

Elements of Operational Design in the Planning for the Marianas Campaign in 1944

**A Monograph
by
MAJ Chas. J. Smith
U.S. Army**



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas**

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14. ABSTRACT Operational art and the operational level of war became a doctrinal focus for the U.S. Army in the 1980s. This focus led to the development of the elements of operational design. These concepts are not new, and were developed in the interwar period prior to World War II at the staff and war colleges. During this time, however, the military did not doctrinally recognize the operational level or war or operational art. Even though the concepts were not recognized, the intellectual process permeated the officer education system prior to World War II. Clearly, American officers in World War II used something of operational art, including in the planning and execution of the Marianas Campaign. This monograph looks at the question in more detail, by testing the extent to which planners within CENPAC used the elements of operational design in the Marianas Campaign, including end state and objectives, effects, center(s) of gravity, decisive points, direct and indirect action, lines of operation, operational reach, simultaneity and depth, timing and tempo, leverage, balance, anticipation, culmination, and arranging operations. The implication of this study is that as current doctrine evolves, the development, education, and execution of operational concepts in the World War II era continue to be useful.					
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MAJ Chas Smith

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Approved by:

Thomas Bruscano, PhD

Monograph Director

Michael J. Lee, COL, USMC

Monograph Reader

Stefan Banach, COL, IN

Director,
School of Advanced
Military Studies

Robert F. Baumann, Ph.D.

Director,
Graduate Degree
Programs

Abstract

Elements of Operational Design in the Planning for the Marianas Campaign in 1944. By MAJ Chas. J. Smith, USA, 55 pages.

Operational art and the operational level of war became a doctrinal focus for the U.S. Army in the 1980s. This focus led to the development of the elements of operational design. These concepts are not new, and were developed in the interwar period prior to World War II at the staff and war colleges. During this time, however, the military did not doctrinally recognize the operational level or war or operational art. Even though the concepts were not recognized, the intellectual process permeated the officer education system prior to World War II. Clearly, American officers in World War II used something of operational art, including in the planning and execution of the Marianas Campaign. This monograph looks at the question in more detail, by testing the extent to which planners within CENPAC used the elements of operational design in the Marianas Campaign, including end state and objectives, effects, center(s) of gravity, decisive points, direct and indirect action, lines of operation, operational reach, simultaneity and depth, timing and tempo, leverage, balance, anticipation, culmination, and arranging operations. The implication of this study is that as current doctrine evolves, the development, education, and execution of operational concepts in the World War II era continue to be useful.

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INTRODUCTION

Central Pacific Area (CENPAC) forces executed the Marianas Campaign in the summer of 1944, incorporating forces from the U.S. Navy, Marines, Army, and Army Air Forces (USAAF).¹ CENPAC utilized the elements of operational design in planning and executing the campaign, tying into national strategy and bringing Japan closer to defeat. The successful campaign destroyed significant Japanese ground, sea, and air forces, and established forward bases for U.S. bombers to strike Japan, as well as staging areas to assault other strong points.

American forces conducted the Marianas Campaign during a war with two major theaters that contained multiple areas of operation within those theaters. Each campaign influenced other areas of operation and the conduct of subsequent operations. The elements of operational design were critical for commanders and planners in understanding the situation and developing a sound, logical plan to succeed in the Marianas. Understanding and implementing these elements remain critical for commanders and planners to adeptly conduct campaign planning in the contemporary environment.

The terms operational level of war and operational art did not enter into U.S. field manuals or gain cognitive recognition until the 1980s. The 1982 version of FM 100-5 recognized three levels of war, now including the operational level, and emphasized agility, initiative, depth, and synchronization.² The revised 1986 version for the first time acknowledged and defined operational art.³ Operational theory began with the Soviets in the late 1920s.⁴ The Soviet

¹ The Marianas Campaign was also known as Operation Forager.

² Bruce W. Menning, "Operational Art's Origins," in *Historical Perspectives on the Operational Art*, ed. Michael D. Krause (Washington, D.C.: Center of Military History, 2005), 15.

³ Ibid.

cognitive recognition began at this point, “thus, apart from presenting a unique innovation of thought, the Deep Operation theory reflects the conceptual change which has taken place in modern warfare, namely – the recognition of an intermediate level between strategy and tactics and the application of system thinking to the military field.”⁵ Even with this conceptual thought, Jacob W. Kipp, analyst of Soviet military affairs, notes that only “In the final phase of the war Soviet operations achieved what prewar theory had promised.”⁶

The U.S. military lacked a general theory and did not cognitively recognize the operational level of war; however, the education system in the 1920s and 1930s provided an operational art and joint operation framework to officers attending the Command and General Staff and War Colleges. Michael Matheny, in writing his School of Advanced Military Studies monograph, concludes that “operational art did exist in the American Army during the interwar period.”⁷ Clausewitz began to have a large impact in the 1920s on the American military education, manuals, and publications. Clausewitz believed that attempting to define the operational level of war added complexity to something already very complex, and this could have had a major influence on the U.S. military’s lack of cognitive recognition.

Intellectual military thinking progressed during the interwar years. Matheny notes, “Doctrinal thought on campaign planning and operational design made good progress at Ft.

⁴ Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (Portland, OR: Frank Cass Publishing, 1997), 175.

⁵ *Ibid.*, 165.

⁶ Jacob W. Kipp, “The Origins of Soviet Operational Art 1917-1936,” in *Historical Perspectives on the Operational Art*, ed. Michael D. Krause (Washington, D.C.: Center of Military History, 2005), 239.

⁷ Michael R. Matheny, “Development of the Theory and Doctrine of Operational Art in the American Army, 1920-1940” (Master’s Monograph, School of Advanced Military Studies, 1988), iii.

Leavenworth during the twenties.”⁸ Concepts such as branches and sequels, phased operations, lines of operation, culminating point, and the importance of logistics emerged and became a permanent part of higher level planning.⁹ Retired Brigadier General Harold W. Nelson adds “that most of the elements we now associate with the operational level of war were present in these doctrinal statements, though badly obscured by the nomenclature.”¹⁰ Milan Vego, professor of joint military operations at the Naval War College, notes that “In 1927 the U.S. Naval War College adopted for the first time the study of operational problems in addition to strategic and tactical ones; this practice continued through the 1930s.”¹¹ The Marine Corps prepared the *Tentative Landing Manual* in 1934 which provided the enduring basis in the development of amphibious doctrine.¹² The manual’s concept provided the initial basis for studying the operational problems of transportation, fire support, logistics, and logistics over great distances. Although the operational level of war was not officially recognized, all three services implicitly recognized it and progressed the ideas in advanced officer education.

The War College took the operational concepts to the joint level with the Army and Naval War Colleges conducting officer exchanges, “In 1928 the War Department directed the War College to instruct officers not only in the operations of echelons above corps but also in the joint operations of the army and navy.”¹³ Matheny notes the resulting impact of the education

⁸ Ibid., 16.

⁹ Ibid.

¹⁰ Harold W. Nelson, “The Origins Operational Art,” in *Historical Perspectives on the Operational Art*, ed. Michael D. Krause (Washington, D.C.: Center of Military History, 2005), 341.

¹¹ Milan Vego, “On Major Naval Operations,” *Naval War College Review* 60, 2 (Spring 2007): 101.

¹² Jeter A. Isely and Philip A. Crowl, *The U.S. Marines and Amphibious Warfare: Its Theory, and Its Practice in the Pacific* (Princeton, NJ: Princeton University Press, 1951), 37.

¹³ Matheny, 18.

system on the officers it trained, “in addition to developing a system and formats for plans which linked national aims to military objectives in a theater of operations, the college developed joint operational planning.”¹⁴ According to the “Principles of Strategy” written by COL William K. Naylor, Director of General Staff School in the 1920s, “By massing a preponderance of force while economizing elsewhere, the commander plans to achieve an advance deep into the hostile formation. If this operation is successful, it is frequently decisive. It has for its object the separation of the enemy’s force into two parts and then the envelopment of the separated flanks in detail.”¹⁵ Matheny adeptly analyzes Naylor’s principles, “This analysis certainly compares favorably with the most prominent theorists of the day. In fact, it could have been written by Guderian or Tukhachevksy.”¹⁶

The operational art that permeated into the military education system in the interwar years and the lessons of World War II were lost afterwards, with many scholars assuming away American efforts. Newell, notes, “Although World War II had been planned, executed, and won by a series of complex operational campaigns, the mechanics of that effort had been largely forgotten by the early 1950s.”¹⁷ The U.S. military lost the lessons of operational art and doctrinally focused on tactics from this point until the 1980s.

The modern elements of operational design may have been present during the planning and execution of campaigns and operations during World War II. This monograph seeks to answer to what extent the elements were present in the planning of the Marianas Campaign. The

¹⁴ Ibid., 20.

¹⁵ Ibid., 25.

¹⁶ Ibid.

¹⁷ Clayton R. Newell, “Introduction,” in *On Operational Art*, ed. Clayton R. Newell (Washington, D.C.: Center of Military History, 1994), 4.

current doctrine and definitions provide the basis for the analysis. The elements are analyzed primarily through the appropriate U.S. Navy, Marine, Army, and Army Air Force histories, and the operation plans for the campaign.

OPERATIONAL TERMS

The modern definitions of operational art, design, the operational level of war, and the essential elements are provided to establish the framework under which the Marianas Campaign is analyzed. The definition of operational art is “the application of creative imagination by commanders and staffs-supported by their skill, knowledge, and experience-to design strategies, campaigns, and major operations and organize and employ military forces. Operational art integrates ends, ways, and means across the levels of war.”¹⁸ The definition of operational design is “the conception and construction of the framework that underpins a campaign or major operation plan and its subsequent execution.”¹⁹ The operational level of war is “the level of war at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas. Activities at this level link tactics and strategy by establishing operational objectives needed to achieve the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events.”²⁰

¹⁸ Joint Publication (JP) 1-02, Department of Defense Dictionary of Military and Associated Terms (26 August 2008), 397.

¹⁹ Ibid., 398.

²⁰ Ibid., 399.

Several of the operational design elements are considered in analyzing the extent that planners used operational art in the Marianas Campaign.²¹ An operational design element is “a key consideration used in operational design.”²² These design elements include *end state and objectives, effects, center(s) of gravity, decisive points, direct and indirect action, lines of operation, operational reach, simultaneity and depth, timing and tempo, leverage, balance, anticipation, culmination, and arranging operations*. The modern definitions of the design elements are as follows:

End State and Objectives: The set of required conditions that defines achievement of the commander’s objectives.²³

Effects: The physical or behavioral state of a system that results from an action, a set of actions, or another effect. 2. The result, outcome, or consequence of an action. 3. A change to a condition, behavior, or degree of freedom.²⁴

Center of Gravity: The source of power that provides moral or physical strength, freedom of action, or will to act. Also called COG. The concept of centers of gravity also includes linking critical factors, or key nodes, and protecting friendly critical factors from the enemy.²⁵

Decisive Points: A geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contribute materially to achieving success.²⁶

Direct versus Indirect: Direct attacks the enemy’s COG and is the most direct path to victory.²⁷ Indirect attacks enemy’s center of gravity by applying combat power against a

²¹ Termination was not analyzed because the military would continue to be the primary force at the conclusion of the campaign. Forces & Function and Synergy were not analyzed for brevity due to similarity to other elements.

²² JP 1-02., 398.

²³ Ibid., 187.

²⁴ Ibid., 178.

²⁵ Ibid., 81.

²⁶ Ibid., 148.

