

CHAPTER IV

BACKGROUND FOR GUADALCANAL, THE
DECISION TO ATTACK

AMERICAN arms in the Pacific seemed consigned to the doldrums of defeat during the bleak winter of 1941-1942, but the following spring brought freshening signs that the Japanese could be contained and crushed. An opportunity for a limited offensive against the enemy appeared, and on July 2, 1942, the highest military leaders of the United States, despite the calculated risks involved, directed the navy and the marines to undertake the first Allied amphibious operation in the Pacific.

The ability of the United States to attack at this early date stemmed from two important facts. Her carrier air strength was left unscathed by the raid against Pearl Harbor, and compared to the Japanese had sustained few losses by mid-1942. Equally significant, a marine division in keeping with the long tradition of the Corps, was in the Pacific and was trained for amphibious war. The Japanese, on the other hand, failed at Pearl Harbor and later to gain undisputed command of the Pacific Ocean. The geography of that sector of the globe posed both tactical and strategical problems which they were unable to solve. They could effect amphibious operations in the waters of the Far East when these were unopposed or lightly opposed, but they had perfected neither the doctrine nor the techniques of amphibious warfare to the degree necessary for delivering an amphibious assault. Even more pertinent as background to the Guadalcanal campaign was the inability of the Japanese to gain mastery of the sea and air and thus to isolate the targets of two amphibious operations undertaken in the late spring of 1942. In making efforts in this direction, the Japanese suffered heavy losses in carriers and pilots, and their amphibious attack forces were turned back.

These factors, therefore, enabled the United States to seize the offensive in the Pacific, in spite of a global decision to give first priority to crushing Germany. This decision had been tentatively reached by Anglo-American staff conferences before Pearl Harbor, and shortly thereafter was formally approved by President Franklin D. Roosevelt and Prime Minister Winston Churchill acting in his capacity as Minister for Defence. It called for defensive action against the Japanese, since Germany's military power, actual and potential, was judged the

more formidable. The Guadalcanal campaign was in harmony with this overall decision. The immediate strategic objective of the first Allied advance in the Pacific was to hold the line of communication between the west coast of the United States and Australia.

1. Geography and the End of Japan's Offensive

The directive that resulted in the Guadalcanal campaign was issued after a combination of geography and the air arm of the United States Pacific Fleet had defeated the Japanese at the Battle of Midway.

The Pacific basin is so large that its rim almost encircles the globe; its area includes almost half the world. (See map 1.) The edges of the basin outline the principal region of shrinkage on this planet, as through the course of the years the world has lost much of its internal heat to the surrounding space. Subsequently, however, earthquakes and volcanic actions have tossed the ocean floor about, and this along with reef formations has resulted in the present island growth in the Pacific.

Newly formed islands border the ocean on nearly all sides. These are in reality high mountains arranged in long sweeping arcs. Northward of the equator the outermost series includes the Aleutian, Kurile, Japanese, Bonin, Volcano, Mariana, Yap, and Palau arcs. It then drops southward and eastward to encompass the Admiralties, the Bismarcks, the Solomons, the New Hebrides, the Fijis, and New Zealand, where the chain stops.

The island-continental empire which Japan sought to consolidate by war lay to the westward of this huge crescent of newly formed islands, and comprised the Philippines, the Netherland East Indies, New Guinea, New Britain, China, and Southeast Asia. Here was the wealth of natural resources and exploitable labor which Japan sought to control, but strategical considerations dictated that she protect this empire by occupying those of the newly formed islands not already in her possession; and since the United States Navy constituted the greatest threat to the holdings of the Nipponese, it was necessary for them to dominate the islands of the Central Pacific.

These are volcanic peaks thrust upward from the floor of the Pacific as small, solid land masses, or else reef-fringed atolls representing all that remains of mountains that have sunk beneath the waves. They straddle the equator, and, beginning with the Hawaiian and Tuamotu groups in the east, run westward through Johnston, Wake, the Gilberts, the Marshalls, and the Carolines, to mention but a few. Even before the outbreak of World War II, the Japanese had gained the Carolines and Marshalls as mandates from the League of Nations.¹

