

U.S. NAVY OPERATIONS IN WORLD WAR II

# CONTESTED LOGISTICS

## SUSTAINING THE PACIFIC WAR



PETER C. LUEBKE, TIMOTHY L. FRANCIS,  
AND HEATHER M. HALEY



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AND HEATHER M. HALEY**

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## FOREWORD

Sun Tzu wrote, over 20 centuries ago, “The line between disorder and order lies in logistics.” As one of the seven joint warfighting functions, effective sustainment provides the means to “enable freedom of action and endurance and to extend operational reach. Sustainment determines the depth to which the force can conduct decisive operations, seize, retain, and exploit the initiative.” Since the end of the Cold War, our military has benefited greatly from our ability to execute maneuver and distribution at the strategic, operational, and tactical levels. While adversary actions, access, basing, and overflight limitations could disrupt and interfere with our operations, we consistently set conditions for our freedom of action whenever and wherever we chose.

Today we face expanding threat environments and expect our maneuver across echelons will be contested in ways we have not seen since World War II. Recently, General Jacqueline Van Ovost, Commander, U.S. Transportation Command (USTRANSCOM), speaking at the 2022 National Defense Transportation Association fall meeting, said, “To compete effectively, we must have agile, resistant, survivable, and sustainable logistics—all leading to delivering lethality.”

The importance of sustainment planning and execution and its interdependent relationship with operations is on full display in the ongoing Ukraine crisis. These events are a stark reminder of the need to transform how we plan for and execute sustainment today. There is no better starting point for this discussion than to examine the evolution of our theater logistics that sustained the victorious Pacific War forces. That logistics architecture was designed and operated by line officers supported by logistics specialists. While the environment and pacing threat are not perfectly analogous to today, there are a significant number of lessons we should extract from the study of World War II Pacific Theater sustainment that apply to every warfighting function at the operational level.

We appreciate the Naval History and Heritage Command's untiring support and authoring of this outstanding pamphlet for us.

Rear Admiral Philip Sobeck

USTRANSCOM J5-J4 (former Commander, Task Force 73)

Rear Admiral Dion English

Joint Staff Deputy J4 (former COMPACFLT N4)

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COMPACFLT Director, Maritime Headquarters, and Deputy Commander,  
Task Force Logistics

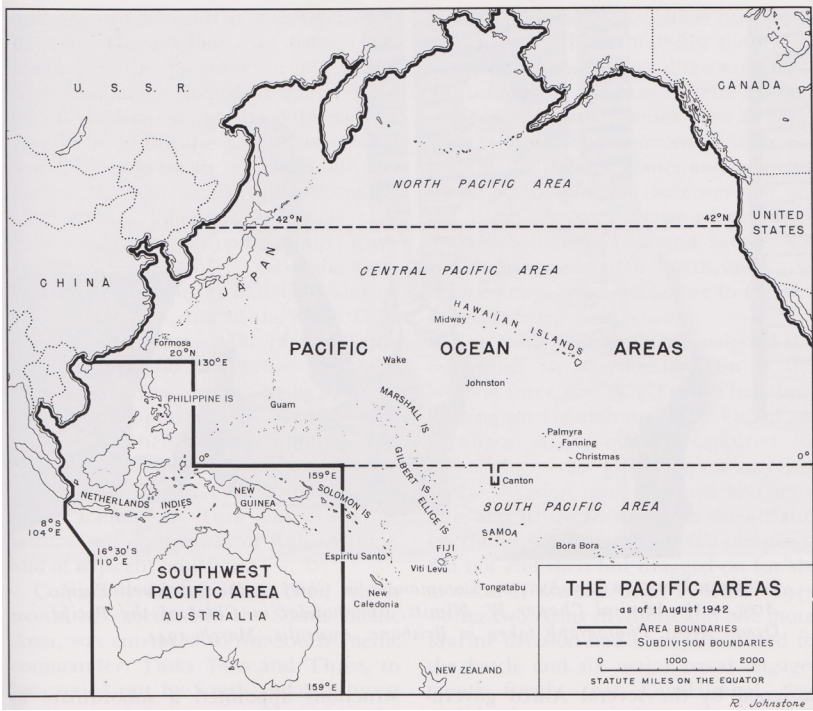
## INTRODUCTION

*“Naval history furnishes true clue to real significance of logistics”*

— Vice Admiral Robert B. Carney, U.S. Naval Academy, 1947

Before World War II, the U.S. Navy relied on an ad hoc system to manage logistical support for its ships. The scale and geography of the war in the Pacific nullified earlier ways of acquiring and distributing sufficient materiel. This booklet explores the ways in which the Navy conceptualized and implemented overseas logistics from the age of sail through the Pacific War. These processes, both in their planned form and actual operation, reveal two significant themes: (1) logistics is line work; and (2) preparation and planning ahead of time are critical for the successful execution of operations, without which the Navy struggled to supply forward-deployed personnel.

Chapter 1 explores how and when Navy officials realized they needed to create a logistics apparatus as the fleet grew and traveled to remote regions across the globe. Chapter 2 examines how the crises of the 1930s before World War II gave the Navy critical time to logistically prepare for war. Chapter 3 identifies how inexperience created difficulties in early logistical sustainment efforts at Bora Bora. Chapters 4 and 5 trace the execution of early Pacific War logistics, with particular emphasis on the ad hoc solutions that defined Rear Admiral Richmond Kelly Turner’s efforts at Guadalcanal. Chapter 6 focuses on how the Navy addressed logistics shortcomings in the later years of the Pacific War. Finally, Chapter 7 documents how the Navy’s postwar logistics system explicitly aimed to consolidate and transmit lessons learned.



World War II Pacific Theater operational areas as established in 1942. Geographic names reflect contemporary usage. (U.S. Army Center of Military History)

# 1

## **PREHISTORY OF PACIFIC LOGISTICS: THE U.S. NAVY THROUGH WORLD WAR I**

Understanding the Navy's approach to logistics during World War II requires examining how the Navy approached logistics before that war. Prior to World War II, the Navy was an administratively small organization. It had been forward deployed at the squadron level from the 1790s, and with the exception of the Civil War and the first decades of the 20th century, the numbers of ships at sea were few and mostly operated individually. Except for surges related to the Civil War, Spanish-American War, the cruise of the Great White Fleet, and World War I, the Navy had few problems obtaining supplies in theater—in an ad hoc, “hand-to-mouth” manner. In those four cases, however, the sudden expansion in fleet size, accompanied by unusually large deployments, disrupted the usual procedure of purchasing supplies and material locally. With almost no peacetime staff apparatus to organize shipments from the United States, operating forces suffered from supply bottlenecks (which limited overseas operations) until administrative fiat solved these disruptions. This wartime pattern occurred in every one of the above cases: peacetime procedures were disrupted by war; wartime expansion led to supply shortcomings, which limited or delayed operations; and the Navy's administrative apparatus would expand and adapt to resolve supply bottlenecks. After the war or emergency, the overall size of the Navy typically contracted, as would the administrative apparatus, and the Navy as a whole would revert to the logistically negligible status quo ante bellum.

For the first half century or so of its operations, the United States Navy primarily conducted distant forward deployments on an individual-ship basis. Warships cruised in the Atlantic, Pacific, and the Mediterranean

to protect American trade from commercial interference, as well as corsair and pirate predation. While the Secretary of the Navy and his small administration procured the warships, ordnance, and material based on congressional appropriations, the captains and commanders of ships were expected to meet their deployed logistical requirements by purchasing necessities locally. In the age of sail, the daily requirements of a warship remained quite small. Rigging, powder, ammunition, and other durable items were fitted out before departure, leaving consumables such as food and water as the greatest need when underway. Like other navies, U.S. warships used a network of friendly merchants to ensure this type of resupply, typically using the local American ambassador or consular official as a go-between.<sup>1</sup>

Commanders employed the same process during the campaigns against the Barbary powers and other occasional squadron deployments. In 1804, Captain Edward Preble, while in command of *Constitution*, used a local naval agent in Naples to purchase gunpowder and hire mortar boats from the Kingdom of the Two Sicilies using Navy Department funds. Later that year, the Secretary of the Navy wrote directly to a large contracting agent in Livorno to supply the simultaneous deployment of five frigates to the Mediterranean to help with the blockade of Tripoli. These two examples illustrate that the Navy could support its forward presence requirements almost entirely through local supply networks.

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1 George Henry Preble, ed., *The First Cruise of the United States Frigate Essex with a Short Account of Her Origin and Subsequent Career until Captured by the British in 1814 and Her Ultimate Fate* (Salem, MA: Essex Institute, 1870), 95; Secretary of the Navy to Jacobus Theodorus Reynst, 3 December 1800, and Secretary of the Navy to Jesse and Robert Waln, 26 December 1801, both in *Naval Documents Related to the Quasi-War Between the United States and France: Naval Operations from December 1800 to December 1801* (Washington, DC: Office of Naval Records and Library, 1938), 7, 309–10; David Long, *Gold Braid and Foreign Relations: Diplomatic Activities of U.S. Naval Officers, 1798–1883* (Annapolis, MD: Naval Institute Press, 1988), 208.

Reinforcement of manpower and ships would come from U.S. ports, of course, but nearly everything else could be obtained locally, in theater.<sup>2</sup>

With little exception, the Navy continued supplying in this manner until the Civil War. While naval administration did improve slightly with the creation of the bureau system in 1842, none of the new bureaus—Construction and Repair; Medicine and Surgery; Ordnance; Provisions and Clothing; Yards and Docks—conducted large-scale logistical operations; not only were the staff too few, but there was simply no demand signal given the small size of the Navy and continued individual deployments.<sup>3</sup> The advent of double-expansion steam engines mid-century did not fundamentally change anything, as the Navy's local purchasing system met the demand for coal. During the Mexican-American War, for example, the three steamships supporting the landings at Veracruz in 1847 obtained coal from depots in New Orleans and Key West.<sup>4</sup> Commodore Matthew C. Perry's later expedition to Japan fueled in the same manner, coaling at a series of British-controlled ports across the Atlantic, Indian, and Pacific Oceans.<sup>5</sup>

The American Civil War, with the rapid expansion of the Navy, broke this traditional local purchasing system. With the blockade strategy adopted immediately after the outbreak of war, the Navy suddenly had to figure out how to supply and maintain the hundreds of ships needed to cover the entire Confederate coastline. The area was huge, stretching from the northern Mississippi River, down to the Gulf of Mexico, east around Florida, and north to the Virginia Capes. The Navy would arrive at many

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- 2 Edward Preble to Sir John Acton, 10 May 1804; Edward Preble to Secretary of the Navy, 15 May 1804; General Bartolomme Forteguerra to Signore Marasciallo Marchese Espluga, 15 May 1804; Extract from the log book kept by Sailing Master Nathaniel Haraden, U.S. Navy, 29 May 1804; and, Secretary of the Navy to Degen, Purviance, and Co., 3 June 1804, all in *Naval Documents Related to the United States Wars with the Barbary Powers: Volume IV: Naval Operations Including Diplomatic Background from April to September 6, 1804* (Washington, DC: Office of Naval Records and Library, 1942), 90–91, 103–104, 128–29, 144.
  - 3 Robert Greenhalgh Albion, *Makers of Naval Policy, 1798–1947*, ed. Rowena Reed (Annapolis, MD: Naval Institute Press, 1980), 6–7.
  - 4 Kevin J. Weddle, *Lincoln's Tragic Admiral: The Life of Samuel Francis Du Pont* (Charlottesville: University of Virginia Press, 2005), 25–28.
  - 5 Robert W. Love Jr., *History of the U.S. Navy: Volume One: 1775–1941* (Harrisburg, PA: Stackpole Books, 1992), 188–211, 215–20; Long, *Gold Braid and Foreign Relations*, 247–48.

solutions to this massive logistical problem, most of them temporary, but some of them permanent and of lasting importance.

The first adaptation was Secretary of the Navy Gideon Welles's creation of a Blockade Board, with the Navy represented by Captain Samuel Francis Du Pont. The board met to synthesize geographical and hydrographical information acquired from several federal agencies, such as the Army's Corps of Engineers, the U.S. Coast Survey, and the Navy. Using this data, the board made recommendations to Welles on blockade strategy and the establishment of advance bases for the logistical support of the blockaders. Owing to the sheer scale of Navy expansion, staff increased with the creation of the Assistant Secretary of the Navy position in addition to the establishment of three additional bureaus: Navigation, (Steam) Engineering, and Equipment.<sup>6</sup>

The concept of an advance base was something fundamentally new. Preexisting navy yards at Boston (Charlestown), Brooklyn, Philadelphia, Portsmouth (New Hampshire), and Washington expanded to handle the wartime demand for ships and material, but the Navy's first blockade effort off Charleston, South Carolina—where ships spent most of their time in transit owing to no local supply—demonstrated the need for advance bases to support blockade operations.<sup>7</sup> Acting on recommendations from the Blockade Board, the Navy created three advance bases to support each of the North Atlantic, South Atlantic, and Gulf Coast Squadrons.

Initially, the North Atlantic Squadron attempted to use Fort Monroe, Norfolk (after its recapture), and Craney Island in Virginia as staging areas, but poor docks and storage facilities ultimately led the Navy to dispatch colliers to Hatteras, North Carolina, or points farther south, such

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6 Albion, *Makers of Naval Policy*, 6–8; Weddle, *Lincoln's Tragic Admiral*, 106–21.

7 Charles Oscar Paullin, "A Half Century of Naval Administration in America, 1861–1911," United States Naval Institute *Proceedings* 39, no. 1 (March 1913): 181. See also William Whyte, "The Brooklyn Navy Yard: The Heart of the Union Anaconda," *The Northern Mariner* 22, no. 4 (October 2012): 393–407; Richard E. Winslow III, "Constructing Munitions of War": *The Portsmouth Navy Yard Confronts the Confederacy, 1861–1865* (Portsmouth, NH: Portsmouth Marine Society, 1995).



as Beaufort.<sup>8</sup> Farther south, the Navy established an advance base at Port Royal, South Carolina. This included the concept of a floating machine shop, which contained a foundry, furnaces, as well as coppersmith, blacksmith, and boilermaker shops, a centralized coal supply with four hulks serving as afloat bunkers, and a food store ship. In order to keep the operation going, the Navy purchased supply steamers and chartered private ships to make up any gaps in capacity.<sup>9</sup> Farther south, the Gulf Coast squadron relied on Key West at first, but shifted depots and facilities to New Orleans upon the port's capture by the Union in 1862.<sup>10</sup>

Coal for steamships and river gunboats was the biggest logistical headache of the war, which sometimes meant re-purposing captured Confederate ships or simply seizing privately owned colliers when Navy or private charters could not meet demand.<sup>11</sup> The same applied to inland waters, where newly established depots dotted the shores of the Mississippi, Ohio, and Tennessee Rivers. Squadron commanders also pressed local barges and sidewheel steamers into service to keep coal, munitions, and supplies moving from railheads to the forward riverine depots.<sup>12</sup>

The Navy's experience with logistics in the Civil War only slightly changed previous patterns of local supply, to which the Navy returned with demobilization after 1865. At the same time, however, the Navy understood that future conflicts would likely include advance bases, the purchase or chartering of private ships, and temporary increases in staff to support expanded logistical efforts, all of which were present in the Navy's approach in the Spanish-American War, the voyage of the Great White Fleet, and World War I.

The Navy's logistical mobilization for the Spanish-American War initially followed earlier patterns, with commanders at sea procuring supplies

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8 Robert M. Browning Jr., *From Cape Charles to Cape Fear: The North Atlantic Blockading Squadron during the Civil War* (Tuscaloosa: University of Alabama Press, 1993), 184–85. See also Robert M. Browning Jr., *Success Is All That Was Expected: The South Atlantic Blockading Squadron during the Civil War* (Dulles, VA: Brassey's, 2002), 115–18, 261–64.

9 Browning, *Success Is All That Was Expected*, 11–15, 77–85, 110–11, 296–98.

10 Robert M. Browning Jr., *Lincoln's Trident: The West Gulf Blockading Squadron during the Civil War* (Tuscaloosa: University of Alabama Press, 2015), 145–47, 328–30.

11 Browning, *Lincoln's Trident*, 120–21, 343–45.

12 Paullin, "A Half Century of Naval Administration in America," 183.

and coal locally after receiving authorization from the Navy Department. Unlike the Civil War, however, the Navy had to support a coal-powered force deployed very far forward—the Asiatic Squadron of seven warships commanded by Commodore George Dewey.<sup>13</sup> In February 1898, Assistant Secretary of the Navy Theodore Roosevelt ordered Dewey’s squadron to concentrate at Hong Kong to prevent Spanish action against American interests in Asia and prepare to sweep down on the Spanish-controlled Philippines. Unfortunately for Dewey, there was little good coal available in Hong Kong, and since he also needed ammunition, he cabled that both should be sent from the U.S. West Coast in haste.<sup>14</sup>

To the Navy’s chagrin, good coal was not available on the West Coast, and officials instead ordered Dewey to purchase coal himself, from England if necessary.<sup>15</sup> In response, Dewey contracted British steamer *Nanshan* to bring 3,000 tons of coal to his warships in Hong Kong. Knowing war would interfere with his use of a neutral vessel, Dewey ended up purchasing the steamer *Zafiro* outright to act as both a coal and supply tender.<sup>16</sup> The ship purchase allowed Dewey to secure food, material, and extra coal from local sources without interfering with neutrality laws.<sup>17</sup>

Ammunition and cordite, however, proved to be a more significant problem. While supplies and coal could be procured locally, ammunition and gunpowder had to come from America. Unable to purchase any locally, and with virtually no ammunition or store ships, the Asiatic

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13 Frederick McNair to George Dewey, 31 December 1897, microfilm, M625B, Roll 362, RG 45, National Archives Building, Washington, DC [hereafter NAB]. All references to microfilm M625B are available on the Naval History and Heritage Command website in the “Spanish American War Documentary History” section.

14 Theodore Roosevelt to George Dewey, 26 February 1898, George Dewey Papers, Library of Congress, Washington, DC [hereafter LOC]; George Dewey to John D. Long, 27 February 1898, George Dewey Papers, LOC; George Dewey to John D. Long, 11 March 1898, microfilm, M625B, Roll 362, RG 45, NAB.

