

The Politics of Logistics

Diffusion Strategies and U.S. Alliances in the Indo-Pacific

Matthew Hauser

The Project on International Peace and Security © 2022
All rights reserved.

Please direct inquiries to:
The Project on International Peace and Security
Global Research Institute
The College of William & Mary
427 Scotland Street
Williamsburg, VA 23185
pips@wm.edu

Electronic copies of this report are available at www.wm.edu/pips

Cover photo source: Petty Officer 2nd Class Marc Cas. *Cobra Gold 2017 Official Opening Ceremony*. February 16, 2017. Photograph.
<https://media.defense.gov/2017/Feb/15/2001700354/1460/1280/0/170214-N-ZZ999-497.JPG>.



The Politics of Logistics

Diffusion Strategies and U.S. Alliances in the Indo-Pacific

Matthew Hauser
MAY 2022

The Politics of Logistics

Diffusion Strategies and U.S. Alliances in the Indo-Pacific

Military logistics in the Indo-Pacific face new technological threats but also offer political opportunities for the United States. China's growing long-range missile and sensor capabilities endanger Washington's ability to supply American, allied, and partner forces in the region. An effective response to threats is the diffusion of logistics. Spreading supply lines across platforms and in geographic space makes them more difficult for China to target militarily. More importantly, logistics diffusion also has the potential to strengthen regional U.S. military partnerships through new cooperation agreements that allow for dispersing, sharing, and coordinating on logistical capabilities. These agreements would create a political dilemma for Beijing. Any attempt to degrade U.S. logistical capabilities in the Indo-Pacific during a conflict would risk horizontal escalation with other states in the region.

Introduction

The United States faces a new threat environment in the Indo-Pacific due to China's investments in Anti-Access Area Denial (A2AD) technology, particularly precise long-range missiles. These missiles create a contested space that threatens the centralized U.S. supply network in the region. To reduce this vulnerability, the United States must spread supply networks across platforms and geographic space.

Logistics diffusion is a military solution to a military problem that, much like the United States' Lend-Lease program, offers additional political benefits. Under Lend-Lease, the United States government loaned more than \$48 billion worth of military and non-military supplies to allies during World War II. The aim was to buy time to ready U.S. military forces and protect friendly territory from which to base future military operations. The Lend-Lease Act also fostered cooperation and aligned interests among the Allied states.¹ The Act facilitated the sharing of intelligence, integration of production, and increased interoperability. Improved relations led to collaboration on production decisions. The aid and cooperation kept allies in the war. Today, logistics diffusion can expand the network of U.S. allies and partners in the Indo-Pacific.

Logistical diffusion makes targeting U.S. supply networks in Asia more difficult. It also serves as a tool for drawing allies and partners together militarily and politically. A highly integrated and dispersed supply network would create an escalation dilemma for China. In a future conflict, Beijing would face the choice of attacking this integrated supply network and risk expanding the conflict to other states in the region—or Beijing could refrain from attacking and allow logistical safe havens to continue to supply U.S. forces.

The United States can best exploit this opportunity with a coordinated government effort. With cooperation among the National Security Council, Pentagon, U.S. Agency for International

Development, U.S. Department of State, U.S. Indo-Pacific Command, U.S. Special Operations Command, U.S. Transportation Command, among other relevant actors, the United States can implement resilient cooperation agreements that reduce the strategic threat and lead to greater cooperation with states in the region.

The Need for U.S. Logistics Diffusion

China's A2AD technologies endanger U.S. military logistics in the Indo-Pacific. Logistics diffusion addresses the tactical threat, but also provides the United States with a political opportunity.

China's fielding of A2AD technologies, such as conventionally armed ballistic missiles—threatens U.S. military surface vessels, bases, and lines of supply.² The United States' current logistics architecture relies on a centralized system of large, slow, and specialized aircraft and vessels; vulnerable targets that would be difficult to replace.³ By disrupting U.S. logistics in a conflict, China could sever the links between the U.S. command centers and its forward-deployed forces.⁴

Logistics diffusion offers a strategy for maintaining supply lines in contested spaces, namely the distribution of supply lines across more transportation platforms and a wider geographic space.⁵ Logistics diffusion would increase U.S. military passive defenses, providing the needed flexibility, redundancy, and mobility to sustain U.S. forces in the new threat environment.⁶

Although the United States has committed to addressing the technical demands of diffusion, the political dimension of diffused logistics presents an opportunity to complicate Chinese decision-making and strengthen key relationships in the Indo-Pacific.⁷

Diffuse Logistics and an Escalation Dilemma for China

Integrating U.S. logistics with regional states presents a dilemma for Beijing. On the one hand, if Beijing challenges U.S. supply lines in the region, China risks escalation, drawing additional states into the conflict. On the other hand, leaving supply lines intact throughout the Indo-Pacific would allow logistical safe havens for U.S. forces. Neither option is attractive for Beijing.

The United States employs a perimeter defense strategy in the First Island Chain, stretching from Japan to the Philippines, to prevent a breakout of Chinese forces.⁸ In the event of a conflict, the PRC would attempt to separate the reserve U.S. and allied forces from their forward positions by attacking reinforcements and supply lines.⁹ Beijing would use all available diplomatic, military, and economic leverage to ensure the neutrality of countries in the region to prevent integrated diffusion and closer ties between Indo-Pacific nations and the United States.¹⁰ Chinese doctrine suggests that Beijing would also prefer to resolve the dispute quickly and forcefully.¹¹ Beijing would seek a *fait accompli*, rapidly achieving key objectives and making recovery costs

prohibitively high.¹² However, a diffuse and integrated logistics system with regional partners would present Beijing the prospect of a wider and costlier regional war.

Diffuse logistics would present China with a choice between bad options: escalate by attacking the U.S. network of supply lines, which would draw other states into the conflict (i.e., horizontal escalation); or refrain from attacking U.S. logistical partners, which would provide U.S. forces with safe havens for resupply (see Figure 1).