Japan began the Pacific War with a carefully planned timetable of

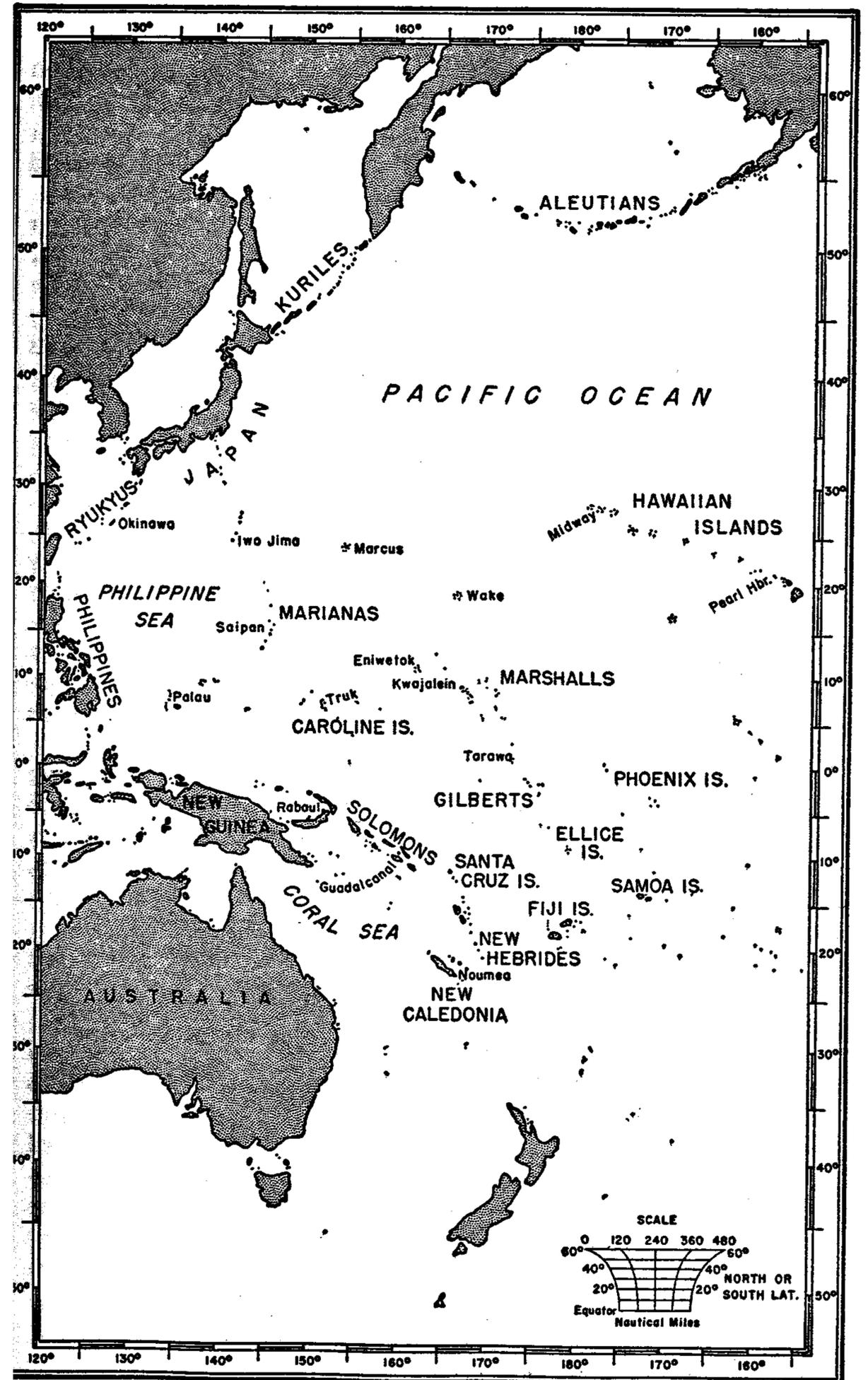
acquisitions. She was moving, so to speak, into a military vacuum. Fortunately for her enemies, she was overcautious. Her first step was unnecessary for strategical reasons, and turned out to be a political mistake of the first magnitude. At the time the United States Pacific Fleet was not planning to move into Far Eastern waters unless and until reinforced; but by raiding Pearl Harbor on December 7, 1941,* Japan hoped to remove all possible threats to her unfolding empire. The attack succeeded in drastically weakening the battle line of the United States Navy. But since American carrier strength was not touched, the military advantages accruing to the enemy were not decisive; and they were offset by the political consequences of the attack. With dramatic suddenness the news of Pearl Harbor united the American people and created a burning determination to destroy Japan.

For the caution which prompted the Pearl Harbor raid, Americans may censure, or thank, the influence of Alfred T. Mahan on the mind of the Japanese. Their naval planners were seemingly unaware of the basic contradiction in their strategy. They recognized that theirs was a limited war with limited objectives, and yet with one stroke they sought to seize command of the entire Pacific Ocean. Not until the time of Midway, and then apparently as an afterthought, did they attempt to test their strategical control of the Central Pacific. When they did so, they discovered that the raid against Pearl Harbor was a hollow victory which had plunged Japan into the vortex of war with a powerful and implacable adversary.

The conquests of the Nipponese from December 8, 1941, through the spring of the following year were all launched amphibiously. Overrunning the Netherlands East Indies, Southeast Asia, New Britain, the Admiralties, New Ireland, the Solomons, the Gilberts, all of New Guinea except the Papuan Peninsula, and most of the Philippines was a simple task because resistance was at best sporadic. Seizing the island of Guam was equally easy. Guam was an American possession in the Marianas, and the only part of that group which had not been mandated to Japan after World War I. It was defended by a few hundred United States Marines and some native troops, all lightly armed. Hopelessly isolated and invaded in overwhelming strength, Guam surrendered after a brief fight. But American army troops on the Bataan Peninsula, soldiers and marines on Corregidor, and marines on Wake and Midway gave a different account of themselves.²

Wake and Midway, pinpoints in the center of the broad expanse of the Pacific basin, were garrisoned by elements of marine defense battalions. These units were heavily equipped, sacrificing tactical maneu-

* All dates and times are local at the place involved.



MAP 1. The Central and Western Pacific.

verability for strategical mobility. In 1941 a typical defense battalion comprised just under 1,000 officers and men, armed with three 3-inch antiaircraft batteries, three 5-inch batteries with two naval guns per battery serving as coastal defense weapons, a searchlight and sound locator battery, and .50- and .30-caliber machine gun batteries.

