the nature of the target set.**

Given the likely velocity and theater reach of future conflicts, the Joint Force will need assistance in persistent ISR, target discrimination, and the protection and support of dispersed strike assets, such as aircraft.

CONTRIBUTING TO JOINT KINETIC FIGHT IN COMPETITION AND CRISIS

U.S. Army capabilities such as the TFE, MDEB military intelligence units, and TIAEs can support target development of adversary forces and infrastructure and monitor for I&W of attacks. If using ground terrain as concealment through consistent movement and emissions control, ground-based fires can complicate adversary ISR and protection demands.

CONTRIBUTING TO THE JOINT KINETIC FIGHT IN CONFLICT

The utility of ground-based LRPF will depend on positioning, survivability, and whether it could bring an operationally significant volume of fire against adversary forces. If survivable and of sufficient range, forward-positioned Army ISR assets can provide persistent coverage that can aid in identifying I&W and quickly identifying changes in adversary movements and operations. One of the greatest potential contributions that the Army could bring to the joint kinetic fight is the tactical and operational integration of multiple cyber, space, and EW intelligence sources to support joint targeting, particularly in discriminating high-value targets from decoys or other clutter in the environment.

The Army's Role in Strengthening and Leveraging Relationships

›› **The Army's role in strengthening allied and partner engagement and military relationship-building is critical in countering Chinese competition and conflict capabilities.**

The United States will require allied and partner cooperation and capacity to enhance regional deterrence against Chinese coercion and to support almost every contingency.

BUILDING AND LEVERAGING RELATIONSHIPS IN COMPETITION

As noted, the army is the predominant service in many Indo-Pacific countries, giving the U.S. Army a comparative advantage and presence in shaping many countries' joint strategies and operational concepts. Through unique capabilities, such as the SFAB, the U.S. Army can support training of key allied and partner capabilities for future operational demands, including large-scale inland logistics, counter-UAS, rotary-wing aviation, A-ISR, ground-based fires, and integrated air defenses.

BUILDING AND LEVERAGING RELATIONSHIPS IN CRISIS

Unlike the deployment of aircraft squadrons or surface ships, the positioning of small numbers of Army advisors or non-kinetic capabilities on foreign soil could achieve U.S. military and political objectives without attracting significant international attention or unnecessarily triggering escalation. Specialized Army cyber, ISR, and PSYOP capabilities can help allies and partners maintain situational awareness and counter coercive gray zone actions.

BUILDING AND LEVERAGING RELATIONSHIPS IN CONFLICT

In-person liaison coordination and communication can compensate for limited interoperability between national militaries. U.S. Army personnel, such as SFAB teams, and Army SOF, given their persistent presence and regional expertise, can quickly and deeply integrate into allied army and other joint forces. Intelligence-sharing, fires coordination, and host country support to the U.S. Joint Force will require significant coordination, which will be strengthened by the trust, procedures, and authorities built during peacetime.

Overall, our scenario and research findings reflect many of the themes presented by Secretary Wormuth, particularly regarding the Army as a "lynchpin" helping to tie together and enhance the resiliency of joint capabilities and missions in addressing challenges posed by China. The U.S. Army can thus help advocate for key joint capabilities, operational concepts that would allow for stronger connections between allied and partner countries and their militaries—connections that not only create additive capability in competition, crisis, and conflict but can also contribute to deterrence.

Will the U.S. Army be able to play these roles in the future?

CRITICAL ASSUMPTIONS THAT MUST BE REALIZED

Whether these roles will be fully realized in the future, however, depends heavily on **posture** and **capability development.** Varying assumptions about posture across the three scenarios highlighted how limitations in allied and partner access and freedom of operations can greatly restrict the ability of the Army to execute its proposed operational concepts. In addition, as noted previously, we assumed realization of the Army's modernization priorities by 2035, which includes many capabilities and systems that have yet to be fielded or fully demonstrated.

While military-to-military relationships foster interoperability and trust, being granted access and freedom of operations on an ally's or partner's territory is ultimately a political decision. For the Joint Force to have sufficient support and greater options during competition, crisis, and conflict, interagency support will be critical in laying the groundwork for consistent peacetime access that enables greater relationship-building and responsiveness and helps to increase the probability of access and freedom of operations during crisis and conflict. Forward-based or rotational Army presence helps alleviate strategic deployment timelines for essential—but costly in terms of sealift and airlift—assets for sustainment, fires, and air defense. Limited ranges of fires and the adversary's abilities to contest deployment will require these assets to be forward based prior to conflict initiation to be operationally relevant in the initial phases.