15 Arent S. Crowninshield to John D. Long, 11 March 1898, microfilm, M625B, Roll 362, RG 45, NAB; George Dewey to John D. Long, 11 March 1898, microfilm, M625B, Roll 362, RG 45, NAB.

16 Frederick McNair to George Dewey, 31 December 1897, microfilm, M625B, Roll 362, RG 45, NAB; George Dewey to John D. Long, 4 April 1898, in *Appendix to the Report of the Chief of the Bureau of Navigation, 1898* (Washington, DC: Navy Department, 1898), 66; John D. Long to George Dewey, 5 April, 1898, George Dewey Papers, LOC; George Dewey to John D. Long, 9 April 1898, in *Appendix to the Report of the Chief of the Bureau of Navigation, 1898*, 66; George Dewey to John D. Long, 18 April 1898, microfilm, M625B, Roll 363, RG 45, NAB.

17 George Dewey to Oscar W. Farnenholt, 9 April 1898, George Dewey Papers, LOC.

Squadron was stymied as private companies balked at the risk of transporting dangerous explosive cargo. For example, crates of ammunition for *Yorktown* and flagship *Olympia* sat in Yokohama Harbor for more than three months because commercial transportation could not be arranged.<sup>18</sup>

As war with Spain loomed, Dewey and the Navy Department scrambled to supply the fleet with adequate ammunition. Secretary of the Navy John D. Long ordered the shipyard at Mare Island, California, to load stocks onto the steamer *Mohican*, which transported the supply to Honolulu, where the cruiser *Baltimore* carried part of the load on to Hong Kong. Meanwhile, Dewey's patron, Assistant Secretary of the Navy Roosevelt, arranged for the gunboat *Concord* to bring out the balance. Luckily for Dewey, *Baltimore* arrived the day before the war with Spain broke out, allowing the Asiatic Squadron to replenish their magazines. Had *Baltimore* been even a day later, Dewey would not have been able to resupply, as the British would not have permitted rearmament in a neutral port. Of the affair as a whole, Dewey remarked in his autobiography, "It is not for me to criticize the department, but only to state a fact and to repeat that there can be no neglect so inexcusable as that which sends any modern squadron into battle not only without its magazines and shell rooms filled, but without a large reserve of ammunition within reach."<sup>19</sup>

It was not only the Asiatic Squadron that faced these kinds of logistical difficulties. Captain William T. Sampson, commander of the North Atlantic Station, requested that three colliers be sent to Key West in preparation for operations in Cuba. He also requested a tank steamer to deliver freshwater, which, like the coal, was also a necessity for the operation of his steam plants. As with the Asiatic Squadron, the Navy Department purchased merchant colliers to meet the immediate needs of the fleet as there

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18 Frederick McNair to George Dewey, 31 December 1897, microfilm, M625B, Roll 362, RG 45, NAB.

19 John D. Long to William Kirkland, 4 March 1898, microfilm, M625B, Roll 319, RG 45, NAB; George M. Book to John D. Long, 19 March 1898, microfilm, M625B, Roll 319, RG 45, NAB; Joseph N. Miller to John D. Long, 24 March 1898, microfilm, M625B, Roll 319, RG 45, NAB; Nehemiah M. Dyer to John D. Long, 11 April 1898, microfilm, M625B, Roll 363, RG 45, NAB; George Dewey to John D. Long, 18 April 1898, microfilm, M625B, Roll 363, RG 45, NAB; George Dewey, *Autobiography of George Dewey, Admiral of the Navy* (New York: Charles Scribners' Sons, 1913), 170–72.

were no Navy-owned supply ships available. Efforts to use Key West as an advance base also proved fruitless owing to lack of space and equipment, and at one point the Navy Department suggested the preemptive capture of Guantanamo Bay for use as a coaling station.<sup>20</sup>

One glimmer of progress, at least as it concerned long-term planning and logistics, came with Secretary of the Navy Long's formation of a War Board in 1898. The War Board, as a planning organization, served as a half measure toward a permanent general staff, which had been a goal of navy reformers for several decades. The Naval War College had served as the planning center for the Navy from its establishment in 1884, but as operations and technology became more complex, reformers advocated for a standing staff. For the Navy, a general staff made sense, as naval operations took place around the globe regardless of whether or not the nation was at war. As evidenced by the Navy in the Civil War, ad hoc boards that convened only periodically proved ineffective at charting a long-term course for Navy logistics.<sup>21</sup>

The experience of the Spanish-American War convinced Secretary Long that the Navy needed a permanent standing board to advise the Secretary on strategy, and he ordered its creation in 1900. The new General Board had a mandate to “insure [*sic*] efficient preparation of the fleet in case of war and for the naval defense of the coast.” It would take time to define the role of the General Board within the naval establishment, but its formation represented progress. Unlike the ad hoc Blockade Board or the Naval War Board of 1898, the General Board, as a permanent committee, could take a long-term strategic view of the problems the Navy faced. As such, it could eventually help the Navy plan and determine logistical requirements in advance of war. The Navy might also be able to make logistics plans, moving away from a tenuous reliance on foreign vessels to resupply in theater. And indeed, the General Board did recommend the

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20 William T. Sampson to John D. Long, 30 March 1898, microfilm, M625B, Roll 227, RG 45, NAB; Henry C. Taylor to William T. Sampson, 23 April 1898, Papers of Henry C. Taylor, LOC; John D. Long to William T. Sampson, 7 May 1898, Box 2, Entry 14, RG 313, NAB; Bowman McCalla to William T. Sampson, 18 May 1898, microfilm, M625B, Roll 230, RG 45, NAB; John D. Long to William T. Sampson, cablegram, 26 May 1898, Entry 28, RG 45, NAB.

21 John T. Kuehn, *America's First General Staff: A Short History of the Rise and Fall of the General Board of the Navy, 1900–1950* (Annapolis, MD: Naval Institute Press, 2017), 1–28.



Sailors work to coal a ship in Honolulu, Territory of Hawaii, circa 1905. Early Navy logistics efforts centered on keeping ships fueled with coal. Providing warships with adequate supplies for operations presented a challenge for the Navy, as demonstrated in the Spanish-American War and the cruise of the Great White Fleet. (NHHC, NH 66257)

establishment of coaling and service stations in the Pacific following the Spanish-American War. It was little wonder, then, that the first chairman of the General Board, George Dewey, found it salutary that its work would ensure “that our commanders will go into action not only with a sufficiency of ammunition but with the confidence that they are part of a well-prepared force.”<sup>22</sup>

Although the General Board proved durable and would help the Navy become a more efficient organization, in the short run it exerted little influence on naval operations. The next great logistics test—the cruise of the Great White Fleet around the world in 1907—would find the Navy still wanting. Even without supplying the Great White Fleet with powder

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22 Albion, *Makers of Naval Policy*, 77–70; Harold and Margaret Sprout, *The Rise of American Naval Power, 1776–1918*, rev. ed. (Princeton, NJ: Princeton University Press, 1942), 247; Dewey, *Autobiography*, 292.

or ammunition, the Navy faced serious difficulty in supplying ships with provisions and coal.

The problem started with infrastructure, which was woefully inadequate to support a fleet voyage across the Pacific. Largely unimproved facilities at places such as Guam, Hawaii, and the Philippines were unable to repair, sustain, or supply such a large force. At the same time, the Navy itself owned only 15 colliers. Not all of them were oceangoing, nor could they deliver enough coal to fuel the new battleships. Thus, the Navy had no choice but to continue contracting foreign supply ships.<sup>23</sup>

The need for coal dictated the route and stops of the Great White Fleet, with contracted coal deliveries expected ahead of port calls, but this did not always happen smoothly.<sup>24</sup> The delay of a collier arriving at Punta Arenas, Chile, for example, necessitated a diplomatic scramble to procure enough coal to sustain the fleet until its next stop. The largest crisis came in Auckland, New Zealand, where only half the contracted coal awaited the fleet. Enough colliers eventually straggled in to refuel the fleet, thereby avoiding the embarrassment of delaying departure, but it illustrated the fragility of a contracted logistical operation.<sup>25</sup>

The Great White Fleet should have taught the Navy an important lesson. The cracks in the establishment were clear: what just barely worked in peacetime heightened operational demand would likely buckle under any wartime demand. Admiral Kent Hewitt, then a junior officer aboard *Missouri* during the voyage of the Great White Fleet, recalled that “the few colliers the Navy possessed were entirely inadequate for the task of supplying the required fuel, which was, throughout the cruise, furnished for the most part by means of British tramp steamers.” Hewitt thought that “this was a lesson, for under war conditions with a neutral Britain, our fleet would have been practically immobile.”<sup>26</sup> A modern fleet, one that could deploy forward without reliance on foreign sources, would need to

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23 James R. Reckner, *Teddy Roosevelt's Great White Fleet* (Annapolis, MD: Naval Institute Press, 1988), 15–16.

24 Reckner, *Teddy Roosevelt's Great White Fleet*, 16, 28–33, 43–44.

25 Reckner, *Teddy Roosevelt's Great White Fleet*, 45, 102–105.

26 H. Kent Hewitt, *The Memoirs of Admiral H. Kent Hewitt*, ed. Evelyn M. Cherpak (Newport, RI: Naval War College Press, 2004), 24.



The Great White Fleet saluting during its visit to Amoy, China, circa October–November 1908. The distant gray ships are Chinese cruisers, while the U.S. vessels appearing in the photo (in no particular order) are *Missouri*, *Virginia*, *Wisconsin*, *Louisiana*, *Kearsarge*, and *Kentucky*. Although the voyage of the Great White Fleet demonstrated the global reach of U.S. naval power, it also showed that the Navy relied heavily on foreign nations for forward logistical support. (NHHC, NH 106148)

support itself logistically. Hewitt’s “lesson” was the same as the one the Navy might have learned from Dewey at Hong Kong and the purchase of *Nanshan* and *Zafiro*.

With the outbreak of war in Europe in 1914, naval officers fully realized their service was unprepared for war. It also seemed clear that the current organization of the Navy leadership—the Secretary, with an operational aide for fleet matters—could not manage a modern war effort. These concerns provided additional urgency to naval reformers who “wanted a senior officer *from the fleet* to direct Navy operations, supervise war planning, and coordinate among the bureaus to make sure that what they did in fact supported war planning.”<sup>27</sup> These drives for reform

<sup>27</sup> Thomas C. Hone and Curtis A. Utz, *History of the Office of the Chief of Naval Operations, 1915–2015* (Washington, DC: Naval History and Heritage Command, 2018), 16.

culminated in 1915 with legislation that established the Chief of Naval Operations (CNO).<sup>28</sup>

The first CNO, Rear Admiral William S. Benson, immediately set about preparing the Navy for war on the reasonable assumption the United States would eventually enter the Great War. Benson worked with the bureaus to ensure the readiness of the Navy, with a Navy Department Logistics Committee coordinating efforts among the bureaus serving as an ad hoc mobilization-planning organization. The committee noted deficiencies in the supply system and stockpiles, and provided input to Benson on fleet logistics readiness. The General Board assisted as well when it authorized Rear Admiral Samuel McGowan to study overseas logistical requirements.<sup>29</sup> The Navy set about rectifying these issues early, which meant that it would better handle the exigencies of war once it came. Furthermore, naval mobilization for war was significantly eased by the fact that the United States already been supplying Britain and France with war material and ships.<sup>30</sup>

When the United States entered World War I as a combatant in 1917, it immediately sent forward a detachment of six destroyers to a British base in Ireland to aid in the fight against German submarines. From these small beginnings, the Navy's commitment in Europe would grow to more than 300 vessels and 80,000 personnel, with most of the auxiliaries and fleet support ships leased from private owners rather than war-built. Due to the fact that Britain and France had been fighting for years and the war had nigh exhausted their economies, the Navy would largely have to meet its own supply needs. In many areas, the service could meet its own supply needs in theater, with the exception of the advance bases. For instance, by

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28 Hone and Utz, *History of the Office of the Chief of Naval Operations*, 13–18, 25.

29 William N. Still Jr., *Crisis at Sea: The United States Navy in European Waters in World War I* (Gainesville: University of Florida Press, 2006), 92–93.

30 Hone and Utz, *History of the Office of the Chief of Naval Operations*, 26–28, 36; William N. Still Jr., “Anglo-American Naval Logistic Cooperation in World War I,” *The American Neptune* 55, no. 3 (Summer 1995), 213; Still, *Crisis at Sea*, 92.



the end of the war, the Navy had deployed 11 repair ships and tenders at European bases in order to repair American vessels.<sup>31</sup>

When the war ended, plans existed to increase this capacity so that it could serve an anticipated 900 American vessels in 1919, a threefold increase. Tenders and refrigerator ships brought stores and provisions to American vessels operating on blockade duty, as well as those engaged in post-armistice activities in northern Russia and humanitarian efforts in the eastern Mediterranean. Exceptions to this trend occurred when American units operated with allied nations. Admiral William Sims, the commander of U.S. naval forces in Europe, determined that his ships would operate with allied nations, rather than as a separate independent force. When under the operational control of the Allies, Navy ships typically received supply from the respective operating force.<sup>32</sup>

Overall, the Great War demonstrated the importance of forward logistics facilities, whether those took the forms of shore bases or afloat capacity, such as tenders and repair ships. World War I also demonstrated the importance of advanced contingency planning as well as of programmatic changes to enable the success of those plans, such as the reform of supply organizations and the stockpiling of materials. However, the Navy and the American public saw involvement in the war as an exception to the trend—massive forward deployment would not be the new normal. Thus, moving forward, the wherewithal and motivation to expand the logistics system created during World War I would not be forthcoming. As historian William Still Jr. has put it: “The Navy derived very few lessons from its deployment of vessels to the combat zone . . . it lost sight of the necessity to prepare for war, at bottom a responsibility of the civil authority, which was, as usual, abandoned in the face of public lack of interest.”<sup>33</sup>

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31 “Summary of Activities of U.S. Naval Forces Operating in European Waters,” 38, ZO (Operations) Files, Navy Department Library, Naval History and Heritage Command, Washington, DC. [hereafter Navy Department Library]; Still, *Crisis at Sea*, 95, 140–65, 166–68; William N. Still Jr., ed., *The Queenstown Patrol, 1917: The Diary of Commander Joseph Knefler Taussig, U.S. Navy* (Newport, RI: Naval War College Press, 1996), 1–4.

32 Still, “Anglo-American Naval Logistic Cooperation in World War I,” 213, 218; “Summary of Activities of U.S. Naval Forces Operating in European Waters,” 39, Navy Department Library.

33 Still, *Crisis at Sea*, 517.



## 2

### **“NO FUNDS AND TOO FEW PLANNERS”: U.S. NAVY LOGISTICS BETWEEN THE WORLD WARS**

From the vantage point of 1947, while serving as Deputy Chief of Naval Operations (DCNO) (Logistics), Admiral Robert B. Carney assessed the period between the world wars as one of “some straight thinking,” but with “no funds for exercises or stockpiles.” He also thought the Navy was “alert to tactics but poorly equipped for planning and procurement for campaigns.”<sup>1</sup> The evidence bears out Carney’s assessment, as the Navy entered a cycle of retrenchment following World War I. International arms limitations agreements and U.S. domestic politics combined to restrict funding and inhibit planning. The Navy felt the impact of these developments in an atrophied fleet as plans for war were not exercised adequately and the logistics apparatus remained vulnerable to a great power conflict. But, as Carney also observed, the later rise of Nazi Germany and an increasingly aggressive Japan in Asia led to halting steps to raise readiness. The outbreak of war in Europe in 1939 prompted President Franklin D. Roosevelt to provide support to the British. This decision, in turn, resulted in increased funding and operational experience for the U.S. Navy. Thus, while the attack at Pearl Harbor would find the United States largely unprepared for war, the logistics pump was primed from about 1934 onward, with the rate of change accelerating along with international tensions.

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1 Chapter title quotation from Robert B. Carney, “Navy Logistics” (lecture, Industrial College of the Armed Forces, 17 October 1947), 1, Folder 12, Box 6, Robert B. Carney Papers, Archives Branch, Naval History and Heritage Command, Washington, DC [hereafter Robert B. Carney Papers, NHHC]. Quotation in paragraph is from Robert B. Carney, “Logistics” (lecture, U.S. Naval Academy, 16 May 1947), 3, 5, Folder 10, Box 6, Robert B. Carney Papers, NHHC.

As had been the case after previous wars, the Navy shrank in size following the end of World War I. The end of the conflict also heralded a moment of global optimism, with the creation of the League of Nations and the promulgation of the belief that various arms limitation schemes might prevent another such conflict in future. One outcome of these trends was a series of international meetings, known as the Washington Conferences, which sought to prevent future naval arms races. Several treaties resulted from the conferences, some that limited ship types and tonnages, others that limited expansion in Asia—measures aimed at constraining Imperial Japan. The conferences had the added advantage of saving money—a significant concern for most countries amidst a global depression.<sup>2</sup>

The Washington Treaties, beyond limiting the types and tonnage of vessels, also limited logistics infrastructure, including advance bases. Although the Navy wanted to properly defend and fortify its positions in the Pacific, the treaties prohibited such activity, an ironic twist that made Guam, the Philippines, Wake, and Hawaii more vulnerable to Japanese attack, as indeed they were after the attack on Pearl Harbor. This, in turn, curtailed the usefulness of these islands for Navy planners.<sup>3</sup>

The likely loss of these advance bases impelled Navy officials to find alternatives. The challenge, as ever in the Pacific, lay in the tyranny of distance. Without strong advanced positions, the Navy would have to find another way to defeat Japan, perceived as the primary enemy at the time. Through fleet exercises, staff studies, and General Board considerations, the Navy determined that a step-by-step advance across the Pacific, using mobile advance bases and repair facilities, would present the best chance of success. These plans suffered from a critical flaw, however, as they required appropriate funding with which to build the necessary ships and floating dry docks, and that was not forthcoming. Overall, as Carney explained, the Navy's pre-war plans "implied much that actually eventu-

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2 Erik Goldstein and John Maurer, eds., *The Washington Conference, 1921–22: Naval Rivalry, East Asian Stability and the Road to Pearl Harbor* (Essex, UK: Frank Cass, 1994), 1–3.