The westernmost of these two atolls, Wake, was useless as a harbor because its lagoon was fouled with coral heads; but as an advanced air base it was of great importance. It lay some 600 miles due north of the heart of Japanese power in the Marshall Islands, and only slightly farther east by southeast of the enemy's base at Marcus. Important as Wake was as an American outpost in the Central Pacific, it was weakly held when war broke. Not even a full marine defense battalion was ashore, and these troops had been on the atoll for less than four months. Major James P. S. Devereux commanded only 388 marines, and only six of his twelve 3-inch antiaircraft guns could be manned. Nor was time available to complete any of the defensive preparations. Part of a marine fighter squadron was on hand, totaling around sixty men who flew and serviced twelve new Grumman Wildcats, a sturdy plane with great firepower but inferior to the Japanese Zero in rate of climb and in maneuverability. The only other forces present on Wake were seventy unarmed navy and four army (also unarmed) personnel under Commander Winfield S. Cunningham USN, who was the island commander.

Japanese air raids on Wake began almost simultaneously with those against Pearl Harbor. Those against the atoll were staged out of the Marshalls, and the first one caught the marines unaware because they had no radar and their sound locators were useless beside a raging surf. Six of the eight planes on the ground were lost on the first day, December 8.

Japanese bombers from the Marshalls lashed the marines isolated on Wake for three days, and early on the morning of December 11, the enemy's attack force arrived. It was abominably commanded; its assault element was contemptuously weak. There were only 450 special naval landing troops, the Japanese counterpart of the United States Marines. American doctrine called for at least a three-to-one superiority under such circumstances, but the Japanese must have believed all Americans either cowards or inept fighters; for if available evidence is reliable, the enemy had overestimated the defenders by 100 per cent. It is probable that the Japanese were planning to augment their assault troops with bluejackets from their men-of-war, but even so, on the basis of their intelligence, their landing force was inadequate by American standards. No matter, their first attempt never progressed beyond the preliminary stages.

The Nipponese correctly calculated that no covering force was needed, and none was on hand. Their special landing troops were lifted in two old destroyers converted to transports, while their garrison components were embarked in medium-sized transports. Six destroyers, two obsolete light cruisers, and the new light cruiser *Yubari* screened the transports and attempted to deliver effective gunfire support.

The enemy's attack force commander, apparently serene in the belief that earlier air strikes had knocked out the coastal batteries on Wake, violated a basic principle of amphibious warfare. Rather than beginning to fire his heavier weapons while beyond the range of the coastal guns, he boldly sailed up to within four miles of Wake and, just at dawn, started gunfire preparation. Some hits were scored, but Devereux astutely held fire while the Japanese ran in ever closer to the muzzles of his 5-inch guns. Then the marines opened up with salvos that holed *Yubari*, damaged an old light cruiser, a destroyer transport, a medium transport, and three destroyers, and sank a fourth destroyer. Such accuracy must have surprised the Japanese, and they would have been more than a little upset had they known at the time that the marines were not fully equipped with fire-control mechanisms and that those they had were obsolete. The Japanese were for the moment beaten. They retired behind a smoke screen, but one of the remaining marine fighters took the air and with a single bomb exploded a destroyer which apparently was carrying a deck-load of depth charges.

When the Japanese made their second effort against Wake on December 23, they knew the United States had fleet carriers operating in the Pacific and they could no longer rely on the disruptive impact of an attack against Pearl Harbor. They sensibly called in two covering forces, but these were poorly deployed. Six heavy cruisers and six destroyers sailed to the eastward of Wake in close cover of their attack force, while several hundred miles to the northwest of that atoll they disposed a carrier force in strategic cover. Japanese carrier planes could strike Wake, but would have been unable to reach any American carrier which launched planes against the close covering and attack forces. America's top navy commander in the Pacific was simultaneously attempting to send a relief expedition to Wake, covered by a fast carrier; but delay and indecision on both the implementing level of command and at Pearl Harbor caused the United States Navy to miss an opportunity so rare that it would be paralleled only twice in the course of the Pacific War. At the Battle of Savo Island in the Southeastern Solomons and the Battle for Leyte Gulf in the Philippines, the fates of war favored the Japanese, and they fumbled rather

than missed their golden opportunities. As for Wake, the United States relief expedition for that atoll was recalled at the critical juncture.

Preliminary to the second attempt to capture Wake, the Japanese laced the atoll with both land- and carrier-based air strikes, and then turned up with a greatly strengthened attack force. Earlier ship losses had been more than replaced, and the number of special naval landing troops had been more than doubled. Even so, the Japanese were so fearful of an amphibious assault that they refused to risk it. They failed to utilize their vastly superior ship batteries for preliminary naval gunfire support. Rather in the dark of night they beached their landing craft, including two destroyer transports, and took Wake by beach infiltration. Against defenses normal to similar targets in the Central Pacific throughout the remainder of the war, such tactics would have been quickly fatal to the attacker; but against Devereux's tiny force, poorly equipped, without a functional searchlight, and battered by more than two weeks of continuous air strikes, these tactics, although at substantial loss in Japanese lives, were successful. Wake proves that the Japanese were unprepared to deliver the amphibious assault.³

Circumstances surrounding the capture of Corregidor by the Japanese differed greatly from those at Wake. Corregidor is adjacent to land masses, and was pulverized by shore-based Japanese artillery as well as by enemy air strikes before an assault was attempted. When it came, the marines and the army and navy troops defending the island were underfed and haggard after a five months' siege, and they had always been deficient in equipment.

Defense of a large sector of Corregidor's beaches was assigned to the Fourth Marine Regiment, commanded by Colonel Samuel L. Howard. His troops were evacuated from Shanghai very late in November 1941, and arrived in Lingayen Gulf just before the Japanese began the Pacific War. Their commander urged General Douglas MacArthur's chief of staff to let them fight on Bataan, but this request was turned down. In China, the regiment had been under strength, but as it moved onto Corregidor it was augmented with the marines previously stationed at Cavite naval base, and subsequently it absorbed blue-jackets and miscellaneous army troops until the total strength was more than 4,000 men. The majority of these, however, were marines, and to them should go much of the credit for the fact that the island they helped to defend held out longer than any other position inundated by the first Japanese offensive.

