Beans before Bullets

Asymmetric Logistics as Deterrence and Offense in Near-peer Competition

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Abstract: In an effort to modernize the World War II-era doctrine of "island hopping," this article focuses on potential vulnerabilities in long-distance air and sea supply staging in a hypothetical near-peer conflict in the South Pacific. Using historical examples, the article details how similar vulnerabilities in lines of communication have been exploited throughout history. Finally, the article offers a potential solution in the form of asymmetric logistics, a logistical doctrine focused on the Joint Force's creation and operation of small-scale distributed logistical hubs that are designed to be established and moved quickly using low-value military assets (e.g., small aircraft, boats, or ground vehicles) and that, when combined across a theater

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of conflict, achieve similar levels of throughput to the current Defense Logistics Agency hub-and-spoke distribution network system.

Keywords: logistics, South Pacific, China, Taiwan, aviation, air traffic control, supply, supplies, airport, runway, mobile, airlift, sealift, near-peer, asymmetric

During In their commentary piece on U.S. military strategy, "The Forgotten Part of the Contest: Army Logistics in the Pacific," Carmelia Scott-Skillern and Peter Singer lament that modern military planning circles fail to live up to U.S. Army general Omar Bradley's adage that "professionals talk logistics," asserting that modern leaders are instead focusing on tactics and offensive strategy with "the cottage industry of think tank 'wargames' that has sprung up over the last few years."[1] They also mention that their publication outlet, *War on the Rocks*, has published scant few articles on the subject of logistics (fewer than six in the past two years.) An examination of similar academic publication outlets in the military strategy sphere, *Small Wars Journal* and *Real Clear Defense*, show similar trends toward tactical- or strategic-level discussion, with the few articles covering logistics often having distinct and sometimes outlandish hooks, such as a return to seaplanes as a possible logistical backbone for large-scale operations.[2] Despite the rejection of flying cargo boats as a practical means of supply in the 1940s, during the golden age of flying boats, as a whole, this notion has seemed to gain some attention in the higher military research and development community, with the Defense Advanced Research Projects Agency spending at least $8.3 million in 2024 on cargo seaplane development.[3] Furthermore, Scott-Skillern and Singer note that when the topic of logistics does show up in articles and

leadership presentations, it is often addressed briefly as a concern but given no more than a line or two of acknowledgement.

The sense that logistics is important is clear in academic articles covering military strategy and technology. What is not clear, given how frequently detailed discussion is avoided, is how exactly that importance will be treated in future conflicts, forgoing discussion of beans (logistics) in favor of bullets (fighting.) To compound this lack of attention, the methods and techniques of the U.S. military logistical system are well known in both national and international circles of military and political analysis.

With scholarly publications on innovative logistical capability being as scarce as it is, the prospect of capability atrophy in the face of a looming potential conflict with an ascendant power hungry for resources and regional influence in the Indo-Pacific is an alarming proposition. As the U.S. military has always been a world leader in the art of logistics, maintaining dominance in this realm will require the capacity to evolve.

This article uses historical examples and modern analogs to detail a potential doctrinal pillar for supplying beans and bullets to the people eating and shooting them in a contested environment. To do so, it addresses potential vulnerabilities in the current U.S. military logistical system, defines the concept of asymmetric logistics as counteroffense, and details a proposal for both tactical and strategic logistical supply. Finally, the article details a doctrine of asymmetric logistics that, if implemented as an acknowledged contingency capability, would serve as a deterrent to attacks on the current U.S. military logistical system. To that end: let's talk beans.

Vulnerabilities

The U.S. military can be, and has been, credibly accused of a lot of things during its quarter-millennia of existence, including faulty equipment and inefficient bureaucracy, but in its modern incarnation, a small footprint is not one of them.[4] In an average year, the Defense Logistics Agency (DLA) moves 2.2 billion pounds of cargo around the world, employing more than 25,000 people across 24 major logistics hubs and countless minor ones.[5] This capacity, combined with the global reach of DLA, means that the U.S. military can support operations anywhere in the world. This is in sharp contrast to other large militaries, such as that of Russia, which remains limited to sustained power projection within the borders of former Soviet Union member states.[6] DLA is a large, public-facing operation that includes unclassified maps on its official website that detail the locations of its primary logistical hubs across the entire world.

