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中国海事研究所  
China Maritime Studies Institute

October 2024

China Maritime Report No. 42

# Invasion Plans

Operation Causeway and Taiwan's Defense in World War II

Ian Easton



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## Main Findings

- During World War II, the United States and the Empire of Japan each developed plans and marshaled forces for a climactic battle over Taiwan. Both sides regarded the island as an area of strategic consequence.
- Code-named Operation CAUSEWAY, the American invasion of Taiwan would have been the largest amphibious campaign in the Pacific Theater and the largest sea-air-land engagement in world history.
- Strategists in Japan believed the attack was coming and designed a blueprint for the defense of Taiwan and the Ryukyu Islands called SHO-GO 2 (捷 2 号作戦, or “Operation Victory No. 2”), which envisioned a bloody campaign of annihilation.
- Japanese camouflage, concealment, and deception efforts in Taiwan were effective at hiding many capabilities from American intelligence.
- In recent years, Taiwanese military officers have drawn lessons from Taiwan’s wartime history to improve their defense plans. They highlight the need to stockpile, update beach defenses, mobilize whole-of-society support, expand underground bunker complexes, and prepare for a long fight and layered defense campaign.
- One important lesson of this history for the U.S. Navy and Joint Force is that deterrence worked before. It can work again. Under certain circumstances, the United States and Taiwan may be capable of preventing a PRC invasion of the island. But a tremendous amount of hard work will be needed to realize that goal.
- By revisiting the history of Taiwan-focused war plans, we may better assess current challenges and develop insights that could inform future strategic, operational, and tactical decisions.

## Introduction

This report is about Operation CAUSEWAY, the American plan to invade Taiwan during World War II. Taiwan—then called Formosa—had been a Japanese colony since 1895, and its capture was part of the U.S. strategy to win the war in the Pacific.<sup>1</sup> Ultimately, the invasion was aborted and related documents were sealed in classified vaults or burned to maintain secrecy. Uncertainties have long surrounded how Imperial Japanese forces on Taiwan deterred a much-stronger U.S. military, and what planners at the time believed would happen had the operation taken place. This report is based on declassified documents from the war, including U.S. military plans, dispatches, and intelligence estimates. It also draws from Taiwanese military studies and history books on Japan’s preparations to defend the island. Together, these sources provide a picture of events as they occurred on both sides. What lessons might the past have to teach warfighters in the present day about the future of conflict?

This report examines the enormous planned operation and discusses what experts at the time believed was going to happen. Understanding how the operation was envisioned could provide insights of contemporary relevance, including a better appreciation of the challenges facing war planners in both the People’s Republic of China (PRC, China) and the Republic of China (ROC, Taiwan), and new perspectives on how each side may seek to solve the operational problems they face. By exploring the factors American admirals and generals took into consideration, and examining how they were

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<sup>1</sup> Except when they appear in direct quotes, this report will refer to historic locations using their modern place names. For example, Takao will be called Kaohsiung, and the Pescadores (or Boko-Retto) will be called the Penghu Islands. A table is provided as an annex, which shows what each location in the report was called during World War II. All previously classified materials that appear in this report have already been formally declassified by the U.S. government.

ultimately persuaded by a weaker enemy not to capture the island, valuable lessons might be acquired that could inform current policy debates in Washington, Tokyo, and Taipei.

This report draws from archival materials and military studies on how the amphibious assault was planned and how the island was fortified and defended in the last years of World War II. While rarely acknowledged, the Imperial Japanese military experience on Taiwan had an outsized impact on the ROC military. Upon arriving to the island, Chiang Kai-shek and his army inherited Japanese plans for Taiwan's defense, along with deep stockpiles of equipment and a vast network of underground infrastructure. Japan's wartime history continues to influence Taiwan's defense strategy, albeit indirectly. As we will see, Taiwanese officers have sought to extract lessons from the past as they consider how to enhance plans for the future.<sup>2</sup>

The report is organized into six sections. Part one covers Taiwan's early role in U.S. war plans. Part two discusses the history, development, and key features of Operation CAUSEWAY. Part three examines Japanese plans and preparations for the defense of Taiwan. Part four considers what might have happened had the invasion gone forward according to how each side envisioned it. Part five describes the contemporary views of Taiwanese experts and analyzes the related implications for Taiwan's evolving defense strategy. The report concludes with a brief discussion on potential points of consideration for the U.S. Navy and the Joint Force.

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<sup>2</sup> Military studies on Operation CAUSEWAY were not available from PRC sources at the time of this research. This seems peculiar given China's intense focus on Taiwan and the PLA's extensive literature on other aspects of the Pacific War. See Toshi Yoshihara, *Chinese Lessons from the Pacific War: Implications for PLA Warfighting* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2023). The author would like to acknowledge and thank Toshi Yoshihara and Conor Kennedy for their help canvassing available Chinese sources.



Figure 1: Taiwan's Major Cities, Rivers, and Surrounding Islands.<sup>3</sup>

<sup>3</sup> Central Intelligence Agency, "Country Map - Taiwan," *The World Factbook*, <https://www.cia.gov/the-world-factbook/countries/taiwan/>.

## Part 1: Taiwan's Early Role in U.S. War Plans

In the opening years of the 20<sup>th</sup> century, as the naval rivalry between the Empire of Japan and the United States intensified, American strategists began observing an extensive Japanese military buildup on Taiwan that appeared to signal preparations to use the island as a springboard for offensive operations against the Philippines.<sup>4</sup> After a series of wargames conducted at the Naval War College in Newport, Rhode Island, the U.S. military developed plans for defending the Philippines and launching a counteroffensive across the western Pacific. Some of these plans considered the role that Taiwan and nearby islands might play in such a conflict and weighed the option of seizing them if war came.

### *War Plan Orange*

After years of study and debate, amphibious operations in the Taiwan Strait were incorporated into War Plan Orange, the joint Army-Navy strategy to defeat Japan.<sup>5</sup> The Joint Planning Committee's 1928 "Full War Scenario" envisioned a step-by-step island landing campaign across the Pacific that culminated in decisive air and naval battles near Japan. The plan called for invading and occupying the Penghu Islands, then a major Japanese naval bastion in the Taiwan Strait, and estimated 16,000 marines and 24,000 soldiers would be required for the operation.<sup>6</sup> According to the plan, three months after the assault on the Penghu Islands, northern Taiwan would be invaded by 30,000 marines and 60,000 soldiers. Their mission would be to seize the strategic port city of Keelung and use it as a staging area for further amphibious operations against Okinawa and other islands closer to Tokyo.<sup>7</sup>

It was not universally accepted by American war planners that these operations were feasible. Most senior officers in the U.S. military considered Taiwan to be an unappealing target due to its rough terrain and undeveloped harbors.<sup>8</sup> The authors of War Plan Orange were not in favor of a full-scale occupation of the island due to concerns that the effort would absorb a large army, and some held the opinion that a failed operation could lose the war.<sup>9</sup> In the 1930s, subsequent versions of War Plan Orange generally assumed that the Navy would isolate and bypass Taiwan altogether and focus on seizing Okinawa instead.<sup>10</sup>

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<sup>4</sup> James K. Erye, Jr., "Formosa, Japan's Southern Naval Bastion," *Proceedings*, March 1943, <https://www.usni.org/magazines/proceedings/1943/march>.

<sup>5</sup> Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan 1897-1945* (Annapolis, Maryland: Naval Institute Press, 1991), pp. 155-156.

<sup>6</sup> "Blue – Orange Joint Estimate of the Situation: And Joint Army and Navy War Plan – Orange," *Joint Planning Committee*, January 9, 1928, p. 81, accessed in the Edward S. Miller Collection of Materials Relating to War Plan Orange, Naval Historical Collection, United States Naval War College, Newport, Rhode Island.

<sup>7</sup> *Ibid.*

<sup>8</sup> Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan 1897-1945*, p. 362.

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

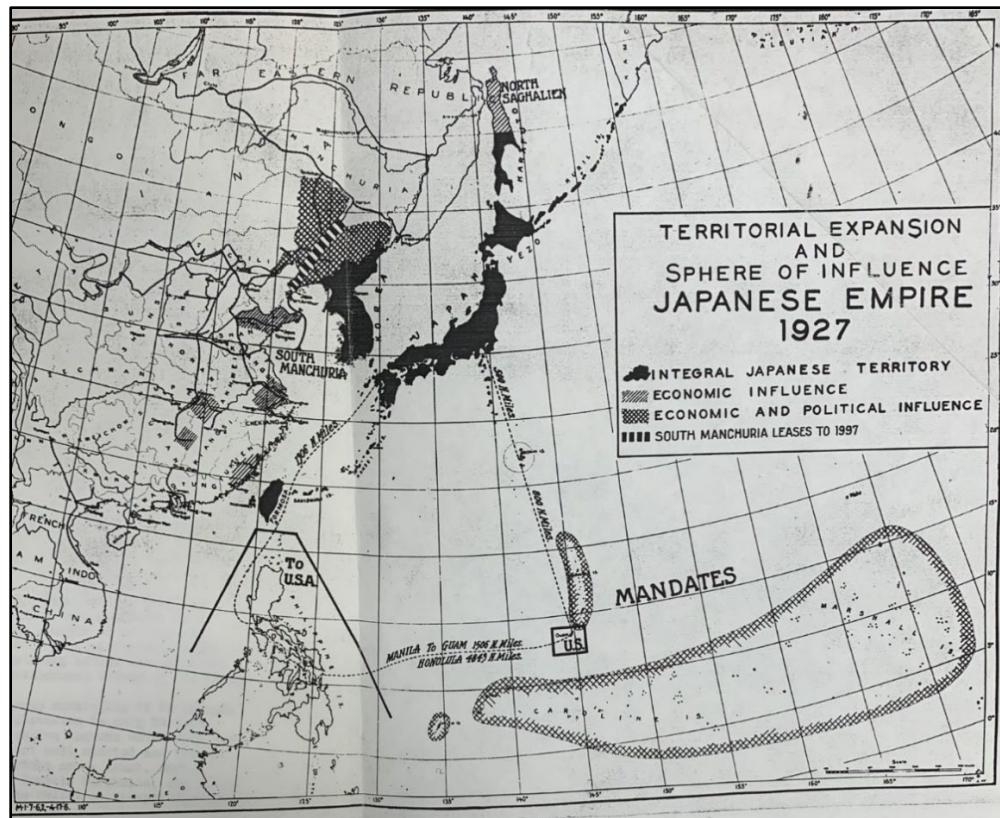


Figure 2: U.S. Military Map of Japanese Empire, 1927.<sup>11</sup>

By 1941, the Joint Army and Navy Basic War Plan—the Rainbow 5 Plan—had superseded War Plan Orange. It correctly predicted that the American strategy in a future war would prioritize fighting Germany, the leader of the Axis Powers. The Rainbow 5 Plan envisioned a delaying action in the Pacific theater and a possible retreat from the Philippines. It stated, “the Atlantic and European area is considered to be the decisive theater...If Japan does enter the war, the United States will operate on the strategic defensive in the Pacific.”<sup>12</sup> While some officers assumed Imperial Japanese targets on Taiwan might be bombed in the course of a future conflict, a minimalistic approach was taken toward intelligence collection, and few details were known about Taiwan at the outbreak of war.<sup>13</sup>

<sup>11</sup> Edward S. Miller Collection of Materials Relating to War Plan Orange, Naval Historical Collection, United States Naval War College, Newport, Rhode Island.

<sup>12</sup> “War Department: Operations Plan Rainbow No. 5, 1941,” pp. 2-3, 10. available online at the Ike Skelton Combined Arms Research Library Digital Library, <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll8/id/4282/rec/2>; and in the Edward S. Miller Collection of Materials Relating to War Plan Orange, Naval Historical Collection, United States Naval War College, Newport, Rhode Island.

<sup>13</sup> George H. Kerr, *Formosa Betrayed* (Manchester, U.K.: Camphor Press, 2018 edition), p. 5.



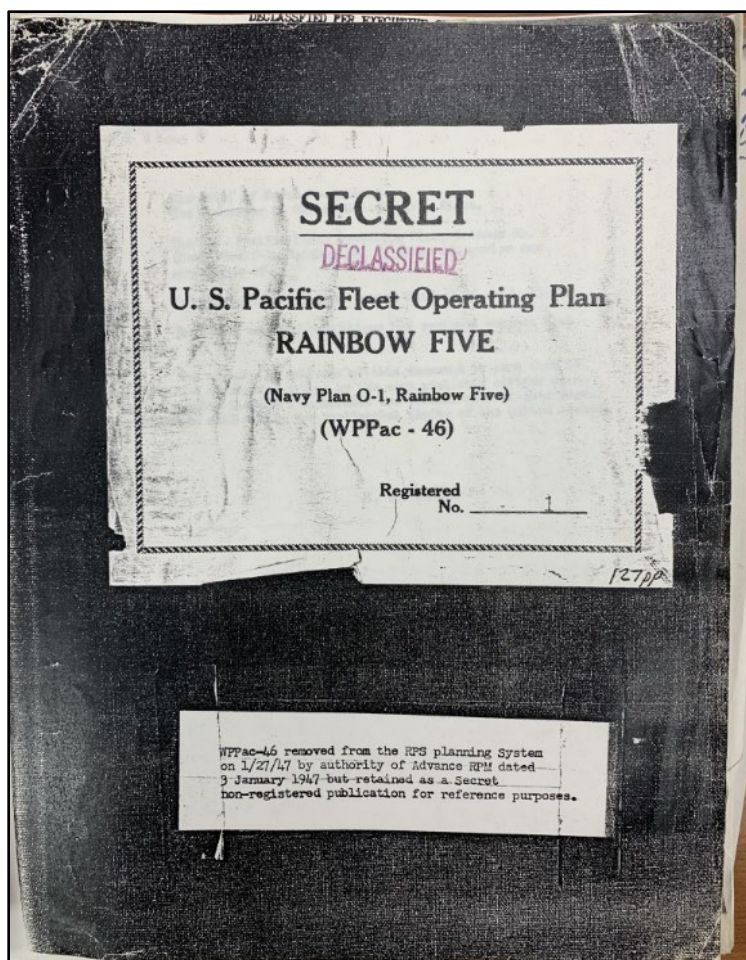


Figure 3: "Rainbow Five."<sup>14</sup>

### *Early Wartime Developments*

Within hours of the surprise attack on Pearl Harbor, Japanese forces launched strikes on points across southeast Asia from their air and naval bases in Taiwan. General Douglas MacArthur had one radar station on the northernmost tip of the Philippines that faced Taiwan, but it was not working when the attack arrived. Waves of Japanese bombers soon devastated his principal defenses, paving the way for the Japanese invasion of the Philippines and MacArthur's retreat to Australia.<sup>15</sup> In Washington, Taiwan specialists were assembled inside the Munitions Building, pending transfer to the Pentagon (which was then still under construction), and handed the military intelligence files concerning the island. According to one first-hand account, intelligence researchers were amazed to see how thin and outdated the files were.<sup>16</sup>

<sup>14</sup> Edward S. Miller Collection of Materials Relating to War Plan Orange, Naval Historical Collection, United States Naval War College, Newport, Rhode Island.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.



Across the months that followed, analysts extracted an astonishing volume of information from Japanese-language sources, and they eventually developed a clear picture of Taiwan's position of strategic importance to the Japanese Empire.<sup>17</sup> In July 1942, the War Department began exploring the occupation of Taiwan as part of an overall strategy to go on an island-hopping counter offensive against Japan. Intelligence experts were tasked with designing a psychological warfare program to exploit social and political tensions on the island in ways that might undermine Japanese authority and encourage the local Taiwanese people to assist the U.S. military with capturing and governing the island if an invasion took place.<sup>18</sup> Over the following year, fledgling plans to capture Taiwan began to grow in the minds of war planners, and briefings on the subject were prepared and delivered to policymakers.

In August 1943, at the Quadrant Conference in Quebec, President Franklin D. Roosevelt and Prime Minister Winston Churchill gathered with their Combined Chiefs of Staff to decide several key matters for the allied war effort, including whether or not to seize Taiwan. During a series of high-level meetings, the Allies discussed strategy and crafted an endgame for the war in the Pacific. Their deliberations resulted in the decision to invade Taiwan and a nearby port city such as Hong Kong to establish a secure network of air and naval bases for direct attacks on the Japanese home islands. They envisioned capturing and developing ports on both sides of the Taiwan Strait to ship fuel and munitions to B-29 bombers based in the area. They envisioned developing an enormous anchorage in the Taiwan Strait that could shelter the entire Pacific Fleet and the invasion forces destined for Japan's shores. And they envisioned supplying Chiang Kai-shek's forces, who were at that time locked in a grueling struggle against over a million Japanese troops in China.<sup>19</sup>

After Taiwan was captured, the Allies hoped to secure Tokyo's surrender through a strategic bombing and blockade campaign that would destroy the Japanese capacity to resist. Some cherished the hope that this would be the final campaign in the Pacific War. Nonetheless, they somberly noted, "It will probably culminate in the invasion of Japan."<sup>20</sup> If so, the Taiwan Strait was identified as an ideal location to assemble and launch the invasion forces. The Quadrant Conference's "Appreciation and Plan for the Defeat of Japan" concluded that a sustained air bombardment of Japan would be a necessary prelude to surrender.