Figure 1: China's Escalation Dilemma



For instance, Germany's invasion of Norway in the Second World War demonstrates how supply lines can lead to horizontal escalation. Seventy-three percent of German iron ore was imported from Sweden, with much of that supply passing through the Norwegian port of Narvik.¹³ Germany feared that the British would cut off access to this strategic good, and, on April 9, 1940, German forces invaded Norway to protect iron ore shipments and use Norwegian ports as a base for U-boats to attack allied shipping.¹⁴ Britain planned to invade Norway as well to cut off iron shipments, but Germany attacked first.¹⁵ Germany's concern over supply lines—its own and its enemy's—widened the conflict. Both states were willing to expand the war to attack or defend iron ore shipments. This example also points to the risk of bottlenecking supplies through one or a few sources, which increases the temptation for an adversary to attack. But the costs are high. Germany needed 300,000 soldiers to occupy the country.¹⁶ China is likely more averse to these costs, creating an escalation dilemma.

The United States can use the threat of horizontal escalation to deter Chinese aggression. While Germany was willing to risk expanding the conflict, evidence suggests that Beijing prefers fighting the United States with minimal interference from other states.¹⁷ The United States can use integrated logistics and the resulting escalation dilemma to enhance deterrence. Dispersion across more states, especially larger countries with greater economic and military capabilities, will complicate PRC decision-making. Recognizing the potential for escalation, China will be less likely to risk a wider conflict.

However, by deciding not to attack U.S. supply lines in partnering countries, China will have greater difficulty in achieving its strategic objectives. Territory controlled by logistics partners would become safe zones for U.S. resupply operations, preventing Beijing from cutting off the United States from its forward positions in the Western Pacific.¹⁸

This escalation dilemma already exists for China in Japan. Okinawa is a staging base for U.S. and Japanese forces.¹⁹ If China attacked the base, it would most likely pull Japan into a U.S.-China conflict. Not attacking Okinawa would complicate paths to a PRC victory.²⁰ Diffuse integrated logistics throughout the region would heighten this dilemma and enhance U.S. deterrence.²¹

Increasing Regional Cooperation through Logistics Diffusion

The United States must work closely with countries in the region to successfully disperse logistics and create an escalation dilemma for Beijing. Being deliberate and strategic when picking partners for integrated logistics is crucial. Partners must meet the conditions for cooperation.

Importantly, there are benefits for both the United States and its logistics partners beyond complicating Chinese decision-making. Cooperating states receive military, political, and economic benefits. The United States receives second-order benefits through integration by eliciting clear commitments of logistical support, drawing fence-sitters towards Washington, and forging stronger relationships.

Selecting Logistics Partners

The United States must be selective in choosing logistics partners. Prime candidates to support dispersed logistics include countries with advantageous geography, stable internal politics, and sufficient infrastructure.

- **Strategically useful geography.** Countries with advantageous geography have land and maritime borders between U.S. territories, bases, and allies, allowing the United States to deliver supplies to forward forces.²²
- **Stable regime.** The United States should partner with stable regimes to limit the possible impact of internal unrest on logistics integration.²³ For example, Kyrgyzstan served as a base for U.S. forces following the September 11 terror attacks in 2001, but the Kyrgyz Revolution of 2010 ended that arrangement.²⁴
- **Sufficient infrastructure to support U.S. military operations.** Countries must be willing to share infrastructure with U.S. military logistics.²⁵ Ideal candidate states would have paved roads, deep-sea ports, and secure airfields. The United States can invest in physical infrastructure projects to enhance a partner country's support capacity.

The United States and potential logistics partners must negotiate the terms of their security arrangement. The points on which agreement will be necessary for Washington to move forward with a partnership are:

- **Territorial access in wartime.** The United States would need explicit permission for territorial access, basing, and overflight. These three pillars of access allow the United States to run supply lines and sustainment operations (such as repairs) in and through a host state's territory.
- **Use of supply routes.** The United States and partnering countries must agree on how infrastructure will be shared—before any conflict occurs.²⁶ The United States must retain access to supply routes, while honoring the interests of the host country. The United States should push for as much access and control of the supply process as is feasible.²⁷
- **Allowable U.S. materiel.** The United States and partnering countries must agree on the types of supplies allowed—chiefly, weapons or nonlethal materiel.²⁸ Cooperating states must accept that the United States and its allies would use these supplies against the PRC in a conflict. With this information, countries can weigh the risks and rewards of partnership.²⁹
- **Information sharing.** The United States and cooperating countries must share critical operational information. A diffuse logistics network has many moving parts to coordinate.³⁰ Success requires sharing capabilities (to include some readiness reporting), and the status of supply chains and threats.
- **Local security arrangements.** The United States and host states must agree on security measures for diffuse integrated logistics. The two sides must agree on the protection the host country will provide for the infrastructure, supply depots, and units in transit. Security arrangements will vary by relationship, capabilities, and needs. The burden of security for weapons is greater than for nonlethal goods, for example. A collaboration of a light U.S. force presence, U.S. contractors, and host nation forces will likely comprise security for embedded supply lines and stores of supplies.

Benefits for Partner Countries

Diffuse logistics only works if partner countries are willing to cooperate not only in peacetime but also in a crisis or war. The United States can develop resilient agreements—and also attract new partners—by offering significant security, economic, and political incentives.

Countries in the Indo-Pacific gain from integrated logistics because it signals U.S. commitment to securing the region from Chinese expansionism. Washington can also design custom packages of inducements for individual partners to further incentivize cooperation, including offers of information-sharing, increased interoperability, economic incentives, and opportunities to take a tough stance on China for a domestic audience.

- **Signal of U.S. Commitment.** Countries in the Indo-Pacific want guarantees that the United States will come to their aid against an aggressive China (see Table 1).³¹ Pacific Island countries, for instance, have requested American basing and access on their soil to allay rising concerns about China ambitions in the region.³² Attitudes vary, but most states in the region view China as a greater or far greater security threat than the United States.