Aerial bombing rocked Corregidor from the outset of the Pacific War. The real siege began on April 9 when Bataan, after a heroic defense by United States Army and Filipino troops, fell to the enemy

who quickly placed batteries on that peninsula to join voices against Corregidor with those guns already firing from the vicinity of Cavite on the southern shore of Manila Bay. Air attacks never lessened, and these along with the shore-based Japanese weapons took out the defensive installations on Corregidor one by one.

Again the Japanese began their amphibious attack at night, an hour before the moon rose during the evening of May 5. They operated against some of the beaches held by the Fourth Marine Regiment. Their preparation was thorough, and their plans were good, but the shore-to-shore movement was disorderly and lacked momentum. Although the marines and their army-navy comrades had little more than small arms with which to beat back the onslaught, for a time its success quivered in the balance. Lieutenant General Masaharu Homma, commanding the Japanese Fourteenth Army from his headquarters on Bataan, is said to have groaned as he listened to reports of the fighting, "My God, I have failed in the assault."

Already, however, the sun had dawned on May 6, the marines had committed their last reserves, and finally the Japanese managed to get tanks ashore. That ended the contest. The marines had no antitank guns. Major General Jonathan Wainwright USA, faced reality and ordered capitulation. Howard of the Fourth Marines echoed Homma. "My God," he said, "and I had to be the first Marine officer ever to surrender a regiment."⁴

Guam, Wake, and Corregidor, like other Japanese victories in the first phase of the Pacific War, were obtained after gaining complete mastery of the sea and air in the target area. Failure to repeat this performance in two similar efforts during the late spring of 1942 resulted in reverses for the Imperial Japanese Navy, and made feasible an Allied amphibious operation against the Southeastern Solomons.

Just as Corregidor fell, a United States carrier task force turned the Japanese back from an attempt to land in the vicinity of Port Moresby, close to the southeastern tip of the Papuan Peninsula, British New Guinea. Despite the delay encountered in the Philippines, the enemy was ahead of his schedule of conquests, and in May and June of 1942 was embarking on a new series of expansions in an effort to secure even stronger bases for the protection of his newly won empire. These new movements, ranging from the Aleutians southward through Midway to the Coral Sea, were only tentative parts of the enemy's original war plan. Having begun cautiously and having met with great success, the Japanese were now overconfident. Their top naval commanders insisted on further aggrandizement, and at the critical juncture the navy's hand was strengthened by Lieutenant Colonel James H. Doolittle's Army Air Force raid from the fleet carrier *Hornet* against Tokyo.⁵

The first of these new moves chronologically was against Allied positions adjacent to and south of the Solomon Sea. The strategic objective was to isolate Australia from the United States, and eventually to place New Zealand in the same weakened position. Early steps toward such setbacks for the Allies had already been taken. The Japanese in January 1942 had captured Rabaul, an excellent harbor at the northeastern tip of New Britain, and were building it up as a pivotal base in guarding the southeastern corner of their empire. In order to consolidate their hold on Rabaul, and to isolate if not to invade Australia, they were forced to encircle the Solomon Sea. (See Map 2.) Nor would the process end there. They must burst loose from the Solomon Sea southward into the Coral Sea before capturing Port Moresby and destroying Allied strength in the New Hebrides and New Caledonia.

Tulagi, key harbor in the southeastern portion of the Solomon Islands, fell to the Japanese without resistance on May 3, but the amphibious expedition headed for Port Moresby was forced to turn tail because of a strategical defeat which the Japanese navy suffered at the hands of the United States Pacific Fleet in the Battle of the Coral Sea, May 7-8. It was here that Japan's carrier air strength, with the loss of a light carrier and major damage to a heavy carrier, began to dwindle.⁶

From the Coral Sea the scene shifted to the Central and Northern Pacific where in early June the Japanese landed on Attu and Kiska, and attempted to seize Midway. The atoll at Midway is the most important military position in the northwestern sector of the Hawaiian chain. In the words of the Japanese, "Midway acts as a sentry for Hawaii."⁷

The Japanese, sailing under the flag of their highest ranking admiral afloat, Isoroku Yamamoto, showed at Midway that they understood the prerequisites which make amphibious warfare possible, but, unlike Wake, they never had an opportunity at Midway to exhibit whether or not they could assault a heavily defended beach. They advanced on Midway with the same intent and essentially the same command and task organizations that would later guide the United States under similar circumstances. Yamamoto sought a fleet engagement which would complete the job begun at Pearl Harbor by sinking America's fast carriers in the Pacific and would give the Japanese unquestioned command of the sea and air. For this reason fast carriers were in the vanguard of their approach, but the Americans were waiting. The commander of the Japanese carriers, concluding that he had achieved strategical surprise, launched his planes for a strike against Midway early on the morning of June 4, and was virtually defenseless against United States carrier planes when these began swarming over

his task force a few hours later. On that day and the next, the Nipponese lost four fleet carriers, all they had on hand at the time. The amphibious attack force steaming for Midway, now without air cover, reversed course.