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<sup>17</sup> Kerr, *Formosa Betrayed*, pp. 5-7. For details on Taiwan's strategic utility to Japan, see 鐘堅 [Chung Chien], 台灣航空決戰：美日二次大戰的第三者戰場 [The Decisive Air Battle over Taiwan: America and Japan Fight in World War II on a Third Party's Battlefield] (Taipei, Taiwan: Book Republic, 2020), pp. 27-107; 葉守逸 [Yeh Shou-yi], 1944 年日軍陣地編成之研析-以台灣為列 [Analyzing the Japanese Military's Fortifications in 1944—The Case of Taiwan], ROC Ministry of National Defense, Undated, pp. 1-23; 張佑菁 [Chang You-jing] and 朱栢鴻 [Chu Bai-hong], 以二戰時期提路計畫美日攻防探討國土防衛作戰可行性 ["Examining Homeland Defense Operations Through the Lens of U.S.-Japan Attack and Defense Plans Surrounding Operation CAUSEWAY in World War Two"], ROC Army Combat Engineer Journal, No. 158 (Spring 2021), pp. 1-23; and 張勝凱 [Chang Sheng-kai] and 曾陳祥 [Tseng Chen-hsiang], 從太平洋戰爭日本捷二號作戰計畫省思 ["Thoughts on Japan's Victory II Operational Plan During the Pacific War"], ROC Navy Bimonthly, Vol. 48, Issue 4 (August 2014), pp. 58-78.

<sup>18</sup> Kerr, *Formosa Betrayed*, pp. 7, 12-14.

<sup>19</sup> In July 1943, U.S. intelligence estimated that Japan had 750,000 troops in Manchuria, 390,000 in North China, 410,000 in Central China, and 85,000 in South China. See "Japanese Ground Forces Order of Battle Bulletins (7 April – 2 June 1945)," War Department (MID), Military Intelligence Service, p. 97, available online at the Ike Skelton Combined Arms Research Library Digital Library, <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll8/id/4078/rec/11>; and Quadrant Conference, August 1943: Papers and Minutes of Meetings (Washington, D.C.: Office of the Combined Chiefs of Staff, 1943), pp. 162-167, available online at Joint History Office of the Joint Chiefs of Staff, <https://www.jcs.mil/Portals/36/Documents/History/WWII/Quadrant3.pdf>.

<sup>20</sup> Quadrant Conference, August 1943: Papers and Minutes of Meetings, p. 167.

It stated, “we shall almost certainly require the use of China and/or Formosa as bases for our long-range bombardment. These two areas will also go a long way towards meeting our requirements for mounting invasion forces...We therefore require a sea route to China and/or Formosa.”<sup>21</sup>



Figure 4: Allied Leaders meet at Quadrant Conference.  
From left to right: Canadian Prime Minister Mackenzie King, United States President Franklin Roosevelt, British Prime Minister Winston Churchill.<sup>22</sup>

The planned campaign to drive across the Pacific and take command of the Taiwan Strait area became a prominent goalpost of American strategy. General MacArthur's return to the Philippines was viewed as a secondary and supporting campaign.<sup>23</sup> When discussing where landings would occur in the Philippines, the Combined Chiefs of Staff wrote, “Our choice should be made in the light of whichever course will most quickly achieve our object of reaching the China coast and/or capturing Formosa.”<sup>24</sup> They thought it might be possible to undertake a direct assault on Hong Kong before taking Taiwan, but acknowledged that the sequence of events could not be foreordained. “If the capture of Hong Kong is impracticable, we should endeavor to seize Formosa first, or, if this too is impracticable, Luzon.”<sup>25</sup>

<sup>21</sup> Ibid., pp. 162-163.

<sup>22</sup> “The Quebec Conference, August 1943,” *Imperial War Museum*, <https://www.iwm.org.uk/collections/item/object/205196623>.

<sup>23</sup> Winston S. Churchill, *The Second World War: Closing the Ring* (Cambridge, Massachusetts: Riverside Press, 1951), p. 87; and Ronald H. Spector, *Eagle Against the Sun: The American War with Japan* (New York: Vintage Books, 1985), pp. 418-420.

<sup>24</sup> *Quadrant Conference, August 1943: Papers and Minutes of Meetings*, p. 165.

<sup>25</sup> Ibid., p. 166.

## Part 2: Operation CAUSEWAY

After the Quadrant Conference, Taiwan became a target of immense scrutiny by Allied war planners. U.S. forces were moving rapidly across the Pacific, and it appeared that the island would be a major objective. In March 1944, the Joint Chiefs of Staff announced a new concept of operations “orientated toward the capture of Formosa” as the next step after the Palau-Marianas line was captured later that summer.<sup>26</sup> The operational planning was assigned to Admiral Chester Nimitz, the Commander-in-Chief of the Pacific Fleet and Pacific Ocean Areas.<sup>27</sup> Working from his headquarters in Pearl Harbor, Nimitz developed a preliminary Taiwan invasion plan. His deputy chief of staff, Admiral Forrest Sherman, oversaw the drafting of war plans, and together they sketched out an operation that would rival the D-Day landings in Normandy.<sup>28</sup>



Figure 5: Admiral Chester Nimitz (left) and Admiral Forrest Sherman (right).<sup>29</sup>

Their conceptual plan called for capturing Taiwan and the Penghu Islands with an assault force comprised of six Marine divisions, five Army infantry divisions, and an armored division. Upon review, it became apparent that the idea was not supportable. The Joint Chiefs of Staff considered the Pacific Theater to be of secondary importance, and the lion’s share of America’s combat power was heading to the fight in Europe. In May 1944, Sherman wrote, “requirements in supporting troops, service troops and shipping are beyond the resources which will probably be available to CinCPOA (Nimitz). The concept of operation is being modified to provide for operations of less magnitude employing smaller forces.”<sup>30</sup>

<sup>26</sup> “History of Planning Division, ASF Volume 4,” *Planning Division Office of Director of Plans and Operations Army Service Forces, War Department*, p. 41, available online at the Ike Skelton Combined Arms Research Library Digital Library, <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll8/id/1766/rec/7>.

<sup>27</sup> “Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz ‘Graybook,’” *American Naval Records Society*, Volume 5, 1944, p. 2313, at <https://www.ibiblio.org/anrs/graybook.html>.

<sup>28</sup> Forrest Sherman, “CAUSEWAY – Outline of Revised Concept,” May 20, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 12; and Ian W. Toll, *Twilight of the Gods: War in the Western Pacific* (New York: W.W. Norton and Company, 2020), pp.90-91.

<sup>29</sup> “Admiral Chester William Nimitz,” *Naval History and Heritage Command*, <https://www.history.navy.mil/research/histories/biographies-list/bios-n/nimitz-chester-w.html>; and “Admiral Forrest P. Sherman,” *Naval History and Heritage Command*, <https://www.history.navy.mil/our-collections/art/exhibits/communities/100th-anniversary-cno/admiral-forrest-p--sherman/admiral-forrest-p--sherman.html>.

<sup>30</sup> Sherman, “CAUSEWAY – Outline of Revised Concept.”

Over the next month, the plan was scaled back to focus on capturing southern Taiwan instead of the whole island, and Xiamen Bay was substituted for the Penghus. While lacking in the port infrastructure found on the Penghus, Xiamen was large enough to serve as a major fleet anchorage and had the additional benefit of providing a bridge to Chiang Kai-shek's forces. The armored division—always a long shot—was cut, and the initial draft was complete.

*Joint Staff Study "CAUSEWAY" and Joint Intelligence Study*

On June 21, 1944, a top secret document entitled "Joint Staff Study – CAUSEWAY" was distributed to commanders across the Pacific and sent to Admiral Ernest King in Washington, then the Commander-in-Chief of the United States Fleet and Chief of Naval Operations, who was a strong advocate for capturing Taiwan.<sup>31</sup> A cover letter accompanied the 47-page plan, emphasizing that it was a "partial draft" issued for "temporary use," and not a directive that committed Admiral Nimitz to any particular course of action. His subordinate commanders were invited to offer comments to improve the draft, and it eventually grew to 77 pages of text.<sup>32</sup>

The CAUSEWAY Joint Staff Study was accompanied by JANIS 87, the "Joint Army-Navy Intelligence Study of Formosa (Taiwan)," which was published the same day. The stated purpose of the heavy, three-volume intelligence study was "to make available one publication containing all the necessary detailed information upon which may be based a war plan for military operations."<sup>33</sup> JANIS 87 provided an encyclopedia of intelligence information on Taiwan. Each entry was illustrated by terrain maps, data tables, nautical charts, and aerial reconnaissance photos—all delivered with a Plans Pouch containing 20 extra-large tactical maps. Hundreds of pages long, the study covered a broad range of topics that American officers might need to know about their target objective, such as Taiwan's climate, weather, culture, military geography, and local ethnic groups. The study paid close attention to the locations and compositions of invasion beaches, and the layouts, locations, and capabilities of Japanese fortifications.<sup>34</sup> It conveyed and emphasized information that would be of particular interest to specialized units, including the crews of bombers, submarines, amphibious landing craft, flamethrowing tanks, and transport planes carrying paratroopers.<sup>35</sup>

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<sup>31</sup> Commander-in-Chief Pacific Ocean Areas, "CAUSEWAY Joint Staff Study: Preliminary Draft for Staff Use," *Headquarters of the Commander in Chief*, June 21, 1944, available online at <https://apps.dtic.mil/sti/citations/ADA606376>.

<sup>32</sup> Ibid.

<sup>33</sup> *Joint Army-Navy Intelligence Study of Formosa (Taiwan)* (Washington, D.C.: Joint Intelligence Study Publishing Board, June 1944), p. I-1, accessed at U.S. Naval War College Archives (Newport, Rhode Island), Records Group 23, Box 44.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid., especially Chapter II – Chapter V.



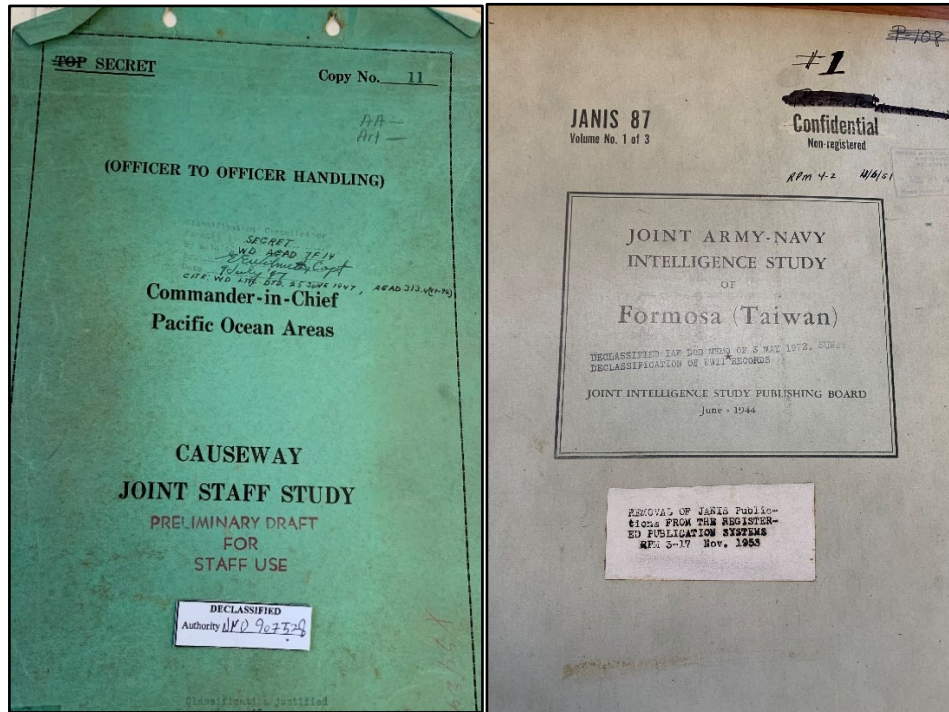


Figure 6: CAUSEWAY Study (left) and JANIS 87 (right).<sup>36</sup>

JANIS 87 highlighted Taiwan's importance to the enemy war effort. "Formosa, because of its strategic position, is extremely valuable to Japanese sea power...For the same reason Formosa is a vital asset to Japanese air operations," the intelligence study added.<sup>37</sup> "Regarded as the strongest and most developed base south of the main islands, Formosa is indispensable as a staging area for military and naval operations to the south, and as a stronghold for the defense of the inner zone." The report concluded, "Its capture by the Allies would isolate Japanese troops remaining in the Philippines, Southeast Asia, and the Netherlands Indies, and would cut off supplies essential to Japan's prosecution of the war."<sup>38</sup>

The CAUSEWAY Joint Staff Study succinctly summarized the purpose of the coming operation. "To establish bases from which to: (1) Bomb Japan. (2) Support further advance into China. (3) Sever Japanese sea and air communications." The task, it said, was to "Capture, occupy, defend, and develop" southern Taiwan and the Chinese port city of Xiamen, "which together form one strategic entity."<sup>39</sup>

February 15, 1945 was selected as the tentative target date (D-Day) for the assault on Taiwan, and it was expected that Xiamen Bay would be stormed approximately 20 days later (D+20).<sup>40</sup>

<sup>36</sup> "CAUSEWAY Joint Staff Study: Preliminary Draft for Staff Use"; and *Joint Army-Navy Intelligence Study of Formosa (Taiwan)*.

<sup>37</sup> *Joint Army-Navy Intelligence Study of Formosa (Taiwan)*, p. 1-24.

<sup>38</sup> *Ibid.*, p. 1-23.

<sup>39</sup> "CAUSEWAY Joint Staff Study: Preliminary Draft for Staff Use," pp. 2-3.

<sup>40</sup> *Ibid.* pp. 1-4.

### *The Formation of Tenth Army*

On July 5, 1944, a sprawling new field army, Tenth Army, was established in Hawaii to carry out CAUSEWAY.<sup>41</sup> Headquartered at Schofield Barracks, Tenth Army had broad scope of responsibility and was a unique command in the Pacific in the sense that it specialized in both amphibious warfare and civil affairs. Taiwan had large cities and a civilian population of over six million people. After the landings, the plan anticipated that a protracted battle would ensue on the island. Months of brutal combat were expected, and Tenth Army would be responsible for establishing a military government and developing occupied areas, even as it simultaneously fought a ground campaign across the island.<sup>42</sup> Chiefly composed of Army infantry and Marine Corps divisions, Tenth Army was a joint force supported by Navy personnel. It also had its own Tactical Air Force for close air support.<sup>43</sup>

The former commanding general of the Alaska Defense Command, Lieutenant General Simon Bolivar Buckner Jr., was appointed Tenth Army commander and tasked with fleshing out the tactical details of the Taiwan invasion plan. Known for his daring and gung-ho style, Buckner answered to Nimitz and his joint staff, especially Admiral Raymond Spruance, the overall commander of CAUSEWAY, and Vice Admiral Kelly Turner, who commanded the amphibious forces in the Pacific theater.<sup>44</sup>

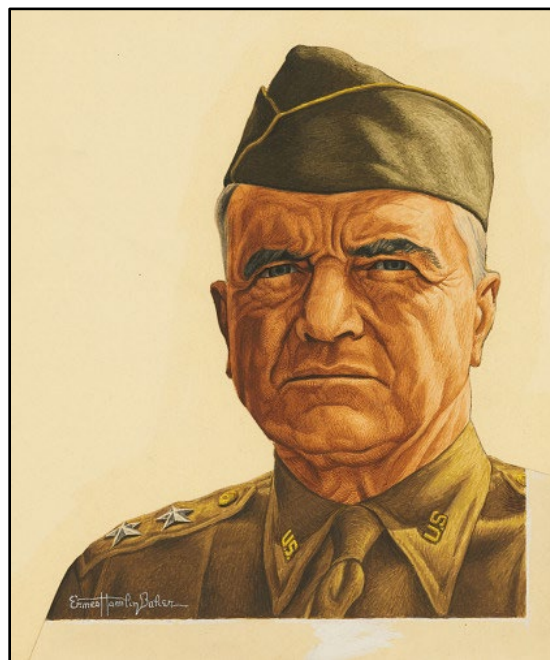


Figure 7: General Simon Bolivar Buckner, Jr.<sup>45</sup>

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<sup>41</sup> Christopher L. Kolakowski (ed.), *Tenth Army Commander: The World War Two Diary of Simon Bolivar Buckner Jr.* (Philadelphia, PA: Casemate Publishers, 2023), p. 71.

<sup>42</sup> *Ibid.*, p. 235.

<sup>43</sup> *Ibid.*, p. 235.

<sup>44</sup> "Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz 'Graybook,'" p. 2339.

<sup>45</sup> "Simon Bolivar Buckner, Jr.," *National Portrait Gallery, Smithsonian Institution*; gift of Jean Baker Henrich, at [https://www.si.edu/object/simon-boliver-buckner-jr%3Anpg\\_NPG.96.TC7](https://www.si.edu/object/simon-boliver-buckner-jr%3Anpg_NPG.96.TC7).



In preparation for the landings and subsequent ground fight, Buckner coordinated training, organization, and logistics arrangements with Lieutenant General Robert Richardson Jr., who administratively controlled all Army units in the Pacific Theater but, unlike Buckner, did not have operational command.<sup>46</sup> Buckner was assigned a joint Army-Marine assault force that would be composed of Major General John Hodge's XXIV Corps, Major General Roy Geiger's III Amphibious Corps, and Major General Harry Schmidt's V Amphibious Corps.