Without successful modernization in the U.S. Army's ISR, long-range fires, intelligence integration, rotary-wing aviation, sustainment resilience, and air defenses, many of the Army roles described here will not be as substantial. Key systems, such as the future IFPC, PrSM increments, UAS variants, FLRAA, AI-enabled decision support, and watercraft capabilities must reach their planned capability requirements and be fielded in sufficient quantities to be operationally relevant given INDOPACOM's geographic expanse and likely high attrition rates in future conflicts. Given many existing modernization priorities arose primarily in response to the threat posed by Russia, the U.S. Army must also continuously evaluate whether its overall modernization portfolio sufficiently supports the INDOPACOM theater's unique challenges and joint requirements, particularly regarding sustainment.

The Joint Force must pursue stronger efforts in integrating capabilities and concepts to effectively address future concerns. Joint interoperability is not a given condition. It must be rehearsed, refined, and maintained through modernization and training coordination. Even if the U.S. Army enjoys sufficient access in the theater and achieves its modernization goals, its impact will be blunted if not adequately integrated into the joint concepts for the theater. ◆

Appendixes

Appendix A. Key Scenario Assumptions

The Army's roles outlined in the three previous scenarios could only emerge if certain assumptions about posture, capabilities development, and other aspects held true. The following pages provide an overview of these key assumptions that depend not only on Army efforts but also on those of the Joint Force and other U.S. government organizations, such as the U.S. Department of State.

SCENARIO 1: DISTANT BORDER CLASH

Key Future Assumptions

- The political relationship between the United States and India enables the continuation and expansion of military exercises and engagements between the two countries.
- The United States does not apply sanctions on India under the Countering America's Adversaries Through Sanctions Act for the procurement of Russian military equipment or the application of such sanctions does not impede continued military cooperation.[48]
- The United States and India have maintained and enhanced intelligence-sharing and liaison agreements, processes, and operational security capabilities.
- The U.S. Army receives approval of authorities allowing for crisis and conflict ISR and cyber support operations for India.
- The U.S. Army develops, acquires, and fields enhancements or a replacement for the Gray Eagle UAS.
- The U.S. Army prioritizes development, fielding, and enhanced operational and unit concepts for C-UAS and maintains C-IED capabilities within the force.
- The U.S. Army develops, trains, and equips HAB teams by the scenario's time frame (current planned timetable unclear).[49]
- The U.S. Army fully equips and fields at least two MDTFs in the Indo-Pacific region.
- The U.S. Army maintains its SFAB units or units with equivalent capability in the Indo-Pacific region.[50]
- Compliance by both sides erodes over time regarding the 1996 Agreement Between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas.[51]

[48] "CAATSA: What It Is, Why It Is in News and How It Can Hurt India," *Economic Times*, last updated March 8, 2022.
[49] Adam Kehoe, "What We Know About the High-Altitude Balloons Recently Lingering off America's Coastlines," *The Drive*, May 17, 2021.
[50] Andrew Feickert, *The Army's Multi-Domain Task Force*, ver. 5, Congressional Research Service, IF11797, updated May 31, 2022.
[51] Government of the Republic of India and Government of the People's Republic of China, Agreement Between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas, New Delhi, November 29, 1996.

SCENARIO 2: COERCIVE BELLIGERENCE

Key Future Assumptions

- The political relationship between the United States and the Philippines enables the continuation and expansion of military exercises and engagements between the two countries, including the establishment of exercise activity sets on Philippine territory.
- Military training, modernization, and operational priorities between the United States and Philippines are aligned, centering on maritime domain awareness, shore-to-ship fires, C-UAS, rotary-wing aviation, and counter-gray zone IO.
- The U.S. Army and U.S. Air Force develop, test, and train on logistics, protection, and other support concepts for ACE.
- The United States and the Philippines have maintained and enhanced intelligence-sharing and liaison agreements, processes, and operational security capabilities.
- Strategic airlift is prioritized and allocated for U.S. Army forces to deploy to the Philippines and Australia, allowing these forces to arrive in an operationally relevant time frame. The C-5 and C-17 airframes are still in service and at existing levels.
- U.S. Army receives approval of authorities allowing for crisis and conflict cyber, EW , and offensive fires operations.
- The FARA and FLRAA programs maintain their planned funding and development schedules, reaching planned low-rate initial production by 2030.[52]
- The U.S. Army develops, acquires, and fields enhancements for the Gray Eagle UAS or its replacement.
- The Enduring IFPC Increment 2 maintains its development and schedule and is fielded within several batteries by the time frame. Existing plans call for two batteries by FY 2025, with an end goal of 400 launchers.[53]
- The U.S. Army prioritizes the development, fielding, and enhanced operational and unit concepts for C-UAS.
- The U.S. Army develops, trains, and equips HAB teams by time frame (current planned timetable unclear).[54]
- The U.S. Army fully equips and fields at least two MDTFs in the Indo-Pacific region.[55]
- The U.S. Army successfully develops and fields LRPF (e.g., PrSM, mid-range capability [MRC], LRHW) with ranges between 500 and 2,000 km and with seekers capable of identifying high-value targets in cluttered, contested environments.[56]
- The U.S. Army acquires sufficient numbers of LRPF to continue to support joint operations as a major conflict develops.
- The U.S. Army maintains its TFE and SFAB units or units with equivalent capability in the Indo-Pacific region.
- The U.S. Army maintains and expands its Army Watercraft fleet in the Indo-Pacific region, fielding both the Maritime Support Vessels Light and Next and improving overall watercraft command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) and protection capabilities.[57]