When it comes to strategic importance, a centralized regional supply hub with confirmed coordinates presents a tactical and strategic liability with regards to logistical sustainment. In fact, the sheer scale of DLA operations and the efficiency of its hub-and-spoke model, the system's greatest strength, are potentially catastrophic vulnerabilities when faced with an adversary such as China, which is capable of conducting regional or global precision strikes with its Dongfeng 21 (or CSS-5 Mod-4 and Mod-5) medium-range ballistic missiles.[7] While the United States remains competent in counterballistic and countercruise missile technology with systems such as the MIM-104 Patriot, even an advanced system with the capability to engage multiple targets that the Patriot demonstrated in 2011 will likely not achieve a 100-percent success rate.[8] To ignore the threat of a strike on known U.S. logistical infrastructure—

as the publicly available information on locations and capabilities of Iron Mountain-style depots implicitly does—in the event of a medium- to large-scale conflict creates an unacceptable risk for U.S. power projection capability and must be addressed.[9]

The vulnerability inherent in this central approach has been witnessed before. On 7/8 December 1941, in the U.S. territories of Hawaii and the Philippines, the Empire of Japan, an ascendant power in the western Pacific, leveraged U.S. military centralization against it through military force in surprise raids on the U.S. naval base at Pearl Harbor and the U.S. air base at Clark Field. The islands of Oahu and Luzon both took a tremendous beating.[10] In the Philippines, Japanese forces landed throughout the archipelago and soon captured the capital of Manila. In Hawaii, however, by sheer luck, the United States' most important assets—its aircraft carrier fleet and fuel—managed to survive. The mistake the Japanese made was one of targeting, partially because they, like most of the world, failed to understand the significance that aviation would have on the coming conflict and partially because of a failure to think logistically.[11] Shockingly, for an action largely motivated by access to resources, the Japanese failed to attack approximately 4.5 million barrels of fuel being stored at Pearl Harbor, leaving the facility nearly unscathed, in favor of attacking the U.S. Navy's ships of the line at anchor. This oversight allowed the United States to immediately respond to the attack by repairing and redeploying nearly every ship attacked during the raid. Without the fuel and supplies that the Japanese left unscathed, this process would have taken significantly longer.[12] In the modern age, it is unreasonable to expect an adversary to make this same mistake.

Not all forces throughout history have been as lucky as the United States in the Pearl Harbor attack. Belligerents in conflict have always required supplies to operate, making logistics critical to success or failure. One extremely early case of logistics dictating a conflict can be found in the Punic wars (264–146 BCE), in which the Carthaginian forces of Hasdrubal and Hannibal made swift gains against a battered Rome by leveraging their strong power base on the Iberian Peninsula (modern-day Spain and Portugal). Unfortunately for the Carthaginians, and fortunately for Rome, the former lacked long-distance logistical capability due to Roman seapower. Without the ability to move their forces and supplies, Hannibal and Hasdrubal were unable to capitalize on their earlier success and link their forces together on the Italian peninsula to deliver the desired decisive blow to Rome. Roman forces under Scipio and Claudius Nero experienced the opposite position. With inferior total forces but superior logistics and intelligence, Scipio was able to first cut off Carthaginian supply lines through Gaul and later send 11,000 Roman troops to Nero by sea.[13] The recognition of the value of logistics, both through Scipio's interference with Carthaginian supply lines as well as the leveraging of Rome's superior logistical capability to rapidly move supplies and troops, allowed Roman forces to isolate and defeat Hasdrubal at Metaurus and win what would prove to be the decisive battle of the war.

Between these two historical cases a clear pattern emerges. In each case, the decisive factor in ultimate victory was not the tactical ability to inflict damage on adversary forces (Japan did immense damage to the U.S. fleet at Pearl Harbor) or even the superiority of winning forces (Rome's fate rested more on the ability to isolate smaller sections of Carthaginian forces) but rather the ability to leverage logistics to move troops and supplies quickly and

without interruption.[14] As Japan learned not long after its attack on Pearl Harbor, its failure to eliminate U.S. supplies and logistical infrastructure would prove a fatal mistake, with the United States using the aircraft carrier USS *Hornet* (CV 8) to launch a flight of U.S. Army Air Forces North American B-25 Mitchell medium bombers to raid Tokyo on 18 April 1942, demonstrating the power of the U.S. carrier fleet and supply hubs that had been ignored less than six months earlier.[15]