### *The Invasion Beaches*

To pick the best spots for Tenth Army to land, Taiwan's entire coastline and inland terrain was subjected to scrutiny by American intelligence officers and amphibious warfare specialists. JANIS 87 described the East coast of Taiwan as having fine landing beaches at Yilan and Jioupeng and extensive pebble or cobble beaches at Hualien and Taitung. The study warned, however, that Taiwan's East coast beaches were constantly beaten by heavy surf, the currents were not well known, and the approaches were dangerous in many areas. Most of the coast was found to be dominated by steep and precipitous cliffs. The inland terrain was sharp, rocky, and hemmed in by mountains with exceedingly limited communications. If coastal towns were connected at all, it was only by thin roads and trails.<sup>47</sup>

The West coast offered more possibilities. Excellent potential landing beaches were found near Tamsui, Hsinchu, Tainan, Kaohsiung, and Fangliao. Of these, the 50 miles of beaches between Tainan and Fangliao were described as the most suitable for amphibious operations. "The bottom slope is steeper, and no mud or sand flat are present, the tidal range being relatively slight. The beaches are sandy and fairly firm," JANIS 87 noted approvingly. "Intermittent lagoons about 1 mile wide back the shore throughout about half of this area." Once troops landed, they would have the ability to push inland quickly. "A highway and adjacent railroad parallel to the shore at varying distances from it are intersected by many roads and trails from these western beaches."<sup>48</sup>

The CAUSEWAY Joint Staff Study was less complimentary of Taiwan's West coast but agreed with the choice of landings beaches. "The west coast shoreline is mostly non-trafficable soil. Mudflats and sand bars render landings impractical except at Tamsui (NW corner of island), Shinchiku (Northerly West Coast), and Toko (Southwesterly)."<sup>49</sup> The study concluded, "The Southern beaches in Tainan Province, Toko-Boryo Area, near the mouth of the wide multi-channeled Shimo-Tamsui River have been selected for this operation."<sup>50</sup>

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<sup>46</sup> Kolakowski (ed.), *Tenth Army Commander: The World War Two Diary of Simon Bolivar Buckner Jr.*, p. 66.

<sup>47</sup> *Joint Army-Navy Intelligence Study of Formosa (Taiwan)*, p. I-9.

<sup>48</sup> Ibid.

<sup>49</sup> Today, these locations are called Tamsui, Hsinchu, and Donggang, respectively. "CAUSEWAY Joint Staff Study: Preliminary Draft for Staff Use," p. 50.

<sup>50</sup> Today, these locations are called Tainan, Donggang, Fangliao, and the Gaoping River, respectively. Ibid.



Figure 8: JANIS 87 Map of Landing Beaches and Airfields in Southwestern Taiwan.<sup>51</sup>

The Tenth Army's G-2 (intelligence section) produced a study entitled, "Terrain Appreciation: Southwest Formosa," describing the terrain over which they expected to fight. The study noted that there were no obvious obstacles to navigation along the approaches to the beaches, and the tidal range was slight, varying from just 1 to 1.4 feet.<sup>52</sup> The primary complicating factor would be the underwater gradients. They were so exceedingly slight that large ships could not approach the invasion beaches within 1.5 to 2 miles, except near the town of Donggang, and even small boats and landing craft would likely run aground a hundred to several hundred yards away from the shoreline.

This meant the assault troops would have to wade across a long swath of open water before they touched dry sand. During that time, they would be completely exposed. Worse, photographic intelligence indicated that some of the invasion beaches had towns on them and were backed by cliffs or hills that would give the Japanese strong defensive positions and superb fields of fire.<sup>53</sup>

<sup>51</sup> *Joint Army-Navy Intelligence Study of Formosa (Taiwan).*

<sup>52</sup> Headquarters Tenth Army, "Terrain Appreciation: Southwest Formosa," accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 75.

<sup>53</sup> *Ibid.*

Table 1. Major Taiwan Invasion Beaches, Operation CAUSEWAY.<sup>54</sup>

Name(s) of Location	Name in World War II	Likely Size of Assault Force	Details of the Terrain*
Gangshan (Mituo) Beach	Okayama Beach "Beach 3"	1 Division	3 mile stretch of sandy beach north of Zuoying Harbor near Gangshan. 150-foot crumbling cliff occupied center of beach, with towns on both sides. It was overlooked by guns on Ape Hill (1,200 feet) and Mount Banping (800 feet).
Fengpitou (Linyuan) Beach	Hobito Beach "Beach 2"	2 Divisions	6 mile stretch of sandy beach from Kaohsiung Harbor to Gaoping River Delta. 300-foot Fengshan Ridge was located near the beach, surrounded by rough ground. It was overlooked by large artillery guns on Ape Hill (1,200 feet).
Fangliao (Jialutang) Beach	Boryo Beach "Beach 1"	3 Divisions	7 mile stretch of sandy beach from Donggang to Fangliao, overlooked by abrupt mountains at south end.
Nanwan "South Bay" Beach	Nanwan Beach "South Beach"	2 Regiments	1 mile stretch of sandy beach at southern tip of Taiwan in Kenting.
Xishu/Gold Coast Beach**	Nisoko Beach	None confirmed	2 mile stretch of sandy beach south of Anping Harbor. Near Tainan City. Towns located on the beaches, with shallow 30-foot-wide canal and some ponds a few hundred yards inland.
<p>*Note that Taiwan's coastline has changed over time, and many historic beaches have shrunk or even disappeared since Operation CAUSEWAY was planned. Some are now blanketed by wave breakers and/or power stations, port developments, and industrial parks.</p> <p>**This was a backup landing location held in reserve for the Corps Commander to select if he felt it was needed.</p>			

### *The Plan*

According to General Buckner's "Estimate of the Situation," on D-Day, a total of six Army and Marine Corps divisions would storm the beaches in southwestern Taiwan. The island's largest port city, Kaohsiung, was singled out and made a central objective of the invasion. "Since the beaches alone will not carry the tonnage necessary to support the action, it is imperative that the port of Takao [Kaohsiung] be captured with least practicable delay," Buckner wrote.<sup>55</sup> The long sandy beaches to the north and south of the city were selected for the first phase of the amphibious landings.

<sup>54</sup> Headquarters Tenth Army, "Terrain Appreciation: Southwest Formosa"; Tenth Army Headquarters, "Smoke Protection for Shore Party Operations, CAUSEWAY Operation," October 11, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 76; "Commanders Estimate of the Situation: CAUSEWAY Operation, Formosa Phase," accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 75.

<sup>55</sup> "Commanders Estimate of the Situation: CAUSEWAY Operation, Formosa Phase."

The three divisions of Hodge's XXIV Corps would land at Gangshan Beach above the Port of Zuoying and Fengpitou Beach, just north of the Gaoping River Delta. Once these beachheads were established, the plan called for troops to fight inland and overrun major Japanese bases. The assault force was directed to quickly seize the Japanese airfields along the coast and capture the ports of Kaohsiung and Zuoying.<sup>56</sup>

The cities of Kaohsiung and Fengshan were judged to be strong defensive positions for the Japanese. They were protected on their flanks by rivers, foothills, and the 1,200-foot Ape Hill, which loomed over the operational area.<sup>57</sup> To ensure Japanese forces couldn't reinforce the Kaohsiung garrison from the south, Geiger's III Amphibious Corps was to land its three divisions at Fangliao Beach. His troops were tasked with securing the Japanese seaplane base at Donggang and fighting inland to seize the sprawling network of airfields around Jiadong and Pingtung. Once this was accomplished, the plan called for Geiger's troops to cross the Gaoping River and join forces with Hodge's divisions.<sup>58</sup> They would then press north, fighting through Japanese bunkers, pillboxes, and strongpoints built into what Tenth Army's intelligence section called an "extremely powerful defensive terrain line."<sup>59</sup>

In support of the major landings, Schmidt's V Amphibious Corps would send a regiment of Marines to seize Hsiao Liuchiu Island (Lamay Islet), a small coral island eight miles off coast, and set up long-range artillery guns that could shell Japanese positions along the beaches near Kaohsiung. Two regiments of Marines would storm the isolated southern tip of Taiwan at Nanwan Beach in Kenting and seize the nearby Hengchun airfield. Two extra divisions would be held in floating reserve. According to the invasion plan, these divisions would reinforce any units that got bogged down near the beaches, or relieve Schmidt's marines "upon determination that this reserve force is not required to reinforce the XXIV or III Corps."<sup>60</sup>

By D+15, American troops would blast through the city of Tainan and establish a secure perimeter line at the Zengwen River, just south of modern-day Chiayi County. They would then clear out all Japanese forces inside that line. Buckner wrote that, "Thereafter the expeditionary troops will advance northward and secure additional areas on the western coastal plain of Formosa to the maximum extent permitted by the means available."<sup>61</sup>

On D+20, during the next phase of CAUSEWAY, the V Amphibious Corps would cross the Taiwan Strait with three Marine combat divisions to invade Kinmen and seize the area around Xiamen Bay. Once firmly established ashore, the Marines would push 20 miles inland and sanitize a critical pocket of the Chinese coast.<sup>62</sup> Then they would link-up with Chiang Kai-shek's army.

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<sup>56</sup> Ibid.

<sup>57</sup> Headquarters Tenth Army, "Terrain Appreciation: Southwest Formosa."

<sup>58</sup> "Commanders Estimate of the Situation: CAUSEWAY Operation, Formosa Phase."

<sup>59</sup> Headquarters Tenth Army, "Terrain Appreciation: Southwest Formosa."

<sup>60</sup> Note that some documents and planning maps indicate that the southern-most wing of the amphibious landings would have occurred at Checheng Beach in Hengchun instead of (or perhaps in addition to) Kenting's Nanwan Beach.

"Commanders Estimate of the Situation: CAUSEWAY Operation, Formosa Phase."

<sup>61</sup> Ibid.

<sup>62</sup> Ibid.



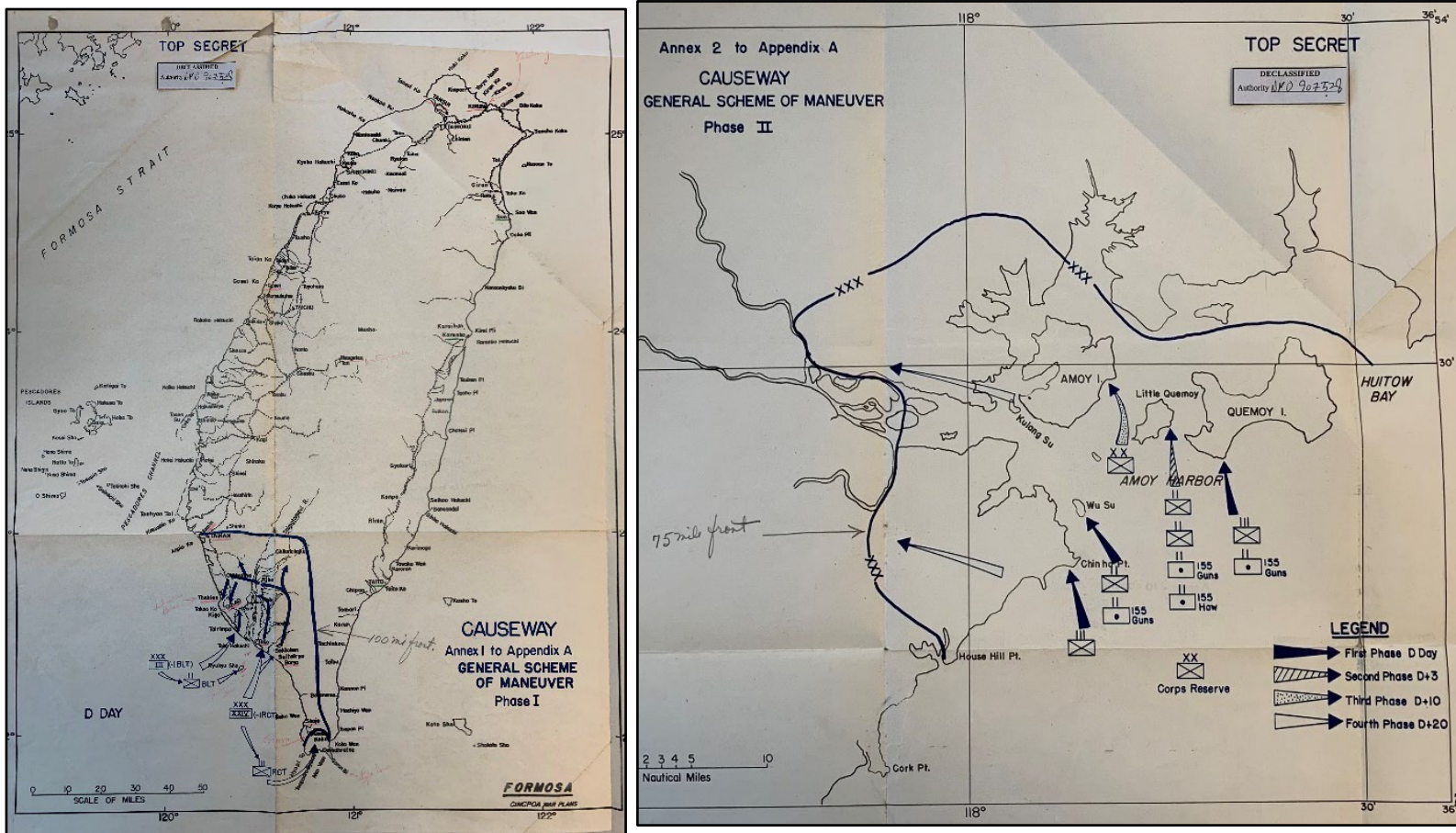


Figure 9: Operation CAUSEWAY, General Scheme of Maneuver.<sup>63</sup>

Following the operation, Naval Construction Battalions (better known as “Navy Seabees”) would turn the bay into an anchorage capable of sheltering the entire U.S. Pacific Fleet. For the first time in the war, U.S. and ROC forces fighting in China would have the benefit of an unbroken train of seaborne logistics. Enormous volumes of fuel, supplies, and war material would pour into China, allowing Chiang Kai-shek’s large but impoverished army to plug into the American war machine.<sup>64</sup> Nimitz wanted U.S. forces to be fully established in the Taiwan Strait and ready for the final invasion of Japan by the end of the typhoon season in September 1945.<sup>65</sup>

<sup>63</sup> “CAUSEWAY Joint Staff Study: Preliminary Draft for Staff Use.”

<sup>64</sup> It was contemplated that U.S. and ROC forces might then fight north to liberate Japanese-occupied Shanghai and establish additional B-29 and B-24 bomber bases and invasion staging areas to use against the Japanese homeland. Notably the Army opposed the idea of a ground campaign in China, arguing that a fight around Shanghai would tie down valuable American ground and air forces that would be better employed in a direct attack against the Japanese homeland. See Robert C. Richardson, Jr., “CAUSEWAY Objectives,” *Headquarters U.S. Army Forces, Pacific Ocean Areas*, September 27, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 38.

<sup>65</sup> “Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz ‘Graybook,’” p. 2342.

### *Complete Conquest of Taiwan*

On July 20, 1944, Admiral King sent a dispatch to Admiral Nimitz asking if he had plans to occupy the Penghu Islands and northern Taiwan after the opening phases of Operation CAUSEWAY were complete. “What is estimated target date and what forces will you employ for these operations?” King asked.<sup>66</sup> Nimitz responded that he intended only to neutralize the Penghus unless future developments warranted substituting the Penghus for Xiamen Bay, and added that the occupation of northern Taiwan would “depend on strategic situation as it develops. In any case perimeter will be expanded as practicable with means available.”<sup>67</sup>

Unbeknownst to the Navy leaders, the Army was already in the early stages of planning the complete conquest of Taiwan. General Buckner directed his staff to prepare two invasion plans, one for “the limited objective concept” Nimitz had assigned him, and another for “the broader concept”—a plan to completely subdue Taiwan, which he referred to using the island’s designated codename: “DIAPHRAGM.”<sup>68</sup> He wrote, “it will be necessary, sooner or later, to conquer all of DIAPHRAGM. All organized resistance must be destroyed...otherwise the entire expeditionary force will be contained on defensive missions.” He argued that Taiwan had to be purged of defenders, and the campaign could not be regarded as successful until the island was under the firm control of U.S. forces. Buckner wrote, “Accordingly I consider it advisable at this time to reconsider the project with a view to the complete conquest of DIAPHRAGM.”<sup>69</sup>

Buckner’s plan for CAUSEWAY envisioned heavy maneuver forces spearheaded by tanks fighting their way up the West coast of Taiwan to obliterate the major Japanese garrisons in Taipei and Keelung. To outflank Japanese divisions entrenched in southern and central Taiwan, Tenth Army planners made plans for a surprise amphibious landing at Taichung, or the Hsinchu/Taoyuan area on the northwest coast, near Taipei.<sup>70</sup> The envelopment might have been conducted in tandem with airborne (parachute) operations, which were being positively considered. Buckner estimated that Tenth Army could do the job with an additional corps comprised of a Marine division, an armored division, and a light division for mountain warfare—along with a sizable increase in support troops.<sup>71</sup>

Nimitz was surprised by his subordinate officer’s bold decision to plan a “broader concept” without consultation.<sup>72</sup> But he was sympathetic to the idea. Indeed, his own preliminary concept for the operation had aimed to seize the entire island—along with the Penghus—and came to remarkably similar conclusions regarding the size of the needed assault force.<sup>73</sup>

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<sup>66</sup> Ibid., p. 2334.

<sup>67</sup> Ibid., p. 2334.

<sup>68</sup> S.B. Buckner Jr., “CAUSEWAY – GRANITE II,” *Headquarters of Tenth Army*, July 30, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 20.

<sup>69</sup> Ibid.

<sup>70</sup> Tenth Army G-2 Section, “Precipitation and Tides,” September 21, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 52.

<sup>71</sup> Buckner Jr., “Forces – CAUSEWAY – GRANITE II”

<sup>72</sup> Nimitz wrote to Richardson that “It is requested that any divergent views concerning its concept for operations which I am responsible be submitted to me.” See “Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz ‘Graybook,’” p. 2338.