[52] Evan Ochsner, "Army Decreases FARA Funding Request, Seeks Information on Proposals," *Inside Defense*, March 29, 2022.
[53] Ethan Sterenfeld, "Dynetics Wins Enduring IFPC Competition," *Inside Defense*, September 27, 2021.
[54] Kehoe, 2021.
[55] Feickert, 2022.
[56] Joseph Trevithick, "The Army Plans to Fire Its Version of the Navy's SM-6 Missile from This Launcher," *The Drive*, October 13, 2021.
[57] Peter Ong, "Despite Setback, U.S. Army Forges Ahead with Maneuver Support Vessel (Light)," *Naval News*, April 6, 2022.

Appendix A. Key Scenario Assumptions

SCENARIO 3: MULTI-REGION CRISIS AND CONFLICT

Key Future Assumptions

TAIWAN

- The political relationship between the United States and Japan enables the continuation and expansion of military exercises and engagements between the two countries.[58]
- Military training, force modernization, and operational priorities between the United States and Japan are aligned, centering on ISR, shore-to-ship fires, rotary-wing aviation, large-scale logistics support, and air and missile defense (AMD). (See also Appendix C, Allied and Partner Force Modernization, pp. 102–103).
- The U.S. Army and USAF develop, test, and train on logistics, protection, and other support concepts for ACE.[59]
- Timely consultation and decisions are realized between the U.S. and Japanese governments regarding the characterization of a Chinese kinetic attack as an "existential threat" to Japan, allowing flow and use of combat forces on its territory.[60]
- Strategic airlift is prioritized and allocated for U.S. Army forces to deploy to Japan, allowing them to arrive in an operationally relevant time frame. The C-5 and C-17 airframes are still in service and at current day levels.
- The U.S. Army maintains and expands its Army Watercraft fleet in the Indo-Pacific region, fielding both the Maritime Support Vessels Light and Next and improving overall watercraft C4ISR and protection capabilities.[61]
- Technological and operational improvements have been developed, refined, and trained for Army watercraft survivability in a contested environment.

THE KOREAN PENINSULA

- The political relationship between the United States and South Korea enables the continuation and expansion of military exercises and engagements between the two countries.
- Military training, force modernization, and operational priorities between the United States and South Korea are aligned, centering on integrated air and missile defense, combined arms, large-scale logistics coordination, ISR, and WWMD. (See also Appendix C, Allied and Partner Force Modernization, pp. 102–103.)
- U.S. Army presence on the Korean Peninsula has remained relatively close to 2022 levels.
- The U.S. Army continues to train and develop future concepts for CBRN and operations within a contaminated environment.

[58] Eric Setzekorn, "Taiwan and the U.S. Army: New Opportunities Amid Increasing Threats," *Military Review*, September–October 2020.
[59] Air Force Doctrine Note 1-21, *Agile Combat Employment*, U.S. Air Force, last updated August 23, 2022.
[60] Jeffrey W. Hornung, "What the United States Wants from Japan in Taiwan," *Foreign Policy*, May 10, 2021.
[61] Ong, 2022.

BOTH TAIWAN AND KOREA

- The U.S. Army receives timely approval of authorities that allow for crisis and conflict cyber, EW, and offensive fires operations.
- The United States has maintained and enhanced intelligence-sharing and liaison agreements, processes, and operational security capabilities between itself and Japan and South Korea.
- The Enduring IFPC Increment 2 maintains its development and schedule and is fielded within several batteries by the time frame. Existing plans call for two batteries by FY 2025, with an end goal of 400 launchers.[62]
- The U.S. Army acquires sufficient numbers of LRPF to continue to support joint operations as a major conflict develops.
- The U.S. Army develops, acquires, and fields enhancements for the Gray Eagle UAS or its replacement.
- The U.S. Army successfully develops and fields LRPF (e.g., PrSM, MRC, LRHW) with ranges between 500 and 2,000 km and with seekers capable of identifying high-value targets in cluttered, contested environments.[63] The U.S. Army develops, trains, and equips HAB teams by time frame (existing planned timetable unclear).[64]
- The U.S. Army fully equips and fields at least two MDTFs in the Indo-Pacific region.[65]
- The U.S. Army maintains its TFE and SFAB units or units with equivalent capability in the Indo-Pacific region.
- The U.S. Army aggressively pursues technological and operational solutions to improve theater sustainment resiliency in the INDOPACOM AOR. ◆

[62] Sterenfeld, 2021.
[63] Trevithick, 2021.
[64] Kehoe, 2021.
[65] Andrew Feickert, *The Army's Multi-Domain Task Force*, ver. 5, Congressional Research Service, IF11797, updated May 31, 2022.