Asymmetric Logistics

Asymmetric logistics, as enumerated in this article, refers to a logistics doctrine of contingency, mobility, and adaptation. It is the ability to, in the event of a successful attack on large-scale supply infrastructure, shift the process of supply distribution to a large network of smaller points, quickly and effectively turning the Iron Mountain into a Hydra in which an attack on one major node triggers the implementation of smaller nodes.[16] Using the principles of command and control as a service, preplanned bare base sites and distributed inventory management software are used to coordinate support for the larger theater requirement. The ultimate goal of this resiliency is to maintain an uninterrupted flow of communications in a largely maritime contested environment.[17] Any given site would be initially prepared with nothing more than a port (air, sea, or both) and a basic staging area for supplies. Small teams of personnel would be capable of rapid deployment to these sites, and no individual site would present a cripplingly large vulnerability if destroyed.

The major advantage of asymmetric logistics is the ability of each site to move supplies quickly and efficiently without the need for dedicated

construction support. Each site in the network is equipped with air traffic control- and landing zone establishment-capable personnel, allowing a small team of two to six people to set up an airfield and conduct sustained operations during inclement weather. In stark contrast to the current airlift support methods that require, at minimum, one Boeing C-17 Globemaster III or two Lockheed C-130 Hercules transport aircraft of dedicated airlift, these small teams would deploy and redeploy using small aircraft, vehicles, or boats and require significantly less equipment at any given site, distributing the movement of logistics across multiple small- to medium-scale sites.[18]

At the command level, these existing sites are spun up or down as needed by theater commanders, with each site having the capability to handle, without precoordination, an influx of new aircraft and supplies. Because of this ability to handle new aircraft without advanced coordination, centralized command can shortcut the planning steps for large-scale supply movements, instead distributing supplies between locations based simply on individual location capacity rather than a larger, more intricate, and therefore more fragile plan.

As the current austere airlift system relies on the use of timed approaches to ensure separation in uncontrolled airspace, the introduction of control capability beyond line of sight allows for a significant increase in volume.[19] The value of this volume increase is significant in an airlift, with the elimination of timed approaches offering a more-than-100-percent increase in aircraft arrival rate to a field and drastically reducing holding times for aircraft in any given area.[20] It should be noted that this potential increase in airspace use efficiency, while significant in theory, is unlikely to achieve the full 100-percent increase figure on the ground, as the limitations of offload

and cargo inventory remains a separate issue from airspace arrival rates. However, one additional significant benefit exists in that the ground team's capabilities allow for the elimination of need for airborne warning and control system airlift support, thereby freeing capability for other uses by command.[21]

In short, asymmetric logistics turns the U.S. military's current system into a Hydra. Attacking one of the central hubs would set into motion the deployment of a network of smaller hubs, each with their own supply, storage, and delivery capabilities. Like a Hydra, cutting off one head (a central hub) creates several more (the distributed locations), making targeting more complex for an adversary.

Implementation

Establishing asymmetric logistical capability at a force-wide level requires three major components. The first is preparing locations in advance of a potential conflict to facilitate faster operations, like the island-hopping doctrine employed by the U.S. military in the Pacific during World War II.[22] This step would see survey teams scouting locations to create site profiles. Each site would be assessed for soil suitability, wind patterns, bathymetric data (with emphasis on sea approach viability for autonomous and crewed supply vessels), and available resources (fresh water, suitable pavement, existing structures, docks, piers, etc.) These teams would also install a calibrated survey point and mark its location for use by future teams in countering adversary global positioning system (GPS) denial-of-service attacks.[23] Once completed, each profile would be reviewed and scored, with more suitable locations receiving an individualized plan for rapid

establishment. These scores and plans would be added to one or more of the several U.S. Department of Defense databases for later use.

The second component is the creation of small teams of trained personnel who possess the required skills to assess, establish, and operate these locations in the event of a deployment. These teams would consist of two to six people, depending on initial resource and intent, with the low end (two to four) being primarily focused on aviation assessment and operations and the full team including dedicated maritime personnel for the establishment of expedient seaports.