²⁷ Joint Publication (JP) 5-0, *Joint Operation Planning* (26 December 2006), IV-18.

series of decisive points while avoiding the enemy strength.²⁸

Lines of Operation: A logical line that connects actions on nodes and/or decisive points related in time and purpose with an objective(s). 2. A physical line that defines the interior or exterior orientation of the force in relation to the enemy or that connects actions on nodes and/or decisive points related in time and space to an objective(s).²⁹

Operational Reach: The distance and duration across which a unit can successfully employ military capabilities.³⁰

Simultaneity and Depth: *Simultaneity* refers to the simultaneous application of military and nonmilitary power against the enemy's key capabilities and sources of strength; also refers to the concurrent conduct of operations at the tactical, operational, and strategic levels. Depth seeks to overwhelm the enemy throughout the OA, creating competing demands and simultaneous demands on enemy commanders and resources and contributing to the enemy's defeat.³¹

Timing and Tempo: The relative speed and rhythm of military operations over time with respect to the enemy.³²

Leverage: A relative advantage in combat power and/or other circumstances against the adversary across one or more domains (air, land, sea, and space) and/or the information environment sufficient to exploit that advantage.³³

Balance: The maintenance of the force, its capabilities, and its operations in such a manner as to contribute to freedom of action and responsiveness.³⁴

Anticipation: The consideration given to what might happen, and how to look for the signs that will bring the event to pass.

Culminating Point: The point at which a force no longer has the capability to continue its form of operations, offense or defense. For the offense it is the point at which effectively continuing the attack is no longer possible and the force must consider reverting to a

²⁸ Field Manual (FM) 3-0 Operations (February 2008), 6-9.

²⁹ JP 1-02, 316.

³⁰ Ibid., 399.

³¹ JP 5-0, IV-24.

³² FM 3-0, Glossary 14.

³³ JP 1-02, 314.

³⁴ JP 5-0, IV-27.

defensive posture or attempting an operational pause. For the defense, the point at which effective counteroffensive action is no longer possible.³⁵

Arranging Operations: *Branches* are contingencies built into the plan. They are used for changing the mission, orientation, direction of movement of a force to aid success of the operation based on anticipated events, opportunities, or disruptions caused by enemy actions and reactions. *Sequels* are major operations that follow the current operation. Plans for a sequel are based on the possible outcomes (success, stalemate, or defeat) associated with the current operation.³⁶

STRATEGIC SETTING

In the aftermath of World War I, strategic planners foresaw Japan as the most likely opponent in a future war. The planners further developed War Plans ORANGE from 1924 to 1938, and RAINBOW in 1941.³⁷ These plans focused on holding or establishing a base in the Philippines, and focused on a Central Pacific attack route from Hawaii to the Philippines. Crowl, U.S. military historian, summarizes this point with respect to the Marianas, “The Marianas figured only incidentally in the scheme, since they lay north of the main route of advance from Hawaii to the Philippines. Thus first emerged the Central Pacific concept of strategy.”³⁸ Even with the strategic concept, no one had completed a definitive plan on how to defeat Japan as late as January 1943. In that month, the Casablanca Conference convened, resulting in the establishment of a framework featuring the Marianas as a potential objective.³⁹ Major Carl Hoffman, USMC historian and now retired MajGen notes, “From the January 1943 Casablanca conferences emerged a strategic outline, similar in many respects to prewar plans, which was to

³⁵ Ibid., IV-29.

³⁶ Ibid., IV-31.

³⁷ Philip A. Crowl, *Campaign in the Marianas* (Washington, D.C.: Center of Military History, 1960), 2.

³⁸ Ibid., 3.

³⁹ The conferences were developed for the Allied heads of state to meet; however, the Chiefs of Staff also met to discuss military strategy and planning.

serve as a framework for later formal, written plans. That framework was this: a line of communications through the Central Pacific to the Philippines would be opened, following a route through the northwestern Marshalls and thence to Truk and the Marianas.”⁴⁰ The Marianas was subsequently discussed and developed as an objective throughout the remainder of 1943 at the Washington, Quebec, and Cairo conferences. The plan to seize Guam and the Marianas was submitted to and approved by President Franklin Roosevelt and Prime Minister Winston Churchill at the Cairo Conference in December, 1943.⁴¹ It was through this framework and planning analysis that the Marianas achieved strategic importance.

Many, led by General Douglas MacArthur, opposed the selection of the Marianas as an objective. According to Hoffman, MacArthur’s main objection was, “choosing the Central Pacific route would be time consuming and expensive in our naval power and shipping.”⁴² MacArthur preferred a route through the Southwest Pacific. He later objected, “The Central Pacific route was a return to pre-war plans, which had not assumed the availability of Australia as a staging base for offensive operations.”⁴³ Although he gathered support for his plan, MacArthur would have difficulty obtaining approval.

Members of the Joint Chief of Staff also opposed the Marianas as an objective. Staff members omitted the Marianas in any of the written plans at the Quebec conferences in August 1943. MacArthur’s Chief of Staff, LTG Richard Sullivan, briefed the Southwest Pacific

⁴⁰ Carl W. Hoffman, *SAIPAN: Beginning of the End* (Washington, D.C.: Historical Division, Headquarters United States Marine Corps, 1950), 14.

⁴¹ Crowl, 12.

⁴² Hoffman, *SAIPAN*, 15.

⁴³ *Ibid.*

Command's plan to the Joint Chiefs of Staff, proposing the main effort through their area of operation, and argued against the Central Pacific advance:

It could be carried out only by a series of massive amphibious operations, each of which would take many months to mount; objectives were too far distant for land-based aircraft to be employed in the assault phase; carrier-based aviation could not maintain unrelenting pressure. Thus, he concluded, a Central Pacific offensive could never acquire momentum; it would be a series of starts and stops with the enemy building up to resist faster than we could build up to advance.⁴⁴

The opposition continued at later conferences.

The Pearl Harbor conference convened in January 1944 with representatives from the South, Southwest, and Central Pacific Commands, with many preferring to bypass the Marianas. Members of Nimitz' staff opposed the Marianas operation. These staff members believed that bombing Japan would be ineffective due to the long range, Japanese fighters, and the ability of Japanese bombers to effect bases in the Marianas.⁴⁵ According to E.B. Potter, U.S. Naval historian, "Nimitz wrote concur beside the recommendation and forwarded it to Admiral King. He was thus proposing to abandon the concept of the Central Pacific offensive that he had earlier espoused."⁴⁶ Others reasoned that the islands would be a poor staging area due to the lack of good harbors.⁴⁷ Hoffman analyzes both Saipan and Tinian as potential naval bases, "Saipan lacked the natural facilities of a major naval base. Only a few vessels could find suitable anchorages at Tanapag Harbor."⁴⁸ Tinian could provide anchorage for only few ships, and during

⁴⁴ Samuel E. Morison, *History of the United States Naval Operations in World War II. Vol. 8: New Guinea and the Marianas, March 1944-August 1945* (Boston, MA: Little, Brown and Company, 1953), 7.

⁴⁵ E.B. Potter, *Nimitz* (Annapolis, MD: Naval Institute Press, 1976), 281.

⁴⁶ *Ibid.*

⁴⁷ Hoffman, *SAIPAN*, 19.

⁴⁸ *Ibid.*, 3.

bad weather ships were forced to move.⁴⁹ Another argument, which a majority at the conference held, was that the operation would be costly and not worth the effort.⁵⁰ This argument failed to account for the potential of the relatively flat Tinian Island to support bombing operations. The Japanese had already viewed Tinian as an anchored aircraft carrier, building three major airstrips with another under construction.⁵¹ The arguments against conducting the Marianas Campaign were not without merit; however, they were unable to provide a more acceptable alternative plan. They also failed to adequately account for the benefit of seizing the Marianas.

Admiral King, Chief of Naval Operations, was the primary proponent of selecting the Marianas as an objective. Samuel Morison, Naval Historian, notes that King described the Marianas at the Casablanca conference “as the key to the Pacific situation because of their location astride the Japanese Central Pacific communication line.”⁵² King’s argument was sound. The Japanese logistical sea lines to necessary resources would be cut, bombers could target Japan, and American forces would have a staging area to continue offensive operations. He also countered that the forces MacArthur required would not be available in the summer of 1944.⁵³ According to Victor Brooks, military historian at Villanova University, MacArthur’s plan would require an additional 13 divisions, 2000 land-based planes, and significant augmentation of ships.⁵⁴ King successfully convinced General George C. Marshall (US Army Chief of Staff) and

⁴⁹ Carl W. Hoffman, *The Seizure of TINIAN* (Washington, D.C.: Historical Division, Headquarters United States Marine Corps, 1951), 5.

⁵⁰ Hoffman, *SAIPAN*, 19.

⁵¹ *Ibid.*

⁵² Morison, 5.

⁵³ Victor Brooks, *Hell is Upon Us: D-Day in the Pacific June-August 1944* (Cambridge, MA: Da Capo Press, 2005), 53.

⁵⁴ *Ibid.*

General Henry H. Arnold (USAAF Chief of Staff), both of the Joint Chiefs of Staff, of the importance of the Marianas as an objective at the Quebec conference in August 1943.

General Arnold's support for the Marianas Campaign grew as the strategic setting developed. He questioned the establishment of air bases in China, "could the Chinese protect the B-29 bases from Japanese ground capture?"⁵⁵ He anticipated a Japanese reaction once B-29 operations commenced, and lacked confidence in the Chinese forces capability to provide adequate protection. Additionally, the Combined Logistic Committee concluded that the plan was not feasible from a logistic point of view.⁵⁶ B-29 bases were in fact constructed in China and commenced Operation Matterhorn in early April 1944.⁵⁷ Haywood Hansell, commander of 21st Bomber Group in the Marianas, analyzes the bases in China, "Due to its location, logistical troubles, and relationship to the target areas, 20th Bomber Group had to be given different target priorities, and the group could reach solely the southern portion of Japan."⁵⁸ The Japanese in turn launched offensives in May with the primary objective of neutralizing or capturing air bases in southern China.⁵⁹ The combined effects of the logistical problems and Japanese offensive disrupted and made the B-29 operations from China relatively ineffective.

⁵⁵ Hoffman, *SAIPAN*, 17.

⁵⁶ Haywood S. Hansell, Jr., *The Strategic Air War against Germany and Japan* (Washington, D.C.: Office of Air Force History, 1986), 146.

⁵⁷ Air Bases were prepared in April, but due to the Japanese counterattack and logistical difficulties, the first mission was not flown against Japan until 15 June 1944. B-29 operations from the Marianas proved a better option, and Matterhorn was cancelled in early 1945.

⁵⁸ Hansell, 167.

⁵⁹ Department of Military Art and Engineering, *The War with Japan: Part 2 (August 1942 to December 1944)* (West Point, NY: U.S. Military Academy, 1950), 69.

The Marianas provided several advantages for B-29 operations. The B-29 possessed an operating range of 1,600 miles.⁶⁰ The Marianas, roughly 1,270 miles from Tokyo, would place the air bases within range and closer to those in China. The bases in the Marianas could be more easily supplied than those in China, which would require either longer sea routes through enemy waters or over land through the India-Burma-China Road. The Marianas also provided security. Once seized, the Japanese would not be able to launch an operation to retake the islands, unlike bases in China.