Appendix B. Visualization Abbreviations

INFLUENCE VISUALIZATION

PP. 16–17

BRI	Belt and Road Initiative
DPRK	Democratic People's Republic of Korea
FDI	foreign direct investment
Is.	Islands(s)
LNG	liquefied natural gas
Mw	megawatt
ROK	Republic of Korea (South Korea)
SCS	South China Sea

OPERATIONAL ENVIRONMENT VISUALIZATION

PP. 22–23

AFRICOM	Africa Command
AOR	area of responsibility
ASCM	anti-ship cruise missile
BRI	Belt and Road Initiative
CENTCOM	Central Command
DoD	U.S. Department of Defense
DPRK	Democratic People's Republic of Korea
EUCOM	European Command
GCC	geographic combatant command
INDOPACOM	Indo-Pacific Command
IRBM	intermediate-range ballistic missile
Is.	Island(s)
LACM	land-attack cruise missile
NORTHCOM	Northern Command
PLA	People's Liberation Army
PLAN	PLA Navy
SAM	surface-to-air missile

SCENARIO 1

PP. 45–50

a/c	aircraft
AI	artificial intelligence
A-ISR	aerial ISR
ARTEMIS	Airborne Reconnaissance and Target Exploitation Multi-Mission System
AWAC	airborne warning and control system
Bn	battalion

Bde	brigade
BECA	Basic Exchange and Cooperation Agreement
Bty	battery
CCP	Chinese Communist Party
C-IED	counter–improvised explosive device
Co	company
CONUS	continental United States
C-sUAS	counter–small unmanned aerial systems
DE	directed energy
DoD	U.S. Department of Defense
DPRK	Democratic People's Republic of Korea
EOD	explosive ordnance disposal
ERSE	extended-range sensing and effects
FDO	foreign disclosure officer
FMS	foreign military sales
GA	Georgia
GE-ER	Gray Eagle-Extended Range
GEOINT	geospatial intelligence
GDP	gross domestic product
GMTI	ground moving target indicator
HADES	High Accuracy Detection and Exploitation System
HADR	humanitarian assistance and disaster relief
HQ	headquarters
I&W	indications and warning
IED	improvised explosive device
IFPC	Indirect Fire Protection Capability
IMINT	imagery intelligence
IND	India
INSCOM	United States Army Intelligence and Security Command
ISR	intelligence, surveillance, and reconnaissance
LAC	Line of Actual Control
LEMOA	Logistics Exchange Memorandum of Agreement
LNO	liaison officer
MDEB	multi-domain effects battalion
MDTF	Multi-Domain Task Force
MI	military intelligence
MIB	military intelligence brigade
MICO	military intelligence company
ML	machine learning

Appendix B. Visualization Abbreviations

M-SHORAD	Maneuver-Short Range Air Defense
NE	northeast
NRT	near real-time
PAO	public affairs officer
PED	processing, exploitation, and dissemination
PLA	People's Liberation Army
PRC	People's Republic of China
PSYOP	psychological operation
Recon	reconnaissance
REL	releasable
RSTA	reconnaissance, surveillance, and target acquisition
SAM	surface-to-air missile
SAR	synthetic aperture radar
SFAB	Security Force Assistance Brigade
SIGINT	signals intelligence
SOF	special operations forces
SRBM	short-range ballistic missile
SSM	surface-to-surface missile
UAS	unmanned aerial system
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USARPAC	U.S. Army Pacific
USASAC	U.S. Army Security Assistance Command

SCENARIO 2

PP. 52–62

AB	air base
AD	air defense
ADA	air defense artillery
A-ISR	aerial ISR
Amphib	amphibious
APS	Army preposition stock
ASCM	anti-ship cruise missile
Bde	brigade
Bn	battalion
BSB	brigade support battalion
CEMA	cyber and electromagnetic activities
CG	coast guard
Co	company
CSG	carrier strike group