Programs to train and develop these teams already exist in the U.S. military, including air control component training available through the Marine Corps Mobile Team (MMT), the Navy's Tactical Air Control Squadrons (TACRON), and the Air Force's Landing Zone Controller/Landing Zone Safety Officer (LZC/LZSO) specialties and logistic component training available through the Marine Corps' Landing Support Specialist (Red Patcher) specialty, the Navy's Construction Battalions (Seabees), and the Air Force's Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer (Red Horse) units.[24]

By using lightweight equipment such as rough-terrain manual pallet jacks, passive situational awareness technology such as the Air Force's Air Traffic Control Situational Awareness Mobile Network (SAMN) module currently in development, and a combination of field expedient and prestaged dunnage, a team would be capable of operating medium-scale air and sealift from an austere location in a rapid fashion, typically within 30 minutes of arrival on site for limited operations.[25] As the initial footprint of these teams is small, they can be deployed rapidly using easier-to-acquire

assets such as small aircraft, rigid-hull inflatable boats, or land vehicles. Once in place, the team would be capable of providing 72 hours of unsupported operations, conducting airlift in any weather before requiring additional logistical support.[26] At the end of the rapid response deployment period, one of three things could happen: a shift to sustained operations with the delivery of sustainment equipment such as tents and generators; a temporary extension or redeployment to a new location with the simple resupply of consumables such as batteries; or a withdrawal from the location.

The teams are inexpensive to equip—SAMN is less than 5 percent the cost of the now-canceled Air Traffic Navigation, Integration and Coordination System (ATNAVICS) while still providing approximately 90 percent of the capability—which increases team survivability by making precision targeting with a ballistic or hypersonic theater-range missile largely cost-prohibitive to an adversary.[27] Additionally, due to the mostly passive nature of the SAMN system and manually operated equipment, adversary situational awareness of the state of each site would be limited to direct observation. Any weapon fired blindly would risk being wasted on a small team's potentially unattended equipment. Even the all-weather capability of the teams is inexpensive, as the SAMN system is leveraged to create approach profiles for both aircraft and ships without the need for additional equipment. A single squad-size team provides similar capability to an entire squadron of the U.S. military's current mobile control units.[28]

The third component is the logistical backbone. Leveraging a combination of "cocaine logistics" and the Pakistani military's vehicle-based nuclear deterrence doctrine, a large quantity of small autonomous boats and semisubmersibles such as the Marine Corps' autonomous low-profile vessel

(ALPV) currently in testing would be placed in a constant rotation schedule to provide a distributed supply of necessary material, with each vessel maintaining low observability and shifting location on a semirandomized route across the anticipated area of operations autonomously while awaiting tasking from remote command and control.[29] The semirandom nature and high number of vessels and routes involved would strain adversary intelligence capabilities and hinder efforts to intercept or destroy supplies in transit, simultaneously increasing the survivability of both logistics stockpiles, though the distributed and low-profile nature of the network, and forward operating locations, through the ability to resupply without significant interruption. The vessels would be given their tasking orders to a general area before receiving terminal guidance to expedient seaports with the use of the bathymetric and counter-GPS spoof and jamming capabilities of the SAMN modules.[30]

Deterrence

Any strategy, doctrine, or tactic, when implemented, requires an adversary to make decisions if they wish to counter it. In a near-peer conflict in the South Pacific, the major decision for an adversary such as China is whether to attack current U.S. large-scale logistical capability. Asymmetric logistics turns that decision into a dilemma. If its current hub-and-spoke system is attacked, the United States will experience a short-term reduction in supply capability much to the benefit of China. However, once that reduction is overcome through asymmetric logistics, the result is an increase in targets across the greater theater of conflict and a rapid restoration of U.S. logistical capability. Additionally, the smaller scale of each logistics hub creates a situation of

diminishing returns in which the weapons needed to destroy a hub may be more valuable to an adversary in reserve than the resultant reduction in U.S. logistical capability from use.

The sites are simple and inexpensive to create and sustain, consisting of mostly survey data and having almost no required upkeep or infrastructure, while simultaneously introducing a significant additional intelligence collection requirement for a potential adversary. Because the deployed teams have assessment and establishment capabilities, even a lapse in survey requirements is easily remedied within hours of a team's arrival onsite.[31] In short, once established, the sites require little to no monitoring to maintain as a contingency while still increasing the demand for adversary resources to find, track, target, and monitor.

The logistical backbone of asymmetric logistics is similarly low-impact to implement, consisting mostly of doctrinal changes to use existing or proposed hardware. As demonstrated by the U.S. Marine Corps' recent participation in the U.S. Army's Project Convergence Capstone 4, force interoperability is a central focus for the Marine Corps going forward.[32] The use of ALPVs to supply Marines and partner forces has already reached the demonstration phase. The use of similar small-scale autonomous platforms for logistics will only increase with the implementation of *Force Design*.[33]

By introducing asymmetric logistics as a contingency capability, the entire logistical system of the U.S. military creates a dilemma for an adversary: Do they shoot the known hub and create the Hydra, increasing the demand for intelligence and targeting resources, or do they leave U.S. logistical capability intact, allowing the U.S. military to bring the full weight of its supply chain to bear?