The Joint Chiefs formally directed on 12 March 1944 that Fifth Fleet conduct the Marianas Campaign.⁶¹ They had realized the strategic importance of the Marianas and the effect its capture would have on the Japanese war effort. Morison summarizes the Joint Chiefs decision,

First, there was the Navy's desire to develop Guam and Saipan into advanced naval bases. Second, the Air Force wanted superfortress bases for bombing Japan. In addition, American possession of the southern Marianas would leave the enemy guessing about the next moves: southwest to Palau; west to Leyte or Luzon; northwest to Formosa; or up the Bonins' ladder to Japan. Finally, Guam was an American possession, which we would like to recover promptly in order to end the misery of Japanese rule for our loyal fellow nationals.⁶²

Additionally Hoffman notes that the "Capture of the Marianas by United States forces would effectively cut these admirably-protected lines of enemy communication and provide bases from which we could not only control sea areas farther west in the Pacific, but also on which we could base long-range aircraft to bomb Tokyo and the home islands of the Empire."⁶³ The JCS decision

⁶⁰ Kenneth P. Werrell, *Blankets of Fire: U.S. Bombers over Japan during World War II* (Washington, D.C.: Smithsonian Institution Press, 1996), 84.

⁶¹ Hoffman, *SAIPAN*, 20.

⁶² Morison, 157.

⁶³ Hoffman, *SAIPAN*, 2.

was logical and sound. MacArthur's plan was not feasible with the forces available, and seizing the Marianas would have a direct impact on defeating Japan.

On a strategic level Japanese critical functions could be affected with simultaneity and depth, and U.S. forces would be positioned to conduct the next major operation. Several elements of operational design appeared at the strategic level in determining whether or not to conduct the Marianas campaign. The operation followed the strategic lines of operation. Seizing the Marianas set the conditions to successfully execute further operations to bring about the defeat of Japan. Operational reach was also a major consideration. Admiral Turner, Joint Expeditionary Force Commander, would later report on the operation:

No operation on so vast a scale, with a final thousand-mile hop, had ever before been planned. Inherent difficulties peculiar to amphibious warfare were enhanced by the distance of the Marianas from any Allied continental base, and by the operation's size. No fewer than 535 combatant ships and auxiliaries carried four and a half reinforced divisions totaling 127,571 troops. The destination lay 1,017 miles steaming from Eniwetok, the nearest advanced base, which was little more than an anchorage. And Saipan lay about 3,500 miles from Pearl Harbor.⁶⁴

Although this operation provided a daunting task, with adequate planning the Marianas were within the operational reach of joint forces in the Pacific by 1944.

Seizing the Marianas would bring Tokyo within the operational reach of B-29 bombers, also following a line of operation. These airbases would be necessary due to the Japanese offensive operations and logistical problems in mainland China. General Arnold anticipated this response, and the disruptive effect this would have on bombing operations. Seizing the Marianas would have significant effects on Japan's ability to continue to wage war. The sea lines of supply, mainly from the East Indies, would be disrupted at a minimum. The B-29s would

⁶⁴ Morison, 160.

simultaneously bomb factories, shipyards, and other key infrastructure, also disrupting the war effort. Thus, the enemy would be deprived of adequate amounts of necessary resources to continue its war effort and support its population. Japan's steel production, already not meeting demand, was divided almost equally between civilian and military use.⁶⁵ Hansell adds, "The Committee of Operations Analysts said the destruction of these 6 coking plants would deprive Japan of 66 percent of her total steel output."⁶⁶ Thus, successful bombing against the vulnerable coking plants would effect both the military effort and the civilian population. Seizing the Marianas provided leverage and tempo for future operations. The forward bases would also allow submarines to increase their tempo and add depth to attacks on Japanese shipping. The islands also provide a staging point closer to Japan which facilitates increasingly rapid operations towards Japan.

Another consideration was the relationship with Guam. Although the United States did not colonize the island, Guam was an American protectorate and governed by naval officers until seized by the Japanese in December 1941. The indigenous population, Chamorros, had built a strong relationship with the United States and served in the military. For example, as Morison points out, "Chamorros are great favorites in the United States Navy, in which many had served for years as stewards and mess attendants, winning friends by their willing service and happy personalities."⁶⁷ The relationship made liberating Guam a moral responsibility.

⁶⁵ Hansell, 143.

⁶⁶ Ibid., 144.

⁶⁷ Morison, 158.

JAPANESE SITUATION

The Marianas, aside from Guam, were essentially Japanese territory in all aspects. Japan seized Pacific territories in 1914 and the League of Nations mandated the Marianas, except Guam, to Japan in 1920. The Japanese then migrated to and developed the islands. On Saipan, “The population was between 23,000 and 28,000 of whom about 2,500 were Chamorros and 1,000 Koreans and Caroline Islanders; the rest, Japanese or Okinawan; Tinian’s civilian population of 18,000 in 1941 was almost entirely Japanese and Okinawan.”⁶⁸ The primary resource was sugar cane, with several mills on both Saipan and Tinian. Morison provides insight to the importance of sugar cane, “The South Sea Development Company continued the planting of sugar which Germany had started, and by 1930 they had become an important source of Japan’s domestic supply.”⁶⁹ Morison notes the construction of military airfields, “The Aslito Airfield on the southern end of Saipan, which the Japanese began to construct for ‘cultural purposes’ at a time when military installations in the Mandates were forbidden by the League of Nations, was developed during the war into the most important airdrome between Japan and Truk.”⁷⁰ The Marianas had become Japanese with both economical and military importance.

The Japanese commanders understood the importance of the Marianas; however, they did not consider a decisive battle in this area as advantageous. The Japanese had rebuilt and reorganized their navy, now containing nine aircraft carriers. According to Morison, “An important reorganization of the Japanese Fleet was effected on 1 March 1944 in recognition of

⁶⁸ Ibid., 152.

⁶⁹ Ibid., 151.

⁷⁰ Ibid., 152.

the fact that aircraft carriers had replaced battleships as the most important ships in the Navy.”⁷¹ Even with this new fleet, the Japanese possessed a limited operational reach due to the short supply of refined fuel. The fleet has previously used unrefined fuel from Borneo, but this presented a fire hazard and could damage boilers. The fleet could not receive adequate quantities of refined fuel to sustain operations as far away as the Marianas. Clay Blair Jr., American historian, notes that, “Admiral Toyoda, commander of the Japanese combined fleet, was determined to make a stand in the Marianas and the Palaus to blunt any further western movement of the Allies. His battle plan was known as A-Go.”⁷² The Japanese, possibly influenced by the fuel situation, saw the Palaus and Western Carolines south of the Marianas as the most likely American attack route, which were within the operational reach of the fleet. If the Americans struck at the Marianas, initially, ground forces along with land based planes would fight alone.

Toyoda eventually realized the likelihood of an operation aimed at the Marianas. This resulted in the allowed usage of unrefined fuel to increase the fleet’s operating range. The revised plan relied on a combination of ground and naval aviation to win the decisive victory. Blair notes, “Toyoda hoped to draw the U.S. Pacific Fleet into a decisive battle near the Palaus which he could win with the help of land-based aircraft supplementing his inferior carrier forces.”⁷³ The plan to implement the land-based aircraft was named To-Go. William T. Y’Blood, American World War II historian, describes the role of To-Go, “Prior to the ‘decisive battle’

⁷¹ Ibid., 214.

⁷² Clay Blair Jr., *Silent Victory: The U.S. Submarine War Against Japan* (Philadelphia, PA: J.B. Lippincott Company, 1975), 620.

⁷³ Ibid.

these planes were to destroy at least one-third of the enemy carriers.”⁷⁴ Thus, the Japanese believed, the carrier based planes would then be capable of delivering the decisive blow to the American fleet.

The Japanese forces in the Marianas area of operations presented a strong adversary. Thomas B. Buell, American historian, summarizes that the Japanese defenses contained nearly 60,000 troops, 50 tanks, and considerable amounts of artillery.⁷⁵ Japanese land forces on Saipan numbered 29,662 soldiers.⁷⁶ There were approximately 32,000 on the island, but not all were armed.⁷⁷ Japanese land forces on Tinian numbered 9,000.⁷⁸ Japanese land forces on Guam numbered 18,500.⁷⁹ The Japanese organized 540 land-based aircraft; however, only 172 were stationed in the Marianas.⁸⁰ Morison provides the numbers per island, Saipan 35, Tinian 67, Guam 70.⁸¹ Most of the aircraft were optimally positioned to counter an attack on the Palaus or Western Carolines. The Mobile Fleet contained nine carriers, five battleships, 11 heavy cruisers, two light cruisers, 28 destroyers, and 473 aircraft.⁸²

C2 AND SHAPING OPERATIONS

The American forces that would participate in this campaign were composed of U.S. Navy, Marine, Army, and Air Force (USAAF) units. Admiral Chester W. Nimitz commanded

⁷⁴ William T. Y’Blood, *Red Sun Setting: The Battle of the Philippine Sea* (Annapolis, MD: Naval Institute Press, 1981), 16.

⁷⁵ Thomas B. Buell, *The Quiet Warrior* (Annapolis, MD: Naval Institute Press, 1987), 279.

⁷⁶ Hoffman, *SAIPAN*, 12.

⁷⁷ Morison, 167.

⁷⁸ Hoffman, *TINIAN*, 7.

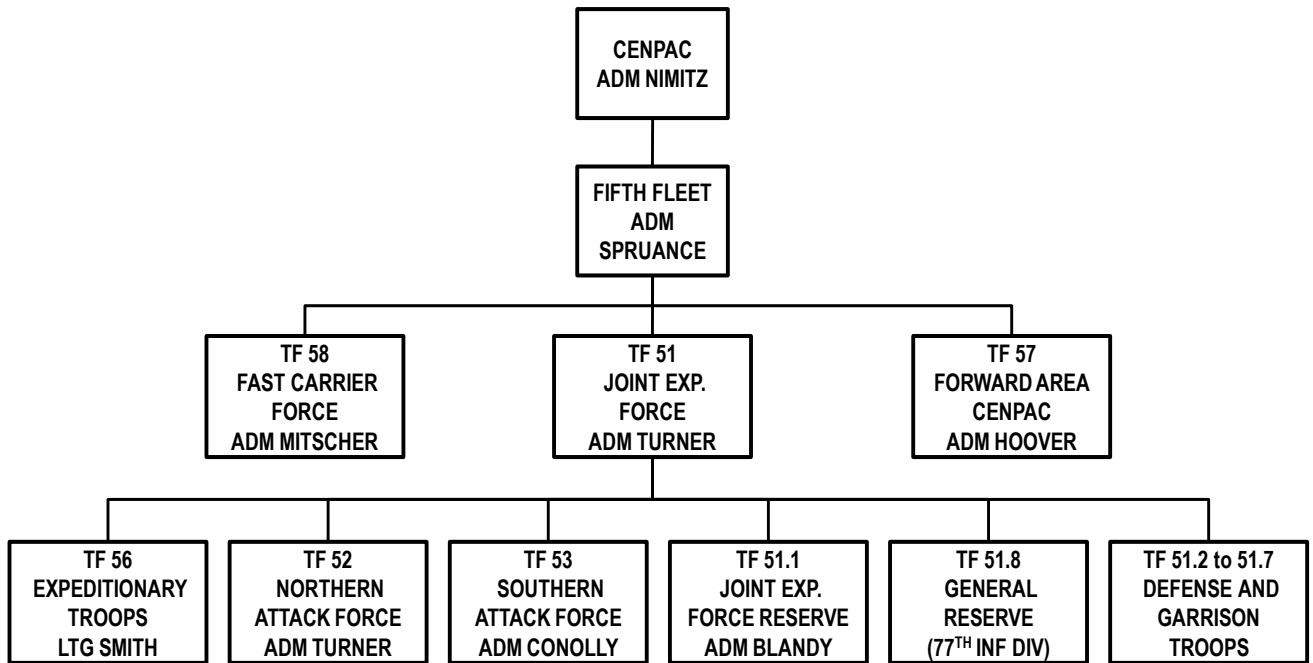
⁷⁹ Crowl, 329.

⁸⁰ Y’Blood, 17.

⁸¹ Morison, 219.