Table 1: Threat Perceptions of China Versus the United States³³

	China is a significantly greater threat	China is a greater threat	Similar threat from U.S. and China
Countries	Philippines Vietnam Japan Australia India	Singapore Indonesia Malaysia	Thailand

A distributed network of supply lines embedded in host nations, termed here as “integrated diffuse logistics, is a strong signal of U.S. security commitment to the region. Washington would demonstrate U.S. resolve by incurring the costs of running supply lines across more countries in the region, increasing the presence of American forces in cooperating states, and preparing to win a conflict against the PRC.³⁴

Logistics integration has proved to be an effective strategy for reassuring U.S. allies in the past. During the Cold War, the U.S. demonstrated its commitment to Western Europe by positioning stores of supplies, equipment, and munitions in forward locations for rapid unit deployment in the event of a confrontation with the Soviet Union.³⁵ The initiative, known as Prepositioned Organizational Materiel Configured to Unit Sets (POMCUS), also contributed to U.S. deterrence by giving the United States the ability to rapidly mobilize divisions in Europe following a conventional Soviet attack.³⁶ Just as POMCUS reassured NATO allies in the Cold War, an integrated diffuse logistics network would signal commitment to U.S. allies and partners in the Indo-Pacific.

- **Information sharing.** Diffuse logistics requires sharing valuable U.S. operational information with partner countries. Access to this intelligence, which would improve their defense capabilities, could persuade countries to align with the United States. For example, the United States employs distributed sensors on land and sea to detect Chinese military activity.³⁷ This information would increase the ability of partnering nations to detect threats from China close to their borders.

Information-sharing would require a level of security, particularly cybersecurity. The United States and the host country could employ extended deterrence in the information environment by agreeing to guard critical infrastructure against Chinese cyberattacks. Washington and the host nation would agree to protect operational information with joint responsibility to discourage PRC interference.

- **Increased interoperability.** The United States and partner countries can use logistics integration to increase interoperability between forces, including the compatibility of parts, transporters, and shared stores, giving the U.S. military a logistics backfill option. The partnering nation could also allow the United States to preposition critical supplies on host nation soil.

Increased interoperability would augment the defense capabilities of the host country by allowing its military to operate in concert with U.S. forces. Joint military exercises would strengthen ties and allow the United States to ensure compliance with the terms of logistics cooperation. The increased capabilities of the partner would also raise the costs of escalation for Beijing.

This level of security cooperation may not be appropriate for all potential partners in the Indo-Pacific. The United States must be able to trust the host country with U.S. technology. But for allies, partners, and aspirant uncommitted nations, deepening interoperability can persuade nations to expand logistics integration, advancing U.S. strategic objectives in the region.

- **Economic incentives.** The United States can encourage long-term logistics cooperation by providing direct aid or infrastructure investments to partners.³⁸ The United States regularly uses economic incentives to compensate countries for military logistics cooperation. For the Northern Distribution Network, U.S. partners in Central Asia had minimal political interest in assisting the United States during Operation Enduring Freedom. Economic incentives helped reward nations for their support; Kyrgyzstan, for instance, received \$49 million in U.S. aid in 2013 alone.³⁹

The United States has many economic options to incentivize cooperation, from trade agreements to direct aid.⁴⁰ Washington can invest in cooperating states' infrastructure through development aid. Investments in dual-use (civilian and military) projects, in particular, can benefit the local economy, while improving the host country's support capabilities. Policymakers can promote these projects by encouraging foreign direct investment, which would draw American capital investment to the host nation. Enhanced capabilities of host nations support a larger forward posture for the United States and increase the cost of horizontal escalation for China.

- **Domestic political signaling.** Logistics cooperation may appeal to leaders of Indo-Pacific countries by providing a relatively low-risk opportunity to signal displeasure with Beijing, reassuring domestic audiences that are increasingly anti-China.

China’s diplomatic blunders have reduced its standing across the region (see Table 2).⁴¹ Public approval of the PRC has plummeted across several Indo-Pacific countries, including the United States, Australia, and South Korea.⁴² In Australia, the need to take a hardline stance on the PRC has become a campaign issue, with the major parties competing to be the most hawkish.⁴³ India and China have skirmished over disputed borders, with the Indian public rallying behind Prime Minister Modi and against China.⁴⁴ Palau has continued to recognize the Republic of China (Taiwan) instead of the PRC in Beijing.⁴⁵

Table 2: Public Opinion in the Indo-Pacific (U.S. vs. PRC)⁴⁶

	Significantly more favorable to U.S.	Slightly more favorable to U.S.	U.S. and Chinese equal	Slightly more favorable to China
Countries	Singapore Philippines Vietnam Japan India	Australia	Indonesia	Malaysia Thailand

The United States can take advantage of this growing animus towards the PRC by offering integrated logistics as a means for leaders to demonstrate their hawkishness. Cooperating with the United States can relieve security concerns among the public and signal resolve to resist China’s bid for regional dominance.

Logistics integration is also unlikely to be viewed by Beijing as an excessive provocation, allowing partnering countries to satisfy China skeptics at home while assuming relatively limited risk. Partnering with the United States on logistics signals that the host country is balancing against China, but not necessarily allied with the United States. This form of cooperation may also be appealing to uncommitted states looking for a hedging strategy.

To identify the proper set of incentives for cooperation, the United States must understand the costs and risks that partnering states will assume. The escalation dilemma serves U.S. interests, but countries may fear horizontal escalation.⁴⁷ The United States and China are already engaged in competition short of war, competing for influence in the region. Neutrality would be difficult to maintain in a conflict. Not only would Washington and Beijing battle to pull fence-sitters onto their side, but the United States and PRC would also run supply lines and conduct operations in or near their borders. Given the dangerous nature of the region and the likelihood of spillover, Indo-Pacific countries already face the risk of horizontal escalation in the event of a U.S-PRC conflict.⁴⁸ Improving relations with the United States also comes at an opportunity cost of improving relations with Beijing; partners may lose some geopolitical flexibility. Cooperating states should expect their relations with China to suffer. U.S. military presence could also be unpopular domestically.⁴⁹

Washington must offer inducements that offset the costs each potential partner would likely incur by moving closer to the United States.