3 Gerald E. Wheeler, *Admiral William Veazie Pratt, U.S. Navy: A Sailor's Life* (Washington, DC: Naval History Division, 1974), 180, 183–84, 196–98.

ated, such as C[onstruction] B[attalions], amphibious warfare, building program, etc.,” but suffered from “no funds” and “no proper equipment.”<sup>4</sup>

Faced with a dearth of funds—at first owing to domestic politics, then later to the Great Depression—the Navy defaulted to concentrating on tactics. Doing so made a virtue of necessity, and, as Admiral William V. Pratt’s biographer notes, the obvious approach to declining budgets “was to shrink the Navy in size until what was left consisted of the most modern units manned by personnel at the peak of training.” Accordingly, interwar exercises stressed tactics and short-term evolutions rather than sustained operations forward. Admiral James O. Richardson, who commanded the U.S. fleet before the war, noted that “the safety of the individual and the conservation of the property and funds of the Government had been the two overriding considerations in our operational training.” As Richardson noted, “The money restrictions for fuel oil, gasoline, and ammunition expenditures stemmed from the annual appropriation bills, where the Bureau of the Budget or Congress always set levels markedly below those desired by the high command of the Navy.”<sup>5</sup>

As Japanese expansion in China grew rapidly in the 1930s, Navy planners increasingly refined the Orange series of Pacific war plans, named after the color code assigned to the Japanese. Although annual fleet exercises and war games at the Naval War College validated mid-Pacific operations in support of the Philippines, none took logistics seriously into account. As one authority put it: “No constructive exercise in peace can quite duplicate the urgency and stringency of logistic conditions in war” because during practice “the requirements for logistic support are specific and calculable” and are thus assumed.<sup>6</sup> Carney later told an interviewer,

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4 William R. Braisted, “The Evolution of the United States Navy’s Strategic Assessments in the Pacific, 1919–31,” in *The Washington Conference, 1921–22*, ed. Erik Goldstein and John Maurer, 102–23; Peter V. Nash, *The Development of Mobile Logistic Support in Anglo-American Naval Policy, 1900–1953* (Gainesville: University Press of Florida, 2009), 18–19; Carney, “Logistics,” 3, 4, Robert B. Carney Papers, NHHC.

5 Wheeler, *William Veazie Pratt*, 324; Office of the Chief of Naval Operations, “Aspects of Logistics Planning,” United States Naval Administrative Histories of World War II, 21, Navy Department Library; George C. Dyer, *On the Treadmill to Pearl Harbor: The Memoirs of Admiral James O. Richardson* (Washington, DC: Naval History Division, 1973), 215, 217.

6 Duncan S. Ballantine, *U.S. Naval Logistics in the Second World War* (Princeton, NJ: Princeton University Press, 1947), 7.

“I knew from studies of the Orange Plan, that dated back to 1933, ’34, ’35, what we needed, and I knew the discrepancy between what we needed and what we had.” Despite noting these discrepancies, Carney and others could not connect the dots without funding.<sup>7</sup> Overall, the fleet carried on its business as it had always done—independently and more or less on an ad hoc shoestring.

Although many have vaunted War Plan Orange for its forward-looking nature and the blueprint it provided for the Pacific War that followed, the fact remains that it focused nearly entirely on strategy without much consideration for logistics. Owing to the substantial reduction of the fleet during the 1920s, War Plan Orange strayed further and further away from reality as the number of logistic support ships—the fleet train—actually decreased in number as the Navy preserved its combatant units at the expense of all else.<sup>8</sup> War plans thus increasingly embodied assumptions that could not be realized without more ships, more funding, and greater administrative capacity.

Duncan Ballantine, author of the preeminent study of Navy logistics in World War II, cited as an example the Naval Transportation Service. As Ballantine noted, “The Navy had assumed for many years, and the War Plans had provided, that in war the merchant marine would be mobilized and manned by the Navy.” While this requirement existed on paper, “the whole task of planning and preparing for the mobilization, manning, and operation of the merchant marine was the collateral duty of a single officer in the Navy Department.”<sup>9</sup>

The preoccupation with operational matters at the expense of supply extended even to the Navy’s intellectual centers. The Naval War College, which did much to prepare the Navy for World War II, focused more on tactics than on strategic planning. Carney thought that the War College had been “too much influenced by Jutland.” The Navy had applied an “incomplete scrutiny of history” and thus spent more time thinking about

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7 Robert B. Carney, *The Reminiscences of Robert Bostwick Carney* (New York: Columbia University Oral History Research Office, 1964), 237.

8 Dyer, *On the Treadmill to Pearl Harbor*, 259–62.

9 Ballantine, *U.S. Naval Logistics in the Second World War*, 35. For more on War Plan Orange and its successors, see Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (Annapolis, MD: Naval Institute Press, 1991).

“battles versus campaigns.”<sup>10</sup> Other commentators on the Naval War College curriculum between the wars have arrived at a similar conclusion. Analyst Norman Friedman recently wrote that war gaming served to “test tactical ideas.” And while sea lines of communication served as objectives for the fleet and its adversary, the war games assumed that the overall logistics situation would support operations rather than consider planning and logistics as precursors to operations.<sup>11</sup> Attending the Naval War College in 1934, James O. Richardson wrote his senior thesis on “The Relationship in War of Naval Strategy, Tactics, and Command.” Among his conclusions, he noted that “the Navy as a whole is exceedingly weak in planning. Nearly everyone is so concerned with doing the job in hand that he devotes little thought to the future.”<sup>12</sup>

Attempts to train officers in logistics also failed to gain traction, although they started well. During his tenure as president, Rear Admiral William V. Pratt established a logistics division at the Naval War College in 1926. Pratt, who had served as Assistant Chief of Naval Operations during World War I, knew the importance of clearly stated requirements, aligning procurement with those requirements, and, finally, ensuring the smooth distribution of materials. Having grasped the centrality of logistics during the Navy’s first sustained overseas operations as part of a great power conflict, Pratt wanted that information taught to the Navy’s officer corps. Unfortunately, the logistics division owed its existence to Pratt and Captain R. E. Bakenhus, who served as first chair, rather than any greater institutional investment. Indeed, many naval officers saw logistics as something that could be left to the staff corps, and line officers at the War College deigned incomprehension. Thus, when Bakenhus’s replacement proclaimed that “matters such as shoveling coal and combat loading didn’t belong with the study of the principles of war,” the War College allowed the Department of Logistics to wither. Other forward-thinking Pratt

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10 Carney, “Logistics,” 2, Robert B. Carney Papers, NHHHC.

11 Norman Friedman, *Winning a Future War: War Gaming and Victory in the Pacific War* (Washington, DC: Naval History and Heritage Command, 2017), 31, 53, 62–72, 164, 181–200.

12 Dyer, *On the Treadmill to Pearl Harbor*, 110–11.

initiatives, such as war games centered on amphibious operations rather than fleet-on-fleet engagements, also went by the wayside.<sup>13</sup>

The Navy, then, faced a frustrating situation in the early 1930s. The naval establishment understood that Japan would likely be the main adversary and that the Navy would have to project its force 7,000 miles across the Pacific to defeat that adversary. The General Board, war planners, and the War College all developed generally viable solutions to the logistical problems they faced, though getting fleet officers to listen was often difficult. Lacking higher-level political support, and the concomitant congressional budgets and appropriations bills they needed, there was no way to implement those solutions in peacetime.

The situation changed for the better with the election of a former Assistant Secretary of the Navy to the presidency. Given increases in international tensions in his first term of office, Franklin Roosevelt gradually prepared the country for war, though his efforts to do so remained subdued and oftentimes covert to avoid political controversy. Thus, gradually, the Navy's state of readiness improved, including its overall capacity to supply and handle logistical burdens. The first pieces of legislation were the 1933 National Industrial Recovery Act, which authorized about 30 ships, and the 1934 Vinson-Trammell Act, which built another 102 ships, many of them auxiliaries.<sup>14</sup> This legislation helped prime the war mobilization pump, as it were, even though its proximate goal was to lower unemployment through industrial investment. As historian Mark R. Wilson recently emphasized, "Besides enlivening individual yards, the rise of warship orders in the 1930s also strengthened the small network of private and public organizations that constituted the naval shipbuilding industry."<sup>15</sup>

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13 Wheeler, *Admiral William Veazie Pratt*, 244; Kent D. Algire, "Major Logistics Lessons of World War II," *Naval War College Information Service for Officers* 3, no. 6 (February 1951): 32; Craig Symonds, "William Veazie Pratt: 17 September 1930–30 June 1933," in *The Chiefs of Naval Operations*, ed. Robert William Love Jr. (Annapolis, MD: Naval Institute Press, 1980), 73; John B. Hattendorf, B. Mitchell Simpson III, and John R. Wadleigh, *Sailors and Scholars: The Centennial History of the U.S. Naval War College* (Newport, RI: Naval War College Press, 1984), 133.

14 Albion, *Makers of Naval Policy 1798–1947*, 252; Julius A. Furer, *Administration of the Navy Department in World War II* (Washington, DC: Department of the Navy, 1959), 57.

15 Mark R. Wilson, *Destructive Creation: American Business and the Winning of World War II* (Philadelphia: University of Pennsylvania Press, 2016), 53–54.



The Second Vinson Act, which called for a large expansion in the Navy, followed in 1938, and the 1940 Two Ocean Navy Act authorized another 70 percent increase. It would take several years for new shipyards and workers to come online, but these acts put the vast industrial machinery of the United States in motion to build hundreds of new ships, vastly overshadowing the meager efforts of the 1930s. Shipbuilding was a complex business that involved many subcontractors and firms to produce the necessary components for ships, including engines, turbines, piping, valves, and steel. These expansion acts enabled firms to start working with each other across the nation and at scale, identifying snags and problem areas and resolving some of them before the outbreak of war.<sup>16</sup>

The summer of 1940 also saw a new Secretary of the Navy, Frank Knox. As one authority wrote, “When Secretary Knox took office he found no central procurement authority—indeed little knowledge and few statistics regarding the expansion program as a whole.”<sup>17</sup> Luckily for Knox, Congress, as it had done during the Civil War, provided an Under Secretary of the Navy, and in August 1940, James Forrestal took office. Under Secretary of the Navy Forrestal would take charge of the Navy’s procurement. He did so energetically, tackling problems such as contracts, bureaucracy, and other impediments to prepare the Navy for a great power conflict.<sup>18</sup> The first Deputy Chief of Naval Operations (Logistics), Robert Carney, thought Forrestal so important in this regard that he should be considered a “founder of modern logistics.”<sup>19</sup>

Other presidential actions helped prepare the Navy. The Lend-Lease agreements enabled manufacturers to begin the shift from civilian to military production before war. This applied to shipyards as well, with

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16 Despite these preparations, war production was significantly delayed in 1942–43 by raw material shortages, component bottlenecks, and transportation problems. Commander in Chief, U.S. Atlantic Fleet, “Commander in Chief, U.S. Atlantic Fleet,” United States Naval Administrative Histories of World War II, 14–15, Navy Department Library; Robert H. Connery, *The Navy and Industrial Mobilization in World War II* (Princeton, NJ: Princeton University Press, 1951), 54.

17 Connery, *The Navy and Industrial Mobilization*, 56.

18 Connery, *The Navy and Industrial Mobilization*, 56–76.

19 Robert B. Carney to Frederick C. Dyer, 30 November 1955, Folder 2, Box 2, Robert B. Carney Papers, NHHC. For more on Forrestal’s critical role during this period, see Robert Greenhalgh Albion and Robert Howe Connery, *Forrestal and the Navy* (New York: Columbia University Press, 1962), 59–82.

American yards and their skilled workers accruing experience in repairing battle damage on British vessels and rehabilitating heavy fleet units before full U.S. entry into the war.<sup>20</sup>

Just as the size of the Navy grew in hasty preparation for war, so too did its shore establishments following a dramatic budget increase in 1939.<sup>21</sup> Looking ahead to operations in the Pacific, Congress appropriated land for a naval supply depot near Oakland, California, along with an East Coast counterpart at Bayonne, New Jersey. The Naval Supply Depot at Norfolk, Virginia, also underwent rapid expansion in 1941. As one report noted, “expansion” of the supply system “went forward during the fiscal year at an unprecedented rate.”<sup>22</sup> The Bureau of Yards and Docks, responsible for these new facilities, saw its budget increase from \$7 million in 1938 to \$454 million in 1941.<sup>23</sup>

The Navy’s first experience with advance basing and forward logistics during World War II would come in the Atlantic—ironic considering the overall preoccupation with Japan and the Pacific. The British had occupied Iceland in May 1940 as a security measure and requested U.S. support to build additional sustainment facilities on the island. Accordingly, in early 1941, the Navy let contracts for construction using companies already working to expand facilities at Davisville and Quonset Point, Rhode Island—later expanded to include the construction of a patrol plane base as well as communication, hospital, housing, recreation, repair, and storage facilities.<sup>24</sup>

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20 See Tracy B. Kittredge, “US–British Naval Cooperation,” Folder 6, Box 1, Tracy B. Kittredge Papers, Archives Branch, Naval History and Heritage Command, Washington, DC.

21 Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” United States Naval Administrative Histories of World War II, 3–4, Navy Department Library.

22 “Notes from Annual Reports of Secretary of the Navy Relating to Storage,” 24 May 1944, 1, RG 6, Port Hueneme, CA [hereafter Seabee Museum Archives].

23 Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” 3.

24 “Naval Facilities in Iceland—Report on Construction of,” 18 June 1945, 3–5, RG 5, Seabee Museum Archives. See also Byron Fairchild, “Decision to Land United States Forces in Iceland, 1941,” in *Command Decisions*, ed. Kent Roberts Greenfield (Washington, DC: Office of the Chief of Military History, 1960), 73–97.



Iceland seen from the quarterdeck of *New York* (BB-34) as U.S. ships leave Reykjavik Harbor in July 1941. In line astern are *Arkansas* (BB-33), *Brooklyn* (CL-40), and *Nashville* (CL-43). President Roosevelt's decision to send U.S. forces to Iceland provided the Navy invaluable experience in projecting force and meeting logistics burdens before the nation entered World War II as a full belligerent. (NHHC, 80-G-K-5919)

This work had to proceed *sub rosa*, at least initially, as Roosevelt directed it ahead of full congressional authorization. Admiral Arthur L. Bristol, who had worked on base expansion efforts in 1939, was to lead the effort. Bristol, in turn, established a stellar staff to assist him in the effort, including then-Commander Carney, who had helped to establish the destroyer base and manage convoying procedures at Queenstown, Ireland, during World War I. The team had orders, directly from the President, to establish a base to sustain the deployment of three squadrons of destroyers, three squadrons of patrol planes, and auxiliary craft as needed.<sup>25</sup>

The first step for Bristol and his team lay in creating a budget. Bristol's staff suggested a budget of \$10 million, apparently basing it off of prewar estimates. Bristol rejected the sum, declaring, "Hell, 10 million dollars—you'll use that up, that'll be gone before we've figured out ways to use it.

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25 Carney, *Reminiscences of Robert Bostwick Carney*, 238



Sailors from *Wichita* (CA-45) play baseball on Iceland in December 1941. The huts in the background are either British Nissen huts or Quonset huts, an American derivation. The Navy's preparations for sending personnel to Iceland involved producing and stockpiling supplies; these supplies were later invaluable for early American efforts in the Pacific Theater. (NHHC, NH 121941)

That's no good." He instead suggested multiplying the figure by a factor of ten. Bristol sent a staff officer to brief Roosevelt, who immediately accepted the \$100 million figure, "delighted that he'd found somebody who could think in nice round numbers." Carney recalled that "this became later known as 'Bristol's factor': When you figure out about what you need, multiply it by ten, and this is probably what you would actually need, and even that might not be quite enough." Fitting with the budgetary figure, Bristol's staff drew up plans for extensive facilities, including mobile ship repair units and tank farms. Drawing upon his World War I expertise, Carney began to work out convoying policy and doctrine.<sup>26</sup>

This early effort to establish a base on Iceland by the Atlantic Service Force under Bristol paid great dividends for the Navy. The supply depot

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26 Carney, *Reminiscences of Robert Bostwick Carney*, 238, 239–44.

at Quonset Point served as the stockpile and embarkation point for material heading to Iceland. As part of the effort to stockpile the proper material, Carney recalled that Bristol's team asked Captain William Corn to "to work on drawing up a base catalogue, a catalogue of the stuff you need to just build a base from scratch. Different kinds of bases could be put together."<sup>27</sup> Even though Iceland operations began shortly before the Japanese attack at Pearl Harbor, they provided the Navy an advance start on wartime operations. The material stockpiled at Quonset Point for Iceland would also form the nucleus of the logistics effort in the Pacific. As Carney recalled, "The plans and preparations that were made in connection with this outfit turned out to be invaluable in the very first days before the industrial capacity of the country was brought to bear on our needs. This was stuff that was on the shelf and this was all there was."<sup>28</sup>

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27 Carney, *Reminiscences of Robert Bostwick Carney*, 246–47.

28 Carney, *Reminiscences of Robert Bostwick Carney*, 247–48.

## **QUESTIONS:**

1. During the interwar period, how did the Navy address the problem of having too many requirements, but not enough funding? Are there any parallels to today?
2. Are there budgetary and/or strategic parallels between the 1930s and today? If so, how is today's situation different, and what lessons can be learned from how the Navy responded in the past?
3. The U.S. Navy solutions to the general crisis of the 1930s were the massive shipbuilding programs of 1938 and 1940, which provided huge numbers of warships and logistics ships to fight in both Europe and the Pacific. Assuming this is not a viable solution in the future, what other solutions could the Navy adopt to meet similar challenges? How would that impact logistics requirements?