⁸² *Ibid.*, 233.

the Pacific Ocean Area placing all U.S. Navy, Army, and Air Forces in this area under his command. This area was divided into three commands, and Nimitz retained command of CENPAC, also referred to as Central Pacific Task Forces. Fifth Fleet, commanded by Admiral Raymond A. Spruance, conducted the primary planning of Operation Forager. Fifth Fleet controlled three major subordinate commands: Task Force 58 (Fast Carrier Task Force) commanded by Admiral Marc "Pete" A. Mitscher; Task Force 51 (Joint Expeditionary Force) commanded by Admiral Richmond K. Turner; Task Force 57 (Forward Area Central Pacific) commanded by Admiral John H. Hoover. Admiral Turner commanded the amphibious operation in its entirety. General Holland M. "Howling Mad" Smith (USMC), once ashore, would assume command of all ground forces and report to Admiral Turner. Task Force 57 would assume control of ground, air, and naval forces as necessary for the security and defense of the islands.



Admiral Nimitz directed actions to set the conditions for the Marianas campaign prior to Joint Chiefs approval of the operation. Morison describes this action,

On 23 February 1944, only five days after the first great strike on Truk, planes from six of Vice Admiral Mitscher's carriers dropped the first bombs on the Marianas. Nimitz, anticipating the JCS directive of March 12, ordered this raid mainly to obtain photographic

intelligence, since no American or Allied plane had flown over these islands since the fall of Guam.⁸³

This raid and subsequent operations favorably implemented several operational design elements which included *effects, indirect approach, lines of operation, depth, and leverage*.

Although the primary mission of the raid was to gather intelligence, it combined the use of combat aircraft and submarines to disguise the reconnaissance planes, as well as initiating a line of operations against critical nodes for defense of the Marianas. The intelligence gathering mission was of vital importance, for “American ignorance of the Marianas at that time was so complete that the pilots could not even be briefed on where to find airfields; but find them they did, coming in under heavy cumulus clouds.”⁸⁴ Aircraft and submarines were combined to destroy Japanese aircraft and shipping. Morison summarizes the tactics, “The plan that had already been tried at Truk, of stationing submarines about the islands to shoot surface game flushed by aircraft, worked well in the Marianas.”⁸⁵ The combined effects of the combat portion of the raid significantly damaged Japanese forces over four days. Clark G. Reynolds, U.S. Naval historian, notes that the Japanese lost 168 aircraft and 45,000 tons of shipping.⁸⁶ Worthy of mention is the total loss of Japanese shipping to U.S. submarines in the month of February which totaled 250,000 tons.⁸⁷ Even with the success of the combat elements, the fact that Fifth Fleet could gain intelligence to such depth in the Japanese interior was vital to planners for the upcoming operation. According to Morison, Admiral Mitscher commented, “In retrospect, the

⁸³ Morison, 154.

⁸⁴ *Ibid.*, 155.

⁸⁵ *Ibid.*

⁸⁶ Clark G. Reynolds, *The Fast Carriers: The Forging of an Air Navy* (Huntington, NY: Robert E. Krieger Publishing Company, 1968), 140-141.

⁸⁷ Peter Padfield, *War Beneath the Sea: Submarine Conflict During World War II* (New York, NY: John Wiley & Sons, Inc., 1995), 400.

photographic intelligence obtained was even more important than the destruction wrought. New airfields under construction were discovered and some excellent obliques were taken of the shores where the Marines were destined to land in June.”⁸⁸ The raid was a complete success in that both reconnaissance photographs were obtained and the destruction of critical nodes for the upcoming operation had commenced.

The destruction of key nodes did not end with the February raid. Land based aircraft, namely USAAF B-24s, began bombing Japanese air bases that were within operational reach of the Marianas. This bombing, which began in March, did not cease until the campaign started. Wesley Craven, Air Force Lt.Col. and U.S. historian, and James Cate, Air Force intelligence officer and historian, conclude that the major contribution to the Marianas Campaign by the USAAF was the neutralization of enemy bases in the Carolines.⁸⁹ Morison expands on the preliminary bombing, “These are but samples of the constant hammering of by-passed Japanese air bases, which went on up to and through the Marianas campaign and which prevented any effective interference with Operation Forager from the south or east.”⁹⁰ The bombing successfully affected Japanese airbase operations, destroyed aircraft, and initiated an indirect approach to reducing the defensive capability of the Marianas Islands.

The submarines continued to harass Japanese shipping en route to the Marianas. The submarine toll on Japanese shipping had a crippling effect on their ability to build adequate defenses and stockpile supplies. Hoffman relays a Japanese report on the state of affairs, “The current freight shortage, which is caused by shipping losses, has deprived the area of much

⁸⁸ Morison, 155.

⁸⁹ Wesley F. Craven and James L. Cate, *The Army Air Forces in World War II. Volume Four: The Pacific: Guadalcanal to Saipan August 1942 to July 1944* (Washington, D.C.: Office of Air Force History, 1983), 676.

⁹⁰ Morison, 157.

needed material. One ship out of every three is sunk, and a second damaged, by enemy action.”⁹¹ General Saito, Japanese commander at Saipan, informed his superior, “Unless the Navy could give better protection to Saipan-bound convoys, no permanent defenses could be erected. So much construction material had been sunk, that the soldiers could do nothing but sit around with their arms folded.”⁹² The submarines also sank transport vessels containing ground troops destined for the Marianas. These losses included 14,000 infantrymen and 50 tanks en route to Saipan.⁹³ According to Henry I. Shaw, World War II historian, “One regiment of the 29th Division, destined for Guam, lost about half of its men when the transports were torpedoed, and submarines also destroyed another vessel carrying 1,000 reinforcements.”⁹⁴ The submarine harassment successfully used an indirect approach to reduce the potential effectiveness and strength of the island defenses.

PLANNING OPERATION FORAGER

The planning of Operation Forager did not fully address the element of *end state and objectives*. The Operation Plan 10-44 Mission Statement reads, “This force will capture, occupy and defend SAIPAN, TINIAN, and GUAM, will develop airfields on these islands and will gain control of the remaining MARIANAS, in order to operate long range aircraft against JAPAN, secure control of the Central PACIFIC and isolate and neutralize the Central CAROLINES.”⁹⁵ The Mission does provide a reference to an overall objective; however, the Oplan fails to

⁹¹ Hoffman, *SAIPAN*, 9.

⁹² Morison, 168.

⁹³ Brooks, 117.

⁹⁴ Henry I. Shaw, *Central Pacific Drive: History of U.S. Marine Corp Operations in World War II* (Washington, D.C.: Historical Division, Headquarters United States Marine Corps, 1966), 257.

⁹⁵ Fifth Fleet, *Oplan 10-44* (Fort Leavenworth: CARL N-7369, 1944), 20.

describe necessary conditions in determining success and for transitioning to future operations. Admiral Nimitz retained the authority for determining the success of the operation and transitions without envisioning the necessary conditions; subordinates were not provided with specific conditions to aid Nimitz' decisions. The best information the Oplan provided, "The Commanding General Expeditionary Troops will retain command of all forces established on each island objective until the Commander Central Pacific Task Forces has determined that the situation is such that the capture and occupation phase at that island may be considered complete."⁹⁶ Additional information included, "The Commander Central Pacific Task Forces will maintain naval surface forces in the MARIANAS area until the development of the island objectives has progressed to such an extent that garrison forces can defend them against attack by enemy air and light naval forces."⁹⁷ The plan, rather than envisioning necessary conditions for success and transitions, was set to rely on standard reports and the developing situation.

The element of *effects* was a key planning consideration from the strategic to the tactical level. The most significant effect would be strategic; limiting the degree of freedom the Japanese would have in future operations. The seizure of the Marianas would disrupt their sea logistical line, and allow bombers to target Japan. American forces, with the Marianas as a staging area, would be able to conduct future operations on different avenues. Operational effects included targeting critical nodes such as airfields, antiaircraft guns, and artillery to prevent them from influencing the amphibious operation.

The planners did not use the term *center of gravity*; however, the analysis and synthesis for both enemy and friendly at the strategic and operational level is clearly noticeable. The

⁹⁶ Ibid., 25.

⁹⁷ Ibid., I-6.

Japanese strategic center of gravity (COG) was the Mobile Fleet with its nine aircraft carriers. This fleet provided the Japanese their most powerful force, capable of continuing offensive operations. The Mobile Fleet would have to be defeated in order to bring about the defeat of Japan. As long as the fleet existed, the Japanese could continue in the war. The Japanese operational COG consisted of the armed forces on the ground in the Marianas. The islands could not be controlled without defeating the ground forces defending them. The United States strategic COG consisted of TF 58, the Fast Carrier Task Force, and the operational COG was the amphibious forces. The plan linked these COGs and key nodes.

The plan used a *direct and indirect* approach to defeat the Japanese COGs and protect friendly ones. TF 58 would be used directly to defeat the Mobile Fleet. The plan assumed that the Japanese would direct a major naval engagement against the Northern or Southern Attack Forces. Buell notes that “Spruance pondered the best method to employ TF 58 to meet the threat.”⁹⁸ The major threat was the Mobile Fleet, and Spruance’s Oplan contained a Major Action Plan Annex. The Major Action Plan Annex read, “That our carriers and our transports at SAIPAN, TINIAN and GUAM will be the principal objectives of the enemy fleet, and it will seek action with our surface forces only if in superior strength.”⁹⁹ The planners clearly understood the Attack Forces were a critical vulnerability and articulated this in Annex J, “That the combatant strength of our fleet units under Commander Northern Attack Force in the vicinity of SAIPAN and TINIAN, and under Commander Southern Attack Force in the vicinity of GUAM is not in either force sufficiently great to withstand alone an attack by the enemy fleet in

⁹⁸ Buell, 286.

⁹⁹ Fifth Fleet, *Oplan 10-44* (Fort Leavenworth: CARL N-7369, 1944), J-4.

major strength envisaged.”¹⁰⁰ The Attack Forces were a critical requirement in providing fires (naval and air), reinforcements, logistics, and communications for the amphibious forces. The planners were accounting for the Japanese using their COG against a vulnerability, and countered this by planning for the employment of TF 58. The Oplan provided specified tasks to TF 58 in supporting the amphibious operation, but also directed and allowed initiative against the Mobile Fleet if it took action:

enemy action and other circumstances may require changes in this general plan, and the Commander Fast Carrier Task Forces, Pacific is authorized to make such changes as he considers necessary in order to accomplish the tasks prescribed. Where changes affect the operation of other task forces or task groups, the Commander, at the earliest opportunity, informs the task force and task group commanders concerned.¹⁰¹

The plan directed, “This force (TF 58) will take dispositions from which our combatant naval and air strength can engage the enemy fleet and from which our Amphibious Force can avoid enemy action.”¹⁰² The primary mission was to not fully defeat the Japanese Mobile Fleet, but rather prevent them from using their combat power against any element of the amphibious operation:

Carrier Task Groups engaged with the enemy when this plan is placed in effect maintain organization and continue the action if conditions are favorable. At the earliest opportunity operate in areas so that the Main Body is interposed between the Carrier Task Groups and the enemy fleet or join the fleet disposition as signaled. Amphibious Force retire to the eastward or seek protection as a convoy on the side of Fifth Fleet away from the enemy, if status of operations at occupied bases permits and if the threat makes such action necessary.¹⁰³

¹⁰⁰ Ibid.

¹⁰¹ Ibid., G-1.

¹⁰² Ibid., J-4.

¹⁰³ Ibid., J-5.

The plan adequately set the conditions to protect the friendly operational COG from the Japanese strategic COG, and to directly use the friendly strategic COG against the most significant Japanese threat.