<sup>73</sup> Nimitz’s preliminary draft of the CAUSEWAY Joint Staff Study estimated the complete occupation of Taiwan would require an additional armored division (11,000 troops), two infantry divisions (30,000), supporting combat troops (30,500), quartermaster units (26,200), engineering and construction (29,500), medical (8,000), signal (6,400), ordinance (5,000), CWS (500), transportation corps (8,500), miscellaneous naval units (10,000), and army aviation service units



General Richardson, the senior Army officer in Hawaii, smoothed things over in a dispatch in which he apologetically explained that there had been a miscommunication, and Buckner had been following guidance from Army planners in Washington. “It was done in a spirit of mutual confidence without the remotest thought of usurping responsibility,” wrote Richardson.<sup>74</sup>

Nimitz kept an open mind and took Buckner’s alteration of the original plan in stride. When new intelligence came in that suggested the situation around Taiwan was changing, he asked the Tenth Army Commander to explore a number of branch plans that gave priority to conquering the entire island. On September 16, 1944, Nimitz directed Buckner to “submit rough estimates of major troop units and total occupation forces which would be required for the capture, occupation, defense, and development of each combination of objectives listed.”<sup>75</sup>

Table 2. Operation CAUSEWAY Objectives<sup>76</sup>

<b>Physical Objectives to Capture</b>	Plan A. Entire Island of Taiwan. Plan B. Taiwan and the Penghu Islands. Plan C. Taiwan and Xiamen Bay. Plan D. Southern Taiwan and the Penghu Islands. Plan E. Southern Taiwan and Xiamen Bay.
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### *Troop Troubles*

The Joint Staff Study on CAUSEWAY originally estimated that a joint force of 304,565 soldiers, sailors, and marines would be needed to invade and occupy southern Taiwan, and another 119,871 would capture Xiamen and Kinmen, thereby securing both sides of the Taiwan Strait with a grand total of 424,436.<sup>77</sup> These initial numbers were soon considered insufficient. As the plan matured over the coming months, troop numbers were continually pushed higher in an attempt to ensure that superior American assault forces could overwhelm their numerically inferior enemies along the coast and would be able to avoid getting bogged down and trapped on the beaches. “There should initially be a prompt and powerful advance from the beach-heads...before the enemy is able to assemble his scattered units for an effective counter-attack,” Buckner wrote to Nimitz. “A weak and ineffectual initial advance comparable to Anzio Beach-head will bolster rather than weaken enemy morale. The converse is equally true.”<sup>78</sup>

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(14,000), four additional fighter groups, three medium bomber groups, and 10 very long range bomber groups. Ibid., p. 2334.

<sup>74</sup> Robert C. Richardson, Jr., “CAUSEWAY Operation,” *Headquarters United States Army Forces Pacific Ocean Areas*, August 11, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 20.

<sup>75</sup> In addition, Nimitz directed Admiral Spruance and Admiral Turner to submit their views “as soon as practicable” on what the proper physical objectives for Operation CAUSEWAY should be and invited General Richardson and General Millard Harmon, his theater air commander, to express their views as well. C.W. Nimitz, “CAUSEWAY Objectives,” *Headquarters of the Commander In Chief, United States Pacific Fleet and Pacific Ocean Areas* September 16, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 68.

<sup>76</sup> Ibid.

<sup>77</sup> “CAUSEWAY Joint Staff Study: Preliminary Draft for Staff Use,” p. 41.

<sup>78</sup> S.B. Buckner, Jr. “Memo to CinCPOA: CAUSEWAY Operation,” September 25, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 20.

In August 1944, General Buckner estimated that he would need 566,094 men to establish a secure base area and perimeter in southern Taiwan. He estimated that around 208,000 additional forces would be required to occupy the entirety of Taiwan.<sup>79</sup> In total, it was believed that a force of 776,913 would be needed for CAUSEWAY, including all six divisions of the U.S. Marine Corps, 20 B-29 bomber groups, 41 miscellaneous bomber squadrons, 40 fighter squadrons, and large numbers of naval engineers and logistics support units.<sup>80</sup> Richardson, the Commanding General of the Pacific Ocean Areas, thought a total force of 710,233 would be required to take the entirety of Taiwan, and these numbers did not include the additional forces needed for the capture of Xiamen Bay or the Penghu Islands.<sup>81</sup> Nimitz wrote, "I am inclined to accept [Richardson's] estimate of total of 261,000 army troops for the limited operation and 505,000 army troops for the expanded operation as being the best for planning purposes." He added, "The Marine strength for limited operation will be 154,000 and the Naval personnel on shore 61,000."<sup>82</sup>

In a message addressed to Admiral Nimitz and Admiral King, General Buckner emphasized the need for more troops to be assigned to the operation. "Large land masses in CAUSEWAY Operation and the civil and anticipated defensive installations involved will require employment of supporting combat and service troops of type and magnitude beyond that experienced in Pacific Ocean Campaign to date," he wrote.<sup>83</sup> Later, when it became clear that the Joint Chiefs could not supply the extra troops because the war in Europe was taking longer than expected, Buckner revised his estimated operational requirements downwards, albeit reluctantly and with strong words of caution.<sup>84</sup>

On September 1, 1944, the Joint Chiefs of Staff again discussed Operation CAUSEWAY. Directly thereafter, Admiral King was informed by Admiral Sherman that significant troop shortages existed.<sup>85</sup> The War Department had reviewed General Buckner's estimates and found a shortage of 148,550 men, even if the objective was limited to capturing only southern Taiwan and Xiamen Bay. Sherman noted that around 40,000 troops would still be unaccounted for even if the war in Europe ended by November 1, 1944, *and* large numbers of additional troops were taken from MacArthur's command (neither of which was a likely prospect). Moreover, all the current estimates regarding troop requirements could be expected to grow if the Japanese continued to reinforce Taiwan. "Since estimate of forces required are to a large degree dependent on estimates of the rate at which enemy garrisons at the specific objectives will be increased...it is not feasible to determine now which shortages, if any, will be controlling," Sherman wrote.<sup>86</sup>

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<sup>79</sup> "Untitled Correspondence," accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 12.

<sup>80</sup> See "Troop Requirements – CAUSEWAY," Undated Serial 0905, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 20.

<sup>81</sup> "Summary of Estimated Forces – CAUSEWAY," accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 12.

<sup>82</sup> "Command Summary of Fleet Admiral Chester W. Nimitz, USN: Nimitz 'Graybook,'" p. 2342.

<sup>83</sup> "Untitled Correspondence," August 8, 1944, accessed at National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 12.

<sup>84</sup> S.B. Buckner, Jr., "CAUSEWAY Objectives," *Headquarters Tenth Army*, October 4, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 38; and Simon B. Buckner, Jr., "Feasibility of CAUSEWAY Operation," *Headquarters Tenth Army*, September 26, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 38.

<sup>85</sup> Forrest Sherman, "Memorandum for the Commander in Chief, United States Fleet," September 2, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 12.

<sup>86</sup> *Ibid.*

Table 3. Estimated Ground Force Requirements, Operation CAUSEWAY.<sup>87</sup>

Objective	Date (1944)	Command	Grand Total
Occupation of Southern Taiwan “Perimeter Line” and Xiamen Bay	June 21	HQ Pacific Ocean Areas (Nimitz)	424,436
	July 21	Army Forces Pacific Ocean Areas (Richardson)	468,554
	August 7 (preliminary estimate)	Tenth Army (Buckner)	555,182
	August 17	Tenth Army (Buckner)	566,094
	October 4	Tenth Army (Buckner)	440,000
Occupation of Southern Taiwan “Perimeter Line” and Penghus	October 4	Tenth Army (Buckner)	440,000
Total Occupation of Taiwan and Penghus	May 10	HQ Pacific Ocean Areas (Nimitz)	638,494
	October 4	Tenth Army (Buckner)	590,000
Total Occupation of Taiwan and Xiamen Bay	June 24	Army Forces Pacific Ocean Areas (Richardson)	748,913
	August	Tenth Army (Buckner)	776,913
	October 4	Tenth Army (Buckner)	620,000*
Total Occupation of Taiwan	August 12	Army Force Pacific Ocean Areas (Richardson)	710,233
	October 4	Tenth Army (Buckner)	560,000
*Buckner estimated that he could reduce the number to 590,000 if he was allowed to launch the Xiamen attack on D+60 (60 or more days after D-Day Taiwan).			

<sup>87</sup> Note that these estimates include air combat forces (Army, Navy, and Marine) and naval units such as Seabees that would be based in Taiwan during the operation. They do not include the naval invasion fleet and naval support forces at sea. Buckner, Jr., “CAUSEWAY Objectives”; “Estimated Forces CAUSEWAY,” undated, Record Group 38, Box 12; “Summary of Estimated Forces – CAUSEWAY,” Record Group 38, Box 12; “Troop Requirements – CAUSEWAY”; and Headquarters Tenth Army, “Forces – CAUSEWAY – GRANITE II,” August 17, 1944, Record Group 338, Box 76.

## *Intelligence Estimates*

One of the problems that vexed planners in Hawaii was that Tokyo continued to send forces to Taiwan, but it was uncertain how many would stay to reinforce the island and how many would be sent onward to defend Japanese garrisons in the Philippines or other bases across southeast Asia. As a rule, the more enemy troops that were going to defend Taiwan, the more American marines and soldiers would be needed to defeat them.

In January 1944, the War Department's Military Intelligence Service (MIS) estimated that the Japanese had a meager garrison of 20,000 troops defending Taiwan.<sup>88</sup> In June, it was estimated that they had 32,000 troops on the island.<sup>89</sup> By July, those numbers had climbed to a still-modest 35,000.<sup>90</sup>

But on September 19, 1944, Tenth Army's intelligence section issued an alarming report stating that Taiwan was being rapidly reinforced by ground troops and fighter aircraft. The report estimated that between 69,000 and 82,000 defenders were then on Taiwan—along with 668 combat aircraft. The report forecast that a total of 1,500 combat aircraft would be available to the Japanese commander by D-Day for the defense of the island. Of these, 800 planes were likely to be dispersed and hidden across Taiwan's massive network of airfields, and another 700 would be held nearby in China and Okinawa to replace those destroyed in action.<sup>91</sup>

One week later, Buckner wrote to Nimitz with a new estimate of hostile forces expected to be on Taiwan when CAUSEWAY was launched. He said that Tenth Army now assumed it would face 120,000 Japanese ground troops organized into eight combat divisions on Taiwan and one Japanese combat division on Xiamen. And these numbers did not include Japanese air forces. Based on these estimates, he requested immediate action to secure additional forces for the invasion. "The CAUSEWAY operation is not considered to be feasible with the supporting and service troops currently available," he wrote.<sup>92</sup>

Making matters more difficult, Chiang Kai-shek's army had just been defeated by a colossal Japanese offensive in China. Code-named Operation ICHI-GO, the Japanese campaign swept ROC forces away from the coast and overran American bomber bases in the area. The architects of CAUSEWAY had assumed the amphibious landings on Taiwan would be supported by U.S. bomber groups flying out of bases in China. They further assumed it would be feasible to make a logistics bridge deep into China once they had taken Xiamen Bay. Both assumptions were now covered in doubt.<sup>93</sup>

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<sup>88</sup> "Japanese Ground Forces Order of Battle Bulletins (7 April – 2 June 1945)," *War Department (MID), Military Intelligence Service*, p. 98. This estimate indicates that specific units had not yet been identified.

<sup>89</sup> In addition, it was estimated that 66,000 naval, air force, and labor/auxiliary personnel were on island. "Causeway Joint Staff Study: Preliminary Draft for Staff Use," p. 9.

<sup>90</sup> Ibid. p. 99. This estimate included the 50<sup>th</sup> Division and the 48<sup>th</sup> Independent Mixed Brigade, and other unidentified units.

<sup>91</sup> "G-2 Estimate of the Enemy Situation: Formosa," *Headquarters Tenth Army*, September 19, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 75.

<sup>92</sup> Buckner, Jr., "Feasibility of CAUSEWAY Operation."

<sup>93</sup> Robert Ross Smith, "Luzon Versus Formosa" in Kent Roberts Greenfield (ed.), *Command Decisions* (Washington, D.C.: Center of Military History, U.S. Army, 1987), pp. 473-474.

In September 1944, the Combined Intelligence Committee submitted a report to Allied policymakers gathered at the Second Quebec Conference, “Estimate of the Enemy Situation, Pacific-Far East.” The report stated, “Japan now intends to make vigorous efforts to resist any Allied penetration of her inner defense line Japan–Formosa–Luzon–Mindanao. Her ground forces will offer maximum resistance at all points with little regard for losses; her air power will be committed to a scale of defense proportionate to the strategic importance of each area, and her battle fleet will attack should local circumstances develop which seem to offer opportunity for an effective blow.” The report stated, “The Japanese are busily engaged in strenuous efforts to reinforce [the defensive line from Taiwan to the Philippines]. They will resist fiercely any penetration of this line, particularly the Luzon–Formosa area.”<sup>94</sup>

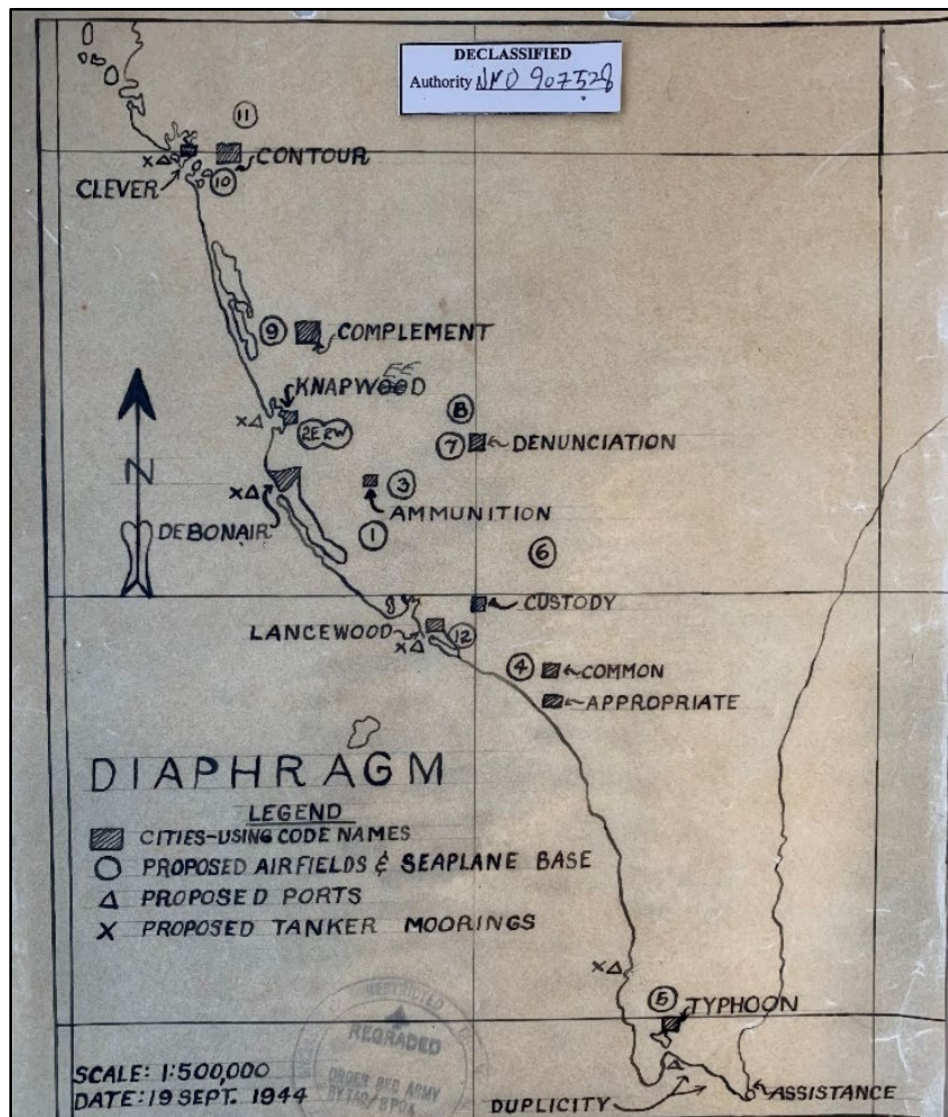


Figure 10: Planners Map Using Code Names.<sup>95</sup>

<sup>94</sup> “Estimate of the Enemy Situation, Pacific—Far East,” *Combined Intelligence Committee*, September 9, 1944, available online at the U.S. State Department Office of the Historian, <https://history.state.gov/historicaldocuments/frus1944Quebec/d167>.

<sup>95</sup> Accessed at the National Archives and Records Administration (College Park, Maryland), Records Group 338, Box 53.

## *A Long Debate*

Since the spring of 1944, General MacArthur had strenuously argued for CAUSEWAY to be delayed or cancelled in favor of Operation MIKE, his planned invasion of Luzon, the principal island of the Philippines. When President Roosevelt visited Hawaii in late July, he was briefed by Nimitz and MacArthur about their respective plans for the western Pacific. He also went to the Tenth Army Headquarters at Schofield Barracks and was briefed by General Buckner. On the parade grounds, Roosevelt reviewed the 7<sup>th</sup> Infantry Division, one of the specialized amphibious units that had been assigned to CAUSEWAY. The next day the president spent an hour watching live-fire field exercises at the jungle warfare center around Kahana Bay, which showcased flamethrower operations and included an assault on a mock Japanese urban area.<sup>96</sup>

After receiving the competing briefings and reviewing the troops, Roosevelt reserved judgment and instead chose to defer to the unified opinion of his military experts. But no such union existed. On July 27, the day the president arrived in Hawaii, planners at the Joint Chiefs of Staff in Washington issued a cable confirming their intention to bypass Luzon and invade Taiwan at the “earliest practicable date.”<sup>97</sup> But the staff-level dispatch was not a final decision and had not been signed by the four Joint Chiefs themselves. For months afterwards, America’s top generals and admirals continued to debate the feasibility and strategic necessity of the planned assault on Taiwan.<sup>98</sup>

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<sup>96</sup> “FDR 1944 Visit to Hawaii,” *FDR Presidential Library*, September 2, 1010, at <https://archive.org/details/gov.fdr.284>; and Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, pp. 69-78.

<sup>97</sup> Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, pp. 88.