C-sUAS	counter–small unmanned aerial systems
DCO	defensive cyber operations
DDG	guided-missile destroyers
DLD	digital liaison detachment
EAS	equipment activity set
EDCA	Enhanced Defense Cooperation Agreement
EEZ	exclusive economic zone
ERSE	extended-range sensing and effects
ESC	Expeditionary Sustainment Command
ESG	expeditionary strike group
EW	electronic warfare
FAC	fast attack craft
FARA	Future Attack Reconnaissance Aircraft
FFG	frigate
FLRAA	Future Long Range Assault Aircraft
GLCM	ground-launched cruise missile
HAB	high-altitude balloon
HELEIOS	high-altitude, long-endurance, intelligence observation system
HIMARS	High Mobility Artillery Rocket System
HQ	headquarters
I&W	indications and warning
IFPC	Indirect Fire Protection Capability
IO	information operations
Is.	Island(s)
ISR	intelligence, surveillance, and reconnaissance
JBLM	Joint Base Lewis-McChord
JRSOI	joint reception, staging, onward-movement, and integration
LCM	landing craft mechanized
LCU	landing craft utility
LNO	liaison officer
LRPF	long-range precision fires
LSV	logistics support vessel
MDC	multi-domain cell
MDEB	multi-domain effects battalion
MDO	multi-domain operations
MDT	Mutual Defense Treaty
MDTF	Multi-Domain Task Force
MI	military intelligence
MSV	maneuver support vessel
OPV	offshore patrol vessel
PAFMM	People's Armed Forces Maritime Militia

Appendix B. Visualization Abbreviations

PCM	patrol coastal
PLA	People's Liberation Army
PRC	People's Republic of China
PrSM	precision strike missile
RSG	regional support group
RSOI	reception, staging, onward-movement, and integration
SAM	surface-to-air missile
SCS	South China Sea
SDDC	Surface Deployment and Distribution Command
SFAB	Security Force Assistance Brigade
SOF	special operations forces
SRBM	short-range ballistic missile
SSM	surface-to-surface missile
SSN	nuclear-powered attack submarine
TFC	Theater Fires Command
THAAD	Terminal High Altitude Area Defense
TIAE	Theater Information Advantage Element
TITAN	Tactical Intelligence Targeting Access Node
TSC	Theater Sustainment Command
UAS	unmanned aerial system
UN	United Nations
USAF	U.S. Air Force
USARPAC	U.S. Army Pacific
VPM	Virginia Payload Module

SCENARIO 3

PP. 64–81

AAMDC	Army Air and Missile Defense Command
AB	air base
ABCT	armored brigade combat team
ACE	agile combat employment
AD	air defense
ADIZ	air defense identification zone
AFATDS	Advanced Field Artillery Tactical Data System
A-ISR	aerial ISR
AI	artificial intelligence
AK	Alaska
AMD	air and missile defense
approx.	approximately arty artillery
ARCYBER	U.S. Army Cyber Command
ASCM	anti-ship cruise missile

ASP	ammunition supply point
AWS	Army Watercraft System
BCT	Brigade Combat Team
Bde	brigade
Bty	battery
C2	command and control
CA	Civil Affairs
CAP	combat air patrol
CBRN	chemical, biological, radiological, and nuclear
CCP	Chinese Communist Party
Co	company
CRBM	close-range ballistic missile
CSG	carrier strike group
DEAD	destruction of enemy air defenses
DFSP	defense fuel support point
DIV	Division
DMZ	demilitarized zone
DPRK	Democratic People's Republic of Korea
EABO	Expeditionary Advanced Base Operations
ELINT	electronic intelligence
eng.	engineering
EOD	explosive ordnance disposal
ERSE	extended-range sensing and effects
ESC	Expeditionary Sustainment Command
ESG	expeditionary strike group
estab.	establish
EW	electronic warfare
FA30	Functional Area 30 (information operations)
FMS	foreign military sales
gal	gallon
GMLRS	Guided Multiple Launch Rocket System
GMLRS-ER	Guided Multiple Launch Rocket System–Extended Range
GO	governmental organization
govt	government
GSDF	Ground Self-Defense Force (Japan)
HAB	high-altitude balloon
HARTS	hardened artillery sites
HI	Hawaii
HIMARS	High Mobility Artillery Rocket System
HQ	headquarters
I&W	indications and warning

Appendix B. Visualization Abbreviations

IAMD	Integrated Air and Missile Defense
ICBM	intercontinental ballistic missile
IFPC	Indirect Fire Protection Capability
IO	information operations
IRBM	intermediate-range ballistic missile
Is.	Island(s)
ISR	intelligence, surveillance, and reconnaissance
JP	Japan
JTAC	Joint Terminal Attack Controller
JTF	Joint Task Force
LCT	Littoral Combat Team
LCU	landing craft utility
LRA	long-range artillery
LRHW	long-range hypersonic weapon
LRPF	long-range precision fires
MDEB	multi-domain effects battalion
MDL	Military demarcation line
MDO	multi-domain operations
MDTF	Multi-Domain Task Force
MI	military intelligence
mildec	military deception
MISO	military information support operations
MLR	Maritime Littoral Regiment
MLRS	multiple launch rocket system
MN	multinational
mo	month
MOB	main operating base
MRBM	medium-range ballistic missile
MRC	mid-range capability
MST	Maritime Strike Tomahawk
N/A	not applicable
NB	Naval Base
NEO	non-combatant evacuation operations
NGO	nongovernmental organization
NLL	Northern limit line
NW	northwest
OPS	operations
OPSEC	Operational Security
PA	Public Affairs
PAC-3	Patriot Advanced Capability–3
Patriot	Phased Array Tracking Radar