Conclusion

When applied correctly, asymmetric logistics acts as part of both offensive strategy and deterrence. As a component of offense, it allows Joint military planners to rapidly support operations without the need for easily spotted and targeted supply lines extending from central hubs. The distributed nature of the smaller hubs also allows for more immediate tactical resupply of small forces due to reduced distances and flight times, with the smaller hubs being able to make up for the lack of variety in specific supplies requested through speed of delivery. For example, if the option for a field commander is 80 percent of what they request today or 100 percent of what they request next week, the former option becomes more enticing. This results in faster operational tempo, which increases the likelihood of getting inside the enemy's decision loop. When combined with the highly mobile nature of the hubs themselves and the real-time tasking ability of the air- and sea-based supply chain, asymmetric logistics allows for the implementation of the "shoot-and-scoot" tactic on a large scale, with large forces shifting locations so rapidly that the enemy's return fire simply wastes resources, allowing U.S. forces to exert pressure on the enemy when and where they choose and then melt away whenever any kind of counterattack occurs.

As deterrence, asymmetric logistics presents serious resource requirements for an adversary in the event of a successful strike against the U.S. military logistical system while simultaneously limiting impact. Although a strike on a current central hub would be a significant blow in the short term, if asymmetric logistics were implemented the reduction would be temporary rather than catastrophic, with the distributed ALPVs and airlift supply network

serving to reduce or eliminate supply interruption while the next round of resupply is mobilized. The outcome would be not only a return to full or near-full capacity by U.S. forces but also an increase in the demand on the adversary's intelligence, tracking, targeting, and engagement resources. An attack on a DLA logistical hub would not force negotiation but instead, in the words attributed to Imperial Japanese Navy admiral Isoroku Yamamoto in the aftermath of the attack on Pearl Harbor, "awaken a sleeping giant and fill him with a terrible resolve."[34]

In a nonconflict environment, the advantage of developing asymmetric logistical capability is that it does not require a shift in the U.S. logistical apparatus away from the hub-and-spoke system, instead being built on top of the existing system as a publicly acknowledged contingency capability. This increases options for military commanders serving not only in a conflict but also in a humanitarian relief effort, as the infrastructure for rapid establishment and supply of austere environments would be established preemptively rather than as a reaction to an event, which would serve as an advantage when responding to disasters both in U.S. territory and abroad.[35] Ultimately, with the advantages being many, the resource requirements inexpensive, and the opportunity cost low, it would be foolish to discount asymmetric logistics as a warfighting tool in the U.S. military's arsenal.

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[1] Carmelia Scott-Skillern and Peter Singer, "The Forgotten Part of the Contest: Army Logistics in the Pacific," *War on the Rocks*, 29 April 2024.
[2] Justin Baumann, "Seaplanes!: Enhancing Army Logistics in the Indo-Pacific by Reintroducing Seaplanes to the Navy and Air Force," *Small Wars Journal*, 28 September 2021.
[3] Stephen Losey, "DARPA Taps Aurora to Keep Designing Heavy Cargo Seaplane in 8.3M Deal," *Defense News*, 10 May 2024.
[4] VAdm Bernard M. Kauderer, USN (Ret), "The Great Torpedo Scandal: Lessons Learned," Council of American Ambassadors, 2004.
[5] "DLA Distribution Locations," Defense Logistics Agency, accessed 31 December 2024.