<sup>98</sup> *Ibid.*, pp. 88-90; and Robert Ross Smith, “Luzon Versus Formosa,” pp. 465-477.





Figure 11: Admiral Nimitz briefs President Roosevelt (Center), General MacArthur (Left), and Admiral Leahy (Right).<sup>99</sup>

Eventually, each of those who was most intimately involved in planning the top secret operation turned against it. Study after study had made clear that insufficient troops and logistics support would be available to conduct the invasion of Taiwan. And the sudden influx of heavy Japanese reinforcements on the island meant the associated costs were likely to be staggering. “The more they studied Formosa, the less they liked it,” observed Ian W. Toll, in his epic book *Twilight of the Gods: War in the Western Pacific, 1944-1945*.<sup>100</sup>

Nimitz’s closest strategic advisors were staunch opponents. In early September, Admiral Spruance, the hero of the Battle of Midway, went so far as to disrupt a briefing General Buckner was giving to Nimitz and his staff on the war plan. In an uncharacteristic move, the quiet admiral wrested command of the stage and argued with eloquence that the units assigned to CAUSEWAY should instead be used to invade Iwo Jima and Okinawa, two less formidable targets that would still allow the Joint Chiefs to achieve their overall strategic objectives. The room was stunned by his blunt manner but deeply impressed by his vision.<sup>101</sup>

<sup>99</sup> FDR Library Photograph Collection. NPx # 48223868(478), available here <http://www.fdrlibrary.marist.edu/daybyday/resource/december-1941-10/>.

<sup>100</sup> Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, p. 90.

<sup>101</sup> *Ibid.* 91-92.

For his part, Admiral Sherman was so opposed to the “ridiculous” idea of capturing Taiwan before Luzon that he claimed he would sabotage the war plan by writing a draft “so obviously bad” as to make it untenable.<sup>102</sup> It is unknown whether or not he did. But others shared his concerns regarding the danger of landing on southern Taiwan with Japanese airfields in the northern Philippines still operational on the nearby flank. Admiral Richard Kelly Turner, the former director of the Navy’s War Plans Division who commanded the amphibious forces in the Pacific theater, agreed with Sherman and argued against the operation.<sup>103</sup>

General Richarson bluntly told Nimitz, “the occupation of Formosa is unnecessary to the prosecution of the war...From the Army ground point of view, there is no advantage whatsoever in the capture of Formosa.”<sup>104</sup> He agreed with Spruance that B-29 bombers could be more profitably and safely employed from bases in Tinian, Saipan, and Guam, and asserted that the final invasion of Japan could be mounted from Okinawa (and elsewhere in the Central Pacific). Taiwan itself could be neutralized by air attacks, he wrote.<sup>105</sup>

Even the optimistic and high-spirited Buckner expressed grave concerns to Nimitz about the feasibility of the operation and told him that it wasn’t worth the expected costs. “Should the Joint Chiefs of Staff direct that Luzon be captured...the strategic necessity for CAUSEWAY diminishes greatly and it appears as though the expenditure of life and treasure might more profitably be exerted on objectives nearer the Japanese homeland.”<sup>106</sup>

### *The Decision*

Nimitz recognized the growing risks associated with landing on Taiwan and was keen to avoid unnecessary casualties. Ultimately, he agreed with his war planning team. They had to shut down the CAUSEWAY plan. The hard part was persuading their powerful, hot-tempered boss in Washington, Admiral King, who had long been gathering momentum among the Joint Chiefs in favor of the operation.<sup>107</sup> The pivotal moment of decision was fast approaching and everything was going to come down to what was essentially a contest between strong personalities and cold hard numbers.

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<sup>102</sup> Ibid. 90-91.

<sup>103</sup> Ibid. 91.

<sup>104</sup> Richarson, Jr., “CAUSEWAY Operation.”

<sup>105</sup> Ibid.

<sup>106</sup> Buckner, Jr., “CAUSEWAY Objectives”; and Buckner, Jr., “Feasibility of CAUSEWAY Operation.”

<sup>107</sup> Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, p. 94.



Figure 12: Admirals Nimitz (left), King (Center), and Spruance (right) prior to a discussion on CAUSEWAY.<sup>108</sup>

The Joint Logistics Committee released a report on September 29, 1944, addressing seven specific questions that the Joint Chiefs had asked them to examine. The crux of the issue was the earliest possible date by which “resources” (defined as troops, shipping, bases, and construction) would be available to support either CAUSEWAY or MIKE. The Logistics Committee concluded that the scale and complexity of the fight on Taiwan meant that sufficient resources would not be available for CAUSEWAY until three months after the fall of Nazi Germany. American and British forces would need to be redeployed and reallocated from Europe to the Pacific. In stark contrast, MacArthur’s landings on Luzon would be far less taxing and could proceed as early as December 1944.<sup>109</sup>

Days later, at a meeting in San Francisco, Nimitz made his case to Admiral King. The Pacific Fleet commander came armed with a letter signed by General Buckner, stating that the troops allocated to Taiwan were “far short of the forces required” by the Army—but sufficient for taking Okinawa.<sup>110</sup> Nimitz also presented a paper Admiral Sherman had prepared recommending the Joint Chiefs approve Spruance’s plan for having the Taiwan invasion force attack Iwo Jima and Okinawa instead. Admiral King continued to argue with Nimitz for the capture of Taiwan.

<sup>108</sup> “NH 62778 USS Indianapolis (CA-35),” *Naval History and Heritage Command*, <https://www.history.navy.mil/content/history/nhhc/our-collections/photography/us-people/s/spruance-raymond-a/nh-62778.html>.

<sup>109</sup> “Availability of Resources for Pacific Operations: Report by the Joint Logistics Committee,” September 29, 1944, accessed at the National Archives and Records Administration (College Park, Maryland), Record Group 38, Box 43.

<sup>110</sup> Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, p. 94.

But the numbers were unavoidable and the Navy chief finally acquiesced, promising Nimitz he would throw his considerable influence behind the Spruance plan. On October 3, 1944, the Joint Chiefs issued new directives green-lighting MIKE and two other war plans: Operation DETACHMENT, the invasion of Iwo Jima, and Operation ICEBERG, the Invasion of Okinawa.<sup>111</sup>

Out in Hawaii, some limited aspects of Taiwan-focused planning continued for the next few months at Schofield Barracks, just in case the war situation changed and it was judged necessary to resuscitate Operation CAUSEWAY. Tenth Army strategists soon turned their minds from Taiwan to Okinawa, and visions of landing under the guns of Ape Mountain faded away. Unbeknownst to anyone living on Taiwan, they had just been spared the horrors of invasion. The imperial Japanese military had simply made the island too difficult to attack at a cost the Americans could justify. The next section will address how that happened.

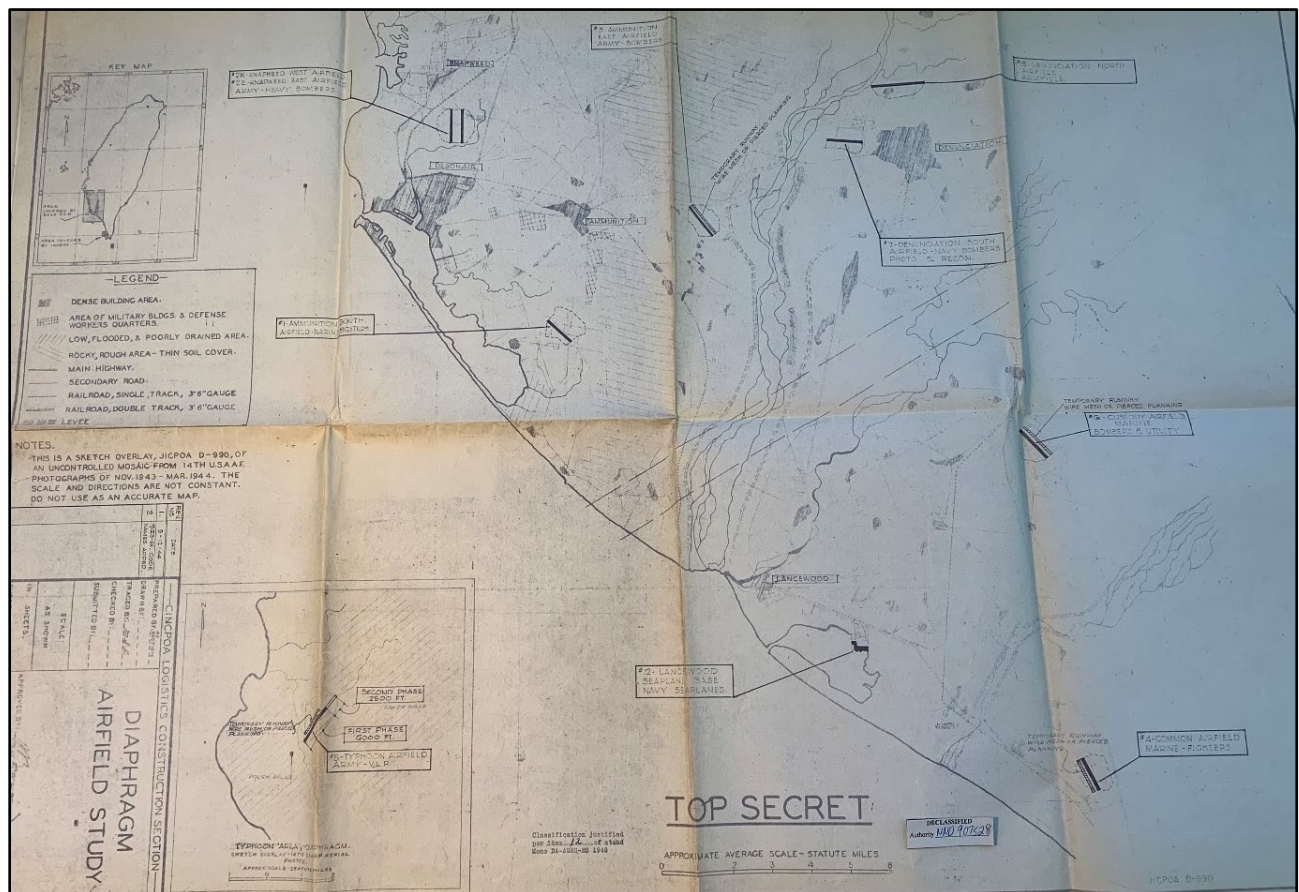


Figure 13: Map of planned U.S. air bases in southern Taiwan.<sup>112</sup>

<sup>111</sup> Ibid., p. 94.

<sup>112</sup> Accessed at the National Archives and Records Administration (College Park, Maryland), Records Group 338, Box 68.



### Part 3: Japan's Plan to Defend Taiwan

In early 1944, the architects of Japan's wartime strategy found themselves cast into an increasingly reactive and desperate position. U.S. ground forces had recently stormed and captured the island fortresses of Tarawa and Kwajalein, and powerful American carrier groups now ruled the Central Pacific. The major Japanese bases at Truk and Rabaul had been destroyed, forcing the imperial fleet to retreat to the island of Saipan (which likewise was raided by American carrier-based planes in February and would be invaded that June). While senior officers at the Imperial General Headquarters in Tokyo lacked the ability to read encrypted American military communications, they were not blind to which way the war was going and what the implications were for their empire. Visions of a heroic last stand on Taiwan began to take shape.

#### *Sea Mines Around Taiwan*

According to interviews and translation efforts conducted by Allied occupation forces after the war, Japanese planners exhibited remarkable strategic foresight when it came to the defense of the island. They correctly inferred their enemy's intentions and proceeded with alacrity to address the looming threat by shoring up their weak points.<sup>113</sup> Their first step was to sow the choppy waters surrounding Taiwan with sea mines. Earlier mine-laying operations had focused on preventing U.S. Navy submarines from ambushing ships near the island's major ports. In 1941, over 950 bottom mines and 1,000 moored mines were arrayed near vulnerable bays and harbors around the island.<sup>114</sup> Now, as the war in the Pacific moved inexorably closer to Taiwan, the pace of minelaying became frantic.

By the end of 1943, the imperial Japanese Navy had anchored 2,700 sea mines in the deep-water approaches to Keelung. Two months later, the navy completed a new project to crisscross the Taiwan Strait with 5,250 mines, anchored in belts that ran from the Penghu Islands to Xiamen Bay.<sup>115</sup> A modest number of mines were also moored across the Tamsui River Delta near Taipei. Far more waited in silence for an encounter with enemy ships in warmer waters to the south. Taiwan's principal invasion beaches were shielded by long rows of sea mines spanning the coastal anchorages and approaches.<sup>116</sup>

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<sup>113</sup> Military History Section, Japanese Research Division, "Imperial General Headquarters Army High Command Record: Mid-1941 to August 1945," *Headquarters Far East Command*, p. 122, available online at the Ike Skelton Combined Arms Research Library Digital Library, at <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll8/id/2409/rec/2>.

<sup>114</sup> In 1941, the imperial Japanese Navy commandeered two merchant ships in the Penghu Islands and used them to establish a system of minefields around the ports of Kaohsiung, Zuoying, Makung, and Keelung. See Chung, *The Decisive Air Battle over Taiwan: America and Japan Fight World War II on a Third Party's Battlefield*, pp. 147-149.

<sup>115</sup> *Ibid.*; and Chang and Tseng, "Thoughts on Japan's Operation Victory No. 2 Plan During the Pacific War," p. 69.

<sup>116</sup> *Ibid.*

Table 4. Minefields Around Taiwan<sup>117</sup>

Location	Number of Mines	Mine Type	Date Completed
Outside Makung	735	Bottom Mines	26 November 1941
Outside Kaohsiung	805	Moored Mines	8 December 1941
Near Su'ao	196	Moored Mines	8 December 1941
Near Keelung	223	Bottom Mines	8 December 1941
Near Keelung	2,700	Moored Mines	16 December 1943
Near Tamsui	80	Moored Mines	1 January 1944
Across Taiwan Strait	5,250	Moored Mines	15 February 1944

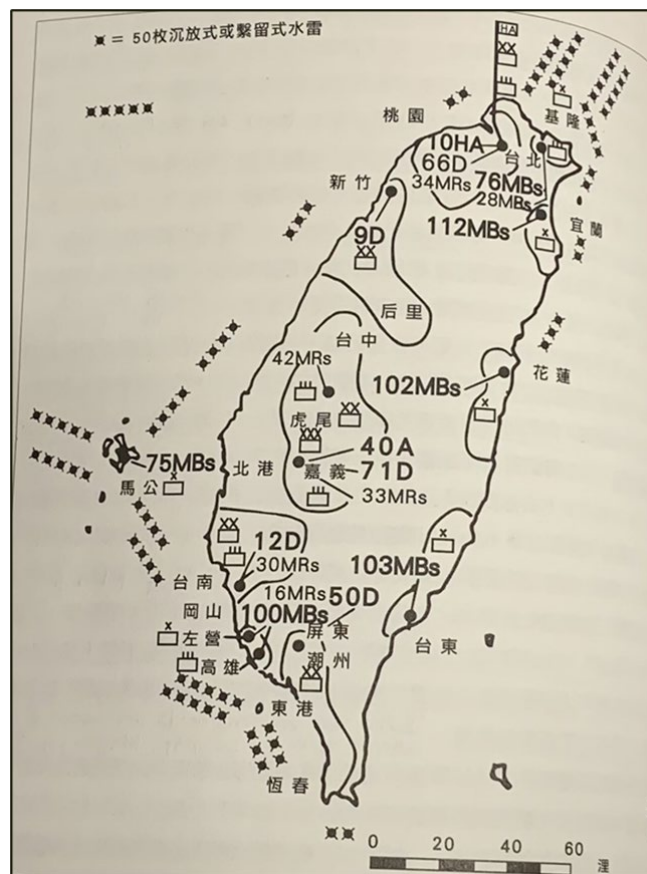


Figure 14: Minefields Around Taiwan (each marker = 50 mines).<sup>118</sup>

<sup>117</sup> Chung, *The Decisive Air Battle over Taiwan: America and Japan Fight World War II on a Third Party's Battlefield*, p. 149.

<sup>118</sup> *Ibid.*, p. 148.



### *War Order Number 10*

The same month that Admiral Nimitz began planning CAUSEWAY (March 1944), Tokyo issued a directive called “War Preparation Order Number 10” demanding that extraordinary measures be taken to harden Taiwan against invasion.<sup>119</sup> The order directed Admiral Hasegawa Kiyoshi, the Governor-General of Taiwan, to execute a joint Army-Navy megaproject to fortify the island, and correctly predicted that the American invasion armada would arrive from the direction of the Marianas Islands or the Philippines (both had yet to be captured by the U.S. military) or “other surprise directions.”<sup>120</sup> The objective of the project, it said, was “to maintain defense and transportation between Japan and the Southern Area [Southeast Asia].” Japanese units on Taiwan “were to be prepared first to repel any enemy surprise attacks and then to meet orthodox enemy landings.”<sup>121</sup>

The War Order stated that Taiwan’s air defense was to have top priority, with all other operations considered secondary. “Countermeasures against unexpected attacks were to be carried out, immediately.”<sup>122</sup> All defensive preparations were to be completed by July 1944, including the expansion of airbases sufficient to deploy one air division and stockpiles for two air divisions. “Ground forces were to be developed to protect air bases and main anchorage points. The 50<sup>th</sup> Division and newly organized 8<sup>th</sup> Air Division were assigned to the Formosan Army in the early part of May and in the early part of June, respectively.”<sup>123</sup>

What followed was a spasm of war construction that blanketed Taiwan’s lowlands with an exceedingly dense network of fortified airfields. According to the Taiwanese historian Chung Chien, the Empire of Japan had 21 airfields and two sea plane bases on Taiwan before the Pacific War, and another 25 airfields were built during the war. In the first nine months of 1944, an additional 19 sites were cleared and made into rough and ready landing grounds for combat aircraft.<sup>124</sup> War Order Number 10 directed that each air base garrison dig underground bunkers to stockpile fuel, ammunition, and spare parts for at least two months of combat.<sup>125</sup>

By the end of the war, a total of 67 airfields had been established on Taiwan and its offshore islands. “It’s only a little exaggeration to say that as soon as a [Japanese] plane took off, it was already over another airfield before its landing gear was stowed,” observed Chung.<sup>126</sup> To accomplish this tremendous feat of engineering, an army of Taiwanese workers was mobilized and pressed into hard labor. On the weekends, their ranks were swollen by local high school students armed with rudimentary tools.