### 3

## ESTABLISHING BOBCAT AT BORA BORA

The Japanese strike on Pearl Harbor in December 1941 thrust the United States into war, resolving in an instant the many prewar debates over strategy and direction. Among its many impacts, the attack robbed the United States of initiative, disrupting the deliberate and incremental prewar steps of industrial and naval mobilization, and the creation of an overseas logistics system. This rocky transition displayed the difficulties surrounding the establishment of a fueling base at Bora Bora in the South Central Pacific. On the one hand, the wartime creation of a new fueling base more than 4,000 miles from the continental United States demonstrated a heretofore unexercised capability. On the other hand, the missteps taken in the establishment of the first forward base in the Pacific highlighted that practical logistical planning had not caught up to operational thinking.<sup>1</sup>

As early as January 1942, after the initial shock of Pearl Harbor and the collapse of Allied positions across the western Pacific, Admiral Ernest J. King, Commander in Chief, U.S. Fleet (CINCUS), directed Admiral Chester W. Nimitz, Commander in Chief, Pacific Fleet (CINCPAC), to cover and hold a line of bases between Hawaii and Samoa, and then push control westward to Fiji.<sup>2</sup> Nimitz was then ordered to push his forces even

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1 For a general overview of Navy war planning in 1939–41, see the first few chapters of OPNAV Support Section, *Richmond Kelly Turner: Planning the Pacific War* (Washington, DC: Naval History and Heritage Command, 2021). For a discussion of Bora Bora, its significance, and the establishment of the Seabees, see “Code Name: Bobcat,” a pair of articles written by Seabee Museum supervisory archivist Gina Nichols: <https://seabeesmuseum.wordpress.com/2022/02/15/code-name-bobcat-part-one/> and <https://seabeesmuseum.wordpress.com/2022/02/17/code-name-bobcat-part-two/>

2 John Lundstrom, *The First South Pacific Campaign: Pacific Fleet Strategy, December 1941–June 1942* (Annapolis, MD: Naval Institute Press, 1976), 19.

farther west to cover Australia, then the eastern extremity of the optimistically named Malay Barrier.<sup>3</sup> The Navy knew it needed to protect this sea route to Australia, both to protect the commonwealth and, since it served as a continental anchor for hemispheric defense, the southern counterpart to the west coast of North America. In order to create the supply chain to Australia, the Navy required a string of operational and logistics bases from Tahiti, Samoa, Tonga, the Fiji Islands, and New Caledonia. Work on a number of these installations began prior to the outbreak of war, and the December 1941–January 1942 Arcadia Conference with Allied planners bestowed responsibility for the defense of Palmyra, Bora Bora, Christmas Island, Canton Island, and American Samoa to the United States.<sup>4</sup>

Given the strategic context, Navy leaders identified Bora Bora in the Society Islands as a prime location for a fueling station as it was in the first island chain on the way from San Diego—a speck amid some 4,000 miles of the empty South Pacific Ocean. Admiral King laid out the requirements, noting any prospective location should “(a) be available politically; (b) have adequate anchorage depths and areas; (c) be capable of adequate defense against minor raids, at least; (d) be navigationally accessible.” Bora Bora met King’s criteria. As a French territory, the United States negotiated its use and signed a lease with the Free French government for the island in February 1942. A coral reef provided an excellent natural harbor. Finally, the location was ideal, as Bora Bora sat on the main route from the Panama Canal to Sydney, Australia.<sup>5</sup>

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3 *Richmond Kelly Turner: Planning the Pacific War*, 29–30.

4 David O. Woodbury, *Builders for Battle: How the Pacific Naval Air Bases Were Constructed* (New York: E. P. Dutton and Company, 1946), 109–70, 227–69; Richard M. Leighton and Robert W. Coakley, *Global Logistics and Strategy, 1940–1943* (Washington, DC: Center of Military History, 1955), 151, 178–79.

5 “History of United States Naval Station Bora Bora, Society Islands of French Oceania,” undated, Box 410, RG 38, National Archives at College Park, MD [hereafter NACP]; Memorandum by Ernest J. King, “Fueling Base in Central South Pacific Area,” 30 December 1941, Folder 15, Box 1, Ernest K. King Papers, Archives Branch, Naval History and Heritage Command, Washington, DC [hereafter Ernest J. King Papers, NHHHC]; Memorandum by R. E. Schuirmann, 24 February 1942, Folder 15, Box 1, Ernest J. King Papers, NHHHC; Memorandum by Duncan Curry Jr., “Free France, Society Islands, Island of Bora Bora,” 10 February 1942, Box 375, RG 38, NACP.





U.S. Navy ships at Teavanui Harbor, Bora Bora, in February 1942. The ship farthest from the center is an oiler; the ship in the middle distance with four stacks is *Trenton* (CL-11), while the nearest ship is *Sampson* (DD-394). General inexperience hampered U.S. efforts to establish a fueling base at Bora Bora. Unimproved harbor conditions, as seen here, made the task of unloading cargo more difficult. (NHHC, 80-G-K-1118)

The joint basic plan for Bora Bora identified the chief contributions of the Army and Navy as manpower and facilities, respectively. Logistics requirements could not be sourced locally, so the Army was tasked with supplying subsistence ashore and defense of the island while the Navy had cognizance over moving the task force overseas, as well as labor and material for construction of the base itself. Planners projected a force strength of 4,500 personnel, with nearly 4,000 Army troops in the defensive garrison and 500 Navy personnel to build the harbor facilities.<sup>6</sup> The operation was code-named Bobcat.

Delays, bottlenecks, and general inexperience plagued Bobcat from its inception. Preparation for the operation began before identification of the precise objective or formulation of the plan. Leadership knew that a

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<sup>6</sup> E. J. King, H. R. Stark, and G. C. Marshall, "Joint Basic Plan for the Occupation and Defense of Bora Bora," 8 January 1942, Folder 8, Box 1, RG 38, NACP.

refueling base would need to be established, and so proceeded under that general assumption, with details finalized later.<sup>7</sup>

The urgent need for the base meant that the selection and routing of both Army and Navy personnel and material had to occur swiftly and simultaneously. With a proposed embarkation date of 25 January 1942, personnel, equipment, and materials had to route from supply depots to Charleston, South Carolina. Luckily, the Navy had some recent experience with contemporary advance basing—having responsibility for the Allied support force in Iceland, mentioned in the previous chapter. By happenstance, the Navy had stockpiles of equipment and material in both Norfolk and Quonset Point, Rhode Island, upon which it could draw. This material cushion proved beneficial, but could not entirely compensate for the fact that both the Army and the Navy were venturing into largely new territory.<sup>8</sup>

Part of the problem was that broader Navy planning responsibility for Bobcat was “distributed illogically” between two divisions of the Office of the Chief of Naval Operations (OPNAV) and several bureaus. OPNAV “exercised responsibility so far as it was competent to do so,” but relied heavily on other Navy bureaus, particularly the Bureau of Docks and Yards, “for tasks for which it lacked the personnel, knowledge, and experience.”<sup>9</sup> In a postwar retrospective report of Operation Bobcat, the Director of Naval History cited “the inherent confusion of authority and function, deriving from the ambiguous statutory description of the Office of the Chief of Naval Operations” as one of the underlying problems plaguing Bobcat. In short, unclear and inadequate communication between divisions, bureaus, and departments as to responsibility for essential tasks—like the reliance on the Army for the operation of medical

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7 Charles R. Shrader, “Bobcat: Rapid Deployment in 1942,” *Military Review* 69, no. 3 (March 1989): 29.

8 Charles R. Shrader, “Bobcat: Rapid Deployment in 1942,” 29; Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” 39.

9 Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” 45; “Introduction: Bora Bora,” 31 July 1944, 10, RG 5, Seabee Museum Archives.

facilities on Bora Bora, for example—mired the first weeks of the operation in misunderstandings and wasted time.<sup>10</sup>

Charged with transportation arrangements, the Naval Transportation Service selected available ships for the convoy, but discovered some required substantial repair. *President Fillmore*, a 22-year-old commercial passenger and cargo vessel under War Shipping Administration contract, had run aground and needed repairs. A second passenger ship, *President Tyler*, also under contract, was described as “a mess.”<sup>11</sup> Transport *Arthur Middleton*, then in New York, needed 1,500 tons of ballast installed “to compensate for the weight of her armament,” but sailed to Charleston anyway. In a memorandum to Admiral King, Army Chief of Staff General George C. Marshall wrote, “In order to avoid failure, it would seem we must accept hazard and must be guided by the means we have at hand. Certainly our effort overseas will be greatly handicapped by a refusal to use this available capacity.” Bobcat made do with the ships on hand, which were inadequate to the task.<sup>12</sup>

General inexperience with combat loading combined with the urgent need to get the ships loaded and underway created delays when it came time to unload. Since most of the cargo to be loaded at Charleston was for the Army, and loading generally took place at an Army base by Army personnel, the civilian laborers had little experience handling cargo intended for an undeveloped port. A consistent problem cited by officials was the improper loading of the ships at Charleston, with the cranes and equipment required to unload the ships at Bora Bora buried deep in the holds. This was proper from a weight distribution perspective, but inefficient and disorderly when it came to unloading the ships at the crude facilities in Bora Bora harbor.<sup>13</sup>

The convoy finally departed Charleston in late January 1942 and, after a long, slow voyage, arrived in March. Unloading commenced immediately upon arrival, but proceeded glacially. First, only two small piers were

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10 Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” 45, 43; “Introduction: Bora Bora,” 31 July 1944, 8, 10, RG 5, Seabee Museum Archives.

11 Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” 47.

12 “Introduction: Bora Bora,” 31 July 1944, 6, RG 5, Seabee Museum Archives.

13 Office of the Chief of Naval Operations, “The Logistics of Advance Bases,” 48.

immediately available—at Vaitape and Fa’anui—but neither could carry heavy loads, so everything had to be unloaded via ships’ cranes onto barges.<sup>14</sup> As noted above, the cranes and other equipment needed to unload barges ashore, however, “had been buried in the holds.”<sup>15</sup> It took three weeks to locate, uncover, and remove the first crane for mounting ashore. During those three weeks, all heavy equipment, “except that on wheels, had to be dragged off the barges by tractors.” Four cranes were listed on the manifest, but the boom for one was never found. This caused a serious setback in unloading “as movement of cargo depended on the ability to get it off the barges.”<sup>16</sup>

This first phase of the operation was particularly difficult because the Army in general, and the senior officer in particular, proved uncooperative. Vague orders at the outset were exacerbated by an unwillingness of Army combat troops to perform “unfamiliar service functions” because “neither port facilities nor civilian labor or any sort was available.” The Army also cited lack of institutional knowledge of island geography, topography, and climate as principal obstacles. “In truth, there was no real logistical plan,” the Army later concluded, instead characterizing matters as “largely a process of trial and error.”<sup>17</sup>

Unfamiliarity with Bora Bora and its geological characteristics meant that much of the equipment brought turned out to be inappropriate for local conditions. To reach the eight gun emplacements that punctuated the island’s coast, the 198th Coast Artillery brought more than 100 vehicles, ranging from command reconnaissance trucks and searchlight vehicles to passenger sedans and ambulances.<sup>18</sup> “The main road which follows the shoreline” between the two anchorages, Army intelligence officer Ervan Kushner recalled, was “torn up by our heavy trucks and equipment. It becomes a sea of mud every time it rains which seems to be an hourly occurrence during the rainy season.” He rode to Fa’anui “slipping and

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14 Memorandum by C. H. Sanders, “Establishment of Advance Bases—Problems Connected with and Recommendations,” 4 April 1942; Folder 8, Box 1, RG 38, NACP.

15 “Introduction: Bora Bora,” 31 July 1944, 11, RG 5, Seabee Museum Archives.

16 Memorandum by C. H. Sanders, “Establishment of Advance Bases—Problems Connected with and Recommendations,” 4 April 1942, Folder 8, Box 1, RG 38, NACP.

17 Leighton and Coakley, *Global Logistics and Strategy 1940–1943*, 179.

18 Leighton and Coakley, *Global Logistics and Strategy 1940–1943*, 2.



Despite the early difficulties in its establishment, the U.S. base at Bora Bora represented a step forward in the U.S. capacity to project force. This photograph shows four Vought OS-2 Kingfishers of Scouting Squadron 2 (VS-2) on Bora Bora. A Quonset hut is visible behind the line of trees and camouflage netting. (NHHHC, UA 460.08)

skidding” the entire way.<sup>19</sup> Bora Bora also had a solitary one-lane road composed of coral, shell, or lava sand atop “spongy” ground that cut across the island. It was adequate only for light traffic—“not more than a few bicycles”—and no more than four light passenger vehicles. The Army’s three-axle, ten-wheel, seven-ton trucks “broke down the small bridges and culverts,” and destroyed the road to such a degree that Lieutenant Commander Harold Sylvester, head of the Navy Construction Battalion sent to the island, had to bar vehicles of a certain tonnage so that lighter motor equipment could pass. Road-building equipment “was badly needed and should have been included” with the initial convoy.<sup>20</sup>

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19 Ervan F. Kushner, *Bogged Down in Bora Bora: A History of the 198th Coast Artillery Regiment (Antiaircraft) on Bora Bora Island, 1942–1943* (Paterson, NJ: Ervan F. Kushner Books, 1984), 30.

20 “BORA BORA OPERATION” draft, 26 November 1943, 8, 9, MS 2–3.7AA, Historical Manuscripts Collection, U.S. Army Center for Military History, Fort McNair, Washington, DC.

On 1 May, Admiral Chester Nimitz asked Sylvester if Bora Bora would be ready to receive fuel oil when the first convoy arrived in July. Sylvester responded in the affirmative, confirming he would have the base in a state of operational readiness by mid-June, despite knowing Army Colonel Charles D. Y. Ostrom was under orders to finish roadwork and the gun emplacements first. After receiving confirmation of Nimitz's receipt of his message, Sylvester managed to leverage hundreds of Army troops from Ostrom—who did not want to be responsible for bucking the supreme Allied officer in the Pacific—to assist with construction of the fuel tanks. Indeed, by early July, those purloined troops were hand-tightening bolts to hold steel plates together even as the tanks were filled with oil.<sup>21</sup>

After two months on Bora Bora, Commander Carl H. Sanders, commander of the naval component at the then-established base, prepared a report defining what he considered the problems connected with the establishment of advance bases and included his recommendations to avoid these issues. Sanders acknowledged at the outset that the planning and execution of the forward base at Bora Bora was a hurried endeavor given that speed was essential. His recommendations, he proposed, were to be applied to future “similar expeditions where opportunity permits sufficient planning and assembling of personnel and equipment.”<sup>22</sup>

Sanders commenced with a recommendation for the judicious selection of ships for any expedition. The ships, he argued, should be chosen based on two simple criteria: “(1) their ability to carry the personnel and cargo, and (2) their ability to cruise together.” Bobcat ships were well-chosen, Sanders remarked, with the exception of *President Tyler*. That ship could not maintain the same top speed as the others because it had a two-knot deficiency. In addition, the cargo boom aboard *President Tyler* could not handle the heavy guns and large pieces of equipment loaded at Charleston. Indeed, the expedition was lucky that *President Tyler* was the only problematic ship. Before the ships docked at the Charleston Navy Yard, no one had any knowledge of what these ships could or could not carry. Sanders, therefore, suggested the appointment of a senior officer to

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21 “Introduction: Bora Bora,” 31 July 1944, 10, 12, RG 5, Seabee Museum Archives.

22 Sanders, “Establishment of Advance Bases,” Folder 8, Box 1, RG 38, NACP.

the position of “commander convoy.” In this role, the commander would receive and maintain ship data, loading plans, and mission procedures. With this data, this officer could effectively coordinate the efficient loading and unloading “in proper sequence.”<sup>23</sup>

The Merchant Marine lacked institutional knowledge in Navy procedure, Sanders claimed. Passengers aboard merchant ships acquired berths “only by mutual agreement of senior officers aboard.” Troop ships at Charleston, for example, were left to their own devices because “neither the Navy or Army” assumed responsibility for the assignment of space. To alleviate these issues, Sanders suggested the appointment of a “supercargo” officer who would liaise with the Merchant Marine captain and assign space to troops and passengers. This officer would also coordinate emergency drills and ship defense underway. Upon arrival, the officer would take charge of the stevedore detail, instead of relying on the oversight of expeditionary force officers who would be needed ashore.<sup>24</sup> The supercargo officer would also be responsible for complete manifests and invoices. Most Bobcat ships’ manifests were incomplete or inaccurate. Some materials listed as shipped never arrived, and other material arrived that did not appear on the manifest. For example, five “40’ Motor Launches were supposed to have been shipped but only four (4) were received.” This degree of opacity resulted in serious delays in receiving vital materials. All ships had to be unloaded and checked before initiating steps to obtain required, yet missing, materials.<sup>25</sup>

Upon arrival at Bora Bora, naval personnel, except the aviation detail, lived on the ships in port until all but the final two were empty. “It was understood that the Army,” Sanders believed, “was to provide temporary shelter (tentage) ashore for naval personnel but this was not available.” In the disorder at Charleston, these shelters “had been left ashore and did not arrive until about a month and a half afterwards.” For the first few months, Bobcats “lived like dogs, worked like horses, and smelled like goats,” one official remarked.<sup>26</sup>

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23 Sanders, “Establishment of Advance Bases,” Folder 8, Box 1, RG 38, NACP.

24 Sanders, “Establishment of Advance Bases,” Folder 8, Box 1, RG 38, NACP.

25 Sanders, “Establishment of Advance Bases,” Folder 8, Box 1, RG 38, NACP.

26 “Introduction: Bora Bora,” 31 July 1944, 10, RG 5, Navy Seabee Museum Archives.

The construction of huts on the island became another drain on an already strained and exhausted labor force. Sanders suggested a more thorough preliminary survey of the island to alleviate issues related to facilities. The joint plan provided for 10 groups, with 500 men to a group. To disperse men evenly within close proximity to defensive weapons, the plan required substantial alteration. More groups of smaller occupancy formed, which meant they had insufficient access to galley equipment, electric generators, and water distillation systems.<sup>27</sup>

Even as Bobcat focused on the construction of the first forward base in the Pacific in early 1942, Navy officials were already considering the ways in which such an immense logistics task could be achieved more efficiently and effectively. Bobcat was a departure from many of the Navy's ad hoc logistics operations that preceded it. Inter-service cooperation between the Navy and Army remained a problem, with the latter service requiring equal participation in the planning process. Clear demarcation of roles was crucial to avoid doubt and ambiguity. Civilian and military stevedores at American ports, too, needed mutual support and clear instructions for loading ships. The exigencies of a two-front global war necessitated the readiness of the Naval Transportation Service to acquire seaworthy commercial vessels to supplement fleet losses. Despite its failures, Bobcat taught the Navy many lessons and represented a step forward in logistics learning for the Navy.

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<sup>27</sup> Sanders, "Establishment of Advance Bases," Folder 8, Box 1, RG 38, NACP.