The plan used a direct and indirect approach against the Japanese operational COG. The Japanese ground forces would be defeated by using strikes against a number of critical nodes and direct amphibious assault against the ground forces on the islands. The strikes used elements of both TF 58 and the Attack Forces. Fifth Fleet directed TF 58 the following specified tasks commencing on D - 3 through D + 2:

Destroy enemy aircraft and aircraft operating facilities, and antiaircraft batteries interfering with air operations; Destroy enemy coast defense and antiaircraft batteries on SAIPAN and TINIAN; Burn cane fields in SAIPAN and northern TINIAN which may offer concealment to enemy troops; Employ aircraft to destroy enemy defenses at SAIPAN, TINIAN, and GUAM, and to cover and support minesweeping operations at SAIPAN; Employ battleships and destroyers to destroy enemy defenses at SAIPAN and TINIAN.¹⁰⁴

Fifth Fleet also ordered TF 58 to provide air cover, and to strike IWO JIMA and CHICHI JIMA commencing on D + 1.¹⁰⁵ Naval gunfire support, under the command of Admiral Turner, also targeted the critical nodes commencing on D - 2.

The plan established *lines of operations* through the tasks assigned and the timing. *Decisive points* were not specifically addressed, but can be inferred from elements of the plan. Operation Forager was one objective in a strategic line of operation to defeat Japan. The first planned action on the line of operation was striking the air bases within operational reach of the Marianas. Craven and Cate conclude on this planning, "Plans for air support of the Marianas

¹⁰⁴ Ibid., G-1, 2.

¹⁰⁵ Ibid., G-3.

took into account three routes of reinforcement open to Japanese forward bases from which attacks might be made against U.S. forces.”¹⁰⁶ Success would provide the first decisive point, gaining local air superiority. The second planned action in the line was the amphibious operation on Saipan. This would entail bombarding defenses and allowing a sufficient force to establish a beachhead. Establishment of the beachhead would be a decisive point, allowing U.S. forces the staging to attack the remainder of the island. A subsequent decisive point on Saipan was seizing Mount Tapotchau, dominating key terrain which allows observation of most of the island. A concurrent action on the line of operation was the construction of an airfield as soon as possible. Once completed this was a strategic decisive point, as it allowed B-29s to bomb Japan. The plan also allowed for fighter aircraft to use the airfields for operations against Tinian and Guam. Subsequent planned actions in the lines of operation were to then sequentially conduct amphibious operations against Tinian and Guam. Concurrent with all the described lines of operation was defeating the Mobile Fleet. Its defeat would provide U.S. forces a decisive advantage in future operations.

The element *operational reach* was a significant point of contention in choosing the Marianas as an objective. One of the arguments against conducting the campaign was the belief it was out of operational reach. The nearest staging area to the Marianas was over 1,000 miles away. Increased capability and planning placed the islands within operational reach. Morison assesses this capability, “Attack transports (APAs) and attack cargo ships (AKAs) were now present in the Pacific Fleet in sufficient numbers for lifting troops and their assault equipment to the Marianas.”¹⁰⁷ Moving and protecting forces were not an issue; however, maintaining

¹⁰⁶ Craven and Cate, 677.

¹⁰⁷ Morison, 347.

adequate logistics presented a challenge. Morison relays the key logistical analysis, “The net overall estimates, according to a staff study by Captain J. F. Rees dated 12 April 1944, of the number of ships needed up to 30 July, were 120 cargo vessels (only 18 of which were then on hand).”¹⁰⁸ The Service Force contracted War Shipping Administration ships and chartered tankers to mitigate the shortage. The Fifth Fleet oplan specified ships, barges, and land bases stockpile supplies in the Marshall Islands. These stockage points would provide all forms of supply to units enroute to the Marianas through 15 June. Designated ships would transport additional supplies forward to the Marianas. The plan consolidated refueling operations. The Oplan directed:

Fleet oiler task units composed of fleet oilers and escorts, and replacement escort carrier task units composed of an escort carrier and escort will be organized by Commander Service Force, and their initial movements will be directed by him in accordance with a schedule arranged with Command Fifth Fleet. The Commander Service Force assigns an officer with an appropriate staff to direct and coordinate these operations. This officer is designated Commander Task Group 50.17.¹⁰⁹

Fuel would be moved to the Marshall Islands, and TG 50.17 would deliver it forward to units in the Marianas at designated locations and times.

The plan included the element of *simultaneity and depth* in order to defeat the enemy. The submarine screen and preliminary strikes have already been discussed. Both of those applied combat power in significant depth. The Oplan listed strikes on D – 3 attacking a multitude of targets simultaneously and in depth. Buell adds, “Many forces were dedicated to supporting the American assault troops. Hoover’s land-based air forces in the Marshalls, assisted by MacArthur’s air force in the Southwest Pacific, would suppress enemy air in the Caroline

¹⁰⁸ Ibid., 348. Rees’ analysis was based on 9,000 ton Liberty Ships.

¹⁰⁹ Fifth Fleet, H-I-1.

Island's. Mitscher's TF 58 would smother Japanese air power in the Marianas, Volcano, and Bonin Islands."¹¹⁰ TF 58 would conduct the attacks on D – 3. The Northern Attack Force would commence strikes on D – 2, with naval bombardment focused on both Saipan and Tinian. The planned fires for both islands had the same focus, "by fast battleships and destroyers with the mission to destroy aircraft, render airfields temporarily useless, and destroy coast defense, antiaircraft, and artillery guns."¹¹¹ Several specific targets were planned for Saipan on D – 1. As an example from the plan, "kill as many enemy personnel as possible. Particular attention to the destruction of gun positions in the MAGICIENNE BAY, and the beach defenses and installations on the selected landing beaches."¹¹² Strikes continued in depth on both D – 1 and D – Day, with special emphasis targeting critical nodes on Tinian that could directly influence the action on Saipan, "with the mission to destroy or neutralize enemy guns and defenses which can interfere with our landing on SAIPAN."¹¹³ The planned fires for Saipan on D – Day were, "Counterbattery fire, commencing near dawn, and intense destructive fire on beach defenses and installations by ships, then to the flanks and inland to the O-1 line until lifted by order."¹¹⁴ Once ashore, artillery would add to the depth of the firepower. Annex B of the Oplan states, "The XXIV Corps Artillery will support the seizure, occupation, and defense of SAIPAN Island and be prepared on order for further operations against TINIAN Island."¹¹⁵ The plan continues to

¹¹⁰ Buell, 280.

¹¹¹ Northern Troops and Landing Force, Marianas Phase I: Operation Orders 3-44 through 29-44 and Administrative Orders 3-44 through 4-44 (Fort Leavenworth: CARL N-3721-A 1944), C-3.

¹¹² Ibid., C-2.

¹¹³ Ibid., C-4.

¹¹⁴ Ibid., C-3.

¹¹⁵ Ibid., B-1.

state more specifically, “Be prepared to execute counterbattery fires on TINIAN Island.”¹¹⁶

Overall the plan was to strike a large number of targets on numerous islands in depth, at the same time, with naval bombardment and/or aircraft.

Non-military power and the civilian population was only a moderate consideration during the planning. Leaflets would not be dropped on Saipan, most likely to retain surprise, but leaflets would be dropped on Tinian during the Saipan operation. G-2 studies prior to the operation made known that there were potential logistical problems for the civilian population. Although produce was grown locally, the islands were dependent on Japan for food, namely rice. Fresh water was in short supply, and the civilians were forced to rely on rainwater. The plan failed to fully address this problem as well as how to feed the population, “Supplies that can be diverted from stocks allocated to the military forces to the extent that the military situation permits.”¹¹⁷ Provisions were allocated for internees. All Japanese would be considered hostile and put into internment camps until their actual status was determined. The plan directed, “Non-Allied personnel will be considered prisoners of war and treated as such until their exact status is determined.”¹¹⁸ Unfortunately, civilians considered hostile could initially receive more benefit than those considered friendly.

The plan adequately addressed the use of labor once the islands were occupied, including both native and vetted Japanese civilians. It is evident that fairness, culture, and religion were key considerations to ensure the population provided support to U.S. forces. Forced labor was not permitted, and contracts and payments were directed to be equitable and appropriate. The

¹¹⁶ Ibid., B-3.

¹¹⁷ Northern Troops and Landing Force, *Administrative Order of N-3721-A*, Annex D, Appendix 1-1.

¹¹⁸ Ibid., D-2.

plan provided guidelines ensuring families were not separated, and that cultural norms such as working hours and religious taboos were respected.¹¹⁹

While discourse continued over the Marianas as an objective, the proposed date for the operation was November 1944. The *timing and tempo* of all CENPAC operations increased in January 1944. The more rapidly and continuously that operations could be conducted would in turn put increased pressure on the Japanese. Planners changed the Operation Forager D-Day to 15 June. Although the Japanese understood the importance of the Marianas, this was a rear area for them. Prior to 1944 very few troops were stationed there, and the islands were a key link in their line of communications. The earlier the U.S. conducted Operation Forager, the less time the Japanese would have to employ troops and build defenses. Elements of the Forager plan would also increase timing and tempo. The plan incorporated airfields as major objectives, and directed reconstruction as soon as possible. The logistical support was planned such that necessary equipment would be available to work on the airfields. Commanders were directed to expeditiously execute base development work, namely airfields and infrastructure necessary to support operations.¹²⁰ These air bases were planned to support future operations in the Marianas in addition to B-29s. The plan directed that the air bases on Saipan be used by aircraft of TF 59.1 to support the invasion on Tinian.¹²¹

The plan set the conditions to *leverage* an advantage in combat power in the air, land, and sea. The number of aircraft prepared to enter the campaign may not appear to provide the necessary advantage without analysis. The Japanese Mobile Fleet contained 430 combat planes,

¹¹⁹ Ibid., Annex D, Appendix 1-3.

¹²⁰ Fifth Fleet, 26.

¹²¹ Northern Troops and Landing Force, D-1.

of which 222 were fighters.¹²² The Japanese possessed 540 land based aircraft in early June that were within operational reach of the Marianas. Thus, the Japanese could commit a minimum of 970 combat aircraft to the campaign. U.S. forces possessed in excess of 1,100 aircraft for the operation. Mitscher's TF 58 contained 891 aircraft, of which 475 were fighters.¹²³ Y'Blood provides a figure of 902 planes.¹²⁴ Reynolds estimates the escort carriers provided an additional 80 dive bombers and 110 fighters.¹²⁵ USAAF bombers from the Southwest Pacific Area (SWPA) would also participate in the initial strikes. The true nature of the combat power advantage in the area is not easily measurable. The U.S. began building new planes improving speed, armament, and protection, namely the F-6F, F-4U, and Avenger. Brooks assesses the new technology, "This generation of Army, Navy, and Marine planes was already beginning to tip the scales of air power in favor of the United States by early 1943."¹²⁶ U.S. pilots also had an advantage, and by mid-1944 had undergone extensive training and most were combat veterans. More specifically, "every naval aviator had two years training and over 300 hours flying time before he was considered fit to fly from a carrier."¹²⁷ Conversely, experienced Japanese pilots were rare due to attrition. The Mobile Fleet's aviators had only several months of training, and much of the time was wasted due to a lack of fuel and fear of prowling U.S. submarines.¹²⁸ Reynolds adds, "the average American naval pilot had flown 525 hours during training, compared to 275 hours of his

¹²² Morison, 233.

¹²³ Ibid.

¹²⁴ Y'Blood, p33.

¹²⁵ Reynolds, 173.

¹²⁶ Brooks, 30.

¹²⁷ Morison, 235.

¹²⁸ Ibid.

Japanese adversary.”¹²⁹ Thus, each American aircraft possessed significantly more combat value than each Japanese aircraft.