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<sup>119</sup> Military History Section, Japanese Research Division, “Imperial General Headquarters Army High Command Record: Mid-1941 to August 1945,” p. 122.

<sup>120</sup> Ibid.

<sup>121</sup> Ibid.

<sup>122</sup> Ibid. p. 123.

<sup>123</sup> Ibid.

<sup>124</sup> Many of these emergency runways were used as dispersal areas where Kamikaze planes could be temporarily hidden. They were often mistaken by the American aerial reconnaissance photo interpreters as decoy runways. Chung, *The Decisive Air Battle over Taiwan: America and Japan Fight World War II on a Third Party’s Battlefield*, pp. 64-71.

<sup>125</sup> Ibid. pp. 75 and 147.

<sup>126</sup> Ibid. p. 69.

At its peak strength, airfield construction labor reached 17,000 workers. Allied prisoners languishing in nearby POW camps were also pressed into labor gangs and forced at the point of a bayonet to work on clearing runways.<sup>127</sup>

The most impressive facility was the Imperial Navy's air base at Gangshan (the current site of the ROC Air Force Academy). It had four runways, six taxiways, and sufficient shelters, revetments, and hangars for 300 fighters and bombers. An aircraft manufacturing complex, Plant No. 61, was located on base that could produce 200 warplanes a month. After War Order Number 10 was issued, the plant moved most of its machines, tools, and production lines inside Xiaogang Mountain seven kilometers away, where the army had dug three large tunnels. Important parts and materials were stockpiled, and a light-rail line connected subterranean factory lines with Gangshan's sprawling web of runways.<sup>128</sup> To fuel the planes, underground depots were established inside Ape Hill and Mount Banping.<sup>129</sup>

### *Operation Victory No. 2*

In July 1944, after suffering devastating losses at the Battle of Saipan and the Battle of the Philippine Sea, the Imperial General Headquarters in Tokyo estimated that the most probable next target of invasion was Taiwan. Japanese strategists designed a blueprint for the defense of Taiwan and the Ryukyu Islands called SHO-GO 2 (捷 2 号作战, "Operation Victory No. 2"), which envisioned a layered defense and protracted campaign of annihilation.<sup>130</sup> In recent battles, Japanese air squadrons had been wiped out by superior American carrier-based planes before the U.S. troops stormed the beaches. To defend Taiwan, Japanese planners sought to disperse and camouflage planes across the island and at nearby fields in China and Okinawa. The U.S. amphibious armada would be drawn into the Taiwan Strait, and then the trap would be sprung shut. According to the plan, Imperial Navy fighters (many of them kamikazes) would target the enemy's carriers and Imperial Army planes would attack the troop ships.<sup>131</sup>

Concurrently, Japan's prized battleship fleet would steam in from the north and pummel the American ships in a coordinated air-sea attack. Inflaming the chaos and terror, swarms of explosive-laden suicide boats would surge out of caves along the coast to ram themselves into the sides of American transports anchored offshore.<sup>132</sup> If successful, the U.S. Pacific Fleet's carriers would be obliterated, and its shattered amphibious landing ships would disappear under the waves before they could disgorge their lethal payloads of Marines and amphibious soldiers. The invasion would be over before it began. Washington would have little choice but to rethink its war aims, and might even agree to peace talks on terms acceptable to the Emperor.

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<sup>127</sup> Ibid. p. 65. For a fascinating discussion on the subject of Allied POWs in Taiwan, see John Ross and Eryk Michael Smith, "POWs, Bombing Raids, and Kamikazes," *Formosa Files*, October 8, 2021, at <https://www.formosafiles.com/s1-e-8-pows-bombing-raids-and-kamikazes/>.

<sup>128</sup> Ibid. 72-73.

<sup>129</sup> Ibid. 75

<sup>130</sup> The "Victory" Plan encompassed the Empire of Japan's last-ditch line of defense. The plan was broken into four regional components. Operation Victory No. 1 was the plan to defend the Philippines. Operation Victory No. 2 was the plan to defend Taiwan and the Ryukyu Islands. Operation Victory No. 3 was the plan to defend the Japanese homeland. Operation Victory No. 4 was the plan to defend Hokkaido and the Kuriles. See Shigeru Fukudome, "Strategic Aspects of the Battle Off Formosa," *Proceedings*, December 1952, <https://www.usni.org/magazines/proceedings/1952/december/strategic-aspects-battle-formosa>.

<sup>131</sup> Chang and Tseng, "Thoughts on Japan's Victory II Operational Plan During the Pacific War," p. 72.

<sup>132</sup> Ibid., pp. 69, 72.

On August 12, 1944, the Japanese Army Headquarters in Taipei began a major tabletop exercise to test the SHO-GO 2 plan. The multi-day war game was run by General Ando Rikichi, the commander of the Tenth Area Army, or “Taiwan Army,” which was the garrison force responsible for the island’s ground defense.

In attendance were each of Ando’s division and brigade commanders, his senior staff officers, and representatives of the Navy, Air Services, 32<sup>nd</sup> Army (Okinawa’s garrison), and Southern Expeditionary Army Group.<sup>133</sup> A small delegation of senior officers from the Imperial General Headquarters in Tokyo was also sent to participate.<sup>134</sup>

Lessons from the Battle of Saipan dominated the ensuing discussions. Ando and his colleagues centered their talks around four points. First, the Americans would have absolute control of the air at the time of their landings and during the fight on island. Second, American battleships would ferociously shell the coast and could not be countered by Japanese artillery. Third, Japanese forces would be pinned down and unable to maneuver without being shredded by American air attacks and naval gunfire. Fourth, innovative methods would be needed to stop the Americans tanks because if they were allowed to clatter inland, the Japanese Army had dim prospects of holding the island and would lose the coming battle.<sup>135</sup>

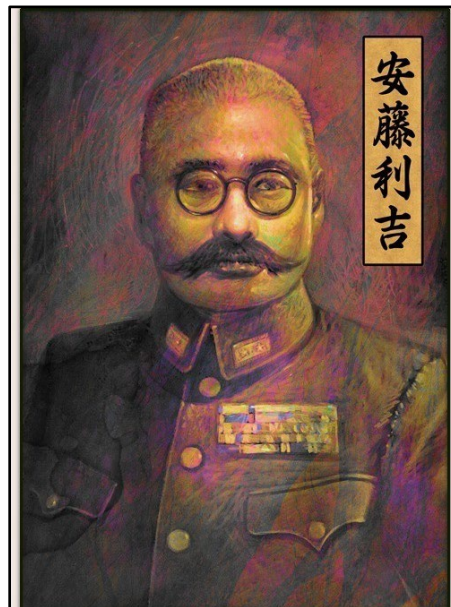


Figure 15: General Ando Rikichi.<sup>136</sup>

The war game concluded that the Americans were likely to invade southern Taiwan and land on the beaches around Kaohsiung and Pingtung, and the decisive battle would occur in that area. The Japanese strategists estimated that their enemy could make supporting landings in Hengchun, the Penghus, and on Taiwan’s east coast.

<sup>133</sup> 王懷慶 [Wang Huai-Ching], 對臺灣本島歷代防衛作戰的觀察與省思（1624～1945）[“Observations and Thoughts on Taiwan Defense Operations in History (1624-1945)”], *ROC Army Journal*, Vol. 57, No. 577 (June 2021), p. 62.

<sup>134</sup> Chang and Tseng, “Thoughts on Japan’s Victory II Operational Plan During the Pacific War,” p. 73.

<sup>135</sup> Wang, “Observations and Thoughts on Taiwan Defense Operations in History (1624-1945),” p. 63.

<sup>136</sup> “Rikichi Ando,” at <https://www.armedconflicts.com/Rikichi-Ando-t176847>.

They believed it was possible, depending on circumstances, that the Americans would elect to seize northern Taiwan, and the decisive battle would occur on the Taoyuan Plain outside Taipei.<sup>137</sup> On the basis of this estimate, it was agreed that sluice gates would be opened to flood rice paddies and low-lying areas, making them impassable to tanks. Tokyo ordered all island garrisons to forego banzai charges and instead fight protracted battles. On this basis, Ando and his commanders agreed they would concentrate their powers on engaging in a grueling campaign, gradually grinding down Americans forces to the point of annihilation.<sup>138</sup>

After the war game concluded, orders were issued from Taipei demanding that all of Taiwan be transformed into a gigantic fortress complex. In late August, a document called the “Taiwan Island Fortress Construction Plan” (台灣島建築城計劃) was disseminated, detailing how every corner of the colony would be built up to meet the coming invasion, which Japanese planners believed might occur as soon as late September. The concept of “total island fortification” (全島要塞化) took form, and a manic race began to mobilize the island’s millions of imperial subjects, to impound and conscript all available resources, and to strain every sinew before the U.S. invasion armada darkened the horizon. Each household was required to send someone to join the large labor gangs working on the fortifications.<sup>139</sup> Because the plan called for a marathon ground fight on the island, a layered network of fighting positions and defense works was prepared running from the beaches to the central mountain range. Coastal ridgelines were split open and lined with trenches, artillery blockhouses, and machine gun nests. Beach sand was covered with mines, obstacles, and tank traps. Mountains were hollowed out and labyrinthine tunnel systems were carved into the stone. Subterranean vaults honeycombed the high grounds. Cities, towns, and villages were militarized, turning streets into kill boxes stacked against kill boxes.<sup>140</sup>

To greet the invaders, trenches and field works were built off the waterline, and blockhouses were erected on the far ends of the landing beaches. Fortification lines ran across coral reefs and into the interior lowlands. Looming over them were hills bristling with hidden gun emplacements. It was acknowledged and accepted by Japanese planners that any exposed fortifications on the surface would become target for shelling. Even concrete reinforced with steel rebar and thick earth works would break under the savage punishment of U.S. naval gunfire. The only hope was to hollow out entire mountains and move everything deep underground.

The core bunker complexes were designed to be entirely subterranean and stocked with sufficient food, water, ammunition, and supplies to allow garrisons to fight for at least three months without needing to leave or receive outside replenishment.<sup>141</sup> During the battle, Japanese troops would live inside the rock and travel via tunnels to their fighting positions: machine gun nests, mortar pits, and disappearing gun emplacements hidden in the cliffs behind sliding steel doors. To the maximum extent possible, all fortifications—pillboxes, blockhouses, casemates, air defense towers—were connected by underground tunnels.<sup>142</sup>

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<sup>137</sup> Chang and Tseng, “Thoughts on Japan’s Victory II Operational Plan During the Pacific War,” p. 73; and Wang, “Observations and Thoughts on Taiwan Defense Operations in History (1624-1945),” p. 63.

<sup>138</sup> Wang, “Observations and Thoughts on Taiwan Defense Operations in History (1624-1945),” p. 63.

<sup>139</sup> Will Lu, 二戰末期的台灣全島要塞化 [“The Total Fortification of Taiwan During the Last Phase of World War Two”], *Thinking Taiwan*, April 9, 2019, at <https://www.thinkingtaiwan.com/content/7545>.

<sup>140</sup> 黃智偉 [Huang Chih-Wei], 全島要塞化: 二戰陰影下的台灣防衛工事 1944-1945 [*Fortify the Entire Island: Taiwan Defense Works in the Shadow of World War Two 1944-1945*] (Taipei, Taiwan: And Publishing, 2015), p. 140.

<sup>141</sup> *Ibid.*, p. 140.

<sup>142</sup> *Ibid.*, pp. 140-141.





Image 16: Former Japanese fortification near “Beach One.”<sup>143</sup>

Imperial Japanese Forces did not learn that Operation CAUSEWAY had been aborted, and they continued to feverishly prepare the island for invasion. A huge network of underground fortifications and camouflaged defense sites were constructed even as U.S. planes began to arrive on bombing runs. In mid-October, Admiral William “Bull” Halsey Jr. launched a massive raid on Taiwan to neutralize the Japanese airfields on the island. MacArthur’s attack on the island of Leyte in the Philippines was about to commence, and it was imperative to ensure Tokyo couldn’t rush air reinforcements forces south from Taiwan. On 12 October, over 1,000 U.S. planes took off from the decks of 17 aircraft carriers near Taiwan and a titanic air battle was joined. Over the next five days, American carrier planes shot down hundreds of Japanese fighters and combed the island’s known airfields with machine gun and rocket fire. Over 100 B-29 “Superfortress” bombers based in China took part in the bombing.<sup>144</sup>

Heavy American bombers visited Taiwan frequently in 1945, smashing the island’s ports and infrastructure. Yet the mountain tunnel warrens were largely impervious. Subterrain factories, fuel dumps, supply depots, and water reservoirs all survived.<sup>145</sup> By 1945, the Japanese had 59 core bunker complexes carved into the high ground around Taiwan.

<sup>143</sup> Tyler Cottenie, “Forgotten Formosan fortifications,” *Taipei Times*, September 15, 2023, at <https://www.taipeitimes.com/News/feat/archives/2023/09/15/2003806249>.

<sup>144</sup> Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, pp. 162-175.

<sup>145</sup> 郭吉清 [Kuo Ji-Ching] 高雄壽山、旗後山、半屏山、龜山軍事遺蹟田調計畫 [“Field Research Program on Historic Military Sites on Ape Hill, Mount Cihou, Mount Banping, and Guishan”], *National Culture and Arts Foundation*, 2018, at <https://archive.ncafroc.org.tw/result?id=a7525dedf3d748fb82eed0ec84ab4c33>.

Whenever possible, these were established far enough inland to be outside the ranges of battleship guns. Light fortification lines ran up to the central mountain range, rear areas selected as a final redoubt for guerrilla warfare in case the core bunkers fell.<sup>146</sup>

After the Emperor's surrender on August 15, 1945, Japanese troops removed beach obstacles, filled in their trenches and tank traps, and buried their machinegun nests and other field works that had been waiting to ambush the invaders. Most beach defenses had vanished by the time ROC occupation forces arrived that October. Japanese troops had swept their fortress complexes clean and stacked light weapons and war supplies in warehouses near the dockyards and railheads, places where the ROC troops could quickly seize them. The armaments were subsequently shipped off to China to bolster the stocks of Chiang Kai-shek's forces who would soon need them to fight Mao Zedong's communist army. Left on Taiwan were the heavy artillery guns that had been dragged underground and fixed into cliff sides.

By 1946, the last of the Japanese fortifications on the island had been taken over by ROC troops, who surveyed the island's defense networks and tallied a total of 1,421 hidden bunkers.<sup>147</sup> In late 1949, the ROC government and military retreated from China to Taiwan and quickly began to reactivate and expand the mammoth Japanese fortress system. Many bunkers and tunnels were refurbished and expanded during the Cold War. Some remain active.<sup>148</sup>

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<sup>146</sup> Huang, *Fortify the Entire Island: Taiwan Defense Works in the Shadow of World War Two 1944-1945*, pp. 8-9, 140-142.

<sup>147</sup> 台灣本島第一二期永久工事及日軍遺留工事與第三期永久工事配置計畫要面 [“Plan for Permanent Fortifications on Main Island of Taiwan During First and Second Phase Expansion of Left Over Japanese Fortifications and Third Phase of Permanent Fortifications”], April 30, 1950.

<sup>148</sup> Huang, *Fortify the Entire Island: Taiwan Defense Works in the Shadow of World War Two 1944-1945*, pp. 8-9, 140-142.





## Part 4: The Invasion That Never Was

What might have happened had the American invasion of Taiwan gone forward? Tenth Army's intelligence chief, Colonel Louis Ely, warned that "very effective" heavy gun emplacements lined the hills and mountains overlooking the invasion beaches, and "all of these beaches will be fortified by obstacles, pillboxes, and open emplacements, and weapons of mobile troops similar to those found at Tarawa, Kwajalein, and Saipan."<sup>150</sup> His report noted that "organized large scale counterattacks may be expected," especially against the invasion beaches closest to Kaohsiung. In a worst-case scenario explored by Ely, Japanese divisions might overwhelm American troops just after they landed on Gangshan Beach, dispatching them in a giant coordinated wave of counterattacks during their chaotic first day ashore. Japanese forces might then move across Kaohsiung to annihilate the U.S. troops on Fengpitou Beach, charging out of the hills and down into the American lines before they could build up to full strength. These counterattacks "would leave us with the [Fangliao] beachhead only."

According to this dark estimate, it was theoretically possible that an entire American amphibious corps could have been driven into the sea by superior numbers of mobile enemy forces, and Operation CAUSEWAY could have resulted in catastrophe.<sup>151</sup> Colonel Ely's intelligence report was bolstered by a stream of new data over the months that followed, which painted a grim picture. As he predicted, the Japanese heavily fortified the island and thickened their garrison at a remarkable pace.

### *Flawed Intelligence*

Military intelligence bulletins later showed that from September 1944 to February 1945, the Japanese reinforced Taiwan with three additional divisions drawn from Manchuria.<sup>152</sup> Worse, the Japanese were believed to have formed six Suicide Boat Units with around 600 small fast boats backed by supporting units of 3,600 officers and men.<sup>153</sup> By New Year's Day 1945, U.S. intelligence estimated that there were 90,000 enemy troops on Taiwan.<sup>154</sup> By April 1945, MIS estimated a Japanese strength of 170,000 on the island.<sup>155</sup> At the end of the war, American intelligence estimated that a total of 250,000 Japanese forces were defending Taiwan and the Penghu Islands.<sup>156</sup>

According to post-war studies, the numbers forecast by American intelligence in real time still underestimated the garrison. At least 275,000 troops in the "Taiwan Army" had been waiting to meet the American invasion, many of whom were Taiwanese natives who had been conscripted (some willingly, some coerced into "volunteering") during the last year of the war.<sup>157</sup> The arms and basing facilities available to the garrison also exceeded U.S. intelligence estimates.