By aligning integration to the interests of the host country, the United States can ensure that logistics cooperation is resilient. The tailored package of inducements attached to integration agreements will help incentivize partner compliance by ensuring that the benefits of continued logistics cooperation outweigh the costs.

Second-Order Benefits for the United States

Integrated diffused logistics will improve the United States' position in the Indo-Pacific. Washington will gain clear commitments of logistics support from regional countries and, by offering inducements, encourage political fence-sitters in the region to work with the United States. Cooperation, properly managed, will lead to improved relationships with partners. These second-order benefits contribute to the geopolitical attractiveness of logistics integration, in addition to confronting China with the escalation dilemma.

- **Gain clear commitments from regional nations.** The United States will gain unambiguous commitments from partners in the region, promising their assistance in a diffuse military logistics strategy. International agreements that are binding and made public prove to be the most durable.⁵⁰
- **Entice fence-sitters.** Geopolitical fence-sitters in the region will find military logistics integration with the United States attractive. Positive inducements can entice politically ambivalent states into cooperating with the United States on logistics.⁵¹ Military logistics support can be a lower-cost means of working with the United States than supporting the basing of U.S. troops on their soil. Bringing fence-sitters into an agreement can serve as a foundation for further cooperation.
- **Improve relationships.** The degree of coordination needed to achieve integration of military logistics diffusion will foster better relationships with partnering countries. Cooperation can be self-perpetuating—regular coordination and information-sharing enable quick resolution of issues that arise and foster trust.⁵² Focusing on shared interests and efficient logistics cooperation will allow the United States and its partners to maintain a clear view of the expectations of their agreement and develop better relationships.

The United States will assume risk when integrating its dispersed logistics. China will collect intelligence on agreements put in place, giving the PRC more insight into U.S. strategy. The United States must carefully monitor the activities of its partners; the United States does not want partners who will needlessly provoke Beijing. Designing resilient agreements can reduce the risk of a country reneging, such as Turkey in the 2003 invasion of Iraq.⁵³

Conclusion

Integrated logistics diffusion provides the United States with an opportunity to not just respond to a strategic military threat but to make political gains. By dispersing supply lines across the region, the United States creates a dilemma for China, which must either risk horizontal escalation or accept an expansion of U.S. influence in the region. Designing agreements with the proper set of political, military, and economic incentives for partner countries will allow integrated logistics to be beneficial to both parties.

With dispersed military logistics, the United States can reduce the military threat posed by Beijing and carefully construct agreements for maximum political benefit. Diffuse logistics will allow the United States to transform a current vulnerability into a strategic and political asset in the Indo-Pacific.

Acknowledgments

This project was not possible without the generous help of friends, family, and colleagues. I would like to thank Professor Amy Oakes and Professor Dennis Smith for their tireless dedication to their students and creation of the wonderful PIPS community. My research intern, Brennen Micheal, through his dedication, shaped this paper. I would like to thank Lieutenant Colonel Nathan Finney for his support—I owe the success of this project to his advice and generosity. Colonel Francis Park and 1st Lieutenant Max Sterling served as gracious mentors, helping transform my work. I would like to thank Thomas Mahnken, Ross Babbage, and Colonel Jon Klug for their insight and expertise. I would like to thank the PIPS family of fellows, interns, and alumni, including Amelia Larson, my role model in PIPS, and Nitya Labh, a great mentor, for their support, advice, and friendship. Finally, I would like to thank the friends, family, and loved ones who supported me during this effort. Their support sustained me through this effort and made this paper what it is today.

¹ Iliansenco, Anastasia. *Soviet-American Cooperation in WWII: Lend-Lease as Foreign Policy*, 2004; Peppers, Jerome. *History of United States Military Logistics 1935-1985: A Brief Review*, 1988, 23; Rutenberg, Allen, and Jane Allen. *The Logistics of Waging War: American Logistics 1774-1985, Emphasizing the Development of Airpower*. Air Force Logistics Management Center, 1996, 81.

² Over the past five years, China's missiles have become faster, further ranging, and far more numerous. The People's Liberation Army Rocket Force has added 10 brigades to its force, a 33% increase in strength. China now possesses over 200 DF-26 missiles, which have a range of 4,000 kilometers. The "carrier-killer" DF-21D has a range of over 1,500 kilometers and poses a great risk to surface vessels.

Shelbourne, Mallory. "U.S. Admiral: China Can 'Keep Pouring Money' Into Anti-Ship Ballistic Missiles." U.S. Naval Institute News, January 27, 2021. <https://news.usni.org/2021/01/27/u-s-admiral-china-can-keep-pouring-money-into-anti-ship-ballistic-missiles>; Stewart, Phil. "Top U.S. General Confirms 'Very Concerning' Chinese Hypersonic Weapons Test." Reuters, October 27, 2021. <https://www.reuters.com/business/aerospace-defense/top-us-general-confirms-very-concerning-chinese-hypersonic-weapons-test-2021-10-27/>; Tucker, Patrick. "China's Hypersonic Test Raises Questions About US Missile Defense, Deterrence." Defense One, October 19, 2021. <https://www.defenseone.com/technology/2021/10/chinas-hypersonic-test-shows-us-needs-new-thinking-missile-defense-military-lawmakers-say/186208/>; Xiu, Ma, and Peter Singer. "What Do We Know About China's Newest Missiles?" Defense One, March 19, 2021. <https://www.defenseone.com/ideas/2021/03/what-do-we-know-about-chinas-newest-missiles/172782/>; Missile Defense Project, "Missiles of China," *Missile Threat*, Center for Strategic and International Studies, June 14, 2018, last modified April 12, 2021, <https://missilethreat.csis.org/country/china/>; Sutton, H. I. "China's New Aircraft Carrier Killer Is World's Largest Air-Launched Missile." Naval News, November 1, 2020. <https://www.navalnews.com/naval-news/2020/11/chinas-new-aircraft-carrier-killer-is-worlds-largest-air-launched-missile/>; "National Security Strategy of the United States of America." National Security Council, December 2017: 46, <https://history.defense.gov/Portals/70/Documents/nss/NSS2017.pdf?ver=CnFwURrw09pJ0q5EogFpwwg%3d%3d>; <https://www.usni.org/magazines/proceedings/2022/february/maritime-strategy-deal-china>