Midway has been interpreted as a victory of land-based against carrier-based air. This view was given credence at the time because of the exorbitant claims of the Army Air Forces. The air general on the scene stated that the battle was principally won "in the blasting by the Flying Fortresses of the Japanese Naval Task Force, including carriers," and even the cautious *New York Times* concurred editorially. Lieutenant General Henry H. Arnold USA was even more expansive, stating that during the first six months of the Pacific conflict, army planes had sunk thirty-three warships and forty-four transports, freighters, and tankers.⁸

Had such an interpretation been widely accepted in responsible military quarters, it would have altered the future course of the Pacific War. The conclusion would have been that carriers could not operate against land-based planes, and as a result there would have been no means by which targets in the Central Pacific could be isolated and prepared for the amphibious assault.

Facts brought to light after the war show conclusively that naval airmen were correct in their analysis of the Midway encounter, that it was a victory of carrier air against carrier air. The Joint Army-Navy Assessment Committee carefully checked all Japanese navy and merchant shipping losses and credited the United States Army Air Forces during the first six months of the war with sinking only two small Japanese minesweepers, and, assisted at times by other arms, with demolishing eight transport and cargo vessels displacing 500 tons and over. The accurate study of the Joint Army-Navy Assessment Committee goes further. It reveals that not only before and during the Battle of Midway, but for the remainder of the Pacific War, the majority of Army Air Force pilots were untrained and unequipped to hit ship targets. They insisted on releasing their bombs at fantastic altitudes, while airmen flying carrier-type planes were drilled in the necessity for coming in low. There was one blanket exception to this statement. The army flyers under Major General George C. Kenney USA, MacArthur's air commander, were given special training and equipment, and beginning early in 1944 they achieved notable successes at low altitudes in antishipping strikes.

As for the Battle of Midway, official Air Force historians have pointed out that the twenty land-based heavy and medium bombers participating flew a total of fifty-nine sorties, but failed to touch a single Japanese carrier while it was operational and maneuvering at high speeds. The army pilots probably inflicted slight damage on a

transport, and late in the battle, by descending to the altitude of 3,600 feet, possibly damaged a destroyer, and bombed, strafed, and helped to sink a carrier that had already been chewed up by United States Pacific Fleet planes. In extenuation of the army airmen, they were inexperienced in the type of warfare involved, were near exhaustion from having flown extensive reconnaissance sorties and from having helped hand-service their own planes, which were too few in numbers to expect to obtain a hit accidentally through their own doctrine of mass drops.

Marine pilots flying from Midway Atoll also participated in the battle; their craft were carrier types and they were indoctrinated in low altitude attack tactics. Their performance was superior to that of the army flyers, but even so it left much to be desired. Most of these marines, like the army airmen, were inexperienced and some were not fully trained. They too had to help service their own craft, and three-quarters of their twenty-eight fighters plus almost one-half of their thirty-six dive bombers were obsolete. A marine pilot testified that the antique Brewster fighters seemed tied to a string when Japanese Zeros made passes at them. Nevertheless, the greatest contribution made by the marine airmen at Midway was in shooting down enemy aircraft.

Damaging or sinking Japanese warships was a different story. If the postwar testimony of one of the captains of an enemy carrier lost at Midway is to be believed—testimony refuted by other evidence—a marine dive bomber attack came down to from 500 to 200 feet altitude and damaged an enemy carrier very early in the battle, but this injury, if inflicted, was minor and repairs were quickly made. It is possible that a battleship was also lightly shaken up by other marine airmen at about the same time. Late in the engagement, marine dive bombers jumped two Japanese heavy cruisers which were limping away from Midway after colliding with one another. One of these cruisers was sunk, and additional misery was dealt out to the second.⁹

Unquestionably it was carrier-based American pilots who denied the enemy command of the sea and air at Midway, although the claims of the Army Air Forces were used in an effort to influence subsequent operational planning of the United States in the Pacific.

Since the Japanese were unable to localize the target at Midway, what would have developed into an amphibious assault never took place. The atoll was well guarded by marine defense battalions. Whether or not the enemy's tactics would have shown improvement because of his experiences at Wake will forever remain a mystery.

The principal lesson of Midway is the fact that this battle, along with the earlier raid on Pearl Harbor, clearly reveals the concern of the Japanese for the Central Pacific, control of which was essential in protecting their co-prosperity life line, running from their home

islands south into the Netherlands East Indies and Southeast Asia. It was in the Central Pacific that their navy made its final all-out effort to advance amphibiously; here they established key defensive positions; and when the tables were turned and the United States assumed the offensive, the Japanese ultimately capitulated, in large part under the pressure exerted in the Central Pacific. Unlike the Japanese, the United States Navy and its marine arm, assisted by Army Air and Ground Forces, were able to seize control of the sea and air and to deliver the amphibious assault.

2. *Command Relations and America's First Offensive*

The drive across the Central Pacific was launched only after a dispute between the United States Army and Navy in another quarter of the Pacific had been resolved. America's high command was anxious to capitalize on Japan's reversals in the Coral Sea and at Midway, and this could best be done by taking the offensive immediately. The discussion was couched in terms of the precise geographical point to be seized by America's first amphibious operation in World War II, which in turn involved the designation of the implementing commander, army or navy. The compromise reached was, under the supervision of the navy, to secure a lodgement in the Southeastern Solomons.

At the time this controversy occurred, which was in the early summer of 1942, the connection between it and any march across the Central Pacific was, on the surface, remote; but it is safe to conclude that the participants were fully aware of the implications of their decision, which helped lead directly to Tarawa and beyond. The basic issue was whether the naval or the army forces in the Pacific would spearhead the attack against Japan. Suspicions arose that each service, army and navy, was trying to make the other subservient in the Pacific. The basic issue, however, was fought out in terms of geography, and this brought up the problem of command. It is thus necessary to discuss command relationships from the highest echelon down to the implementing level. The focal point of interest is the officer in command of a joint task force comprising army, navy, and air force components.