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<sup>150</sup> "G-2 Estimate of the Enemy Situation: Formosa."

<sup>151</sup> *Ibid.*

<sup>152</sup> "Japanese Ground Forces Order of Battle Bulletins (7 April – 2 June 1945)," pp. 112-117. Reinforcements included the 10<sup>th</sup> Division in September 1944, the 12<sup>th</sup> Division in January 1945, and the 71<sup>st</sup> Division in February 1945.

<sup>153</sup> *Ibid.*, p. 139.

<sup>154</sup> *Ibid.*, p. 100. This estimate included the 50<sup>th</sup> Division, the 66<sup>th</sup> Division, and other unidentified units.

<sup>155</sup> *Ibid.* p. 104. This estimate included the newly discovered 76<sup>th</sup> Independent Mixed Brigade, still unidentified brigades, and 31,000 Army aviation and Navy aviation personnel.

<sup>156</sup> "Occupation of Formosa," *Headquarters United States Forces China Theater*, August 31, 1945, at National Archives and Records Administration (College Park, Maryland), Record Group 493, Box 17. With many thanks to Gerrit van der Vees for sharing this source.

<sup>157</sup> Chung, *The Decisive Air Battle over Taiwan: America and Japan Fight World War II on a Third Party's Battlefield*, pp. 153-155. See also John Ross and Eryk Michael Smith, "The Empire's Last Soldier 李光輝," *Formosa Files*, October 14, 2021, at <https://www.formosafiles.com/s1-e-9-the-empires-last-soldier/>; and John Ross and Eryk Michael Smith, "Luzon or Formosa? Taiwan Dodges WWII Invasion," *Formosa Files*, September, 30, 2021, at <https://www.formosafiles.com/s1-e-7-luzon-or-formosa-taiwan-dodges-wwii-invasion/>.

The Japanese had effectively camouflaged a considerable number of long-range artillery guns by emplacing them in cliff-side tunnels and buried concrete bunkers overlooking the invasion beaches. In one remarkable example, U.S. photo reconnaissance flights identified seven guns on Kaohsiung's 1,200-foot Ape Hill.<sup>158</sup> After the war, it was discovered that there were actually 67 guns on the hill guarding the invasion beaches. Of these, 36 artillery guns were on the south side of Ape Hill, overlooking Fengpitou Beach; 22 were on the north side facing Gangshan Beach, and nine were on the summit. The largest of the guns had a range of 21 kilometers. Approximately 120 additional long-range artillery guns were emplaced in hillside bunkers across the Kaohsiung Fortified Zone.<sup>159</sup>

In another instance, a new airstrip in excellent condition was spotted on April 26, 1945. It had been so well camouflaged that it had gone undetected for months even amid intensive American surveys and close-in strafing runs.<sup>160</sup> The Japanese further baffled U.S. intelligence by burying critical infrastructure. By the end of the war, Aircraft Plant No. 61 was saturation bombed by the Americans a total of 33 times. After each bombing run, American pilots and crews were astonished to learn that the plant somehow managed to remain operational. Unbeknownst to them, the factory fresh Japanese fighter planes they encountered were not emerging from underneath the shattered and burned-out plant. Rather, they were rolling out of the nearby tunnels that had been dug into Xiaogang Mountain.<sup>161</sup>

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<sup>158</sup> "G-2 Estimate of the Enemy Situation: Formosa."

<sup>159</sup> 楊護源 [Yang Hu-Yuan], 日本統治後期の高雄要塞 (1937-1945) ["The Takao Fortress During Late Japanese Colonial Period, 1937-1945"], *Biannual Journal of Taiwan's National Archives*, Vol. 15, No. 2, p. 60, <https://www.archives.gov.tw/Book/MPBook.aspx?cnid=1680&c=1113>.

<sup>160</sup> Military Intelligence Section, "Daily Summary of Enemy Intelligence," *General Headquarters Southwest Pacific Area*, No. 1119 (April 27-28, 1945), available online at the Ike Skelton Combined Arms Research Library Digital Library, <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll8/id/260/rec/12>.

<sup>161</sup> Chung, *The Decisive Air Battle over Taiwan: America and Japan Fight World War II on a Third Party's Battlefield*, pp. 72-73.





But even then, it seemed likely the Marines would get bogged down and have become unavailable for planned future operations later that year. Smith cautioned, “Marine divisions committed to Formosa...may not readily be disengaged.”<sup>164</sup>

In November 1944, the Office of Strategic Services (OSS), the precursor to CIA, produced a report called “Valuable Formosa.” It estimated that, “When liberation of the Philippines has been completed, Japan’s most important southern outpost will be Formosa...Both militarily and economically, Japan will continue to make important use of Formosa until this island or the waters around it are brought under the domination of US forces.”<sup>165</sup> It concluded, “The loss of Formosa’s economic resources will be serious for Japan’s war effort, but will not result in an appreciable shortening of the war.” Tokyo would meet the loss, it predicted, by more stringent rationing, drawdowns of stockpiles, and increased imports from Korea and Manchuria.<sup>166</sup> In other words, according to OSS, even a successful American occupation of Taiwan would probably not have hastened the collapse of Imperial Japan and reduced the cost of the war as once predicted.<sup>167</sup>



Image 19: Abandoned Japanese fortification in Kaohsiung, Taiwan.<sup>168</sup>

<sup>164</sup> H. M. Smith, “CAUSEWAY Objectives,” *Headquarters Fleet Marine Force, Pacific*, 3 October 1944, at National Archives and Records Administration (College Park, Maryland), Record Group 338, Box 60.

<sup>165</sup> The OSS report noted that Kaohsiung and Keelung were “among the busiest ports in the Far East,” and the Japanese had built a large aircraft repair and assembly plant in Gangshan and two smaller aircraft plants in Pingtung and Hsinchu. It also emphasized the importance of Taiwan for supplying the Japanese home islands with rice, fruits, vegetables, tea, sugar, and a variety of war materials, including over 30 percent of the Empire’s aluminum.

<sup>166</sup> “Valuable Formosa: OSS Report, November 13, 1944,” recorded in the *Intelligence Bulletin of the U.S. Army Forces Pacific Ocean Area*, pp. 11-12, available online at the Ike Skelton Combined Arms Research Library Digital Library, <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll8/id/2601/rec/14>.

<sup>167</sup> Buckner, Jr. “Memo to CinCPOA: CAUSEWAY Operation.”

<sup>168</sup> Eason Chen and Jaime Ocon, “Kaohsiung Bunker Reveals a Piece of World War II History,” *Taiwan Plus*, February 7, 2023, at <https://www.taiwanplus.com/news/taiwan-news/other/230207016/kaohsiung-bunker-reveals-a-piece-of-world-war-ii-history>.

### *Missed Opportunity?*

After Mao Zedong's communists established the People's Republic of China, Admiral King expressed regret that he had failed to win the debate for CAUSEWAY. China's political future mattered more to the United States and the world than the quick liberation of the Philippines, and capturing Taiwan was the key to reaching China. "Little was said about the other basic idea of arranging to help the Chinese help themselves...It seems to me that Mr. Roosevelt was fated to decide for the 'poor' Philippines, although in the long view he was misled by the short view," King wrote.<sup>169</sup>

While necessarily speculative, it seems possible that the operation's success might have helped establish a good post-war relationship with Nationalist China, simplified peace table negotiations, and ensured the ROC government was not defeated by the communists. If so, the Korean War and the War in Vietnam might never have happened. Could the Soviet Union have collapsed far sooner in these circumstances than it otherwise did? We can only speculate. For its part, Taiwan would have had an American military government after the invasion. The 228 Massacre, White Terror, and four decades of martial law would never have happened. It seems likely that the Taiwanese people would have been allowed to exercise their right to self-determination far sooner than they did.<sup>170</sup> Today, China and Taiwan might both be friendly democratic neighbors, each recognized as a member of the United Nations.

Things might have played out in many other ways too. Based on the views expressed by the top military experts at the time, the costs associated with CAUSEWAY would have been staggering, and, as we have seen, the victory could have inflicted such devastating losses that it would have been tantamount to defeat. What might have happened in different circumstances can be guessed at but never known. What did in fact happen was the Joint Chiefs decided to cancel the invasion of Taiwan. That changed the course of world history and produced after-effects that will continue to reverberate through time.

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<sup>169</sup> Toll, *Twilight of the Gods: War in the Western Pacific, 1944-1945*, pp. 94-95.

<sup>170</sup> Kerr, *Formosa Betrayed*, pp. 24-25





Image 20: Former Japanese gun emplacement and tunnel near “Beach One.”<sup>171</sup>

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<sup>171</sup> Cottenie, “Forgotten Formosan fortifications.”

## Part 5: Implications For Taiwanese Strategy

Taiwanese military officers have closely studied both CAUSEWAY and SHO-GO 2 to learn what a future invasion might look like and what the Japanese did right to defend the island. Writing in the Taiwanese Navy's professional journal, Admiral Chang Sheng-kai and Commander Tseng Chen-hsiang authored a detailed study on the subject, noting that in the history of Taiwan, the Empire of Japan was the only other government that has developed a detailed plan for the defense of the island. "The ROC Military can use such past historical experience (both successes and failures) to validate our plans for the defense of Taiwan and the Penghus," they wrote. "What are those things that perhaps are no longer relevant, or that maybe could be continued and improved upon...these can be provided for the consideration and improvement of the ROC Military."<sup>172</sup>

### *Tunnels, Bunkers, and Layered Defenses*

Taiwan's contemporary defense strategy remains rooted in many of the ideas inherited from Japanese war planners. The ROC Military still bases its forces in facilities originally built by the Empire of Japan and continues to invest heavily in air defense, practicing dispersal operations using hardened air bases and emergency runways. Taiwanese generals continue to assume that if their air cover is lost, the navy and army will suffer withering air attacks and get pinned down. Over time some in Taiwan's army have reportedly come to take it for granted that, unlike the Japanese, they will be able to rapidly maneuver across the island to reinforce key areas and decisively crush the enemy at the shoreline, overwhelming them when they are still relatively few in number and have yet to reinforce their beachheads. Admiral Lee Hsi-min, the former supreme commander of Taiwan's military, and author of the book, *The Overall Defense Concept: An Asymmetric Approach to Taiwan's Defense*, argues that this assumption is no longer valid and the military should place greater emphasis on a layered defense in depth using the island's favorable terrain.<sup>173</sup>

Recent military studies conducted by Taiwanese officers place a high degree of emphasis on the importance of Imperial Japan's fortifications systems and recommend that Taiwan restore and modernize these lost capabilities. Like Ando's Japanese garrison on Taiwan, they anticipate that they could lose air and sea control and find themselves ravaged by pre-invasion bombardment. To weather the onslaught of rockets and missiles, they assert that their military needs more deeply buried facilities, tunnels brimming with stockpiled munitions, and all manner of hardened defensive infrastructure from the coast to the cities to the central mountain range—along with enhanced camouflage, concealment, and deception capabilities.<sup>174</sup>

In 2015, it was reported that Taiwan's military still used eight of the original 59 Japanese core bunker complexes. Two new ones had been built, and five others were kept in reserve status, sealed and empty but ready to be reactivated in war, according to the book *Fortify the Entire Island: Taiwan Defense Works in the Shadow of World War Two 1944-1945*, by Huang Chih-Wei.<sup>175</sup>

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<sup>172</sup> Chang and Tseng, "Thoughts on Japan's Victory II Operational Plan During the Pacific War," p. 60.

<sup>173</sup> 李喜明 [Lee Hsi-min], 台灣的勝算: 以小制大的不對稱戰略, 全台灣人都應了解的整體防衛構想 [*The Overall Defense Concept: An Asymmetric Approach to Taiwan's Defense*] (Taipei, Taiwan: Linking Books, 2022). See also Chang and Tseng, "Thoughts on Japan's Victory II Operational Plan During the Pacific War," pp. 75-76.

<sup>174</sup> See Lee, *The Overall Defense Concept: An Asymmetric Approach to Taiwan's Defense*; Chang and Chu, "Examining Homeland Defense Operations Through the Lens of U.S.-Japan Attack and Defense Plans Surrounding Operation CAUSEWAY in World War Two," pp. 1-23; and Yeh, *Analyzing the Japanese Military's Fortifications in 1944—The Case of Taiwan*.

<sup>175</sup> Huang, *Fortify the Entire Island: Taiwan Defense Works in the Shadow of World War Two 1944-1945*, p. 141.

Current information remains limited and the true scope and scale of Taiwan's underground defensive infrastructure is a matter of rumor and speculation. Restricted military ranges and bases have shrunk to a fraction of their historic size due to the country's economic development, democratization, and repeated waves of military downsizing. Many sites built by the Imperial Japanese military (and forced Taiwanese labor) remain under tight military control.<sup>176</sup>

### *Updating Beach Defenses*

Taiwanese Army officers writing in professional military journals have expressed what appears to be a widespread concern that the areas around the few remaining invasion beaches (also known as "red beaches") are unsatisfactorily fortified. In peacetime these beaches are open to the public for recreational purposes, and army combat engineers are not allowed to establish minefields and defense works until the government issues emergency alert orders. By that time, they argue, it may be too late to do everything necessary to make it difficult for the PLA to land. According to one study, Taiwan's current mobilization plan only allows combat engineers enough time to build thin fortification lines using relatively simple capabilities, resulting in defense works that will be insufficient for the protection of frontline troops during the PLA's pre-invasion bombardment. Having suffered attrition, coastal defenders could then be unable to hold off the first wave of enemy storming the beaches.<sup>177</sup>

While the PLA has drastically ramped up its mobilization capabilities and enhanced the speed with which it might cross the Taiwan Strait, the ROC military reportedly remains stuck with World War II-era designs for beach obstacle systems, and the once powerful underground fortification systems on Taiwan have atrophied.<sup>178</sup> "The main reason the U.S. military didn't invade Taiwan was that Taiwan's defenses were too strong. From this we can see just how important defensive fortifications are," wrote Colonel Chang You-Jing and Lieutenant Colonel Chu Bai-Hong in the ROC Army's Combat Engineer Journal.<sup>179</sup>

### *Preparing for a Long War*

A ROC Army special forces officer, Yeh Shou-Yi, suggests that Taiwan could learn from the Imperial Japanese experience to harden its defenses in several key areas. He notes that the World War II history of Taiwan's defense shows that the ground force alone will struggle to defend the island. A tightly knit joint command structure and robust communication nets are needed, allowing the Army, Navy, and Air Force to support each other's operations and provide mutually reinforcing cover fires. Like the Japanese, Taiwan's military should focus on logistics and prepare deep stockpiles of ammunition and other war materials, he argues, ensuring they will be able to wage a fierce and protracted fight to hold the island. They should enhance training, exercises, and battlefield preparation. "The battlefield situation will be chaotic and ever changing. If we can improve our combat preparations in peacetime, I believe that in wartime...our chances of operational success and victory will definitely go up."<sup>180</sup>

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<sup>176</sup> Ibid., p. 141.

<sup>177</sup> Yeh, *Analyzing the Japanese Military's Fortifications in 1944—The Case of Taiwan*, p. 21.

<sup>178</sup> Chang and Chu, "Examining Homeland Defense Operations Through the Lens of U.S.-Japan Attack and Defense Plans Surrounding Operation CAUSEWAY in World War Two," p. 17.

<sup>179</sup> Ibid., pp. 20-21.

<sup>180</sup> Yeh, *Analyzing the Japanese Military's Fortifications in 1944—The Case of Taiwan*, p. 21.



Figure 21: Major Taiwanese military bases. Most were first established by Imperial Japan.<sup>181</sup>

Yeh observes that the Imperial Japanese paid close attention to their people's state of mind, telling them, "We are all in this together. We live and die together." The Japanese were trained to never surrender and fight to the bitter end if necessary.<sup>182</sup> In contrast, he argues, because Taiwan has been at peace for so long, the people seriously lack an appreciation of the threat and sense of the danger they face. Moreover, some citizens feel their future depends entirely on America coming to rescue them. "In this writer's opinion, our country's thinking and education has been slowly eroded by Chinese Communist political warfare, which is slowly coming to influence the entire country."<sup>183</sup> To ensure the Taiwanese have the will to fight during wartime, Yeh and other officers writing in professional military journals highlight the need for their government to bolster patriotism and improve the quality of mass education.

<sup>181</sup> Map by Louis Martin-Vezian. See Ian Easton, Eric Lee, Grace Price, Colby Ferland, Cathy Fang, Mark Stokes, and Alice Cho, *Before Zero Day: Taiwan's Evolving Defense Strategy and the Struggle for Peace* (Arlington, Virginia: Project 2049 Institute, September 2023), p. 6, at <https://project2049.net/2023/09/27/before-zero-day-taiwans-evolving-defense-strategy-and-the-struggle-for-peace/>.

<sup>182</sup> Yeh, *Analyzing the Japanese Military's Fortifications in 1944—The Case of Taiwan*, p. 21.

<sup>183</sup> *Ibid.*

When it comes to Taiwan's defense, in many ways, what was old is new again.