[6] Lukas Milevski, "Russian Logistics and Forward Urban Defense in the Baltic States," *Military Review*, online exclusive (September 2022).
[7] *Ballistic and Cruise Missile Threat* (Wright-Patterson AFB, OH: National Air and Space Intelligence Center, Defense Intelligence Ballistic Missile Analysis Committee, 2017), 22–23.
[8] *Patriot/Medium Extended Air Defense System (MEADS)* (Washington, DC: Operational Test and Evaluation, Army Programs, 2011), 87–88.
[9] Sydney J. Freedberg Jr., "No More Iron Mountains: Lighter Logistics Key to Multi-Domain Battle," *Breaking Defense*, 3 May 2017.
[10] Samuel Eliot Morison, *History of United States Naval Operations in World War II*, vol. 3, *The Rising Sun in the Pacific, 1931–April 1942* (Boston, MA: Little, Brown, 1948), 98–126; and Louis Morton, *The War in the Pacific: The Fall of the Philippines*, United States Army in World War II (Washington, DC: Center of Military History, 1993), 79–90.
[11] Robert J. Cressman, "Analysis of the Attack," videos, Naval History and Heritage Command, 3 December 2021.
[12] Daniel Immerwahr, *How to Hide an Empire: A History of the Greater United States* (New York: Farrar, Straus and Giroux, 2019), 3, 215.
[13] Capt A. T. Mahan, *The Influence of Sea Power upon History, 1660–1783* (Boston, MA: Little, Brown, 1890), 19.
[14] Mahan, *The Influence of Sea Power upon History*, 21.
[15] Robert J. Cressman, *The Official Chronology of the U.S. Navy in World War II* (Washington, DC: Naval Historical Center, 1999).
[16] In Greek mythology, Hydra was a giant serpentine water monster with multiple heads. When one head was cut off, two more would grow back in its place. "Hydra," *Encyclopaedia Britannica*, accessed 31 December 2024.
[17] Mahan, *The Influence of Sea Power upon History*, 44.
[18] "Gilfillan Air Traffic Control," ITT Industries, 2005.
[19] *Air Traffic Control*, Federal Aviation Administration Order JO7110.65AA (Washington, DC: Federal Aviation Administration, 20 April 2023), 6-7-5.
[20] *Air Traffic Control*, 5-9-1.
[21] Adam Reilly, "Air Traffic Control Situational Awareness Mobile Network," U.S. Air Force Spark Tank, 2023.
[22] Maj Luis O. Guzman, USA, " 'First in . . . Last out': History of the U.S. Army Pathfinder (1942–2011)" (thesis, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2005), 128.
[23] Reilly, "Air Traffic Control Situational Awareness Mobile Network."
[24] *Drop Zone, Landing Zone, and Helicopter Landing Zone Operations*, Department of the Air Force Manual 13-217 (Washington, DC: Department of the Air Force, 2022); and LCpl Nelson Duenas, "Red Patchers: The Misunderstood Marines," Marines.mil, 27 April 2016.
[25] Reilly, "Air Traffic Control Situational Awareness Mobile Network." For the purpose of this article's analysis, the capabilities of the ToolWell manual rough terrain pallet truck was used, but several alternatives are available with similar capability. See "Manual Rough Terrain Pallet Truck," ToolWell, accessed 31 December 2024.
[26] *Drop Zone, Landing Zone, and Helicopter Landing Zone Operations*.
[27] *Department of Defense Fiscal Year (FY) 2024 Budget Estimates: Defense-Wide Justification Book Volume 1 of 1: Procurement*, *Defense-Wide* (Washington, DC: Department of Defense, 2023), 53.
[28] Reilly, "Air Traffic Control Situational Awareness Mobile Network."

[29] Walker D. Mills, Dylan "Joose" Phillips-Levine, and Collin Fox, " 'Cocaine Logistics' for the Marine Corps," *War on the Rocks*, 22 July 2020.
[30] Reilly, "Air Traffic Control Situational Awareness Mobile Network"; "Arms Control and Proliferation Profile: Pakistan," Arms Control Association, August 2023; and John Grady, "Marines Testing Low-Profile Vessels, Oil Industry Support Ships to Resupply Distant Outposts," *USNI News*, 4 September 2024.
[31] *Drop Zone, Landing Zone, and Helicopter Landing Zone Operations*.
[32] Johannes Schmidt, "Marines' Experimentation with Joint Integrated Fires Proves Successful during Project Convergence Capstone 4," Marines.mil, 2 April 2024.
[33] "Force Design in the Pacific," Marines.mil, 2024.
[34] *Tora! Tora! Tora!*, directed by Richard Fleischer, Toshio Masuda, and Kinji Fukasaku (Century City, CA: 20th Century Fox, 1970).
[35] Rockie K. Wilson, "Operation Tomodachi: A Model for American Disaster Response Efforts and the Collective Use of Military Forces Abroad," *Journal of Defense Management* 2, vol. 3 (January 2012), https://doi.org/10.4172/2167-0374.1000108.