PLA	People's Liberation Army
PLAAF	PLA Air Force
PLAN	PLA Navy
POL	petroleum, oils, lubricants
PRC	People's Republic of China
prepos.	preposition
PrSM	precision strike missile
PSYOP	psychological operation
ROK	Republic of Korea
RO/RO	roll-on/roll-off
RSG	regional support group
RSOI	reception, staging, onward-movement, and integration
SAM	surface-to-air missile
SDDC	Surface Deployment and Distribution Command
SEAD	suppression of air defense
SFAB	Security Force Assistance Brigade
SIGINT	signals intelligence
SME	subject-matter expert
SOF	special operations forces
SPP	State Partnership Program
SRBM	short-range ballistic missile
SSM	surface-to-surface missile
SW	southwest
TA	Theater Army
TACAIR	tactical air support
TFE	Theater Fires Element
THAAD	Terminal High Altitude Area Defense
TIAE	Theater Information Advantage Element
TSC	Theater Sustainment Command
UAS	unmanned aerial system
USAF	U.S. Air Force
USARJ	U.S. Army Japan
USARPAC	U.S. Army Pacific
USASAC	U.S. Army Security Assistance Command
USFK	U.S. Forces Korea
USMC	U.S. Marine Corps
USN	U.S. Navy
VPM	Virginia Payload Module
WHNS	wartime host nation support
yrs	years

Appendix C. Allied and Partner Force Modernization

Because it is unlikely that the United States can address any regional contingency solely by itself, the actions taken by its allies and partners could prove critical to helping deter regional adversaries in peacetime and defeat them in a contingency, should they support U.S.-led operations. While the efforts being taken by regional actors differ, there are a few notable trends that could prove beneficial to any U.S. strategy. In the following sections, we outline several trends in military modernization of key allies and partners that the U.S. Joint Force can support and integrate into its own emerging concepts.

JAPAN AND AUSTRALIA

Among allies, efforts by Japan and Australia are likely to be the most critical. Japan, as arguably the U.S. ally with the most-advanced armed forces, has been rapidly shifting its defense posture over the past two decades to meet the changing nature of the regional security threat. Not only has it developed a two-tier ballistic missile defense system that is responsible for protecting both Japanese and U.S. bases in Japan, but also it has poured resources into space, cyber, and electromagnetic capabilities while making efforts to develop amphibious capabilities, acquire advanced F-35 aircraft, and build up its presence along the island chain that stretches between Japan and Taiwan by fielding anti-ship cruise missile units and SAM units.[66] Similar efforts are underway in Australia. In addition to more-robust cyber capabilities, Canberra has also moved to acquire nuclear submarines and new long-range anti-ship missiles.[67] The efforts by both allies position them to not only help deter armed conflict in peacetime but also to help hold adversaries further from their shores in a conflict if necessary.

While Washington's other three allies in the region are modernizing their forces in ways that could complicate malicious activity by would-be adversaries, their efforts are primarily motivated by countering threats domestically or closer to their borders.

SOUTH KOREA

The South Korean modernization effort, named *Defense Reform 2.0*, is an expansive initiative to restructure and modernize the country's defense to meet future security threats, mainly from North Korea. This includes a major restructuring of the Korean military command and affiliated units, resulting in a reduction of mandatory military service and a downsizing of military personnel. Overall, the South Korean Army is redefining itself from a force of regiments to one of brigades supported by advanced capabilities and small tactical vehicles to enhance brigade mobility and speed.[68] *Defense Reform 2.0* also includes equipment modernization of Korea's defense capabilities. In this area, the focus is establishing an indigenous missile defense system with satellite surveillance and precision strike capabilities, a cyber threat response team, a combat drone system, a new reconnaissance aviation group, and improvement of naval strategic maneuvering.[69]

PHILIPPINES

While the AFP began a 15-year modernization program in 2012, the focus of these efforts has shifted from former President Benigno Aquino III's focus on strengthening the AFP's capability to meet external threats and bolstering its maritime domain awareness to recent President Rodrigo Duterte's focus