The other immeasurable advantage is based upon the plan and organization of the forces. Significant numbers of Japanese planes were positioned on exterior lines on either a number of different islands or in the Mobile Fleet several hundred miles from the Marianas. Nearly all of the U.S. aircraft would be operating on interior lines in close proximity to the Marianas. Additionally, the 891 aircraft of TF 58 had the advantage of fighting under one commander. The plan set the conditions to achieve aircraft superiority in numbers. The preliminary strikes executed by the USAAF and TF 58 prior to the amphibious landings were designed to destroy Japanese planes on the ground, in the air, and damage airfields. If successful, the Japanese would be at a further disadvantage.

The plan focused nearly all of the available American aircraft carriers and a large number of combat ships for the operation. The Japanese Mobile Fleet was the only significant naval force that could fight in the campaign. TF 58 alone contained 112 combat vessels compared to 55 in the Mobile Fleet.¹³⁰ The only comparable advantage the Mobile Fleet possessed was three more heavy cruisers than TF 58. The carrier escorts, battleships, and destroyers of the Attack Forces under Admiral Turner contributed even further to the large combat power advantage.

The plan contained elements that would ensure *balance* of the forces involved. The first consideration was the phased deployment of forces into the AO. Ships arriving at the forward staging base would only be there long enough to receive supplies and provide Soldiers a chance to stretch. This deployment method would prevent ships from laying in anchor waiting for

¹²⁹ Reynolds, 173.

¹³⁰ Morison, 233.

supplies, and kept the force moving toward the Marianas in an efficient manner. The rotating resupply would allow the maximum power to remain continuously in combat. Elements of the carrier forces would provide continuous combat air patrols to protect fleet, allowing other aircraft to respond rapidly to close air support requirements or to launch attacks on the Mobile Fleet. The designated landing area contained a coral reef that would force landing boats to debark the troops far from the shore. The plan incorporated Army, Navy, and Marine Landing Vehicle Track (LVT) units that would allow Marines to be transported directly onto the beaches and inland with armor protection.

The planners used *anticipation* referencing several critical Japanese responses to the attack. The plan allocated resources to verify the enemy reaction or defeat it. The most significant Japanese reaction would be the employment of its Mobile Fleet. This force could remain defensive, attack into the South West Pacific Area, or challenge Operation Forager. Fifth Fleet addressed the Japanese naval force in its Oplan, “There are indications that nine carriers of various types will be employed hereafter for combatant purposes rather than as aircraft ferries or on escort duty.”¹³¹ First, they anticipated offensive action, and then anticipated the action against the forces of Operation Forager. The plan described an enemy course of action, “That enemy naval forces and carrier based aircraft may attempt to prevent the seizure of our objectives or to interfere with the unloading of material and personnel after seizure has been accomplished.”¹³² In addition to allocating forces to engage this threat if necessary, finding and tracking the movement of the Mobile Fleet was an integral part of the plan, using submarines as long range reconnaissance. The plan directed, “Commander Submarines, U.S. Pacific Fleet will maintain

¹³¹ Fifth Fleet, 18.

¹³² *Ibid.*, 20.

observation...”¹³³ CENPAC also coordinated with the South West Pacific Area for aircraft reconnaissance in searching for the Japanese Fleet, “South West Pacific Area will support operations of Central Pacific Task Forces by aircraft search.”¹³⁴

Another anticipatory factor was determining the Japanese reaction with aircraft from areas within operational reach of the Marianas. The planners anticipated, “That the enemy will endeavor to employ long range aircraft from the CAROLINES, IWO JIMA, and CHICHI JIMA to attack our forces in the southern Marianas.”¹³⁵ These airbases were known to exist, although the numbers and type of aircraft could only be estimated. Rather than providing assets to confirm Japanese action, these airbases were part of the strike plans.

Planners anticipated a counterattack by the tank units on Saipan in an effort to destroy the beachhead. The Landing Force plan included, “All elements will be prepared to repel hostile mechanized attacks with particular attention to the flat ground north and east of CHARAN-KANOA.”¹³⁶ The plan directed subordinate elements to plan fires on the likely counterattack routes. Priority Information Requirements (PIR) established a focus on the enemy employment of a strong reserve which could counterattack at a decisive point, apparently referring to the establishment of the beachhead.¹³⁷

Planners clearly understood the concept of *culminating point*. Two major considerations are evident in the plan that would cause U.S. forces to culminate. The attack would culminate if the amphibious operation was unsuccessful. The plan leveraged overwhelming firepower to

¹³³ Ibid., 19.

¹³⁴ Ibid.

¹³⁵ Ibid., 20.

¹³⁶ Northern Troops and Landing Force, 4.

¹³⁷ PIR were called Essential Elements of Enemy Information in 1944.

protect the amphibious assault. The second major consideration was logistics. The logistics plan attempted to mitigate the necessity of an operational pause due to supply shortages. Units would bring ashore greater than 20 days worth of most classes of supply.¹³⁸ Groups of the various task forces would also rotate to a resupply point on schedule to keep the maximum number of units in combat, while ensuring they maintained adequate supply levels to continue operations.

The Japanese would culminate in the Area of Operations once the Mobile Fleet was incapable of conducting a major operation against the amphibious forces. The plan leveraged significant combat and reconnaissance assets to detect and prevent the Japanese Fleet from effecting the operation. The defense on Saipan could only counterattack and significantly effect U.S. ground forces with the armored forces. Once the armored force was defeated, the defense would culminate. The planners placed significant importance on the location, action, and defeat of the Japanese tanks.

The plan incorporated several *arranging operations*, including both branches and sequels. Operation Forager contained two major sequels, the amphibious assaults against Guam and Tinian Islands. Once Saipan was deemed secure, the plan was to attack each island sequentially. Planners intentionally did not determine hard dates; rather, they planned to set the conditions for the sequels to be successful, and any dates were tentative.

Several significant branch plans were developed at various command levels. Anticipating the Mobile Fleet reaction, Spruance and Mitscher developed several branches for the employment of TF 58. These branches were similar in nature to operational level standing operating procedures to be implemented depending on the circumstances. These branches were

¹³⁸ Northern Troops and Landing Force, *Administrative Order to N-3721-A*, 1.

included in a *Special Disposition Annex* to the Fifth Fleet plan. The amphibious landings on Saipan were planned for Charan Kanoa beaches. A branch was developed to mitigate against subsequent intelligence determining the defenses were too strong. The branch plan consisted of landings north of Garapan and near Tanagap Harbor.¹³⁹ The Expeditionary Force, 27th Infantry Division, prepared no fewer than 21 branch plans for its possible employment on Saipan, Tinian, or Guam.¹⁴⁰

EXECUTING OPERATION FORAGER

The South West Pacific Area launched preliminary strikes and reconnaissance missions with land based USAAF aircraft on 3 June which continued for over a week. The attacks focused on the islands south of the Marianas and caused some serendipitous deception. Actions of the SWPA forces reinforced the Japanese expectation that the next major attack would be in the south. They attempted to reinforce these areas and suffered losses that weakened potential forces for the Marianas. Because the Japanese did not sense the danger in the Marianas, several convoys were moving through the area and were relatively unprotected. Elements of TF 58 attacked the convoys on 12 June and sunk 12 cargo ships, three submarine chasers, and a PT boat.¹⁴¹

Admiral Mitscher accelerated the timing and tempo of the operation. He was in position and asked Spruance for permission to conduct a fighter sweep one day earlier than the planned strikes. Spruance granted the request and Operation Forager began on the afternoon of 11 June. The fighter sweep resulted in a crippling blow to one of the Japanese critical nodes four days

¹³⁹ Hoffman, *SAIPAN*, 29.

¹⁴⁰ *Ibid.*, 27.

¹⁴¹ *Ibid.*, 35.

before the scheduled amphibious landing. The early strike reduced the Japanese land-based air strength by roughly 30 percent, destroying approximately 150 planes.¹⁴²

The planned strikes to effect Japanese critical nodes commenced on 12 June and continued on the 13th. The effects of the three days of bombardment were noticeable by Japanese actions. Hoffman notes, “With most of their planes either burned on the ground or missing in action, the Japanese responded only with sporadic dusk and night attacks during this preliminary phase of the operation.”¹⁴³ The air strikes continued simultaneously against several islands and in depth. Morison remarks that, “On 13 June, two days before D-day, United States carrier-based planes were swarming all over the islands, looking for parked planes or targets of opportunity.”¹⁴⁴ The strikes decreased in tempo against the Marianas on the 14th and 15th because of the scheduled resupply operations and the planned focus shifted north; however, by this time Japanese land based air strength was negligible. The Task Force 56 After Action Report on Operation Forager adds, “Preliminary air strikes and air support during the operations on SAIPAN, GUAM, and TINIAN proved so effective that complete dominance of the air was gained prior to D-Day.”¹⁴⁵ Morison notes, “It was symptomatic of the feeble enemy air strength in and around the Marianas that no more air attacks were directed at the fast carriers until the evening of D-day, the 15th.”¹⁴⁶ The Strikes against Iwo and Chichi Jima on 15-16 June destroyed an additional 101 Japanese planes.¹⁴⁷

¹⁴² Y’Blood, 42, and Hoffman, *SAIPAN*, 35.

¹⁴³ Hoffman, *SAIPAN*, 35.

¹⁴⁴ Morison, 176.

¹⁴⁵ Task Force 56, *Report on Forager* (Fort Leavenworth: CARL N-3258-A, 1944) 6.

¹⁴⁶ Morrison, 178.

¹⁴⁷ *Ibid.*, 239.

The naval bombardment commenced on 13 June and initially demonstrated some flaws in the plan. Two critical factors led to ineffective fires on this day. The first was the integration of minesweepers. The plan directed minesweeping operations and air cover; however, it did not allow the ships enough time to get into position and complete the task. The battleships were also floating antiaircraft batteries and had to maintain a position to protect the escort carriers.¹⁴⁸ Therefore, the battleships and destroyers were initially forced to fire from ranges of over 10,000 yards because it would be too risky to maneuver into mined waters and leave the carriers unprotected. The second critical factor was the inexperience of the units initially tasked with the bombardment. The spotter plane pilots were not trained in locating and identifying ground targets causing them to focus on terrain features. The ships were inexperienced and had not practiced the techniques of shore bombardment. This combination of factors resulted in the initial bombardment focusing fire on general areas rather than pinpointing the key enemy units.

The naval bombardment improved on 14 June when ships with bombardment experience arrived. The plan divided Saipan into six sections, and each ship was assigned specific pinpointed enemy units, facilitating the simultaneous mass of fires.¹⁴⁹ The observation pilots were experienced and capable of finding the targets, and the ships were able to now maneuver to as close as 1,200 yards from the beach. The plan had the naval bombardment continuing until the amphibious vehicles were only several hundred yards from the beach, and then providing on call fires. The overall effectiveness of the naval bombardment is disputed. General Smith assessed the bombardment as a disappointment because of the number of remaining enemy defenses.¹⁵⁰

¹⁴⁸ Isely and Crowl, 331.

¹⁴⁹ Morison, 180.

¹⁵⁰ *Ibid.*, 193.