³ Eckstein, Megan. "Study Says Navy Logistics Fleet Would Fall Short in High-End Fight." U.S. Naval Institute News, May 17, 2019. <https://news.usni.org/2019/05/17/study-says-navy-logistics-fleet-would-fall-short-in-high-end-fight>; <https://csbaonline.org/research/publications/sustaining-the-fight-resilient-maritime-logistics-for-a-new-era> <https://www.usni.org/magazines/proceedings/2020/november/logistics-shaping-factor> <https://csbaonline.org/research/publications/sustaining-the-fight-resilient-maritime-logistics-for-a-new-era/publication/1>

⁴ Heginbotham, Eric, Michael Nixon, Forrest E. Morgan, Jacob L. Heim, Jeff Hagen, Sheng Tao Li, Jeffrey Engstrom, Martin C. Libicki, Paul DeLuca, David A. Shlapak, David R. Frelinger, Kyle Brady, Burgess Laird, and Lyle J. Morris, *Chinese Threats to U.S. Surface Ships: An Assessment of Relative Capabilities, 1996–2017*. Santa Monica, CA: RAND Corporation, 2015. https://www.rand.org/pubs/research_briefs/RB9858z4.html.

⁵ Maj. Gen. Rodney Fogg, Brig. Gen. Michelle M.T. Letcher, and Col. Kenneth W. Letcher. "Sustainment: The Advantage That 'Wins' in Contested Environments." *Army Sustainment*, May 24, 2021. https://www.army.mil/article/246562/sustainment_the_advantage_that_wins_in_contested_environments; Estevez, Alan, Marchese, Kelly, Routh, Adam, and Mariani, Joe. "The Changing Character of Supply: Rethinking Logistics in an Era of Systems Warfare." *Modern War Institute*, June 9, 2021. <https://mwi.usma.edu/the-changing-character-of-supply-rethinking-logistics-in-an-era-of-systems-warfare/>; Mills, Walker, Phillips-Levine, Dylan, and Fox, Collin. "'Cocaine Logistics' for the Marine Corps." *War on the Rocks*, July 22, 2020. <https://warontherocks.com/2020/07/cocaine-logistics-for-the-marine-corps/>.

⁶ Pettyjohn, Stacie. "Spiking the Problem: Developing a Resilient Posture in the Indo-Pacific with Passive Defenses." *War on the Rocks*, January 10, 2022. <https://warontherocks.com/2022/01/spiking-the-problem-developing-a-resilient-posture-in-the-indo-pacific-with-passive-defenses/>; Wolfe, Frank. "Joint Warfighting Concept Assumes 'Contested Logistics.'" *Defense Daily*, October 6, 2020. <https://www.defensedaily.com/joint-warfighting-concept-assumes-contested-logistics/pentagon/>; Hitchens, Theresa. "The Joint Warfighting Concept Failed, Until It Focused On Space And Cyber." *Breaking Defense*, July 26, 2021. <https://breakingdefense.com/2021/07/the-joint-warfighting-concept-failed-until-it-focused-on-space-and-cyber/>.

⁷ Estevez, Alan, Marchese, Kelly, Routh, Adam, and Mariani, Joe. "The Changing Character of Supply: Rethinking Logistics in an Era of Systems Warfare." *Modern War Institute*, June 9, 2021. <https://mwi.usma.edu/the-changing->

character-of-supply-rethinking-logistics-in-an-era-of-systems-warfare/; “National Security Strategy of the United States of America.” National Security Council, December 2017: 27, 46, <https://history.defense.gov/Portals/70/Documents/nss/NSS2017.pdf?ver=CnFwURrw09pJ0q5EogFpwwg%3d%3d>; Gill, Jaspreet. “Pentagon Tech Officer: Russian Invasion Shows Importance of ‘Contested Logistics.’” *Breaking Defense*, March 8, 2022. <https://breakingdefense.com/2022/03/pentagon-tech-officer-russia-invasion-shows-importance-of-contested-logistics/>.

⁸ Holmes, James. “Defend the First Island Chain.” *United States Naval Institute* 140, no. 4 (April 2014): 1,334; Nakamura, Ryo. “U.S. to Build Anti-China Missile Network along First Island Chain.” *Nikkei Asia*, March 5, 2021. <https://asia.nikkei.com/Politics/International-relations/Indo-Pacific/US-to-build-anti-China-missile-network-along-first-island-chain>.

⁹ Paskal, Cleo. “‘U.S. Needs to Fix Weaknesses in Its Indo-Pacific Strategy to Counter China.’” *Sunday Guardian Live*, January 15, 2022. <https://www.sundayguardianlive.com/news/u-s-needs-fix-weaknesses-indo-pacific-strategy-counter-china>.

¹⁰ Insinna, Valerie. “A US Air Force War Game Shows What the Service Needs to Hold Off — Or Win Against — China in 2030.” *Defense News*, April 12, 2021. <https://www.defensenews.com/training-sim/2021/04/12/a-us-air-force-war-game-shows-what-the-service-needs-to-hold-off-or-win-against-china-in-2030/>; Vanak, Jeffrey. “Wargames: Losing Is Learning, Learning Is Winning.” *The Diplomat*, December 16, 2020. <https://thediplomat.com/2020/12/wargames-losing-is-learning-learning-is-winning/>; Copp, Tara. “‘It Failed Miserably’: After Wargaming Loss, Joint Chiefs Are Overhauling How the US Military Will Fight.” *Defense One*, July 26, 2021. <https://www.defenseone.com/policy/2021/07/it-failed-miserably-after-wargaming-loss-joint-chiefs-are-overhauling-how-us-military-will-fight/184050/>; Pettyjohn, Stacie. “US Should Use Passive Defenses to Strengthen Indo-Pacific Military Posture, Argues Researcher.” *Center for a New American Security*, February 16, 2022. <https://www.cnas.org/publications/video/us-should-use-passive-defenses-to-strengthen-indo-pacific-military-posture-argues-researcher>; “U.S.-China Strategic Competition in South and East China Seas: Background and Issues for Congress.” *Congressional Research Service*, January 26, 2022. <https://sgp.fas.org/crs/row/R42784.pdf>; Lague, David and Murray, Maryanne. “T-Day: The Battle for Taiwan.” *Reuters*, November 5, 2021. <https://www.reuters.com/investigates/special-report/taiwan-china-wargames/>.