The command hastily established under General Sir Archibald Wavell by the Americans, British, Dutch, and the Anzac commonwealths never had an opportunity to function well and disintegrated as the Japanese engulfed the Malay barrier and the Netherlands East Indies. Shortly thereafter, in February and March 1942, command arrangements were made for the Pacific which lasted throughout the war.¹⁰

The United States was, through agreement with the other Allied powers at war with Japan, given full strategic responsibility for the entire Pacific basin, except for the Malay barrier. This was done by the Combined Chiefs of Staff, who were the principal military advisers to President Roosevelt and Minister for Defence Churchill. Early in 1942 the Combined Chiefs of Staff agreed that Germany should be defeated first, but the Japanese had to be stopped and the United States Navy was anxious as early as possible to begin placing unremitting pressure on them.¹¹ Thus the Combined Chiefs of Staff, by controlling the allocation of men and materiel, retained technical supervision over the Pacific War; but since the strategical use to which these troops, weapons, and supplies were put was solely up to Roosevelt's ranking military advisers, these men are of principal interest in a study of the conflict in the Pacific.

These officers began calling themselves the Joint Chiefs of Staff in February 1942. The composition of the body varied slightly early in the war, but soon settled down to four men: Admiral William D. Leahy, Chief of Staff to the President; General George C. Marshall, Chief of Staff, United States Army; Admiral Ernest J. King, Commander in Chief of the United States Fleet and Chief of Naval Operations; and General Henry H. Arnold, Commanding General, Army Air Forces.

The United States has always, in theory at least, enjoyed unity of command. During World War II the Joint Chiefs of Staff served as the agency for gaining unity of command in practice. The President is, according to the Constitution, "Commander in Chief of the Army and Navy . . .," and Roosevelt retained the right to decide the political issues involved, but delegated the purely military duties to the Joint Chiefs of Staff, who carried them out superbly. It is becoming increasingly popular to condemn the concept of the Joint Chiefs of Staff as unwieldy and as "war by committee." But the President is not a committee. If the attack against the Joint Chiefs of Staff is successful, it will probably place final military control in hands other than those of the President.

The Pacific is frequently pointed to as an example of divided command, in that the ocean was split into two important theaters and placed under two different commanders. The truth of the matter is that the Joint Chiefs (acting on authority of the President) actually commanded in the Pacific. Under the circumstances, there was no acceptable alternative. The problems were so complex that they could never have been settled properly and with due regard for the interests of all the services simply by naming a single Pacific commander. The difference of military opinion between the army and the navy in the Pacific as represented by Admiral Chester W. Nimitz and General

Douglas MacArthur was so wide that Air Force historians have described it as an "abyss." The Joint Chiefs of Staff was the agency which harmonized these views and set overall strategy for the Pacific. Their decisions had to be unanimous, and any one of the four had direct access to Roosevelt in the event of a deadlock.¹² Concerning the Pacific War, an independent appeal to the President was seldom necessary, since controversies were resolved among the officers themselves.

The antecedent of the Joint Chiefs of Staff, the Joint Board, had agreed in 1935 to the doctrine of command relationships set forth in a revised edition of *The Joint Action of the Army and Navy*. The principles enunciated in this publication set the pattern by which the unity of command given to the President by the Constitution was transferred through the Joint Chiefs of Staff to the theater commanders, and from these to the implementing commanders of task forces jointly comprising army, naval, and air force components. Indeed, the same principles were absorbed by the Combined Chiefs of Staff and were applied to the commanders of task forces combining elements of the different services of the United States and of the British Commonwealth, both in the Pacific and elsewhere.

That the pattern for unity of command was set several years before the United States entered World War II was fortunate in view of the intricate nature of joint operations, especially amphibious operations. It must be added that the disaster at Pearl Harbor was aggravated, not because the doctrine for unity of command did not exist, but because it had not been placed in effect in Hawaii before December 7, 1941.

The 1935 publication declared that in order to achieve unity of command, one man would have delegated to him both the responsibility and the authority to join elements of all services into a task force, to assign missions and designate objectives for each of the component elements involved, to provide for logistical support, and to exercise such coordinating control as he might deem necessary to insure the success of any given operation. Negatively, unity of command was never to be construed as authorizing the single commander to infringe upon the administrative or disciplinary functions of any component service other than his own; nor was the single commander to direct an officer of another service how his mission was to be carried out. This last restriction is highly important. The unifying commander was empowered to assign missions, that is to tell his subordinates from the other services what to do and when to do it, but he was instructed to refrain from spelling out the tactical details of how that mission was to be accomplished. In this connection the integration of the Fleet Marine Force within the Pacific Fleet was to lead to some confusion in command relations, especially in the early stages of the

war. Traditionally, the marines had been outranked by navy officers, and the sudden expansion of the Marine Corps both in size and importance ran afoul of the preconceived ideas of some navy officers who continued, in effect, to consider the marines as small landing units aboard a man-of-war. The question was how far it was advisable to permit a navy officer to interfere with the tactics of the marines ashore. While recognizing that the navy officer commanding the amphibious attack force is responsible for setting the troops ashore and for continued logistical support, and must therefore at least indirectly influence the fighting on the beach and inland, there is a limit beyond which he should not go. In the early phases of the struggle in the Solomons, it is evident that ranking navy officers intervened too much in marine tactics ashore. King himself took cognizance of this fact and in mid-1943 categorically reaffirmed the command relationship established in 1935. Further, he clarified the doctrine as regards the marines by listing them specifically alongside army forces and by reaffirming his order to navy officers to refrain from interfering with the details of how either a marine or army commander fulfilled his assigned mission.¹³