[66] Jeffrey W. Hornung, *Japan's Potential Contributions in an East China Sea Contingency*, RAND Corporation, RR-A314-1, 2020.
[67] "Australia Plans $190 Billion Defense Boost over Decade," Associated Press, June 30, 2020; Pete Sandeman, "Nuclear-Powered Submarines for Australia: What Are the Options?" *The Strategist*, January 20, 2022.
[68] Jon Grevatt and Craig Caffrey, "South Korea Announces Defence Reform Programme," *Defence Industry*, July 31, 2018.
[69] Sungyoung Jang, "How Will 'Defense Reform 2.0' Change South Korea's Defense?" *The Diplomat*, August 27, 2018.
[70] Prashanth Parameswaran, "What Does the New Philippines Defense Budget Say About Future Military Modernization Under Duterte?" *The Diplomat*, August 28, 2019b.

on counterterrorism and internal threats.[70] In practice, this has meant a continued focus on ground units and supporting capabilities, but some activities could play a role in regional conflicts near the Philippines. For example, Manila has acquired new multi-role frigates and SAMs and is looking to acquire two submarines and land-based anti-ship missiles for coastal defense. Modernization efforts, however, have consisted largely of procuring retired equipment from other countries, including cargo planes, corvettes, multi-purpose attack crafts, and offshore patrol vessels.[71]

THAILAND

Thailand passed a military modernization plan in 2017 (called *Modernization Plan: Vision 2026*) that is designed to upgrade its armed forces' readiness and capability to fend off threats to the kingdom over the following decade; it is primarily focused on countering a southern insurgency and strengthening the country's border security. While much of this is focused on land capabilities, such as Stryker armored vehicles, utility vehicles, and various types of munitions (e.g., Hellfire missiles, SAMs), it also involves attack helicopters and substantial naval elements, including a 25,000-ton amphibious ship, anti-ship cruise missiles, and submarines.[72]

SINGAPORE AND TAIWAN

Non-treaty allies are also modernizing their forces. The Singapore Armed Forces is pursuing next-generation modernization efforts that include procuring F-35 fighter aircraft, new *Invincible*-class submarines, multi-role combat vessels, and new armored fighting vehicles.[73] Taiwan, an island with massive quantitative disparities vis-à-vis China, is facing the increasing challenge of how to modernize its forces to defend against the growing and better-equipped PLA. Despite a 2017 proposal by some senior Taiwan defense leaders for a new defense concept (termed Overall Defense Concept) that prioritized asymmetric warfare and small, mobile, and survivable systems, the concept has not appeared in recent strategic documents.[74] Instead, Taiwan appears to be prioritizing legacy capabilities in its continued purchases or upgrades of expensive and highly symmetric systems (e.g., F-16 aircraft; M109 Paladin self-propelled howitzers; M1A2 Abrams tanks), increases in the quantity and ranges of missiles, and the development of an indigenous submarine program.[75] The Russia-Ukraine conflict, however, has invigorated discussions on irregular warfare and civil defense, but significant reforms to defense planning will be needed for those concepts to be realized on Taiwan. ◆

[71] Ridzwan Rahmat, "Shifting Fortunes: The Philippine Navy's Latest Spate of Modernisation Efforts Hangs in the Balance," *Navy International*, March 24, 2017; Mike Yeo, "Here's the Philippine Military's Wish List for Its Newly Approved Modernization Phase," *Defence News*, June 21, 2018; Renato Cruz de Castro, "The Next Phase of Philippine Military Modernization: Looking to External Defense," Asia Maritime Transparency Initiative, July 12, 2018.
[72] Jon Grevatt, "Moving Up the Value Chain: Thai Military Modernization," *Defence Weekly*, October 4, 2017; Mike Yeo, "Thailand Approved to Acquire Stryker Infantry Carriers," Defense News, July 29, 2019a; Mike Yeo, "Thailand to Acquire Amphibious Ship from China," *Defence News*, September 12, 2019b.
[73] Kelvin Wong, "Guardians of the Deep: Singapore Navy Readies for Future Undersea Operations," *Navy International*, December 6, 2021; Prashanth Parameswaran, "What's Behind the Unveiling of Singapore's New Armored Fighting Vehicle?" *The Diplomat*, August 13, 2019a; Mike Yeo, "How the F-35 Could Be a Game-Changer for Singapore," *Defense News*, February 10, 2020.
[74] Samuel Cranny-Evan, "Taiwan Has a Plan: The Overall Defence Concept," *Defence Weekly*, June 8, 2021; Lee Hsi-Min and Eric Lee, "Taiwan's Overall Defense Concept, Explained," *The Diplomat*, November 3, 2020.
[75] Michael A. Hunzeker, "Taiwan's Defense Plans Are Going off the Rails," *War on the Rocks*, November 18, 2021.