¹¹ Burke, Edmund J., Kristen Gunness, Cortez A. Cooper III, and Mark Cozad, People's Liberation Army Operational Concepts. Santa Monica, CA: RAND Corporation, 2020.

¹² Burke, Edmund J., Kristen Gunness, Cortez A. Cooper III, and Mark Cozad, People's Liberation Army Operational Concepts. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RRA394-1.html.

¹³ Sexton, Donal. “Phantoms of the North: British Deceptions in Scandinavia, 1941 -1944.” *Military Affairs* 47, no. 3 (October 1983): 109.

¹⁴ Booth, Owen. *The Illustrated History of World War II*. Chartwell Books, 1998.

¹⁵ The British government also had plans for Norway in April 1940. Called Plan R4, the British military, with French and Polish support, planned to mine the harbors of key Norwegian ports and invade northern Norway and Sweden to cut off German iron-ore shipments. Ziemke, Earl. “Chapter 2, The German Decision to Invade Norway and Denmark.” In *Command Decisions*, 49–73. Army Center of Military History, 1960.

¹⁶ Royde-Smith, John. “World War II.” *Britannica*, February 28, 2022. <https://www.britannica.com/event/World-War-II>.

¹⁷ Henley, Lonnie. “Chapter 5 War Control: Chinese Concepts of Escalation Management.” Strategic Studies Institute, US Army War College, October 1, 2006, 81–104; “Military and Security Developments Involving the People’s Republic of China 2021.” Department of Defense, 2020. <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.

¹⁸ “Military and Security Developments Involving the People’s Republic of China 2021.” Department of Defense, 2020. <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.

¹⁹ Maizland, Lindsay and Cheng, Nathanael. “The U.S.-Japan Security Alliance.” *Council on Foreign Relations*, November 4, 2021. <https://www.cfr.org/backgrounder/us-japan-security-alliance>.

²⁰ Fischetti, Andrea and Roth, Antoine. “Taiwan Is Where Japan Draws the Line.” *Tokyo Review*, July 25, 2020. <https://www.tokyoreview.net/2020/07/taiwan-is-where-japan-draws-the-line/>.

²¹ Huth, Paul, and Bruce Russett. “What Makes Deterrence Work? Cases from 1900 to 1980.” *World Politics* 36, no. 4 (1984): 496–526. doi:10.2307/2010184.

²² For example, Singapore sits at the junction between the Pacific and Indian Oceans, giving it an inherent strategic value. Kuok, Lynn. “The U.S.-Singapore Partnership: A Critical Element of U.S. Engagement and Stability in the Asia-Pacific.” *Brookings Institution*, n.d. https://www.brookings.edu/wp-content/uploads/2016/11/fp_20160713_singapore_partnership.pdf; Roosevelt, Nicholas. “The Strategy of Singapore.” *Foreign Affairs*, January 1929. <https://www.foreignaffairs.com/articles/singapore/1929-01-01/strategy-singapore>; “Fact Sheet: Strengthening the U.S.-Singapore Strategic Partnership.” The White House, August 23, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/23/fact-sheet-strengthening-the-u-s-singapore-strategic-partnership/>.

²³ Cowhey, Peter F. “Domestic Institutions and the Credibility of International Commitments: Japan and the United States.” *International Organization* 47, no. 2 (1993): 299–326. <http://www.jstor.org/stable/2706892>.

²⁴ Nichol, Jim. “Kyrgyzstan: Recent Developments and U.S. Interests.” Congressional Research Service, August 30, 2013. <https://sgp.fas.org/crs/row/97-690.pdf>; “Pentagon Shifting Afghan Logistics Hub to Romania from Kyrgyzstan.” *Reuters*, October 18, 2013. <https://www.reuters.com/article/us-usa-defense-romania/pentagon-shifting-afghan-logistics-hub-to-romania-from-kyrgyzstan-idUSBRE99H14D20131018>.

²⁵ Blancaflor, Hermann. “Military Infrastructure in the Philippines: Defense Partnership Policy and the Future.” *US Army Command and General Staff College*, 2019. <https://apps.dtic.mil/sti/pdfs/AD1083183.pdf>.

²⁶ NATO carefully considers infrastructure-sharing. European traffic jams could delay a U.S. military response to a crisis. The United States, with NATO allies, conducted the Defender 2020 Exercise, where land-based forces prepared to respond to a military crisis in Europe. The U.S. military and Belgium coordinated the movement of allied forces at night to avoid disruptions to civilian traffic patterns. This kind of coordination is necessary for any logistics integration agreement in the Indo-Pacific. O’Connor, Tom. “U.S. Could Lose War With Russia Because of Traffic Jams in Europe.” *Newsweek*, June 25, 2018. <https://www.newsweek.com/us-lose-war-russia-europe-994678>; Birnbaum, Michael. “If They Needed to Fend off War with Russia, U.S. Military Leaders Worry They Might Not Get There in Time.” *The Washington Post*, June 24, 2018. https://www.washingtonpost.com/world/europe/how-us-troops-could-get-stuck-in-a-traffic-jam-on-their-way-to-fend-off-war-with-russia/2018/06/24/2c8ed46e-52cf-11e8-a6d4-ca1d035642ce_story.html; Judson, Jen. “Fighting the Bureaucracy: For NATO, the Defender 2020 Exercise in Europe Will Test Interoperability.” *Defense News*, October 14, 2019. <https://www.defensenews.com/digital-show-dailies/ausa/2019/10/11/fighting-the-bureaucracy-for-nato-the-defender-2020-exercise-in-europe-will-test-interoperability/>; Galindo, Gabriela. “Largest US-Led Military Games in Decades to Avoid Belgium’s Daytime Traffic Jams.” *The Brussels Times*, January 6, 2020. <https://www.brusselstimes.com/belgium/87591/largest-us-led-military-games-in-decades-to-avoid-belgiums-daytime-traffic-jams>.