Image 22: Taiwanese combat engineers emplace beach obstacles during defense drill.<sup>184</sup>



Image 23: Taiwanese tanks enter a tunnel during defense drill.<sup>185</sup>

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<sup>184</sup> 洪健元 [Hong Chien-yuan], 羅伊庭 [Luo Yi-ting], 李德威 [Li Te-wei], and 蕭佳宜 [Hsiao Chia-yi], 漢光 37 號演習 Day2 河岸反突擊、設阻絕 遲滯殲犯敵 [“Han Kuang 37 Exercise Day 2: Coastal Counterattack and Obstacles, Delaying and Destroying Enemy Invaders”], *Youth Daily News*, September 15, 2021, at <https://www.ydn.com.tw/news/newsInsidePage?chapterID=1444914&type=military>.

<sup>185</sup> Ibid.



## Part 6: Lessons of History for the United States

In Europe, the most important strategic decision of World War II, and the one that ignited the hottest discussions, was when and where Operation OVERLORD (the D-Day landings) should take place. In the Pacific, the most monumental debate of the war (and the most controversial at the time) was whether or not to invade Taiwan. Operation CAUSEWAY became the center point around which turned one of the most consequential command decisions of the war, a decision that had long-lasting strategic effects that we are still living with to this day.<sup>186</sup>

This history might teach us an important lesson: deterrence worked before. It can work again. Under certain circumstances, the United States and Taiwan may be capable of preventing a PRC invasion of the island.<sup>187</sup> But a tremendous amount of hard work will be needed to realize that goal. In the last 17 months of World War II, the Empire of Japan mobilized all available civilian resources and conscripted many local Taiwanese. By early 1945, a strong army defended Taiwan that was more substantial than U.S. intelligence reports had forecasted. The defensive infrastructure the Japanese constructed and the stockpiles they prepared surpassed expectations. After the Battle of Saipan, there was little doubt in any American military mind that it would be horrific to fight on Taiwan. Today, troop numbers, fortifications, and intangibles such as the will to fight remain vital to Taiwan's defense.<sup>188</sup>

Many of the same strategic considerations and operational variables that sealed the fate of the American plan to invade Taiwan in World War II could now be at play in Beijing's halls of power. Landing beaches and terrain factors still matter a great deal to the military feasibility of amphibious assaults. Force ratios, weapons technology, logistics support, basing infrastructure, and social mobilization remain crucial factors. Since war plans are not themselves a political end but rather the means to a political end, how a campaign to conquer Taiwan would affect PRC leadership calculations and long-range objectives must be accounted for and considered. Above all else, human factors remain the most important and least readily understood variable.

President Roosevelt was briefed on the plan to invade Taiwan—and like Winston Churchill agreed with it in principle—but he ultimately left the decision up to the Joint Chiefs of Staff. Admiral King was arguably the most powerful member of the Joint Chiefs when it came to the war in the Pacific. He had a difficult personality and felt strongly about the issue but kept an open mind when his trusted theater commander repeatedly urged him to reconsider the war plan.

At Pearl Harbor, Nimitz was influenced by his staff and his commanders in the field. He solicited the views of the joint force leaders around him and listened to them. He wanted to know what his Navy, Army, Marine, and Air Force commanders all thought. When they expressed concerns and proposed alternative strategies, he took them seriously.

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<sup>186</sup> Robert Ross Smith, "Luzon Versus Formosa," pp. 461-477.

<sup>187</sup> Benjamin Jensen, "'Not So Fast: Insights from a 1944 War Plan Help Explain Why Invading Taiwan Is a Costly Gamble,'" *War on the Rocks*, September 8, 2022, at <https://warontherocks.com/2022/09/not-so-fast-insights-from-a-1944-war-help-explain-why-invading-taiwan-is-a-costly-gamble/>.

<sup>188</sup> J. Kevin McKittrick, Jordan Schneider, Ryan Hauser, and Nicholas Welch, "Why America Didn't Invade Taiwan: Operation Causeway in WWII and what that means for Xi," *China Talk*, June 6, 2024, at <https://www.chinatalk.media/p/wwwiis-operation-causeway>.

At Schofield Barracks, Colonel Louis Ely trusted his superior officer, General Buckner, enough to deliver bad news. And he was probably only able to make the crucial estimates that he did because U.S. intelligence cracked the Japanese codes, collected imagery from photographic reconnaissance flights, and composed a library of information on the target. The research effort that went into planning the invasion of Taiwan was extraordinary. The decision hinged on intelligence and exhaustive logistic planning, but above all leaders who created a healthy command environment.

It seems unlikely, however, that Xi Jinping might defer judgment to his military advisors. Annexing or conquering Taiwan appears to matter more to him than any other external issue, and he seems to believe his grand strategy depends on taking over the country and toppling its democratic government.<sup>189</sup> Unlike the Americans in World War II, who could achieve their war objectives by taking a number of alternative pathways, in Xi's officially expressed view there's no other path.<sup>190</sup> Historical analogies, then, can only be taken so far before they lead us astray.

It seems probable that the PRC's intelligence services have invested gigantic sums into preparing their war plans for Taiwan.<sup>191</sup> What remains uncertain is whether this intelligence reaches all of those who need it and whether they would act on it if it did.<sup>192</sup> Fear, mistrust, and suspicion are likely to cloud the minds of those around Xi Jinping and those down his chain of command.<sup>193</sup> After more than a decade of sweeping purges, arrests, and executions, Xi appears to have created an atmosphere where an honest, free-wheeling debate is not likely to survive, let alone flourish.<sup>194</sup>

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<sup>189</sup> Matt Pottinger (ed.), *The Boiling Moat: Urgent Steps to Defend Taiwan* (Stanford, California: Hoover Institution Press, 2024), pp. 4-8.

<sup>190</sup> 任天佑 [Ren Tianyou] and 赵周贤 [Zhao Zhouxian] (editors), 实现中华民族伟大复兴的战略支撑 [Strategic Support for Achieving the Great Resurgence of the Chinese Nation] (Beijing: National Defense University Press, 2018), p. 152. The title of the book could also be rendered "Strategic Support for Attaining the Great Rejuvenation of the Chinese Nation," or "The Strategic Pillars of the Coming Great Rejuvenation of the Chinese People." I chose to apply the term "resurgence" because it reflects the revanchist nature of the object, and the more commonly used term "rejuvenation" can be misleading.

<sup>191</sup> See Kerry K. Gershaneck, *Media Warfare: Taiwan's Battle for the Cognitive Domain* (Washington, D.C., Center for Security Policy, 2021); Kerry K. Gershaneck, *Political Warfare: Strategies for Combating China's Plan to "Win without Fighting"* (Quantico, VA: Marine Corps University Press, 2020); and Mark Stokes and Russell Hsiao, *The People's Liberation Army General Political Department: Political Warfare with Chinese Characteristics* (Arlington, VA: Project 2049 Institute, October 2013), [http://www.project2049.net/documents/PLA\\_General\\_Political\\_Department\\_Liaison\\_Stokes\\_Hsiao.pdf](http://www.project2049.net/documents/PLA_General_Political_Department_Liaison_Stokes_Hsiao.pdf).

<sup>192</sup> For a detailed discussion on PLA intelligence challenges associated with a Taiwan campaign, see 徐立生 [Xu Lisheng] and 王兆勇 [Wang Zhaoyong], 港口登陆作战研究 [Research on Port Landing Operations] (Beijing: National Defense University, 2015), pp. 160-163; 曹正荣 [Cao Zhengrong], 孙龙海 [Sun Longhai], and 杨颖 [Yang Ying] (eds.), 信息化陆军作战 [Informatized Army Operations] (Beijing: National Defense University Press, 2014), p. 167; and 曹正荣 [Cao Zhengrong], 吴润波 [Wu Runbo], and 孙建军 [Sun Jianjun] (eds.), 信息化联合作战 [Informatized Joint Operations] (Beijing: Liberation Army Press, 2008), pp. 172-176.

<sup>193</sup> For indications of top-level fears of an insider threat, see 方昱钢 [Fang Yugang] and 刘继忠 [Liu Jizhong] (eds.), 人民军队建军之本强军之魂 [The Basis for Building the People's Military: The Strong Military Spirit] (Beijing: National Defense University, 2018), pp. 222-224; and 姜鲁鸣 [Jiang Luwu] and 罗永光 [Luo Yongguang] (eds.), 形成军民融合深度发展格局 [Realizing the Deep Development of Military-Civil Fusion in Our Overall Setup] (Beijing: National Defense University Press, 2018), pp. 205-208.

<sup>194</sup> "China's Xi Goes Full Stalin with Purge," *Politico*, December 6, 2023, at <https://www.politico.eu/article/chinas-paranoid-purge-xi-jinping-li-keqiang-qin-gang-li-shangfu/>; David Frum, "China Is Not a Garden-Variety Dictatorship," *The Atlantic*, March 5, 2018, <https://www.theatlantic.com/international/archive/2018/03/china-xi-jinping-president/554795/>; Tom Phillips, "Dictator for life' Xi Jinping's power grab condemned as step towards tyranny," *The Guardian*, February 26, 2018, <https://www.theguardian.com/world/2018/feb/26/xi-jinping-china-presidential-limit-scrap->

Nonetheless, the PRC policy process remains murky and decisions that will be made in the future are unknowable. Xi may have as firm a grasp of the political situation and military realities in China and Taiwan as anyone. It seems likely that unmistakable displays of power and resolve on the part of the United States and Taiwan (and others) could influence his views.<sup>195</sup>

By going back to school on the history of amphibious operations and island warfare in the Pacific during World War II, the U.S. Navy and Joint Force might find lessons from the past about the future of conflict. Revisiting the history of Taiwan-focused war plans could allow warfighters to better assess current challenges and develop insights that inform future strategic, operational, and tactical decisions. Much more remains to be discovered, but time is running short.

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[dictator-for-life](https://www.ft.com/content/cb2c8578-adb4-11e7-aab9-abaa44b1e130); and Jamil Anderlini, “Under Xi Jinping, China is Turning Back to Dictatorship,” *Financial Times*, October 10, 2017, <https://www.ft.com/content/cb2c8578-adb4-11e7-aab9-abaa44b1e130>.

<sup>195</sup> For detailed policy recommendations for deterring a PRC attack, see Gabriel Colins and Andrew S. Erickson, “Annexation of Taiwan: A Defeat From Which the US and Its Allies Could Not Retreat,” *Rice University’s Baker Institute for Public Policy*, August 1, 2024, pp. 87-95, [https://www.bakerinstitute.org/research/annexation-taiwan-defeat-which-us-and-its-allies-could-not-retreat#:~:text=The%20PRC's%20successful%20annexation%20of,a%20U.S.%20Died%20military%20intervention](https://www.bakerinstitute.org/research/annexation-taiwan-defeat-which-us-and-its-allies-could-not-retreat#:~:text=The%20PRC's%20successful%20annexation%20of,a%20U.S.%20Died%20military%20intervention;); Dan Blumenthal, et al., “From Coercion to Capitulation: How China Can Take Taiwan Without a War,” *American Enterprise Institute*, May 13, 2024, <https://www.aei.org/research-products/report/from-coercion-to-capitulation-how-china-can-take-taiwan-without-a-war/>; Andrew S. Erickson, Gabriel B. Collins, and Matt Pottinger, “The Taiwan Catastrophe: What America—and the World—Would Lose If China Took the Island,” *Foreign Affairs*, February 16, 2024, <https://www.foreignaffairs.com/united-states/taiwan-catastrophe>; and Randall G. Schriver, “A Perfect Storm: Managing Conflict in the Taiwan Strait,” *Project 2049 Institute*, October 13, 2023, <https://project2049.net/2023/10/13/a-perfect-storm-managing-conflict-in-the-taiwan-strait/>.

### Appendix A: Place Names Past and Present

Current Name	Name in World War Two	Wartime Code Name
Taiwan	Formosa	Diaphragm
Taipei	Taihoku	Unknown
Keelung	Kiirun	Unknown
Hsinchu	Shinchiku	Unknown
Chiayi	Kagi	Unknown
Tainan	Tainan	Contour
Anping Harbor	Ampin	Clever
Kaohsiung	Takao	Debonair
Fongshan	Hozan	Ammunition
Pingtung	Heito	Denunciation
Zuoying	Toshien	Knapweed
Gangshan	Okayama	Complement
Cishan	Kizan	Unknown
Donggang	Toko	Lancewood
Chaozhou	Choshu	Custody
Jiandong	Kato	Common
Fangliao	Boryo	Appropriate
Hengchun	Koshun	Typhoon
Kenting	Nanwan	Duplicity
Hsiao Liu-chiu	Ryuku-Sho	Unknown
Penghu Islands	Pescadores/Boko Retto	Donation
Xiamen Bay	Amoy Bay	Abolition

## Appendix B. Estimated Japanese Order of Battle on Taiwan (Early 1945)<sup>196</sup>

Unit	Strength	Location
10 <sup>th</sup> Area Army Headquarters, Supporting Units, and Taipei Garrison*	11,881	Taipei
66 <sup>th</sup> Division	16,815	Taipei
161 <sup>th</sup> Air Defense Artillery Regiment	4,000	Sanchong, Taipei
8 <sup>th</sup> Army Air Division (included 9 Kamikaze squadrons)	4,200	Songshan Airbase, Taipei
Tamsui Naval Defense Group (included 2 suicide boat squadrons)	480	Guandu, Taipei
76 <sup>th</sup> Independent Mixed Brigade	3,997	Keelung Fortress
Keelung Naval Defense Group, (included 1 suicide boat squadron)	166	Keelung
28 <sup>th</sup> Combat Engineer Regiment	2,500	Badu, Keelung
9 <sup>th</sup> Division	16,335	Hukou, Taoyuan
Naval Air Defense Group (included 3 Kamikaze squadrons)	2,755	Hsinchu Air Base, Hsinchu
205 <sup>th</sup> Naval Air Defense Group, (included 3 Kamikaze squadrons); 29 <sup>th</sup> Naval Air Defense Group (included 1 Kamikaze squadron)	5,967	Gongguan, Miaoli
8 <sup>th</sup> Army Air Division's 29 <sup>th</sup> Air Group (included 4 Kamikaze squadrons)	4,200	Taichung
162nd Air Defense Artillery Regiment	4,000	Taichung
132nd Naval Air Group (included 1 Kamikaze squadron)	3,731	Huwei, Yunlin
42 <sup>nd</sup> Combat Engineer Regiment	2,500	Ershui, Changhua
71 <sup>st</sup> Division	16,309	Chiayi
40 <sup>th</sup> Army HQ and Supporting Units	4,500	Chiayi
12 <sup>th</sup> Division	15,941	Tainan

<sup>196</sup> Chung, *The Decisive Air Battle over Taiwan: America and Japan Fight World War II on a Third Party's Battlefield*, pp. 153-155. See also "Occupation of Formosa," *Headquarters United States Forces China Theater*, August 31, 1945, p. 2, available at National Archives and Records Administration (College Park, Maryland), Record Group 493, Box 17. With many thanks to Gerrit van der Vees for sharing this source. And see Chang and Tseng, "Thoughts on Japan's Victory II Operational Plan During the Pacific War," p. 64.



30 <sup>th</sup> Combat Engineer Regiment	2,500	Anping Port, Tainan
Naval Air Defense Group (with 2 Kamikaze squadrons)	2,733	Guiren Air Base, Tainan
765 <sup>th</sup> Naval Air Group (with 5 Kamikaze squadrons)	3,834	Gangshan
61 <sup>st</sup> Naval Aircraft Plant	209	Gangshan
Naval Garrison HQ and Supporting Units	6,297	Zuoying Port
6 <sup>th</sup> Naval Aviation Fuel Support Detachment	1,700	Zuoying Refinery, Hsinchu Refinery, Qingshui Refinery
100 <sup>th</sup> Independent Mixed Division	4,633	Kaohsiung Fortress
16 <sup>th</sup> Heavy Artillery Regiment	3,000	Cishan, Kaohsiung
50 <sup>th</sup> Division	14,990	Fongshan, Kaohsiung
8 <sup>th</sup> Air Defense Artillery Regiment	4,000	Pingtung
8 <sup>th</sup> Army Air Division's 22 <sup>nd</sup> Air Group (included 2 Kamikaze squadrons)	4,200	Pingtung
Naval Garrison Detachment Donggang	984	Donggang
Naval Defense Detachment Hengchun (included 2 suicide boat squadrons)	579	Haikou, Hengchun
75 <sup>th</sup> Independent Mixed Brigade	5,500	Penghu Islands
Special Naval Defense Group (included 1 suicide boat squadron)	881	Makung, Penghu
112 <sup>th</sup> Independent Mixed Brigade	5,119	Yilan
Naval Garrison Detachment	724	Yilan
102 <sup>nd</sup> Independent Mixed Brigade	3,782	Hualien
8 <sup>th</sup> Army Air Division's 17 <sup>th</sup> Air Group (included 6 Kamikaze squadrons)	4,154	Hualien
Naval Garrison Detachment Port of Hualien	239	Hualien
103 <sup>rd</sup> Independent Mixed Brigade	3,709	Taitung
Naval Garrison Detachment Taitung	671	Taitung
Naval Garrison Detachment Itu Aba	180	Itu Aba Island

Naval Garrison Detachment Changdao	150	Changdao Island
TOTAL	195,045	
*Supporting units and garrison troops include headquarters staff, communications units, military police, etc.		

## About the Author

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The author would like to acknowledge and thank the following experts for helping to improve this report: Dan Caldwell, Liang-chih Evans Chen, Donald Chisholm, Andrew Erickson, Conor Kennedy, David Kohlen, Ryan Martinson, Paul Smith, Tiffany Tat, William Thayer, Gerrit van der Vees, and Toshi Yoshihara. At the National Archives in College Park, Maryland, many thanks are owed to Jacob Haywood and his colleagues who helped locate and access a treasure trove of declassified documents. At the Naval War College, special thanks are owed to Colin Jackson and Chris Sharman for fostering and supporting this research, Sean Henseler for the opportunity to brief the report to key audiences, Darius Travis for navigational and travel assistance, and Elizabeth Delmage for archival research assistance. Any remaining errors or omissions in the report are the author's responsibility alone.

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