Abbreviations

A2/AD	anti-access and area denial
ACE	agile combat employment
ADIZ	air defense identification zone
ADP	Army Doctrine Publication
AFP	Armed Forces of the Philippines
AI	artificial intelligence
A-ISR	aerial ISR
AMD	air and missile defense
AOR	area of responsibility
AWS	Army Watercraft System
Bde	brigade
BJP	Bharatiya Janata Party
BRI	Belt and Road Initiative
C2	command and control
C3	command, control, and communications
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
CBRN	chemical, biological, radiological, and nuclear
CCP	Chinese Communist Party
C-IED	counter–improvised explosive device
CLSSA	cooperative logistics supply support agreement
COVID-19	coronavirus disease 2019
CSG	carrier strike group
CSP	comprehensive strategic partnerships
C-sUAS	counter–small unmanned aerial systems
C-UAS	counter–unmanned aircraft system
DE	directed energy
DMO	distributed maritime operations
DMZ	demilitarized zone
DoD	U.S. Department of Defense
DPRK	Democratic People's Republic of Korea
EABO	expeditionary advanced basing operations
EDCA	Enhanced Defense Cooperation Agreement
EOD	explosive ordnance disposal
ERSE	extended range sensing and effects

ESG	expeditionary strike group
EW	electronic warfare
FARA	Future Attack Reconnaissance Aircraft
FLRAA	Future Long Range Assault Aircraft
FMS	foreign military sales
FY	fiscal year
GDP	gross domestic product
HAB	high-altitude balloon
HADR	humanitarian assistance and disaster relief
HIMARS	High Mobility Artillery Rocket System
I&W	indicators and warning
IFPC	Integrated Fire Protection Capability
INDOPACOM	Indo-Pacific Command
IO	information operations
IPE	Indo-Pacific Endeavour
ISR	intelligence, surveillance, and reconnaissance
JRSOI	joint reception, staging, onward-movement, and integration
KPA	Korean People's Army
LAC	Line of Actual Control
LEMOA	Logistics Exchange Memorandum of Agreement
LNO	liaison officer
LRHW	long-range hypersonic weapon
LRPF	long-range precision fires
MDEB	Multi-Domain Effects Battalion
MDT	Mutual Defense Treaty
MDTF	Multi-Domain Task Force
MI	military intelligence
MRC	mid-range capability
MRL	multiple rocket launcher
M-SHORAD	Maneuver Short-Range Air Defense
NATO	North Atlantic Treaty Organization
NEO	non-combatant evacuation operations
PLA	People's Liberation Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PLEO	proliferated low-earth orbit
PRC	People's Republic of China
PrSM	precision strike missile

Abbreviations

PSYOP	psychological operation
ROK	Republic of Korea
RSOI	reception, staging, onward-movement, and integration
SAM	surface-to-air missile
SC	security cooperation
SCS	South China Sea
SEAD	suppression of enemy air defenses
SFAB	Security Force Assistance Brigade
SME	subject-matter expert
SOF	special operations forces
SOFA	Status of Forces Agreement
SPP	State Partnership Program
SRBM	short-range ballistic missile
SSN	nuclear-powered attack submarine
TFE	Theater Fires Element
TIAE	Theater Information Advantage Element
TTX	tabletop exercise
UAS	unmanned aerial system
UAV	unmanned aerial vehicle
UN	United Nations
USAF	U.S. Air Force
USFK	U.S. Forces Korea
USMC	U.S. Marine Corps
USN	U.S. Navy
USSF	U.S. Space Force
WHNS	wartime host nation support
WMD	weapons of mass destruction

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THE INDO-PACIFIC continues to evolve as an increasingly consequential region globally and for U.S. national security in the geopolitical, economic, and military spheres. Looking forward to 2035, the consequences of competition, crisis, and conflict will continue to grow, particularly as China increases its ambitions and national power. The Indo-Pacific region will continue to present a myriad of challenges through its geography and political environment, affecting the ability of the U.S. Joint Force to project power and operate within the theater. Overall, the U.S. Army offers a wide breadth of potential unique, supporting, and reinforcing contributions to address these joint military challenges. This breadth, however, can come at the cost of clarity as the U.S. Army seeks to communicate its value in the region. Thus, the authors of this report seek to provide an engaging and structured narrative to more clearly describe the U.S. Army's role throughout the region in the present day and into 2035.

To outline future Army roles, missions, and functions in the region, the authors developed three scenarios that span from competition occurring in the present day to potential crisis and conflict in the year 2035. Based on a series of tabletop exercises and workshops and a compilation of prior research, the three scenarios provide a narrative backbone—bolstered by rich visualization—to communicate the complexity and effects of the U.S. Army's foundational contributions to joint and multinational operations in the Indo-Pacific Command (INDOPACOM) area of responsibility.

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