A final aspect of the command relations established in 1935 must be examined. The appointment of one unifying commander carried with it the power further to delegate the responsibility and authority involved, and directed the higher echelon officer in so doing to select as the implementing commander of any given joint task force an officer from that service which held a paramount interest in the common mission involved.¹⁴

This doctrine as applied by the United States in World War II permitted each member of the Joint Chiefs of Staff, acting for the President, to command in that broad area of dominant interest to his service. Also, it authorized the Joint Chiefs of Staff, functioning as a composite body, to transfer any given component of joint forces from theater to theater as the strategical situation might necessitate. Likewise, through international agreement, combined forces in the Pacific were similarly under the control of the Joint Chiefs of Staff.

The Joint Chiefs applied the principles of *The Joint Action of the Army and Navy* to the Pacific during the early spring of 1942 by creating in that half of the globe three theater commanders, two navy and the other army, as the geographic situation and service interests dictated.

The Southeastern Pacific Theater, of little importance during the war since the Japanese offensive was stopped beyond its limits, included a long stretch of water west of the Panama Canal and South America to 110° west longitude.

The two theaters in which the Pacific War was fought were assigned

to Admiral Nimitz and General MacArthur. Nimitz, Commander in Chief of the Pacific Fleet, was placed in charge of a vast expanse of ocean and islands reaching from the coast of Asia north and east of the Philippines, then south to the equator, then east to 165° east longitude, then south to 10° south latitude, thence southwesterly to the point formed by 17° south latitude and 160° east longitude, and finally south along that meridian to the Antarctic. (See map 2.) King, as the Commander in Chief of the United States Fleet, was named the executive agent through whom the directives of the Joint Chiefs of Staff would be passed along to Nimitz. Also, by international accord, Nimitz was given command of all Allied (combined as well as joint) forces then present or later sent into his theater. As such Nimitz became Commander in Chief of the Pacific Ocean Areas, but in this capacity likewise he remained subordinate to King and the Joint Chiefs of Staff.

Nimitz's theater was so huge, and the importance of protecting the lines of communications between the United States and the Anzac region so great, that he was ordered to establish a separate command, under his overall supervision, including the area under his command south of the equator. This became the South Pacific Area, and its first commander was Vice Admiral Robert L. Ghormley USN.

That portion of the Western Pacific not under Nimitz went to MacArthur, Commanding General of the United States Army Forces in the Far East. Marshall became his executive superior for the transmission of directives from the Joint Chiefs of Staff. Similarly, MacArthur was given an Allied post as Commander in Chief of the Southwest Pacific Area, but here also he remained under the orders of Marshall and the Joint Chiefs of Staff.¹⁵

Command relations in the Pacific were thus established before the Battle of Midway abruptly shifted the strategic situation in that ocean to the advantage of the Allied powers. The most serious remaining menace of the Japanese was their advance down the Solomons. Occupation of the central and southeastern portions of that group jeopardized the shipment of men and supplies from the United States into the South and Southwest Pacific Areas, and covered Japanese operations along the northeastern coast of the Papuan Peninsula. How best to stop the Solomons thrust and capitalize upon the strategic victories in the Coral Sea and at Midway demanded the attention of the Joint Chiefs of Staff and their theater commanders in the Pacific.

At this stage of the war, an Allied offensive mounted from any quarter of the Pacific would have required improvisation as to means. Since the conflict in and across the Atlantic had been given top priority, the plan was to remain on the defensive in the Pacific until at least January 1943, but King personally was straining in anxiety to

get an offensive from the South Pacific Area under way. The Battle of the Coral Sea allowed him to bring his ideas before the Joint Chiefs of Staff, and discussions as to the most practical approach were held. Suddenly the victory at Midway in early June made an immediate attack imperative.¹⁶ In an atmosphere of haste and despite logistical handicaps, the Joint Chiefs promulgated the directive which led to the Solomons, Papuan, New Britain, and Admiralties campaigns.

In retrospect, the directive for these campaigns stands forth as one of the outstanding decisions of the Pacific War. Within twenty months of the time that directive was issued, Rabaul had been surrounded and neutralized, the right flank to the Southwest Pacific Area had been secured, and MacArthur was thereafter able, with naval cover and support, to move along the coast of New Guinea into the Philippines. Likewise, along with earlier and unopposed occupation of the Phoenix and Ellice groups, the left flank of the Central Pacific was protected. Japanese air and surface power in the Carolines and Marshalls was drained. The eventual amphibious assaults through the Gilberts, Marshalls, and Marianas were made strategically more feasible. Finally, all of the armed services of the United States were given practical experience in the conduct of amphibious operations against relatively large land masses. Amphibious doctrine was polished, techniques tested and improved, and time was provided during which new weapons and landing craft were placed in mass production. The navy, even while carrying on a war of attrition with the Japanese in the Solomons waters, was able through repairs and new construction to accumulate that margin of fleet superiority needed to launch the offensive across the Central Pacific.