**QUESTIONS:**

1. Many of the problems at Bobcat are unique in time and place, owing both to the state of joint operations at the time and inexperience with operations at undeveloped ports. In a contemporary emergency, what lessons, if any, might apply?
2. While Bora Bora proved a useful lesson for the Navy in 1942, does Bora Bora provide any useful lessons for today? Why or why not?



## 4

### LOGISTICS PLANNING—OR LACK THEREOF—FOR THE INVASION OF GUADALCANAL, AUGUST 1942

The example of Bora Bora shows the difficulties of establishing forward bases on unfamiliar and underdeveloped islands in the South Central Pacific, a task which the Navy received in early 1942. Thankfully, the United States could leverage existing British, Commonwealth, and Free French infrastructure in the region, but all needed improvement. Like Bora Bora, there were many delays and difficulties in constructing and renovating existing ports and airbases in the region. The string of American bases started in Samoa, hopped to Tongatabu and the Fijis, and terminated at New Caledonia, a Free French colony with an extensive, well-protected harbor at Noumea.<sup>1</sup>

While defense of the region was initially assigned to land-based aircraft and two American carriers under the command of Rear Admiral Frank J. Fletcher, Admiral King was not content to simply cover the approaches to Australia. In late April, King ordered the establishment of the New Zealand-based South Pacific Amphibious Force, tasked to prepare for “minor landings, offensives and counter attacks to be designated at a later date.” Initially composed of 11 transport and cargo ships, as well as elements of the 1st Marine Division, the force began conducting training operations in New Zealand and later out of New Caledonia.<sup>2</sup>

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1 Bureau of Yards and Docks, *Building the Navy's Bases in World War II: History of the Bureau of Yards and Docks and the Civil Engineer Corps, 1941–1946*, vol. 2 (Washington, DC: Navy Department, 1947), 191–96.

2 Admiral E. J. King, “Basic Plan for the Establishment of the South Pacific Amphibious Force,” 29 April 1942, Folder 4, Box 6, Richmond K. Turner Papers, Archives Branch, Naval History and Heritage Command, Washington, DC [hereafter Richmond K. Turner Papers, NHHC].

Noumea, meanwhile, quickly became the main U.S. fleet base in the South Pacific, facilitating Fletcher's carrier task force to defeat Japanese plans to seize Port Moresby, New Guinea, in the Battle of the Coral Sea in early May 1942. Despite this success, planners worried about a second attempt to isolate Australia, especially after the Japanese established a seaplane base at Tulagi and then occupied Guadalcanal in the Solomon Islands. To counter those moves, the Allies began constructing airfields at Efate and Espiritu Santo to cover Noumea from the northwest, a task made more urgent by the departure of Fletcher's surviving carrier to Hawaii. The Battle of Midway in early June, however, not only decisively halted any further Japanese offensives into the Central Pacific, it also opened up counteroffensive opportunities for the South Pacific Amphibious Force.<sup>3</sup>

A little less than a month after Midway, the Joint Chiefs of Staff ordered General Douglas MacArthur, Commander Southwest Pacific Area, and Admiral Robert L. Ghormley, Commander South Pacific Force, to seize the Santa Cruz and lower Solomon Islands (Operation Watchtower).<sup>4</sup> Although aware of the operation, Rear Admiral Richmond K. Turner, the amphibious force commander, was in transit from Washington, DC, and after stops in San Francisco and Pearl Harbor, only set out for the Southwest Pacific on 8 July. Unbeknownst to him, Ghormley and MacArthur had met in Auckland that same day and lodged a protest with the Joint Chiefs of Staff, noting the lack of troops, shipping, and adequate land-based air cover, with the resulting exposure of friendly carrier, surface, and amphibious forces to enemy air and surface attack, and argued for a delay.<sup>5</sup> Two days later, Admiral King and General Marshall replied that while they "fully appreciate the disadvantages" of the task, it was necessary to stop the Japanese advance and to proceed with all haste.<sup>6</sup>

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3 *Building the Navy's Bases in World War II*, 214–15.

4 Joint Chiefs of Staff, "Joint Directive for Offensive Operations in the Southwest Pacific Area," 2 July 1942 cited in George C. Dyer, *The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner* (Washington, DC: Department of the Navy, 1972), 1: 260.

5 R. L. Ghormley to E. J. King, Naval Message 081013, 08 July 1942, Folder 4, Box 3, Richmond K. Turner Papers, NHHHC.

6 G. C. Marshall and E. J. King to R. L. Ghormley and D. MacArthur, Naval Message 090633, 10 July 1942, Folder 4, Box 3, Richmond K. Turner Papers, NHHHC.



Marine Corps LVT-1 amphibian tractors await embarkation at Wellington, New Zealand, in July 1942. In the background are transport ships. (NHHHC, 80-G-10760)

Turner arrived in Wellington, New Zealand on 17 July, boarded his flagship *McCawley* (AP-10), and took formal command of the amphibious force the next day. As noted in previous chapters, the line Navy had a history of ignoring combat logistics, meaning most surface warfare officers had little experience in amphibious operations. To make matters worse, Turner had never served at the Bureau of Personnel and had not interacted long enough with the bureau to establish a warm relationship. The result was that six out of seven Navy officers on his staff had no amphibious experience at all. Luckily, the four Marine officers did, which was of critical importance as Turner had only 20 days to finish planning the operation. The ensuing three weeks were a whirlwind of investigation, planning, and training.<sup>7</sup>

<sup>7</sup> Dyer, *The Amphibians Came to Conquer*, 1: 264–67, 279–80.

Very quickly, Turner discovered practically everything logistics related was on a shoestring.<sup>8</sup> Although assigned four transport divisions of 13 attack troop ships, 5 attack cargo ships, and 4 high-speed transports—destroyers converted to carry troops and cargo—none of these were equipped with specialized landing craft, instead carrying small surf boats and motorized barges. The undeveloped islands worked against planning efforts, too, as the lack of piers or wharves meant most cargo had to be winched out of cargo holds in nets, loaded into small boats or barges alongside, and motored to the beach. Other than heavy equipment and artillery requiring specialized barges, each box, bag, or crate of food and ammunition had to be hand-carried ashore as the surf boats could not beach.<sup>9</sup> These hindrances, as well as the lack of a functioning Navy supply depot at Noumea, worried Turner enough that he warned Ghormley he might not be able to deliver enough sustainment supplies to the Marines once the Japanese reacted.<sup>10</sup> The ensuing Guadalcanal campaign demonstrated these were real concerns, as were the resulting supply bottlenecks at Noumea, New Zealand, and ports dotting the journey back to San Francisco.

On the evening of 8 August, following two days of landing operations at Guadalcanal and Tulagi, Turner faced a difficult decision. He had just been informed that Vice Admiral Frank Jack Fletcher's Task Force 61, which had provided air cover for the invasion, was withdrawing to Noumea owing to heavy fighter losses in defending against two major Japanese air attacks, the latter of which had destroyed *George F. Elliott* (AP-13), one of Turner's transports. Since Turner's ships had been delayed in landing supplies at the beaches, Fletcher's departure left the lightly armed transports open to air attack. That night, a Japanese task force under the command of Vice Admiral Gunichi Mikawa surprised the Allied surface covering force, sinking four heavy cruisers and a destroyer, and causing the surviving ships to retreat to Noumea. Now left without air or surface protection, Turner's amphibious ships lingered through 9 August to rescue survivors and unload a few more supplies before retiring

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8 *Richmond Kelly Turner: Planning the Pacific War*, 47–51.

9 Dyer, *The Amphibians Came to Conquer*, 1: 403–405.

10 R. K. Turner to R. L. Ghormley, 21 July 1942, Folder 13, Box 1, Richmond K. Turner Papers, NHHC.



*George F. Elliott* (AP-13) burning off Guadalcanal after a Japanese strike on 8 August 1942. The withdrawal of Vice Admiral Frank Jack Fletcher's aircraft carriers left Rear Admiral Richmond Kelly Turner's transports open to Japanese attack. (NHHC, NH 69118)

with half their cargo still in their holds.<sup>11</sup> The 15,000 Marines of Major General Alexander Vandegrift's 1st Marine Division remained ashore with 17 days of food and ammunition, and few heavy weapons.<sup>12</sup>

It was only in the weeks that followed that Turner began to understand why his ships were unable to discharge all their cargo at Guadalcanal. While partly due to the diversion of ships and small boats to land combat reinforcements on Tulagi the first day, the primary delay was caused by poor beach coordination, failure of communications, and above all, inexperience. This inexperience was made worse not just by the flood of Naval Reserve officers into important wartime functions—like supply or amphibious billets—but because the few veteran line officers who remained were directed to combat command positions at sea rather than supporting landing operations ashore.<sup>13</sup>

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11 *Richmond Kelly Turner: Planning the Pacific War*, 55–56.

12 Richard B. Frank, *Guadalcanal* (New York: Random House, 1990), 117–20, 124–27.

13 Dyer, *The Amphibians Came to Conquer*, 1: 264; COMAMPHORSOPAC, Message 2025, 21 September 1942, Folder 5, Box 3, Richmond K. Turner Papers, NHHC.

The relative inexperience showed very clearly on the first day of operations at Guadalcanal. The shore party from *Barnett* (APA-5), for example, led by traffic control officer Lieutenant Alfred R. Eubank, could not find the Marine beach master. The only people Eubank and his team saw unloading cargo were Navy beach parties and small boat crews, while more than 100 nearby Marines were “lounging around under the palm trees eating cocoanuts [*sic*] . . . and paddling about in rubber boats.” The various Navy shore parties continued working all night as their surf boats would otherwise break up on the rough shoreline. One officer estimated that Navy crews unloaded two-thirds of the boats, not Marine working parties.<sup>14</sup>

While the assistant Navy beach master, Lieutenant (j.g.) H. B. Stoddart, also from *Barnett*, did see small parties of Marines from the pioneer section working exceptionally well, he stated the worst condition of unloading boats took place at the ration dump. There were barely enough Marines to help unload six boats, with 30–35 boats waiting, and the working parties were poorly organized and led. On the first day, almost all reserves of ammunition were piled in two dumps on the beach in full view of enemy planes. Crates obscured the bank of the shore from the low water line to the first line of coconut trees. Much time was also spent sorting out cargo on the beach, rather than moving supplies under cover 50 yards inland. In numerous cases, the boat crews unloaded all the equipment themselves.<sup>15</sup>

The next day, an exasperated Stoddart noticed canned rations floating up to a mile off the beach. Further investigation revealed that most of the supplies unloaded during the previous day and night had not been moved inland. Stoddart noted that “sacks of flour, sugar, coffee, cheese, and cardboard boxes of breakfast food, canned rations, and other stores

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14 Alfred R. Eubank, “Report of Observations Made While on Duty from this Vessel as Traffic Control Officer during Landing Operations, 7, 8 & 9 August, 1942,” 13 August 1942, 1–2, Folder 25, Box 14, Richmond K. Turner Papers, NHHC.

15 H. B. Stoddart, “Report of Observations on Beach at Guadalcanal, Solomon Islands on August 7–9, 1942,” 10 August 1942, 1–3, Folder 25, Box 14, Richmond K. Turner Papers, NHHC.



were damaged or completely ruined by rain or by the tide rising and covering the stores with water.”<sup>16</sup>

The general consensus of the officers who participated in the first landings on Guadalcanal agreed that the friction of actual operations was not anticipated and the shore party system was not flexible enough to respond. One recommendation suggested that mid-level Navy officers, preferably lieutenant commanders, be in charge of shore parties, as “marine officers are likely to be in other places.” At the same time, the Navy had an “interest in getting the unloading done as quickly as possible. The marines want the stores, but how long the ships remain in area unloading is not of primary interest to them.”<sup>17</sup>

Later in the month, the commanding officer of *Hunter Liggett* (APA-14), Commander Lewis C. Perkins, seconded these recommendations, calling for much better sea-to-shore coordination, including marked unloading points, beach dumps, shore exit routes, and a senior liaison officer within each shore party zone. He also called for better boat traffic control and the use of radio teams to coordinate ship-to-shore movement. As “the failure of the Pioneer detail to expedite unloading of the boats on the beach led to chaos,” a detail of four men should be assigned to each boat, with a 10-crew minimum. Regarding the boats themselves, he noted that his ship conducted more than 40 boat trips ashore, but only had two tank lighters assigned. He called for more boats for each cargo ship, the addition of a salvage boat to repair broken lighters, and a cargo-hauling sledge for each ship to assist pulling cargo up the beach.<sup>18</sup>

This friction and wastage, particularly the delays and difficulty of unloading supplies across a rough beach, taught the landing crews many lessons. Time was of the essence, though, as supplies for both the Marines

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16 Alfred R. Eubank, “Report of Observations Made While on Duty from this Vessel as Traffic Control Officer during Landing Operations, 7, 8 & 9 August, 1942,” 13 August 1942, 1–2, Folder 25, Box 14, Richmond K. Turner Papers, NHHC; H. B. Stoddart, “Report of Observations on Beach at Guadalcanal, Solomon Islands on August 7–9, 1942,” 10 August 1942, 2, Folder 25, Box 14, Richmond K. Turner Papers, NHHC.

17 Charles A. Bailey, “Standing Operating Procedure, Supply and Evacuation, in Landing Operations,” 30 August 1942, 1–3, Folder 16, Box 11, Richmond K. Turner Papers, NHHC.

18 Lewis W. Perkins, “USS *Hunter Liggett*, Standing Operating Procedure, Supply and Evacuation, in Landing Operations, 30 August 1942,” 27 August 1942, 1–3, Folder 32, Box 13, Richmond K. Turner Papers, NHHC.

and for operating Henderson Field were limited. The first follow-on delivery took place the evening of 15 August, when Transport Division 12's four high-speed transports delivered 120 tons of aviation gasoline, lubricating oil, bombs, spare parts, and 120 aviation ground personnel to Lunga Point. Five days later, a more robust convoy, including sea-plane tender *McFarland* (AVD-14) and store ships *Alhena* (AK-26) and *Fomalhaut* (AK-22), departed Noumea with aviation gasoline, 200 tons of rations, more reinforcements, and about 2,000 tons of logistics-support equipment and supplies. A separate movement order for *Lakatoi*—a small cargo ship acquired locally—called for the motor vessel to deliver 150 tons of rations topped off with as much small arms ammunition they could fit. Owing to fears of Japanese air attacks during the day, the ships were to arrive off the beach at 1830 on the day of arrival. With booms rigged and hatches open, they were to unload as rapidly as possible and depart no later than 0630 the following morning.<sup>19</sup>

Based on his analysis of both the landings and resupply missions, Turner wrote a letter to Colonel James W. Webb, commanding officer, 7th Marines, in anticipation of the upcoming landings at Ndeni (Nendö) in the Santa Cruz Islands. Turner explained the difficulties experienced at Guadalcanal, specifically “the vast amounts of unnecessary impediments taken” and the disorganized shore parties. “The Marines have got to do this,” he emphasized, “the ships crews can’t run boats and winches, operate the ship, man guns, furnish personnel to handle boat traffic, repairs and evacuations at the beach and at the same time furnish unloading details.” Turner ordered Webb to provide more than 300 men per ship to assist with working the cargo holds, serving in each boat, and on shore parties. He also prescribed leaving almost all motor vehicles behind. A Marine on Turner’s staff had seen the huge motor park unloaded after the ships returned from Guadalcanal and asked, “Just what is the use of . . . these things in the jungle?” Finally, he recommended plenty of quinine to avoid malaria and to make sure Webb took three full months of non-refriger-

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19 Dyer, *The Amphibians Came to Conquer*, 1: 419–20; “Operations Orders A6–42 and A7–42, TF 62,” 17 August 1942, Folders 4 and 5, Box 21, Richmond K. Turner Papers, NHHHC.

ation class B rations, since until “a regular flow is started from home the food problem in this area will be a difficult one.”<sup>20</sup>

On 23 August, Turner wrote a letter to Vandegrift on Guadalcanal, intended for delivery by *Zeilin* (AP-9) and *Betelgeuse* (AK-28). After congratulating him for holding the Lunga perimeter, Turner argued somewhat defensively that while “it may have looked as if we are neglecting you,” his staff at Noumea were greatly handicapped in figuring out what was actually still in the holds of the ships that had returned after 9 August. The transport quartermasters had, for the most part, stayed at Guadalcanal and taken their loading plans and cargo manifests with them, so his staff had to inventory each cargo hold painstakingly. And while he had sent about a month’s worth of rations in the three convoys so far, the problem of food remained acute. There were only about 400 tons of rations on ships in Noumea harbor, and Turner had been forced to borrow 1,200 tons of rations from the Army for future shipments. Two cargo ships had been sent back down to New Zealand “to find some more food.” He continued, “This whole Marine and Navy Supply system down here seems . . . bad, and I am trying to get them to reorganize it so it will function.”<sup>21</sup>

Turner followed up these comments with a description of how he would proceed in future operations. First, he would establish a Marine advanced supply depot at Noumea, “a sort of forwarding depot for landing material which you need.” Second, they would carefully combat load inbound ships. *Betelgeuse*, for example, was loaded in reverse order of delivery, intending to first unload cargo at Tulagi, then the rest at Guadalcanal. Owing to lack of escorts, ships would be sent in only two or three at a time, each unloading at a different beach to allow as much cargo to reach the shore within the allotted 24-hour period. Lastly, he

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20 R. K. Turner to J. W. Webb, 20 August 1942, 1–2, Folder 13, Box 1, Richmond K. Turner Papers, NHHC; Annex Baker to Operations Plan A9–42, TF 62, 20 August 1942, Folder 6, Box 21, Richmond K. Turner Papers, NHHC.