This assessment appears to not account for the large number of enemy troops and guns on the island, and the fact that they were well-concealed. Many Japanese possess a different view than Smith. Hoffman relays a prisoner of war interrogation report, “I was horrified by the number of deaths on our side due to the naval gunfire which continued every day,” and “The greatest single factor in the American success was Naval gunfire.”¹⁵¹ Morison’s conclusion on naval gunfire, “The fault at Saipan, one of planning rather than execution, was the failure to direct gunfire immediately to the rear and on the flanks of the beaches, where concealed machinegun nests and mortars would be emplaced.”¹⁵² This assessment is inaccurate. The fire support plan, as well as air strikes, specifically outlined fires on the flanks and rear of the beaches. According to Hoffman, on the morning of the 15th, battleships focused fires on commanding terrain features with observation to the beaches, “Affording the enemy positions from which to direct enfilade fire against our landing waves, these areas rightfully received much attention. But, even with this volume of fire, enemy troops and guns remained in action in these areas.”¹⁵³ This part of the enemy defense was not neglected, the fires were just not as effective as expected. Potential causes for the ineffectiveness may have been the inability to assess target damage and the Japanese themselves. Hoffman provides a Task Unit Fire Support report, “The pall of smoke and dust which cloaked the island made damage assessment impossible.”¹⁵⁴ Shaw also notes, “On Saipan the caves were both natural and manmade, and often artfully hidden by vegetation.”¹⁵⁵ Additionally, after receiving two days of bombardment, the Japanese shifted many units

¹⁵¹ Hoffman, *SAIPAN*, 248.

¹⁵² Morison, 183.

¹⁵³ Hoffman, *SAIPAN*, 47.

¹⁵⁴ *Ibid.*

¹⁵⁵ Shaw, 350.

relocated most of their artillery.¹⁵⁶ The fire support plan for Guam followed the same pattern and techniques as at Saipan except in duration, and is perceived as being significantly more effective. Isely and Crowl add, “The quick reduction of Guam, which was defended almost as heavily as Saipan, was to be attributed by many to the fact that for thirteen days before the assault naval vessels and aircraft subjected Guam to a carefully planned, methodical, and concentrated bombardment. Only two days of such preparation were allowed for at Saipan.”¹⁵⁷ This assessment may have some merit, but inaccurately estimates the defensive strengths on both islands, and fails to account for the massive air strikes on Saipan. A Japanese report not only describes the effectiveness, but provides some insight as to why the naval bombardment was more effective at Guam. Colonel Takeda reported, “All coast defense emplacements in the open, and about half of those under cover, were completely demolished before the landings; and these included a number of 200mm guns on points that overlooked the beaches. Fifty percent of all installations (pillboxes, blockhouses, and so forth) built in the inshore area of the landing beaches were demolished.”¹⁵⁸ The defenses on Guam did not benefit as much as those on Saipan from camouflage, and were generally located nearer to the beach area. Additionally, estimates of enemy strength were significantly more accurate on Guam and Tinian.

Anticipating the actions of the Mobile Fleet allowed TF 58 to win a naval engagement with strategic significance. The Japanese suspended their attempts to reinforce islands south of the Marianas after learning of the 11 June strikes against the Marianas, and on 13th the Japanese Fleet initiated movement into the Philippine Sea. The submarine *Redfin* observed and reported

¹⁵⁶ Morison, 183.

¹⁵⁷ Isely and Crowl, 330.

¹⁵⁸ Morison, 381.

the movement. Admiral Toyoda, Commander in Chief Combined Fleet, sent the message on 15 June to his flag and commanding officers to initiate Operation A-Go.¹⁵⁹ This same day the submarine *Flying Fish* spotted and reported the Mobile Fleet's disposition. Spruance knew the decisive naval battle was imminent but still several days in future. He continued the air strike operations in support of the amphibious landings. The plan had allowed for flexibility in the sequencing of operations. The Guam operation was tentatively scheduled for 18 June. After the sightings of the Mobile Fleet, Spruance cancelled the Guam amphibious landing and ordered the Southern Landing Force and other logistical ships to move eastward. He also ordered additional reconnaissance to monitor the Japanese Fleet and for battleships to form a screen on the west side of the Marianas. After completing the air strikes, TF 58 moved west as planned, to force the decisive battle west of the Marianas in order to protect the amphibious and logistic forces.

The two large naval forces engaged in battle on 19 June. The plan of striking Japanese air bases not only paid off for the amphibious forces, but also for TF 58. The Japanese, in accordance with their plan, attempted to reinforce and launch airstrikes from Guam against Mitscher's force. Already depleted, the land based aircraft were unable to achieve sufficient mass. U.S. fighters destroyed 35 aircraft within an hour.¹⁶⁰ The Mobile Fleet successfully seized the initiative, locating TF 58, and launched four large bombing raids. The U.S. plan, having leveraged quantity and quality over the Japanese, prevented the Japanese from succeeding. American fighter planes attacked the raiding groups with devastating effects. Mitscher, aware of the Japanese land based aircraft, maintained a combat air patrol over both Guam and Rota. This resulted in the destruction of numerous aircraft on the ground and the airfields themselves. The

¹⁵⁹ Ibid., 221.

¹⁶⁰ Ibid., 263.

Japanese planned to land carrier planes on those airfields to refuel and rearm, but many were forced to crash or were shot out of the sky. Buell adds, “The Japanese losses were catastrophic – 383 planes, Mitscher estimated.”¹⁶¹ American forces destroyed 315 Japanese Mobile Fleet aircraft alone. This day would be known as the “Marianas Turkey Shoot.”

TF 58 now possessed an even greater advantage, and sought to annihilate the Mobile Fleet. The carriers launched a bombing raid of over 200 aircraft in the late afternoon of 20 June once the Japanese Fleet was located. During this time U.S. submarines also attacked the Japanese ships. The remaining Japanese aircraft sortied to meet the American bombing attack. The results of the battle were staggering. The Japanese had lost three carriers with others damaged, and the fleet now possessed only 35 combat aircraft.¹⁶² Y’Blood provides further detail, “Following the action on the 20th, Ozawa could report only 25 Zekes and 10 other carrier planes in operational condition.”¹⁶³ The Mobile Fleet retired, and Spruance’s orders prevented TF 58 from pursuing them. He understood that his primary mission was to protect the amphibious operation, whose forces were vulnerable if the Japanese were able to reinforce the AO with aircraft. Spruance later commented, “we were at the start of a very large and important amphibious operation and we could not gamble and place it in jeopardy.”¹⁶⁴

The amphibious operation was executed according to plan. Over 8,000 troops were put ashore in 20 minutes.¹⁶⁵ Very few units accomplished all of their D-Day objectives; however, a

¹⁶¹ Buell, 298.

¹⁶² Morison, 301.

¹⁶³ Y’Blood, 213. American named Japanese carrier-based fighters Zekes.

¹⁶⁴ Morison, 253.

¹⁶⁵ Isely and Crowl, 320.

beachhead had been firmly established, with 20,000 assault troops having been put ashore.¹⁶⁶ Establishing this beachhead was a decisive point in seizing Saipan. This would have been impossible without the simultaneous and in depth destruction of Japanese aircraft and reduction of other critical nodes. Although the Japanese remained capable of and placed artillery fire on the beaches, they were unable to mass enough firepower to destroy the beachhead. Increasing the timing of the operation also prevented the Japanese defense from being even stronger. One shortcoming of the planning was estimating the number of Japanese defenders. Thus, although a large number of American troops had been landed, the Japanese defenders maintained a numerical edge. The result would be a month long battle, forcing the sequential operations at Tinian and Guam to be delayed.

The LVTs provided tremendous balance to the amphibious force. Use of the LVTs was vital in getting troops over the reef and onto the beaches. The Army LVT tanks provided the Marines with an offensive capability that would have otherwise not existed until standard tanks in sufficient number were brought to the beaches. LtCol Hudson, commander of 2nd Battalion, 25th Marines, credits Army amphibious tanks for his battalion's success in being able to push inland.¹⁶⁷ The Army's amphibious tank's contributions continued throughout the campaign, preventing forces from culminating and retaining the capability to continue offensive operations. The terrain and enemy guns made resupply forces on Saipan difficult for many vehicle types. According to Hoffman, "Many types of landing craft became bottlenecked at the beachline

¹⁶⁶ Morison, 199.

¹⁶⁷ Hoffman, *SAIPAN*, 56.

(offering the enemy choice targets) and only the LVTs could move inland to dump their loads.”¹⁶⁸

The anticipation of the significant enemy tank forces counterattacking the beachhead paid dividends for the Marines on the ground. The plan had artillery and naval gunfire pre-plotted on the expected attack routes, and units were provided with requisite intelligence to look for the tanks. The Marines in those areas put significant effort into identifying and repulsing this attack, due to the G-2 estimates.¹⁶⁹ The Japanese attacked during the night of 16-17 June with the tanks and infantry, and were met with a combination of fire. Naval gunfire provided illumination. The Japanese tanks moved directly onto one of the planned targets making adjustment unnecessary; 75mm pack howitzers fired 940 rounds on the tank formation.¹⁷⁰ A 105mm artillery battery fired all of its rounds, and the Japanese formation was hammered by machinegun, bazooka, and half-track mounted 75mm gun fire. Daylight revealed 31 charred Japanese tanks in front of the Marine positions.¹⁷¹ Similarly, Crowl adds, “By the end of the battle the Japanese had lost at least 24 and possibly more of their tanks and an uncounted number of infantrymen.”¹⁷² Japanese forces on Saipan had lost their means to conduct an effective counterattack and their defense culminated. Although the battle would rage for another month, the outcome was no longer in doubt.

The line of operation to seize the ground and establish airbases positively effected the campaign. The Oplan tasked units to build or repair airfields as soon as possible, and this would

¹⁶⁸ Ibid., 164.

¹⁶⁹ Ibid., 87.

¹⁷⁰ Ibid., 88.

¹⁷¹ Shaw, 286.

¹⁷² Crowl, 98.

increase the tempo of operations and allow the leverage of additional firepower. The 165th Regimental Combat Team seized Aslito Airfield on 18 June. The Seabees began repairs, and the airfield was operational on 22 June. USAAF P-47s were launched from Navy ships and sent to the airfields; four hours later they were conducted strikes against Tinian.¹⁷³ Within days both the 19th and 73rd Fighter Squadrons were operating from bases on Saipan. Craven adds, “In addition, P-47’s were called upon daily to strafe, bomb, and rocket enemy positions on Tinian and Saipan.”¹⁷⁴ Thus, while TF 58 was focused on the Japanese Fleet, their airpower was quickly being replaced, allowing U.S. forces to maintain continuous attacks on Japanese critical nodes.

The logistics planning allowed U.S. forces to maintain freedom of action, extended operational reach, and allowed an increased tempo and simultaneity of operations. The plan not only provided the operational estimates of critical supplies, namely fuel and ammunition, but successfully resupplied unforecasted but required amounts. The ability to provide supplies over the estimated amounts provided critical during the long campaign, and allowed units to continue fighting without a general operational pause. Morison concludes, “The Navy, during the Marianas operations, burned 43 percent more oil than had been estimated. Yet no ship or plane missed action for want of fuel.”¹⁷⁵ The amount of 5-inch to 16-inch shells fired was colossal. By 10 July the fleet had fired over 165,000 of the large caliber shells, with no ships ever lacking adequate ammunition.¹⁷⁶ The ground troops were never short on ammunition either. The exception was 60mm and 81mm mortar shells where requirements by far exceeded the planned usage. Shaw comments on the reason for this shortage, “mortars were used sparingly on the

¹⁷³ Morison, 209.

¹⁷⁴ Craven and Cate, 691.

¹⁷⁵ Morison, 344.

¹⁷⁶ *Ibid.*, 347.

small land areas of the atolls, but were much in demand on Saipan for close infantry support.”¹⁷⁷ The other problem occurred early in the operation when there was difficulty with vehicles moving to and off the beach, which the LVTs mitigated.