²⁷ During Operation Enduring Freedom, the United States used sealift and overland routes from Pakistan to supply its forces. Pakistan insisted that only its citizens could unload supplies from cargo ships. This led to significant amounts of theft, and the United States limited the flow of sensitive technology through Pakistani supply routes. Success depends on U.S. access. “E.J.” Degen, Edmund and Reardon, Mark. *Modern War in an Ancient Land: The United States Army in Afghanistan, 2001-2014*. Vol. 2. Center of Military History, 2021, 383 https://history.army.mil/html/books/059/59-1/cmhPub_59-1_volII.pdf.

²⁸ Nations with stronger ties to the United States will be more likely to support the lethal aid passing through their territory. Nonlethal supplies include food, fuel, and medical supplies. Lethal supplies include weapons, munitions, and their support systems. Keating, Joshua. “What Exactly Is ‘Non-Lethal’ Aid? Anything Not Designed to Kill. But That Doesn’t Mean It Can’t Be Used for Bloody Ends.” *Foreign Policy*, August 2, 2012. <https://foreignpolicy.com/2012/08/02/what-exactly-is-non-lethal-aid/>. When the Northern Distribution Network ran from Europe through Russia and Central Asia to supply U.S. forces in Operation Enduring Freedom, cooperating nations limited the supplies to nonlethal aid. “E.J.” Degen, Edmund and Reardon, Mark. *Modern War in an Ancient Land: The United States Army in Afghanistan, 2001-2014*. Vol. 2. Center of Military History, 2021, 383 https://history.army.mil/html/books/059/59-1/cmhPub_59-1_volIII.pdf.

²⁹ In the 2022 Russian invasion of Ukraine, NATO nations have given lethal and nonlethal aid to Ukraine. Russia’s response has been harsh, including publishing a list of “enemy countries.” Indo-Pacific nations should expect similar retaliation from Beijing for cooperation. LeBlanc, Paul. “Ukraine Has Requested Military Aid. Here’s How Allies Are Providing Assistance.” *CNN*, March 18, 2022. <https://www.cnn.com/2022/03/18/politics/ukraine-military-weapons-javelin-stinger-s300-switchblade-drones/index.html>; Russian News Agency TASS. “Russian Government Approves List of Unfriendly Countries and Territories,” March 7, 2022. https://tass.com/politics/1418197?utm_source=google.com&utm_medium=organic&utm_campaign=google.com&utm_referrer=google.com.

³⁰ “Delivering geographically dispersed goods to troops through theater supply would require a coordination system that can match logistical supply to operational demand.” Estevez, Alan, Marchese, Kelly, Routh, Adam, and Mariani, Joe. “The Changing Character of Supply: Rethinking Logistics in an Era of Systems Warfare.” *Modern War Institute*, June 9, 2021. <https://mwi.usma.edu/the-changing-character-of-supply-rethinking-logistics-in-an-era-of-systems-warfare/>

³¹ For an in-depth breakdown of regional reactions to U.S.-PRC competition, refer to this report: Lin, Bonny, Michael S. Chase, Jonah Blank, Cortez A. Cooper III, Derek Grossman, Scott W. Harold, Jennifer D. P. Moroney, Lyle J. Morris, Logan Ma, Paul Orner, Alice Shih, and Soo Kim, *Regional Responses to U.S.-China Competition in the Indo-Pacific: Study Overview and Conclusions*. Santa Monica, CA: RAND Corporation, 2020.

https://www.rand.org/pubs/research_reports/RR4412.html; Wilkinson, Tracy. “Remember the ‘Pivot’ to Asia? U.S. Wants to Reassure Pacific Allies It’s Still on.” *Los Angeles Times*, February 9, 2022.

<https://www.latimes.com/politics/story/2022-02-09/us-pivot-asia-reassure-pacific-allies>

³² Paskal, Cleo. “U.S. Needs to Fix Weaknesses in Its Indo-Pacific Strategy to Counter China.” *Sunday Guardian Live*, January 15, 2022. <https://www.sundayguardianlive.com/news/u-s-needs-fix-weaknesses-indo-pacific-strategy-counter-china>.

³³ Lin, Bonny, Michael S. Chase, Jonah Blank, Cortez A. Cooper III, Derek Grossman, Scott W. Harold, Jennifer D. P. Moroney, Lyle J. Morris, Logan Ma, Paul Orner, Alice Shih, and Soo Kim, *Regional Responses to U.S.-China Competition in the Indo-Pacific: Study Overview and Conclusions*. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RR4412.html.

³⁴ AEIdeas. “11 AEI Scholars Discuss the Deterrent Value of America’s Military.” *American Enterprise Institute*, March 17, 2021. <https://www.aei.org/foreign-and-defense-policy/11-aei-scholars-discuss-the-deterrent-value-of-americas-military/>; Brands, Hal, Edelman, Eric, and Mahnken, Thomas. “Credibility Matters Strengthening American Deterrence in an Age of Geopolitical Turmoil.” Center for Strategic and Budgetary Assessments, 2018. https://csbaonline.org/uploads/documents/Credibility_Paper_FINAL_format.pdf.

³⁵ Stout, Mark. “(W)Archives: Prepositioning Combat Equipment in Europe? Been There, Done That.” *War on the Rocks*, June 19, 2015. <https://warontherocks.com/2015/06/warchives-prepositioning-combat-equipment-in-europe-been-there-done-that/>.

³⁶ Frederick, Bryan, Stephen Watts, Matthew Lane, Abby Doll, Ashley L. Rhoades, and Meagan L. Smith, *Understanding the Deterrent Impact of U.S. Overseas Forces*. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RR2533.html.