21 R. K. Turner to A. A. Vandegrift, 23 August 1942, 1–2, Folder 13, Box 1, Richmond K. Turner Papers, NHHC.

would continue to scrounge up small ships like *Lakatoi*,<sup>22</sup> which could carry around 100–150 tons of cargo, and have them “sneak in and out as best they can.”<sup>23</sup>

The first few weeks at Guadalcanal illustrate what happens when Navy organizational culture fails to view, or at least underappreciates, logistics as line work. To be fair, there were dozens of transports, oilers, ammunition, store, tender, repair, and attack cargo ships in service, but there were not enough overall and few were assigned to the Southwest Pacific. War mobilization efforts would later expand replenishment, cargo, transport, and fleet support ships from under 200 ships to more than 1,200 by the end of the war, but that expansion, along with a similar vast increase in specialized landing craft, did not begin in earnest until mid-1943.<sup>24</sup>

Turner was, therefore, more or less on his own for the entire Guadalcanal campaign. And it was not just a lack of ships, base infrastructure, or even supplies and equipment, though all of those bottlenecks were important. It was also getting commanders, logisticians, and supply officers to both understand that logistics in wartime was much more difficult than peacetime, and to leaven good intentions with experience was equally important. Put another way, Turner spent August 1942 moving from one crisis to another, working desperate, ad hoc logistics solutions—an approach he called the “hand-to-mouth” method. As shown in the next chapter, Turner spent the next four months trying to set up a more rational, symbiotic relationship between logistics and operations while simultaneously trying to change organizational culture in his small, but critical, forward edge of the Navy.

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22 *Lakatoi* was loaned to the Navy by the Army at Noumea on 15 August 1942, put in commission that same day, and crewed by the survivors of *George F. Elliott* (which had been scuttled off Guadalcanal on 8 August). Departing with cargo on 19 August, the motor ship ran into heavy weather, broached in a storm, and sank about 80 miles southwest of Efate. The 29-member crew climbed safely into two rafts and a lifeboat, and floated 400 miles southwest before washing ashore on the coast of New Caledonia on 1 September. All but one man survived. See the *Dictionary of American Naval Fighting Ships* entry: <https://www.history.navy.mil/research/histories/ship-histories/danfs/l/lakatoi.html>.

23 R. K. Turner to A. A. Vandergrift, 23 August 1942, 3–6, Folder 13, Box 1, Richmond K. Turner Papers, NHHHC; “Operations Order A10–42, TF 62,” 23 August 1942, Folder 7, Box 21, Richmond K. Turner Papers, NHHHC.

24 *Ships Data Book*, 1943. Navy Department Library, Naval History and Heritage Command, Washington, DC.

**QUESTIONS:**

1. Is the Navy's current logistical system designed to support Marine Expeditionary Force-level combat operations at multiple austere locations in the western Pacific? Why or why not?
2. In light of Turner's experience at Guadalcanal, how would you prepare and conduct long-range amphibious operations any differently? What questions would you raise during the planning process?
3. Are there examples of post-2001 supply problems that could help inform future logistical operations? What can be learned from them and how might they apply?



## 5

### LOGISTICS AND THE GUADALCANAL CAMPAIGN, AUGUST–DECEMBER 1942

After diffusing the initial crises that followed the landings on Tulagi and Guadalcanal, Rear Admiral Turner and his staff stepped back to focus on the more significant supply issues facing the South Pacific Amphibious Force. As they saw it, the problem was twofold: the first was getting the right material in the right amounts shipped to Noumea, while the second was organizing and shipping those supplies forward to support combat operations in the New Hebrides and Solomon Islands. With its prototype Marine-focused supply depot, Noumea would serve as a clearing house, receiving the demand signal from combat organizations forward, organizing shipments from the U.S. West Coast, as well as from New Zealand and Australia, and then shipping forward as necessary.

Without reliable radio or cable communications, the first problem was more difficult than expected. Turner sent letters forward during supply delivery runs, such as his 23 August 1942 letter to Marine Major General Alexander Vandegrift that arrived via *Betelgeuse*, in which he asked for detailed lists of supplies, material, and ammunition both in order of priority and split into deliveries for Tulagi and Guadalcanal. He emphasized that “we must know the types and amounts of ammunition and equipment that you most require.”<sup>1</sup>

Turner hoped the immediate solution to this question would be the establishment of a forward logistics base at Guadalcanal, similar to the supply base organizing at Noumea. Called a “Cub,” the small forward base would support the repair, operations, and maintenance of a “small task

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1 R. K. Turner to A. A. Vandegrift, 23 August 1942, 5, Folder 13, Box 1, Richmond K. Turner Papers, NHHC.



Shipping in the harbor at Noumea, New Caledonia, in November 1942. During the early campaigns in the Pacific, Noumea served as a clearinghouse for supplies destined for the New Hebrides and Solomon Islands. With a shortage of pier space, warehouses, shore cranes, and cargo handlers, it soon became a logistical bottleneck. (NHHC, 80-G-K-948)

group of light forces,” as well as roughly 100 aircraft. Made up of about 3,200 men, with almost half allocated to aviation and half to construction and maintenance, Cubs were ideally equipped with 12 tractors/bulldozers, 48 trucks, 6 mobile cranes, 20 dump trucks, 2 graders, and a power shovel.<sup>2</sup>

The advantage would be proximity to the on-scene commander, who would provide an intimate understanding of what was needed and where. Unfortunately, the only Cub in the region was at Espiritu Santo, with most of its heavy equipment still loaded on cargo ships or tied up supporting flight operations. Still, needs must, and roughly 200 Cub 1 aviation personnel were sent from Espiritu Santo to Guadalcanal with the destroyer trans-

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2 HQ Marine Amphibious Corps, “Reports on Naval Construction Battalions,” 25 August 1942, Folder 19, Box 11, Richmond K. Turner Papers, NHHC; Dyer, *The Amphibians Came to Conquer*, 1: 422–23.



port supply run on 15 August, and two weeks later *William Ward Burrows* (AP-6) delivered A and D Companies—5 officers, 387 enlisted—from the 6th Construction Battalion (Seabees) to Guadalcanal on 1 September.<sup>3</sup> As most of the Seabee heavy equipment sat in cargo holds at Noumea, the sailors used captured Japanese bulldozers, rollers, and grading machines on Guadalcanal to improve Henderson Field and repurposed generators and other electrical equipment to support a rudimentary supply base.<sup>4</sup>

In late September, Turner sent another letter to Vandegrift emphasizing the ongoing buildup in the Solomons. This included not only the regular maintenance convoys, of which nine cargo ships arrived in the first half of September, but the arrival of 7th Marine reinforcements and the eventual establishment of an advanced naval base. To this end, he sent men and material to organize a dedicated supply group with a functional command staff at Guadalcanal. This was needed because his staff could not get information out of the Cub 1 detachment on the island. Turner, additionally, had “not yet received from [Vandegrift’s] staff adequate requisitions for the replacement of consumable supplies; consequently [Turner] had to put in two large requisitions to San Francisco by guesswork, hoping they would be what” Vandegrift needed.<sup>5</sup>

Part of the problem was the haphazard situation at Guadalcanal. Like everyone else, Commander James P. Compton of Cub 1 was trying to figure out what was necessary and then order critical supplies and equipment when radio communication was spotty. Airmail letters did not always arrive, and the chain of command was confusing and contradictory. He also oversaw the construction of the base while most of his personnel were acting as airfield ground crews refueling planes. As Compton put it later, he focused on “services and operations immediately required by the current tactical situation” rather than building a functioning naval base. Turner, on the other hand, wanted out of the business of organizing supply for Guadalcanal, arguing as early as 5 September that his amphib-

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3 HQ 1st Marine Division, “Station List of First Marine, Fleet Marine and attached units at Cactus,” 6 September 1942, Folder 7, Box 9, Richmond K. Turner Papers, NHHC.

4 “Guadalcanal,” undated, 1–2, RG 5, Seabee Museum Archives.

5 R. K. Turner to A. A. Vandergrift, 28 September 1942, Folder 13, Box 1, Richmond K. Turner Papers, NHHC.



“Food for Fighting Marines.” This April 1943 photograph shows Private First Class Gabriel Lanahan of New York City standing guard over “food supplies for a South Sea Island base.” Admiral Kelly Turner and the Marines at Guadalcanal faced supply problems. After that campaign, the Navy had wrested initiative from the Japanese, and the Navy could better address supply shortages. (NHHC, L-23-01-01)

ous force ought to be planning the next steps of the campaign rather than organizing specific “hand-to-mouth” supply deliveries to the Solomons.<sup>6</sup>

Turner continued to push his advance base concept through the end of September and into October, delivering another 100 Seabees, additional Marine infantry reinforcements, and elements of the 1st Marine Aircraft Wing for airfield support.<sup>7</sup> He also helped Vandegrift push out the perimeter on Guadalcanal, organizing the lift of Lieutenant Colonel Evans F. Carlson’s 2nd Marine Raider Battalion to conduct a short raid near Visale, behind the Japanese front line.<sup>8</sup> More significantly, Turner ordered the

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6 Dyer, *The Amphibians Came to Conquer*, 1: 428–32.

7 “Operations Orders A16-42,” 23 September 1942, Folder 12, Box 21, Richmond K. Turner Papers, NHHC; “A22-42,” 10 October 1942, Folder 17, Box 21, Richmond K. Turner Papers, NHHC.

8 “Operations Order A18-42,” 2 October 1942, Folder 14, Box 21, Richmond K. Turner Papers, NHHC.

converted tender *Jamestown* (PG-55) and *Bellatrix* (AK-20) to tow eight torpedo (PT) boats to the Solomons and set up a motor torpedo boat base. The establishment of the base at Gavatu in early October allowed Turner to send yard, utility, and small landing craft safely to the area, enabling easier unloading operations and the establishment of a basic ship repair facility.<sup>9</sup>

The disagreement between Compton and Turner came to a head after Turner received Compton's "pencil requisition" letter asking for "Marston or runway matting, dredging equipment, lumber, a portable sawmill, as well as various tent camps for berthing, messing, and supply storage."<sup>10</sup> Turner was greatly irritated by this early October letter, which asked for air base material without any classification numbers, amounts, or even the correct names. A month later, he let the new commander of Cub 1 know this directly. After congratulating the incoming Captain W. G. Greenman on his new command, Turner stated, "All my staff, and I myself are working our hearts out to keep you going, and to try and get men and supplies to you. . . . But we have not yet passed the day-to-day stage, as the transportation bottlenecks are simply too great given losses to the Japanese and diversions of ships elsewhere." Until he got that pencil requisition from Compton, he "could get neither requisitions, requests for material, requests for personnel, or requests for equipment . . . out of the naval organization at Cactus [code name for Guadalcanal]." Turner concluded his letter to Greenman with a request: "If you will personally look over that pencil memorandum (wrongly called a requisition) I think you will agree it doesn't meet the needs of the situation."<sup>11</sup>

The situation had not improved 10 days later when Turner received Admiral Nimitz's 12 November dispatch proposing five transports and cargo ships be withdrawn from the South Pacific to support operations in North Africa. Turner politely, but bluntly, pleaded his case, arguing that of

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9 "Operations Orders A19-42," 5 October 1942, Folder 15, Box 21, Richmond K. Turner Papers, NHHC; "Operations Order A20-42," 5 October 1942, Folder 16, Box 21, Richmond K. Turner Papers, NHHC.

10 J. P. Compton to R. K. Turner, 8 October 1942, Folder 14, Box 12, Richmond K. Turner Papers, NHHC.

11 R. K. Turner to W. C. Greenman, 7 November 1942, Folder 15, Box 12, Richmond K. Turner Papers, NHHC.



Unloading supplies at Guadalcanal in December 1942 or January 1943. As seen here, supplies to Guadalcanal came across the beach by hand to be loaded into trucks ashore. (NHHHC, 80-G-40796)

the 27 original cargo and troop ships assigned, 5 had been sunk, 3 had been sent back to the United States for extensive repairs and were ostensibly out of service, and 4 were undergoing repairs in Australia. The 15 remaining ships were “working continuously, carrying troops and freight through dangerous waters, and further losses are expected.” To make matters worse, the planned replacement of Marine regiments on Guadalcanal by Army troops—an exchange totaling about 26,000 men—would require about 20 trips by transports. If Turner lost the additional five ships it would make exchanging the Marines practically impossible. As he put it, “Cargo vessels for the support of Cactus are most inadequate in number, and, if even the ‘hand-to-mouth’ stage of support is maintained, require immediate increase. . . . More, not fewer, cargo vessels are required.”<sup>12</sup>

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12 R. K. Turner to Commander, South Pacific Force, 17 November 1942, Folder 2, Box 6, Richmond K. Turner Papers, NHHHC; Dyer, *The Amphibians Came to Conquer*, 1: 417–18.

Ultimately, Turner concluded that three months after the start of the campaign, the situation was just as confused and difficult as it was at the start. In yet another letter to Vandegrift, Turner noted, “Your situation as regards food, fuel, and ammunition, as you well know, gives me the greatest anxiety. This is still a hand to mouth existence. By now, I had hoped that you would have some reasonable reserves. However, the enemy has held up our deliveries so continuously that our cash-in-bank is very low.”<sup>13</sup> Almost two weeks later, in likely another irritating conversation, Turner told Major General Clayton B. Vogel, then commanding the Army’s Americal Division troops slated to relieve the Marines on Guadalcanal, that the supply situation for all the elements on Guadalcanal was still bad, that his staff “had to guess their needs most of the time and occasionally there are shortages of which we are not aware.” It was simply “too large a problem for my staff to handle,” Turner admitted.<sup>14</sup>

Along with the frustrations of supplying the Solomons, Turner also faced the second problem of getting material shipped to Noumea so it could be organized and shipped forward. From the first days after the disaster at Savo Island in August, he knew Allied forces would not, indeed could not, easily establish air and naval supremacy in the region. Success was therefore dependent on continuously moving ships, planes, troops, supplies, and equipment along the almost 8,000-mile route from California to the Solomons. Now that the initial invasion was over, Turner’s staff began working on a tentative logistics plan, released as Operations Order A9-42 on 20 August 1942.

Building off processes already underway, the plan first called for a joint purchasing board at Auckland, New Zealand. The board, comprised of both Navy and Army officers, mainly purchased locally available food and some basic supplies, including wood, canvas, and building materials. A subordinate command, Service Force, South Pacific, was also established in Auckland, and it would provide logistics functions for the Navy in the region, including loading and dispatching cargoes headed

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13 R. K. Turner to A. A. Vandegrift, 16 November 1942, Folder 15, Box 12, Richmond K. Turner Papers, NHHHC.

14 “Notes—Conference with General Vogel, et al., Memorandum for the Admiral,” 27 November 1942, Folder 15, Box 12, Richmond K. Turner Papers, NHHHC.

to Noumea and other Southwest Pacific bases. As a logistics command, the intention was that it could liaise with Commander, Service Force, San Francisco, more efficiently than Turner's staff, who, as noted previously, were not logisticians. Service Force, San Francisco, meanwhile, would process requisitions for supplies in the United States through the established Navy process and arrange shipping forward via the Commandant, 12th Naval District. Although fuel and ammunition were obtained from Commander, Service Force, U.S. Pacific Fleet (vice San Francisco), the requests were still coordinated through Auckland.<sup>15</sup>

Intended to relieve Turner's staff of logistical burdens, this process did have one unfortunate side effect. With Auckland serving as the primary Service Force supply depot, it was natural that the same port received supplies ordered from San Francisco. This meant, however, that most of the material needed to fight the Guadalcanal campaign ended up traveling by slow cargo ship 5,600 miles from San Francisco to Auckland, where it was unloaded, sorted, and reloaded for the 1,000-mile passage north to Noumea. Once there, the supplies were again reorganized for shipment, traveling via the recently established air and naval bases at Efate and Espiritu Santo another 1,000 miles northwest to Guadalcanal.<sup>16</sup>

To make matters worse, Noumea became a significant logistical bottleneck. It lacked pier space, warehouses, shore cranes, and cargo handlers, for which the Army and Navy competed. In a September letter to Ghormley, Turner asked for help establishing a Navy-specific supply depot at Noumea, as he had no formal area to organize cargo for Vandegrift. The Marine "supply depot" was simply an area of empty ground at the port. This led, among other problems, to supply shipments disappearing or being re-purposed—which everyone called "slippage"—a problem

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15 "Annex C, Tentative Logistics Plan, TF 62 Operations Order A9-42," 20 August 1942, Folder 6, Box 21, Richmond K. Turner Papers, NHHC.

16 Dyer, *The Amphibians Came to Conquer*, 1: 406–7.

also discovered at Espiritu Santo.<sup>17</sup> The main problem from Turner's perspective was that planning and delivering logistics support forward had devolved, which "absorbed the effort of the staff and of half the ships of this command almost to the exclusion of other operational study and activity." He argued that the task should now shift to Commander, Service Force, and they should move from Auckland to Noumea as soon as possible so that he could focus on establishing the forward base at Guadalcanal and planning future combat operations.<sup>18</sup>

The larger problem, which Turner seems to have forgotten in the heat of the moment, was the same throughout the entire Southwest Pacific operational area. Like Noumea, the bases at Efate, Espiritu Santo, and Guadalcanal, as well as the ports further east at Suva, Pago Pago, and Bora Bora, were all poorly developed or virtually nonexistent—just a few wharves servicing the larger villages and coconut plantations.<sup>19</sup> Put another way, there was a reason Auckland served as the initial service force port in the Southwest Pacific, despite being 1,000 miles south: there was essentially no other port with a functioning infrastructure closer to Guadalcanal.<sup>20</sup>

This meant the *simultaneous* construction of new docks, wharves, roads, bridges, fuel and ammunition depots, signal towers, repair shops, and all the other components of operational bases at *multiple locations* along the supply route from Auckland or San Francisco to Guadalcanal while delivering combat supplies forward and fighting the Japanese *all at*

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17 A letter from Guadalcanal to J. Carter, Bureau of Supplies and Accounts, described how numerous tents, tools, lumber, refrigerators, welding equipment, and even a sawmill—all intended for Guadalcanal—had been diverted at Espiritu Santo to build "tents with wooden-floors, plywood sides, and strongbacks, with awnings," while people on Guadalcanal and Tulagi slept on the ground, plagued by flies, and were "eating with their fingers out of tin cans, for nearly two months, because of a breakdown in the chain of supply, the breakdown being excessive demands to the rear." Memorandum for Vice Admiral Horne, 6 November 1942, Folder 6, Box 13, Richmond K. Turner Papers, NHHC.

18 R. K. Turner to R.L. Ghormley, 5 September 1942, Folder 8, Box 6, Richmond K. Turner Papers, NHHC.

19 Office of Naval Intelligence, "The Movement of Supplies into the Guadalcanal-Tulagi Area," 3-4, Box 118, Office of Naval Intelligence—Combat Narratives, World War II Navy Command Files, RG 38, NACP.

20 It was not until 8 November that South Pacific Force established a headquarters ashore at Noumea, replacing Auckland as the main supply base, and by December it had become a functioning main fleet base. Dyer, *The Amphibians Came to Conquer*, 1: 421.