The islands of Guam and Tinian were more easily conquered than Saipan. Both of the islands were subject to naval bombardment and air strikes during the Saipan operation, rendering most of the critical nodes ineffective. As Morison observers on Guam, “by 20 June all Japanese planes based there had been destroyed and the airfields were unusable. Thus enemy air power was no factor in the recapture of Guam.”¹⁷⁸ The planners allowed flexibility on the sequencing of these operations. The operations against Guam and Tinian would be executed according to plan, but at the time when the Saipan was under control and the maximum amount of force could be leveraged. The Guam operation commenced on 21 July and concluded on 10 August. The Tinian operation commenced on 24 July and concluded on 1 August. The Saipan airfields were used to launch strikes against both islands, and artillery bombarded Tinian from Saipan. The firepower was overwhelming, and with the critical nodes destroyed, the main defensive forces could not resist as long.

The plan’s failure to address specific end state conditions resulted in no negative impact on the operation. Shaw notes, “On 15 August, Admiral Nimitz’ defense and development plan for the Central Pacific became effective at Guam. Admiral Hoover was assigned responsibility for operations at Guam as he had been for Saipan and Tinian.”¹⁷⁹ The Island Commands continued mopping-up operations, killing or capturing remaining Japanese soldiers. For example,

¹⁷⁷ Shaw, 348.

¹⁷⁸ Morison, 377.

¹⁷⁹ Shaw, 569.

these operations killed or captured on average 80 Japanese soldiers per day throughout the remainder of August.¹⁸⁰ The island defenses were capable of protecting the air bases and garrisons from the remaining Japanese threat.

CONCLUSION

The planners implemented most of the modern elements of operational design in preparing for Operation Forager in the Marianas. CENPAC forces combined to execute one of the most successful campaigns of the war, succeeding at the strategic, operational, and tactical level. The plan placed overwhelming combat power on Japanese critical nodes simultaneously and in depth. Numerous islands were attacked with a combination of naval gunfire and airstrikes at the same time to deplete Japanese air strength, artillery, antiaircraft artillery, and communications. The attacks systematically reduced Japanese capability as the campaign progressed and placed simultaneous demands on Japanese commanders. For example, Japanese commanders faced such questions as: Should the land based aircraft attack the main U.S. Fleet, the amphibious fleet, or provide close air support to the defense? Should the large caliber artillery focus on the amphibious landings or support ships bombarding the islands? Should reserve forces be sent to the Marianas or islands to the south? The simultaneous demands forced the Japanese commanders to take significant risk regardless of what decisions they made. They were unable to orchestrate a synergistic, effective operation. This is not because they were incapable. Rather, it was due to the U.S. planning and execution of Operation Forager.

The impact of the campaign had significant strategic importance. The U.S. now controlled islands in the heart of the Japanese empire. Japanese lines of supply could now be

¹⁸⁰ Ibid., 571.

attacked with increased tempo as submarines now had a forward operating base and thus improved operational reach. According to Richard Overy, World War II historian, “By 1945 oil imports were almost zero, and stocks fell to a level so low that the fleet could no longer operate.”¹⁸¹ The islands provided a staging base for troops and supplies for future operations. As Crowl notes, “Nimitz’ forward headquarters was set up on the island, and eventually the naval base at Guam was capable of supporting a third of the U.S. Pacific Fleet.”¹⁸² And most importantly, the islands provided secure airbases from which B-29s could bomb Japan. The first B-29 mission was launched from Saipan in November 1944. Eventually five airfields afforded the bombers the opportunity to place Japan under constant attack, leading many Japanese leaders to believe this to be the most critical factor in their defeat. B-29s flying from airfields in the Marianas dropped both atomic bombs on Japan. The strategic bombing capability had a tremendous effect on the Japanese war effort. Crowl comments on the results of the strategic bombing, “Japan’s industrial plants were flattened, her shipping was mined and sunk, and her cities were laid waste.”¹⁸³ Werrell notes, “A postwar survey found that production had declined to 27 percent of their peak output by July 1945.”¹⁸⁴ Seizing the Marianas clearly proved a strategic decisive point along a line of operation to bring about the defeat of Japan.

Japanese forces suffered devastating personnel and equipment losses during the campaign. Essentially every Japanese ground soldier was a casualty, roughly 50,000. Aircraft losses exceeded 1,000 by accounting for the losses of the known aircraft, and factoring in that any reinforcements were also destroyed. The Mobile Fleet lost three carriers, and although they

¹⁸¹ Richard Overy, *Why the Allies Won* (New York: W.W. Norton and Company, 1995), 229.

¹⁸² Crowl, 443.

¹⁸³ *Ibid.*

¹⁸⁴ Werrell, 229.

still possessed six, the air arm was virtually destroyed. Conversely, American KIA was less than 5,000, no carriers were lost, and aircraft losses were negligible. An amphibious operation is one of the most difficult and potentially costly operations, requiring outstanding planning and joint integration. Crowl states, "Perhaps more than any other type of warfare, amphibious operations require a harmony of action, a precise meshing of the multitudinous gears that comprise the whole of the assault machinery. Land, sea, and air forces must be combined in the proper quantities at the proper time and place."¹⁸⁵ The Marianas Campaign contained three amphibious operations, an air campaign, and a major naval operation all near the tipping point of CENPAC operational reach against a strong enemy. The operation would have failed had expert planners not used the elements of operational design.

The operational level of war, operational art, and design are not new concepts. Even though the terminology did not begin to permeate U.S. military doctrine until the 1980s, these concepts have existed since prior to World War II and were developed during the interwar period at the staff and war colleges. Even though not recognized in doctrine, Joint Campaign Planning and the elements of operational design are clearly visible in the planning of Operation Forager. The development, education, and execution of these concepts should not be forgotten, and should be studied and considered as modern doctrine evolves.

¹⁸⁵ Crowl, 446.

BIBLIOGRAPHY

Blair, Clay Jr. *Silent Victory: The U.S. Submarine War Against Japan*. Philadelphia, PA: J.B. Lippincott Company, 1975.

Brooks, Victor. *Hell is Upon Us: D-Day in the Pacific June-August 1944*. Cambridge, MA: Da Capo Press, 2005.

Buell, Thomas B. *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*. Annapolis, MD: Naval Institute Press, 1987.

Crane, Conrad C. *Bombs, Cities, and Civilians: American Airpower Strategy in World War II*. Lawrence: University Press of Kansas, 1993.

Craven Wesley L., and Cate James F., eds. *The Army Air Forces in World War II. Volume Four: The Pacific: Guadalcanal to Saipan August 1942 to July 1944*. Washington, D.C.: Office of Air Force History, 1983.

Crowl, Philip A. *Campaign in the Marianas*. Washington, D.C.: Center of Military History, U.S. Army, 1960.

Department of Military Art and Engineering. "Part 2 (August 1942 to December 1944)." In *The War with Japan*, 1-114. West Point, NY: United States Military Academy, 1950.

Durham, Richard W. "Operational Art in the Conduct of Naval Operations." Master's Monograph, School of Advanced Military Studies, 1998.

"Field Manual (FM) 3-0." *Operations*. February 2008.

Fifth Fleet. *Operation Plan No. Cen 10-44*. Oplan, Fort Leavenworth, KS: CARL N-7369, 1944.

Hansell, Haywood S. *The Strategic Air War against Germany and Japan*. Washington, D.C.: Office of Air Force History, 1986.

Hoffman, Carl. *The Seizure of TINIAN*. Washington, D.C.: Historical Division, Headquarters United States Marine Corps, 1951.

Hoffman, Major Carl W. *SAIPAN: The Beginning of the End*. Washington, D.C.: Historical Division, Headquarters United States Marine Corps, 1950.

Isely, Jeter A. and Crowl, Philip A. *The U.S. Marines and Amphibious Warfare: Its Theory, and Its Practice in the Pacific*. Princeton, NJ: Princeton University Press, 1951.

"Joint Publication (JP) 1-02." *Department of Defense Dictionary of Military and Associated Terms*. August 2008.

"Joint Publication (JP) 5-0." *Joint Operation Planning*. December 2006.

Krause, Michael D. *Historical Perspectives on the Operational Art*. Washington, D.C.: Center of Military History, U.S. Army, 2005.

LeMay, Curtis E. *Mission with LeMay*. Garden City, NY: Doubleday and Company, Inc., 1965.

Love, Edmund G. *The 27th Infantry Division in World War II*. Washington, D.C.: Infantry Journal Press, 1949.

Matheny, Michael R. "Development of the theory and doctrine of operational art in the American Army, 1920-1940." Master's Monograph, School of Advanced Military Studies, 1988.

Morison, Samuel E. *History of the United States Naval Operations in World War II. Volume VIII: New Guinea and the Marianas, March 1944-August 1945*. Boston, MA: Little, Brown and Company, 1953.

Naveh, Shimon. *In Pursuit of Military Excellence: The Evolution of Operational Theory*. Portland, OR: Frank Cass, 1997.

Nelson, Harrold W. *Guam*. Washington, D.C.: Center of Military History, U.S. Army, 1990.

Newell, Clayton R., ed. *On Operational Art*. Washington, D.C.: Center of Military History, U.S. Army, 1994.

Northern Troops and Landing Force. *Change #1 Oplan 4-44 (FORAGER- Phase III)*. Oplan, Fort Leavenworth, KS: CARL N-7368-D, 1944.

Northern Troops and Landing Force. *Change 1 to Operation Plan 3-44*. Oplan, Fort Leavenworth, KS: CARL N-7368-B, 1944.

Northern Troops and Landing Force. *Errata No 1 to Operation Plan 4-44 (FORAGER) - Alternate Plan*. Oplan, Fort Leavenworth, KS: CARL N-7368-C, 1944.

Northern Troops and Landing Force. *Marianas Phase I: Operation Orders 3-44 through 29-44 and Administrative Orders 3-44 through 4-44*. Oplan, Fort Leavenworth, KS: CARL N-3721-A, 1944.

Overy, Richard. *Why the Allies Won*. New York: W.W. Norton & Company, Inc., 1995.

Padfield, Peter. *War Beneath the Sea: Submarine Conflict During World War II*. New York: John Wiley & Sons, Inc., 1995.

Potter, E.B. *Nimitz*. Annapolis, MD: Naval Institute Press, 1976.

Reynolds, Clark G. *The Fast Carriers: The Forging of an Air Navy*. Huntington, NY: Robert E. Krieger Publishing Company, 1978.

Rottman, Gordon L. *Saipan and Tinian 1944: Piercing the Japanese Empire*. Botley, England: Osprey, 2004.

Shaw, Henry I. *Central Pacific Drive: History of U.S. Marine Corps Operations in World War II*. Washington, D.C.: Historical Division, Headquarters United States Marine Corps, 1966.

Sherrod, Robert. *On to Westward*. Baltimore, MD: Nautical and Aviation, 1990.

Smith, S.E., ed. *The United States Navy in World War II*. New York: Quill William Morrow, 1966.

Task Force 56. *Operation Plan 3-44*. Oplan, Fort Leavenworth, KS: CARL N-7368-A, 1944.

Task Force 56. *Report on Forager*. AAR, Fort Leavenworth, KS: CARL N-3258-A, 1944.

Task Group 10.12. *Operation Plan 1-44*. Oplan, Fort Leavenworth, KS: CARL N7372, 1944.

Taylor, Theodore. *The Magnificent Mitscher*. Annapolis, MD: Naval Institute Press, 1991.

Turabian, Kate L. *A Manual for Writers of Research Papers, Theses, and Dissertations. 7th ed.* Chicago, IL: University of Chicago Press, 2007.

Vego, Milan. "On Major Naval Operations." *Naval War College Review*, 2007: 94-126.

Werrell, Kenneth P. *Blankets of Fire: U.S. Bombers over Japan during World War II.* Washington D.C.: Smithsonian Institution Press, 1996.

Y'Blood, William T. *Red Sun Setting: The Battle of the Philippine Sea.* Annapolis, MD: Naval Institute Press, 1981.