³⁷ Hoehn, John and Smagh, Nishawn. “Intelligence, Surveillance, and Reconnaissance Design for Great Power Competition.” Congressional Research Service, June 4, 2020. <https://crsreports.congress.gov/product/pdf/R/R46389>; Gouré, Dan. “High-End Warfare in the Indo-Pacific Theater Will Require Distributed Sensing.” *Real Clear Defense*, October 3, 2020. https://www.realcleardefense.com/articles/2020/10/03/high-end_warfare_in_the_indo-pacific_theater_will_require_distributed_sensing_579548.html.

³⁸ Crumm, Eileen M. “The Value of Economic Incentives in International Politics.” *Journal of Peace Research* 32, no. 3 (1995): 313–30. <http://www.jstor.org/stable/425667>; Long, William J. “Trade and Technology Incentives and Bilateral Cooperation.” *International Studies Quarterly* 40, no. 1 (1996): 77–106. <https://doi.org/10.2307/2600932>.

³⁹ Kuchins, Andrew and Sanderson, Thomas. “The Northern Distribution Network and Afghanistan: Geopolitical Challenges and Opportunities.” *Center for Strategic and International Studies*, 2010, 7; “U.S. Government Assistance to the Kyrgyz Republic.” United States Agency for International Development, March 28, 2014. <https://2012-2017.usaid.gov/sites/default/files/documents/1861/USAID%20Projects%20Overview%20March%202014.pdf>.

⁴⁰ Direct aid and loans will be easier to implement than measures like trade agreements, which require more political capital domestically. Some decisions will require the approval of Congress. Economic incentives encourage continuing cooperation. Crumm, Eileen M. “The Value of Economic Incentives in International Politics.” *Journal of Peace Research* 32, no. 3 (1995): 313–30. <http://www.jstor.org/stable/425667>; Long, William J. “Trade and Technology Incentives and Bilateral Cooperation.” *International Studies Quarterly* 40, no. 1 (1996): 77–106. <https://doi.org/10.2307/2600932>.

⁴¹ Martin, Peter. “China’s Wolf Warriors Are Turning the World Against Beijing.” *Bloomberg*, June 8, 2021. <https://www.bloomberg.com/news/articles/2021-06-08/china-s-wolf-warriors-are-turning-the-world-against-beijing>.

⁴² Silver, Laura, Delvin, Kat, and Huang, Christine. “Unfavorable Views of China Reach Historic Highs in Many Countries.” *Pew Research Center*, October 6, 2020. <https://www.pewresearch.org/global/2020/10/06/unfavorable-views-of-china-reach-historic-highs-in-many-countries/>.

-
- ⁴³ Zhuang, Yan and Cave, Damien. “Australia Asks: How Far Is Too Far in Making China a Campaign Weapon?” *New York Times*, March 10, 2022. <https://www.nytimes.com/2022/03/10/world/australia/election-china.html>.
- ⁴⁴ Dhume, Sadanand. “India, Like the U.S., Has Grown Impatient with China.” *Wall Street Journal*, July 22, 2021. <https://www.wsj.com/articles/india-china-modi-xi-new-dehli-beijing-11626983609>.
- ⁴⁵ “Palau President Visits Taiwan Despite Chinese Pressure.” *AP News*, March 30, 2021. <https://apnews.com/article/beijing-palau-tsai-ing-wen-china-taiwan-361b97451367d686b47d309889e0594c>.
- ⁴⁶ Lin, Bonny, Michael S. Chase, Jonah Blank, Cortez A. Cooper III, Derek Grossman, Scott W. Harold, Jennifer D. P. Moroney, Lyle J. Morris, Logan Ma, Paul Orner, Alice Shih, and Soo Kim, *Regional Responses to U.S.-China Competition in the Indo-Pacific: Study Overview and Conclusions*. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RR4412.html
- ⁴⁷ In an environment of Chinese belligerence, remaining neutral is challenging. Many states lean towards either China or the United States. Thus, some risk of horizontal escalation is already present—a sunk cost. See Lin, Bonny, Michael S. Chase, Jonah Blank, Cortez A. Cooper III, Derek Grossman, Scott W. Harold, Jennifer D. P. Moroney, Lyle J. Morris, Logan Ma, Paul Orner, Alice Shih, and Soo Kim, *Regional Responses to U.S.-China Competition in the Indo-Pacific: Study Overview and Conclusions*. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RR4412.html.
- ⁴⁸ Dobbins, James, Andrew Scobell, Edmund J. Burke, David C. Gompert, Derek Grossman, Eric Heginbotham, and Howard J. Shatz, *Conflict with China Revisited: Prospects, Consequences, and Strategies for Deterrence*. Santa Monica, CA: RAND Corporation, 2017. <https://www.rand.org/pubs/perspectives/PE248.html>; “Military and Security Developments Involving the People’s Republic of China 2021.” Department of Defense, 2020. <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.
- ⁴⁹ Allen, Michael, Flynn, Michael, Machain, Carla, and Stravers, Andrew. “Understanding How Populations Perceive U.S. Troop Deployments.” *Minerva Research Initiative*, March 27, 2019. https://minerva.defense.gov/Owl-In-the-Olive-Tree/Owl_View/Article/1797784/understanding-how-populations-perceive-us-troop-deployments/.
- ⁵⁰ Guzman, Andrew. “The Design of International Agreements.” *European Journal of International Law* 16, no. 4 (September 1, 2005): 579–612. <https://doi.org/10.1093/ejil/chi134>.
- ⁵¹ Kuchins, Andrew and Sanderson, Thomas. “The Northern Distribution Network and Afghanistan: Geopolitical Challenges and Opportunities.” *Center for Strategic and International Studies*, 2010, 7.
- ⁵² Stein, Arthur A. “Coordination and Collaboration: Regimes in an Anarchic World.” *International Organization* 36, no. 2 (1982): 299–324. <http://www.jstor.org/stable/2706524>.
- ⁵³ Müftüler-Bac, Meltem. “Turkey and the United States: The Impact of the War in Iraq.” *International Journal* 61, no. 1 (2005): 61–81. <https://doi.org/10.2307/40204129>.