*the same time*. As Turner later said, “Eighty percent of my time was given to logistics during the first four months of the Watchtower operation [because] we were living from one logistic[s] crisis to another.”<sup>21</sup>

These crises, or crisis (since they were all closely related), of logistics were not really resolved until the defeat of Japanese efforts in the lower Solomons in January 1943 and the large numbers of new emergency-built cargo ships finally assigned to the Southwest Pacific. It was also greatly helped by the decision in Washington to delineate theater command to Nimitz in the Central Pacific and MacArthur in the Southwest Pacific, which meant both theaters now had clear executive agents with clear responsibility for supply matters. With logistics matters in hand and the evacuation of the remaining Japanese ground troops in February 1943, Guadalcanal quickly developed into an established advanced base. It would later provide a key role in the mid-1943 New Georgia campaign.<sup>22</sup>

Turner’s close attention to these persistent problems helped the Navy through the first four months of the Guadalcanal campaign, a heroic effort by him and his staff, but there were still many lessons learned, including the perhaps obvious need for advanced planning. Not only was the initial landing plan thin—equivalent to saying “take 30 days of supply with you”—but the lack of any follow-on logistics planning meant Turner had to run an ad hoc one-day-at-a-time supply operation. Moving from crisis to crisis, Turner complained about his staff’s logistical inexperience, including the few regular line officers he managed to obtain, and how difficult it was to make “shoestring” logistics function properly. Indeed, Turner argued that the experience gained by his officers was invaluable and said at one point, “we cannot afford at this stage to lose by detachment even one capable officer.”<sup>23</sup> He also pleaded to keep experienced transport quartermasters to make these difficult cargo movements possible.<sup>24</sup>

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21 Dyer, *The Amphibians Came to Conquer*, 1: 404.

22 Dyer, *The Amphibians Came to Conquer*, 1: 431.

23 COMAMPHFORSOPAC, Message 2025, 21 September 1942, Folder 5, Box 3, Richmond K. Turner Papers, NHHHC.

24 COMAMPHFORSOPAC, Message 0315, 5 October 1942, Folder 6, Box 3, Richmond K. Turner Papers, NHHHC.



Other lessons include the difficulties of operating in austere environments, reacting to unexpected losses of ships and cargo, understanding what was needed forward amid combat operations, sorting cargo for efficient delivery, establishing forward supply depots, staffing them with skilled people, preventing slippage, and simply keeping operations going in the face of friction at every level. Turner's experiences during the only campaign where the United States and Japan started on equal footing imparted the importance of extensive preparation and constant improvement to create a coherent, functioning supply system.<sup>25</sup>

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<sup>25</sup> *Richmond Kelly Turner: Planning the Pacific War*, 67–70.

**QUESTIONS:**

1. How does operating in a contested logistics environment—with the enemy actively disrupting the flow of supplies—change how you carry out underway or forward logistics?
2. If communications are degraded or intermittent, how would you adapt to supply forces forward when you don't know what they need?
3. If the normal peacetime bases and ports are inoperable owing to wartime exigencies, how would you adapt to operating from unfamiliar or far distant logistics hubs? What changes would you need to make to standard operating procedures (SOPs) and why?

## 6

### A SYSTEM EMERGES: U.S. NAVY LOGISTICS, 1943–1945

The Guadalcanal and the Solomon Islands campaign marked a major point of transition in the Pacific, both for the course of the war and how the Navy has since treated in-theater logistics. By late 1942, the Navy—with the other services—had shifted from the defensive to the offensive. The offensive offered many advantages, not least that operations could be planned based on positive factors rather than reactive ones. The change-over from a defensive to an offensive mindset also offered Navy organizations a moment to reflect, take stock, and make changes that could incorporate some of the lessons learned during the first year of the war. Critically, the space to choose the time and manner of engagement with the enemy allowed leadership to reorganize the existing logistics apparatus—including developing new elements—and plan for the future, rather than just reacting to enemy activity.

Decisions at the highest echelons permitted better logistics planning in theater. In March 1943, Admiral King and General Marshall issued the “Basic Logistics Plan for Theaters Involving Joint Army and Navy Operations,” which gave responsibility to theater commanders to handle logistics in their area.<sup>1</sup> Success in the South Pacific by mid-1943 resulted in a greater urgency to establish a more coherent logistics staff in the Central Pacific. Accordingly, Admiral Nimitz used the authority of the Basic Logistics Plan to put forward his own plan for the Central Pacific.

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<sup>1</sup> Trent Hone, *Mastering the Art of Command: Admiral Chester W. Nimitz and Victory in the Pacific* (Annapolis, MD: Naval Institute Press, 2022), 166–68; Duncan S. Ballantine, *U.S. Naval Logistics in the Second World War* (Princeton, NJ: Princeton University Press, 1947), 153–59; Richard M. Leighton and Robert W. Coakley, *Global Logistics and Strategy, 1940–1943* (Washington, DC: Center of Military History, 1955), 649–60.



Between 1943 and 1945, a system of Navy logistics emerged. In this 1945 photograph, LSTs and other transports take on fuel and supplies at Tulagi before launching another assault on a Japanese-held island. Increases in production, better planning, and institutional reorganization meant that the Navy no longer had to launch shoestring operations like the one that had initially captured Guadalcanal and Tulagi from the Japanese. (NHHC, L-53-06)

As the administrative history of CINCPAC in World War II observed, by “the end of summer . . . development in the South Pacific had made men, ships and materials available with which it would be possible to initiate a campaign in the Central Pacific.”<sup>2</sup>

The scale of the contemplated offensive in the Central Pacific made it impossible for the staff of the Commander in Chief, Pacific Ocean Areas (CINCPOA) to encompass everything in a single plan. Theater staff would need to write logistics plans and work closely with operations planners in order to create useful templates for action. Accordingly, Nimitz created a Logistics Division within CINCPOA, which brought together

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2 Commander in Chief, U.S. Pacific Fleet, “Commander in Chief, United States Pacific Fleet and Pacific Ocean Areas, Command History,” Naval Administrative Histories of World War II, 203, Navy Department Library. See also Anthony W. Gray Jr., “Joint Logistics in the Pacific Theater,” in *The Big ‘L’: American Logistics in World War II*, ed. Alan Gropman (Washington, DC: National Defense University, 1997), 293–337.

under one umbrella staff that had formerly been separated, as well as new billets. Responsibilities from Advance Basing and the War Plans divisions found a home in the Logistics Division. The new capacity of the Logistics Division also enabled its staff to prepare plans and shape estimates of subordinate commands in the Central Pacific Area. Despite a trend to delegate authority in most areas, CINCPAC retained centralized control of most logistics planning.<sup>3</sup>

The centralization of the logistics planning functions in one place also enabled the development of a more mature logistics planning apparatus. For instance, separate sections focused on future plans and current plans. A third section, logistics plans, worked with lower-echelon commanders on logistics support plans for operations and served as a general-expertise clearinghouse upon which CINCPAC and CINCPAC subordinates could call. Finally, a fourth section collected, collated, and reported data. This final section completed the full logistics loop in the Pacific, as the collection of data could then be used as a basis for requirements, procurement, and distribution.<sup>4</sup> With a robust planning staff and process to support him, Nimitz could better estimate future requirements.

As the war in the Pacific shifted to the offensive, Nimitz found that he and his commanders needed more flexible logistics support in addition to large, permanent advance bases. The vast increase in numbers of aircraft and aircraft carriers reduced the Navy's prewar need for land-based facilities for airpower; Nimitz would seek similarly mobile solutions to his logistical problems. Established under the Service Force in the Pacific, the service squadrons provided mobile logistics support, rather than relying on the inadequate ports and hastily constructed advance bases forced upon Turner for use during the Guadalcanal campaign.

Service Squadron 8, established earlier in the war, had administrative control of the new squadrons. Service Squadron 4 went into operation at Funafati in November 1943, while Service Squadron 10 formed at Pearl Harbor, enabled by the sheer number of ships produced in American

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3 Commander in Chief, U.S. Pacific Fleet, "Commander in Chief, United States Pacific Fleet and Pacific Ocean Areas, Command History," 200–208.

4 Commander in Chief, U.S. Pacific Fleet, "Commander in Chief, United States Pacific Fleet and Pacific Ocean Areas, Command History," 210–213.

shipyards. The number of fleet support ships had grown from 124 after Pearl Harbor to 282 by April 1943, with cargo/transport ships expanding almost fourfold, from 72 to 257.<sup>5</sup> These mobile squadrons performed advance base functions, including replenishment, tending, and repair. Service Squadron 12, formed in early 1944, allowed the Navy to establish improvised ports at undeveloped anchorages, such as Ulithi and Majuro Atolls. Service Squadron 6, commissioned in December 1944 and equipped with fast, steam turbine-powered auxiliaries, kept pace with the fleet to provide at-sea replenishment.<sup>6</sup>

The service squadrons represented an innovative and flexible approach to the logistics problems in the Pacific, but they themselves suffered from the fact that the Navy had never operated so far forward with so many ships. In other words, officials could not identify the underlying requirements nor could they tender accurate estimates on what would be needed. For instance, Service Squadron 10 started with 2 destroyer tenders and 2 repair ships; by mid-1945, it counted 9 destroyer tenders and 17 repair ships as the Navy attempted to solve the requirements problem by simply assigning more ships.<sup>7</sup>

Beyond shortfalls in overall estimates, the service squadrons also faced shortages of yard craft and utility boats. The service squadrons needed a plethora of smaller craft—landing craft, for both vehicles and personnel; flat-bottomed barges for machinery; and so on—to shuttle supplies and equipment from ship to shore and between ships. The service squadrons also had responsibility for supplying these kinds of vessels during maintenance and resupply of operating forces in port, as combatant warships carried few boats given the space needed for more pressing considerations, such as fire control systems and massed batteries of anti-aircraft defenses. The end result, as one postwar study noted, was that “boats were among the scarcest items in the Central Pacific,” which was one reason the Navy fielded 18 small boat and gasoline engine repair ships by the end of the

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5 *Ships Data Book, 1943*. Navy Department Library, Naval History and Heritage Command, Washington, DC.

6 Worrall Reed Carter, *Beans, Bullets, and Black Oil: The Story of Fleet Logistics Afloat in the Pacific during World War II* (Washington, DC: Navy Department, 1953), 9–10, 90–112, 355–68; Ballantine, *U.S. Naval Logistics*, 175–80.

7 Carter, *Beans, Bullets, and Black Oil*, 96.

war.<sup>8</sup> The scope and scale of the problem made it “one of the most trying problems that plagued the service squadron commander; it continued to do so all the way across the Pacific.” Ultimately, the war ended before production could match demand.<sup>9</sup>

Other shifts took place in theater to shape logistics to circumstances. Before the war, the Navy had planned on deploying functional advance base packages to the Pacific. Large advance bases intended for broad support were known as Lions, and their smaller counterparts as Cubs. Oaks and Acorns filled similar functions for aircraft support. The base packages included all the equipment and personnel needed for construction and operation. In practice, however, as seen during the Guadalcanal campaign, commanders stripped what they needed from the base packages, defeating the purpose of a self-contained base unit. To a large extent, this stemmed from a “lack of adequate peacetime experience in parts-breakage” combined with an overall production focus on whole items rather than spare constituent elements. In other words, the only place commanders could obtain spare parts was by plundering the advance base packages, which tended to leave random collections of un-inventoried parts scattered about in theater.<sup>10</sup>

Once it became clear the concept of base packages failed to address needs and circumstances in theater, the Base Maintenance Division within OPNAV compiled and issued a “Catalogue of Advance Base Functional Components” in March 1943. The catalogue offered a list of components or units that could be requested; historian and naval officer Duncan S. Ballantine wrote that “they represented the sum of individual units constituting a major base but they could be selected individually, combined, and regrouped with relative ease so that advance base assemblies could

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8 *Ships Data Book, 1945*. Navy Department Library, Naval History and Heritage Command, Washington, DC.

9 Carter, *Beans, Bullets, and Black Oil*, 147. For more on the global crisis in assault shipping supply that began in 1943—and never truly abated—see Robert W. Coakley and Richard M. Leighton, *Global Logistics and Strategy, 1943–1945* (Washington, DC: Center of Military History, 1968), 246–70, 594–618; Ballantine, *U.S. Naval Logistics*, 263–73; and Office of the Chief of Naval Operations, “Shipping in Naval Logistics: The History of the Naval Transportation Service,” *Naval Administrative Histories of World War II*, 333–51, Navy Department Library.

10 For examples in the New Hebrides and the Solomon Islands, see memorandum for Vice Admiral Horne, 6 November 1942, Folder 6, Box 13, Richmond K. Turner Papers, NHHC.

henceforth be tailored fairly exactly to the varied and changing requirements of the theaters.”<sup>11</sup>

Additional supporting contributions to logistics solutions in theater were changes at headquarters. In September 1942, the Navy hired the consultancy firm Booz, Allen, and Hamilton to evaluate naval administration. The company endorsed the reform of logistics planning within the Navy, among other suggestions. Booz, Allen, and Hamilton found “there has been no central control of logistics planning and good coordination of logistics agencies all the way down to the material and service bureaus was next to impossible.”<sup>12</sup> Accordingly, the company recommended that OPNAV establish a logistics plans division that could work with strategic planners and those charged with material production. This suggestion resulted in the creation of the Logistics Plans Division within OPNAV. It took time, however, for the new division to find its footing and when the war ended, staff had not yet completely regularized how they collected and systemized information to make informed estimates and plans.<sup>13</sup>

Complementing organizational changes within OPNAV were other beneficial developments at Navy headquarters. Within the Office of Procurement and Material, the Planning and Statistical Branch tried to amass enough data to provide informed estimates. The Statistical Section within OPNAV had only been formed in 1940, and even then, it had been staffed by one Navy officer, two civilian employees, and three clerks. It was no wonder that people complained “that the Navy’s data was inaccurate, incomplete, and sometimes inconsistent.” The branch was later moved to the Secretary of the Navy’s supervision, grew to more than 230 personnel, and by mid-1943 was operating smoothly. The Statistical Section represented the awareness in the Navy, at all levels, to capture data so that feedback loops could be completed. Better data collection in theater led to better data estimates, which in turn fed into better planning, procurement,

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11 Commander in Chief, U.S. Pacific Fleet, “Commander in Chief, United States Pacific Fleet and Pacific Ocean Areas, Command History,” 274–75; Ballantine, *U.S. Naval Logistics*, 110–14; Furer, *Administration of the Navy Department in World War II*, 707–709.

12 Booz, Allen, and Hamilton quoted in Ballantine, *U.S. Naval Logistics*, 107.

13 Ballantine, *U.S. Naval Logistics*, 107–10, 139–44.





At Manus Island, Papua New Guinea, USS *Claxton* (DD-571) enters floating dry dock ABSD-2 in December 1944 for repairs. To *Claxton's* starboard is *Canberra* (CA-70). Kamikazes had damaged both ships. *Killen* (DD-593) appears in the center background, as well as a number of transports. By late 1944, the Navy's logistics apparatus had developed to provide mobile sustainment for naval forces, including the ability to complete repairs far forward, such as seen in this photograph. (NHHC, 80-G-359488)

and supply, though there were limits to what typewriters, index cards, and message traffic could manage.<sup>14</sup>

What had dawned, by the end of the war, was the fact that “the naval commander must be indoctrinated in the problems of providing as well as making use of the means of warfare.” Put even more simply: “logistics is part of the exercise of command.”<sup>15</sup> While the Navy had not created a smooth logistics continuum from the statement of requirements to production to distribution—rather, the problem had been solved by brute force by generating as many ships, aircraft, and mountains of supplies as possible—Navy planners realized they would need to do better in the future. The lack of data, plans, and institutional bodies had all inhibited planning before the war, and there was no immediate resolution.<sup>16</sup>

As historian Ballantine wrote, “The most that could be accomplished in logistic planning during the war was general guidance by the Chief of Naval Operations over the programs and bureaus and a kind of crystal-gazing guesswork as to the prospective outlines of the strategic situation. Given a surplus of resources and the remarkable productivity of our industrial system, this much planning proved to be adequate.”<sup>17</sup> Without an adequate understanding of what great power competition would entail, the Navy had too few officers trained in logistics. This, coupled with the realization that logistics problems needed planning ahead of time, forced the Navy to realize it needed qualified people to work those plans. Thus, the Navy finally understood that line officers should have competency in the subject. One official Navy history emphasized the point: “the most important logistics lesson to be learned from World War II is that sound logistic planning and effective implementation and execution of the plans depends primarily on the competence of the human element engagement in such activities.”<sup>18</sup>

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14 Robert H. Connery, *The Navy and Industrial Mobilization in World War II* (Princeton, NJ: Princeton University Press, 1951), 130–32, 179–99.

15 Ballantine, *U.S. Naval Logistics*, 295.

16 One place where the Navy did have at least some prewar statistics was aircraft operational loss rates at sea. This led to spares sent to sea with the squadrons, as well as the concept of “flying deck cruisers” (a role ultimately filled by escort carriers), to deliver reinforcement squadrons as a form of underway replenishment.

17 Ballantine, *U.S. Naval Logistics*, 291.

18 Furer, *Administration of the Navy Department in World War II*, 736.

**QUESTIONS:**

1. The U.S. Navy faced a problem with estimates during World War II because it did not have adequate data. Does the Navy today have adequate information on current requirements? Will the Navy have adequate requirements data in a great power war?
2. Industrial capacity provided a surplus of supply for the U.S. Navy to learn logistics during World War II. Does that same cushion exist today? If not, what can be done to mitigate?
3. How can one compensate for unforeseen eventualities, like the enemy sinking cargo ships, poor base infrastructure, or lack of adequate boat capacity in the Pacific during World War II?



# 7

## LEARNING THE LOGISTICS LESSONS OF WORLD WAR II

Even before World War II ended, the Navy took stock of the lessons learned and thought about how to prepare for the next war. Leadership acknowledged that an underdeveloped logistics apparatus had hurt the war effort. Going into the conflict, officials had not tied operations and logistics together, resulting in a situation where the Navy had to reallocate human capital to create new organizational structures while fighting a war. Concurrently, the Navy also learned that it needed to collect and analyze data in order to optimize effectiveness. Prewar underdevelopment in both of these areas had resulted in higher costs for the Navy, in terms of resources misapplied and material and manpower wasted. Fortunately for the Navy, production capacity in the United States during the war compensated for some of these shortcomings. As personnel implemented new logistics practices during the war, they also realized that they needed to codify lessons learned.

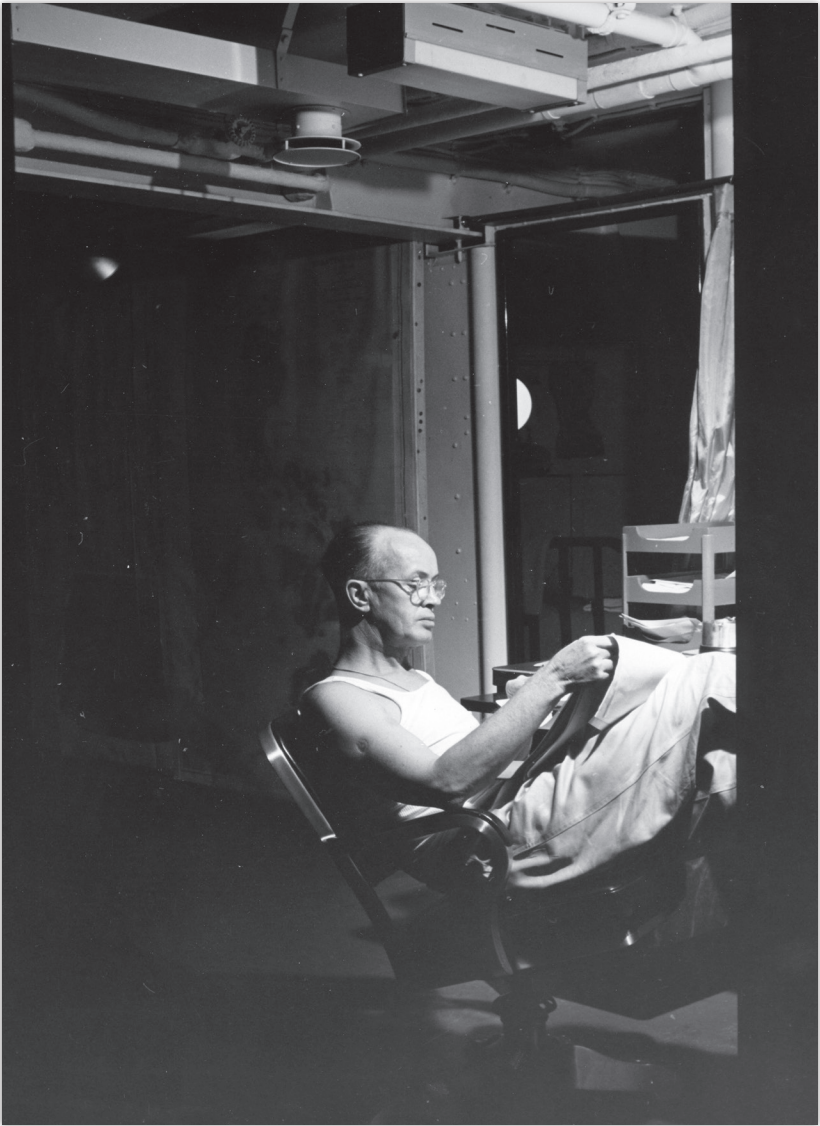
In order to ensure that “logistics” as a concept and practice remained central to the postwar Navy, leadership undertook several interrelated measures: they created the Deputy Chief of Naval Operations (DCNO) (Logistics) and the corresponding staff director (OP-04) in the Office of the Chief of Naval Operations. With a resource sponsor at that level, the Navy’s logistics plans and programs would have a steady and persistent patron. Closely interrelated, OP-04 worked with the CNO to establish an invigorated logistics course at the Naval War College. These two steps also reveal the importance the Navy placed on logistics in the immediate postwar period, as well as its attempts to institutionalize the lessons learned during World War II.

As World War II drew to a close, the Navy understood that it would face a new global role, an evolution that advanced in fits and starts. Whatever shape the postwar world took, it inevitably would involve Navy commitments around the globe, mirroring the greater role the United States had assumed with programs such as the United Nations, the Marshall Plan, and the North Atlantic Treaty Organization. Great power competition with the Soviet Union loomed and NSC 68, a guiding National Security Council policy paper, solidified U.S. strategy for the early decades of the Cold War. Although NSC 68 came in 1950, changes had already been underway to meet the postwar challenges and optimize the Navy for the next conflict. Secretary of the Navy James Forrestal directed a reorganization of OPNAV, including the establishment of new functional and weapons directorates. This reorganization created OP-04, headed by the new three-star billet of DCNO (Logistics).<sup>1</sup>

The new DCNO (Logistics), Robert B. Carney, was a wise choice. A 1916 Academy graduate, Carney had helped establish and plan U.S. antisubmarine patrols at Queenstown, Ireland, during World War I. As noted above in chapter 2, immediately prior to World War II, Carney aided Rear Admiral Arthur L. Bristol with the Iceland base. After his time in the Atlantic in World War II, Carney commanded *Denver* (CL-58) in the Pacific before serving as chief of staff for Admiral William F. Halsey with the Third Fleet. Equally as important as his experience was Carney's personal approach. Before World War II, Carney had been shocked to hear from Admiral James O. Richardson, then the Commander in Chief, U.S. Fleet, that "war with Japan was inevitable" and "that the Navy was not ready for war." Carney understood the truth of what Richardson said and vowed to "throw out every previous professional belief and make a new thinking—start from scratch. No matter what the conventional wisdom

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1 Paul H. Nitze and S. Nelson Drew, eds., *NSC-68: Forging the Strategy of Containment* (Washington, DC: National Defense University, 1994); Hone and Utz, *History of the Office of the Chief of Naval Operations, 1915–2015*, 187–99. See also Jeffrey G. Barlow, *From Hot War to Cold: The U.S. Navy and National Security Affairs, 1945–1955* (Stanford, CA: Stanford University Press, 2009), 1–117; Michael A. Palmer, *Origins of the Maritime Strategy: American Naval Strategy in the First Postwar Decade* (Washington, DC: Naval Historical Center, 1988).



Rear Admiral Robert B. Carney, then aide and chief of staff to Admiral William F. Halsey, at work in 1944 aboard the flagship *New Jersey* (BB-62) as it heads for the Philippines. Carney gained experience and broad competency with naval operations in both the Atlantic and Pacific Theaters during World War II. These factors made him an attractive choice to become the first Deputy Chief of Naval Operations (DCNO)—Logistics (OP-04) because he brought both operational and staff perspectives to logistics and logistics planning within the Office of the Chief of Naval Operations. (NHHHC, UA 525.01)

held on any given subject, I would challenge it, disregard it, and make my own evaluation.”<sup>2</sup> These experiences and free-thinking outlook were well-suited for a leader who would set the tone for OP-04.

Carney had, in fact, been selected for these qualities. CNO Chester Nimitz had initially sought to put an engineer or technical specialist into the DCNO (Logistics) billet. A well-placed friend of Carney, Rear Admiral Richard Connolly, convinced Nimitz otherwise. Rather than a technical specialist, the head of the Navy’s logistics sponsor would need to be someone with a wide knowledge of the Navy’s global operations and vast experience in both command and staff roles. When approached by Connolly, Carney responded favorably. He later recalled, “Connolly’s basic argument appealed very strongly to me—that there was no such thing as a broad logistics competence in the Navy, and that someone who had been lucky enough to have served with almost all types of forces throughout the conduct of the war might find that there was a real job, and a hell of a job, to be done in that field.”<sup>3</sup>

Once in the position, Carney saw it as his job to ensure that the Navy understood the importance of logistics. As he put it, he was “to convince the rest of the Navy that this was something that was an essential part of our trade, and not something to be shunned like the devil shuns holy water.” Carney found a willing partner at the Naval War College, Admiral Raymond Spruance, who had arrived in March 1946 to serve as its president. Spruance, like Carney, grasped the importance of logistics and understood that the prewar Navy had neglected its study. Like Carney, Spruance had extensive World War II experience with advance basing, mobile fleet support, and mobile sustainment. He understood, as well, the importance of tying together operations plans with logistics plans. Spruance reintroduced a logistics course, which Carney saw as a means to his ends. The War College would not only educate naval officers about the importance of logistics, but such a course could serve as a consolidation

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2 Robert B. Carney to Edward F. Welch Jr., 12 August 1980, “The Barometer,” *Naval War College Review* 33, no. 5 (September–October 1980), 82–83; Carney, *The Reminiscences of Robert Bostwick Carney*, 235–37; Schratz, “Robert Bostwick Carney,” in *The Chiefs of Naval Operations*, 243–44.

3 Carney, *Reminiscences of Robert Bostwick Carney*, 486–87, 489.



mechanism of experience and drive future research. Accordingly, Carney funneled money to support the expansion of classroom space for the new logistics course.<sup>4</sup>

Carney's lectures for the early logistics course and elsewhere, as well as those of Vice Admiral Francis S. Low, his OP-04 successor, provide a window into how senior leadership assessed the Navy's war effort during World War II as it related to logistics. In a number of speeches, Carney played the role of logistics evangelist, speaking of the importance of the field and the necessity for OP-04. Carney emphasized to students that the field of logistics carried equal weight with the fields of tactics and strategy. In his somewhat exaggerated view, during the interwar years, the Navy "focused on the wrong area, with a vast amount of study devoted to the tactical lessons learned from the 1916 Battle of Jutland." As Carney put it, "Our attention was so sharply focused on that engagement that we became entirely too tactically-minded in our thinking; to be assigned to study or planning of vulgar logistics carried stigma with it." In his view, the Navy, hyper-focused on an operational battle, had lost sight of the bigger picture, not realizing that a future war could be a years-long multi-front global conflict. Carney also noted, "We were wholly unprepared materially and spiritually for a long-drawn-out struggle." Despite the Navy having a strong strategic concept about war with Japan, Carney observed that only "a few people grasped the logistical implications of the strategic concept, but in spite of that there was little effective preparation in the form of accumulations of material, nor, and this is most important, the establishment of real working planning agencies."<sup>5</sup> Thus did Carney give

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4 Hal M. Friedman, "The Quiet Warrior Back in Newport: Admiral Spruance, the Return to the Naval War College, and the Lessons of the Pacific War, 1946–1947," *Naval War College Review* 64, no. 2 (Spring 2011), 117, 120–22; Carney, *Reminiscences of Robert Bostwick Carney*, 495; John B. Hattendorf, B. Mitchell Simpson III, and John R. Wadleigh, *Sailors and Scholars: The Centennial History of the U.S. Naval War College* (Newport, RI: Naval War College Press, 1985), 184–87.

5 Robert B. Carney, "Address" before the Armed Forces Staff College, Norfolk, Virginia, 19 February 1948," 21–22, in Robert B. Carney Papers, Pre-CNO 1948, Folder 1, Box 7, Robert B. Carney Papers, NHHC; and Robert B. Carney, "Address," delivered at Naval War College, 12 July 1947, 1, 5, Folder 7, Box 2, RG-16 U.S. Naval War College Addresses, Naval War College Archives, Newport, RI. Accessed online at usnwcarchives.org.

his view on some of the logistics shortfalls of World War II, as well as the need for his new organization within OPNAV.

Carney also told his audience that everyone in the Navy needed to know logistics. In Carney's conceptualization, logistics fell into three distinct phases: requirement(s), procurement, and distribution. For Carney, "Only those who are responsible for the result of combat operations can state requirements. Therefore, the Line must be the fountainhead of the Logistics efforts." After the line had provided its requirements, staff corps activities at the Bureau of Ships, Aeronautics, or Ordnance would then take on the task of procurement and some aspects of distribution. Distribution in theater would be a responsibility shared by both the staff and line. Needless to say, Carney's concept here drew deeply on how the Navy had functioned in World War II, especially since line officers in those days were expected to do tours at the bureaus and knew it would not impact their careers.<sup>6</sup>

Carney's postwar proselytizing ensured that the Navy recalled these lessons and transmitted them to future generations. He clearly feared a return to the prewar days, where officers remained myopically focused on strategy and tactics while neglecting the symbiotic relationship between operational and logistics plans. For these reasons, Carney emphasized repeatedly that "logistics is an all-hands maneuver in which each component plays a vital and important part" and that "it is an all-hands maneuver—line and staff—soldier, sailor, and flyer—military and civilian. Every rank will encounter it in some degree."<sup>7</sup>

Low, Carney's successor as OP-04, continued to emphasize many of the same points as Carney. In a speech to logistics course students at the War College, Low remarked that "strategic and logistic planning must be integrated and concurrent." As with Carney, Low also pointed out to his students that World War II resulted in a massive amount of data that future planners could use. Before the war, the Navy did not have enough "yardsticks or experience-factor tools, such as 'how many back-up air-

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6 Carney, "Address," 12 July 1947, 6, 7, Naval War College Archives.

7 Robert B. Carney, "Logistical Planning for War" (lecture, U.S. Naval War College, 11 August 1948), 11–12, 23, Folder 3, Box 7, Robert B. Carney Papers NHHC.



Vice Admiral Francis S. Low succeeded Vice Admiral Carney as DCNO (Logistics). Like Carney, Low had wide experience across his naval career, having served as operations officer to Admiral Ernest King, chief of staff for Tenth Fleet, Commander Cruiser Division 16, Commander Destroyers Pacific Fleet, and Commander Service Force Pacific Fleet. As with Carney, Low recognized the importance of logistics for all officers and continued Carney's efforts to spread the message. (NHHHC, 80-G-302311)

planes are required to keep one in combat,' and 'how many tons per month of shipping are required to support one man overseas,' and many other planning factors of this nature."<sup>8</sup> In essence, Low argued that prior to World War II, the Navy neither grasped the importance of concurrent operations and complex logistics plans nor possessed a data set from which it could create an empirical logistics plan. Low's presence at the War College, presenting much the same message as his predecessor, also indicated that the institutionalization of these concepts had begun. Successive

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8 Francis S. Low, "Logistic Planning in a Global War" (lecture, U.S. Naval War College, 3 April 1951), 2, 4 Folder 48, Box 15, RG-15 Guest Lectures, U.S. Naval War College Archives, Newport, RI. Accessed online at [usnwcarchives.org](http://usnwcarchives.org).

DCNOs (Logistics) trumpeting similar themes indicated durability and longevity.

The matter of “experience-factor tools” loomed large for Low and Carney as they thought that World War II had resulted in a massive waste of national resources. Low noted that by the end of World War II, “nearly half of all material procured by Military Departments was still in the ‘pipeline’ and never used in combat.” Another officer reckoned that during the war, the United States manufactured 21 million tons of ammunition, of which only 10.5 million tons went overseas and of that amount, only 4 million was expended at the enemy. Aware that this level of production might not be available in the future, Carney and Low both advocated for improvements in planning methods, data collection, and data analysis.<sup>9</sup> As the use of the facts and figures attested, the Navy had begun the process of analyzing the data it had amassed during World War II and using that information as the basis for future plans. Other officers at the Naval War College lectured on the need for “a very large amount of statistical data to be furnished to the planner” as well as “careful thought in establishing and maintaining proper records.”<sup>10</sup>

The creation of OP-04, DCNO (Logistics), and the logistics course at the Naval War College represented only the bow wave of a postwar emphasis on logistics. For the first time, the Navy printed doctrine on logistics. Captain Marcy M. Dupre, a veteran of the Pacific with experience in both plans and advance basing, prepared the 1949 *Naval Logistics Manual* (NAVPERS 10861), which considered national-level logistics. Captain H. E. Eccles of the Naval War College logistics course penned a companion volume that same year, *Operational Naval Logistics* (NAVPERS 10869). Additional works on the subject appeared in unofficial, but closely adjacent, navy channels, including the personal writings of Eccles printed through a publisher who specialized in professional military education.

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9 Low, “Logistic Planning in a Global War,” 13; Kent D. Algire, “Major Logistics Lessons of World War II,” *Naval War College Information Service for Officers* [later *Naval War College Review*] 3, no. 6 (February 1951), 42. For more on the use of scientific methods to analyze logistics data, see “A Message from Rear Admiral F. R. Furth,” *Naval Research Logistics Quarterly* 1, no. 1 (March 1954).

10 John M. Sweeney, “Logistics,” *Naval War College Information Service for Officers* 4, no. 6 (February 1952), 39.

Additional titles included *Naval Logistics* by Vice Admiral George C. Dyer, published with the Naval Institute Press in 1960.<sup>11</sup> The increased emphasis on logistics within the core establishment led to an effort to produce better “experience-factor tools.” As part of this effort, the Office of Naval Research established a professional publication devoted entirely to logistics. Rear Admiral F. R. Furth, Chief of Naval Research, wrote that the new journal would “create a medium through which scientists can acquaint themselves with the problems of operational logistics, and through which the operating naval officers will be informed about the latest results and techniques devised by the scientists.”<sup>12</sup>

The speeches and writing of Navy leaders immediately after World War II, as well as their actions to create a permanent stakeholder for logistics in OPNAV, trend toward an understanding of the lessons that the Navy learned from the war in the Pacific. Simply put, the Navy learned it had to link operational plans and logistics plans tightly. Carney, Low, and others believed that logistics was an all-hands evolution across echelons, with the Navy collecting the “experience-factor tools” to increase efficiency and drive better planning. Senior leaders such as Carney thought that neglect of these areas hurt the Navy during World War II. In a future global conflict, the United States might not enjoy a production cushion as large as it had during World War II, so they sought to institutionalize those lessons. OP-04 represented one avenue of institutionalization, as did the Naval War College.

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11 Henry R. Eccles, *Logistics in the National Defense* (Harrisburg, PA: Stackpole Company, 1959); George C. Dyer, *Naval Logistics* (Annapolis, MD: Naval Institute Press, 1960).

12 “A Message from Rear Admiral F. R. Furth,” *Naval Research Logistics Quarterly* 1, no. 1 (March 1954).

**QUESTIONS:**

1. What was the most important logistics lesson learned during World War II? Why?
2. Does the United States today have the same logistics margin of error that it did during World War II? Does that change any of the lessons learned?
3. What does the creation of OP-04 demonstrate about learning, organizational change, and time? Was it an appropriate reorganization?

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