The armed services of the United States were given this valuable time interval and experience partly as a result of the stubborn facts of geography but certainly also because of audacious leadership at the highest echelon of command. In fact, King and Marshall were more audacious than single-minded in issuing the directive on July 2, 1942, for the Solomons, Papuan, New Britain, and Admiralties campaigns. Each service recognized that the employment of troops trained in and equipped for amphibious warfare and the effective application of air power were essential to success, but beyond this the difference was wide. The Joint Chiefs were unable fully to concur in specifying the initial geographical target, and to Admiral King goes much of the credit for the directive that largely shaped the future course of the Pacific War. Although all of the objectives (except for one island ultimately designated in the initial offensive) were in the Southwest Pacific Area, the stronger element of tactical air strength and all the troops amphibiously trained and equipped in the Pacific during the summer of 1942 were under the navy's control. These consisted pri-

marily of carriers and squadrons of navy and marine planes and of the First Marine Division. Thus King's bargaining position relative to that of General Marshall was good. At one point in the dispute King suggested that the navy would begin operations whether or not United States Army forces from the Southwest Pacific Area cooperated.¹⁷ Under the circumstances, it is hardly surprising that the naval contention was, though somewhat altered, in the main adopted.

The Joint Chiefs of Staff always made strategical decisions for the Pacific on the basis of studies drawn up by their subcommittees in Washington, and on the basis of recommendations submitted to them by their two principal theater commanders in that ocean. All involved were agreed on an offensive in the general area of the Solomons-New Britain-New Guinea; but the region is vast, and logistical shortages would prevent a rapid follow through, much less simultaneous attacks against two or more widely separated points. The precise location of the first offensive was important because it involved the choice of command over a joint task force. King wanted a navy officer, rather than MacArthur, in strategic control of the operation and the aircraft carriers involved.

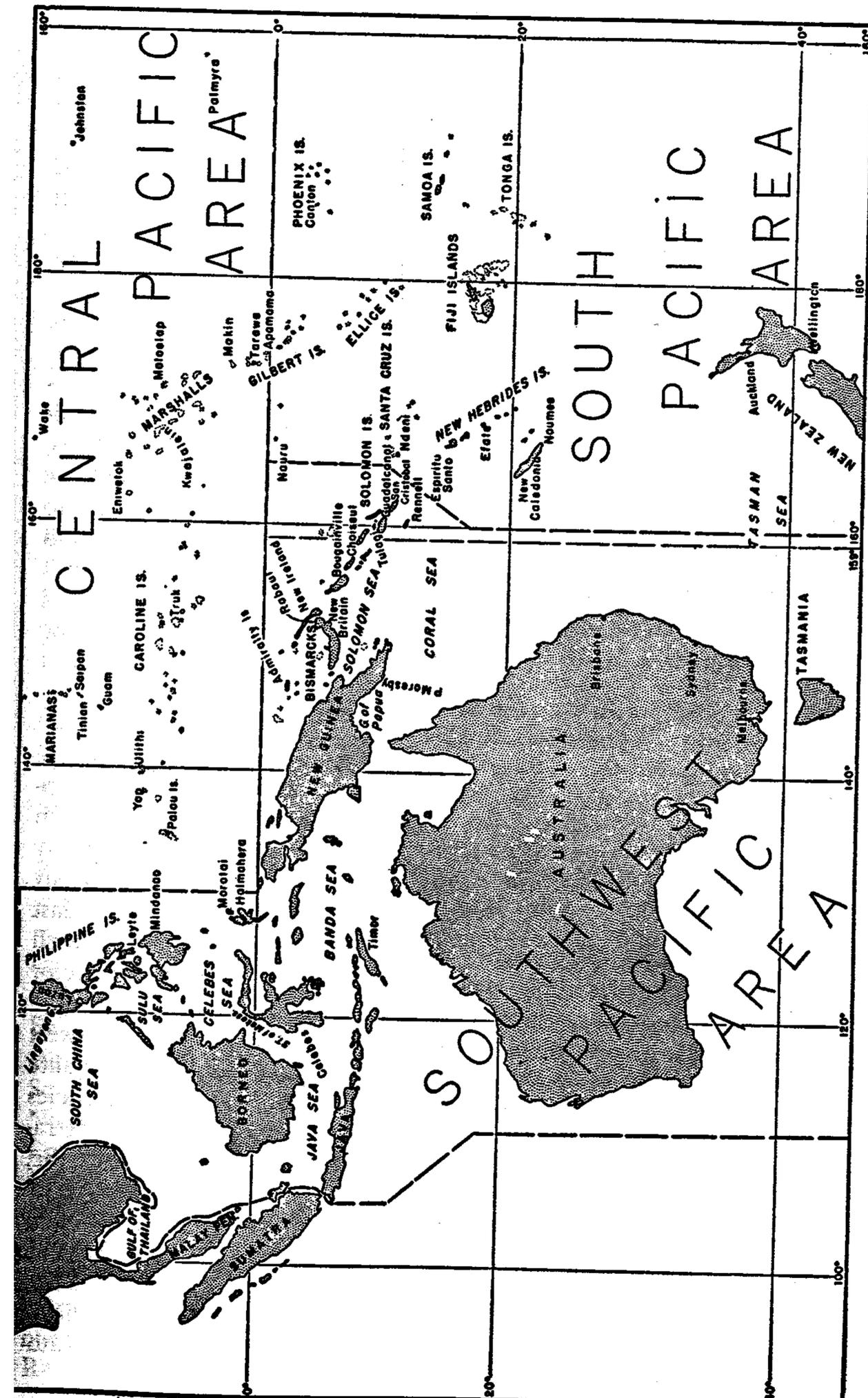
The problem of who would command the first offensive in the Pacific had given the Joint Chiefs of Staff earlier trouble. The directives establishing theater commanders had postponed the decision by stating that both the Southwest and the South Pacific Areas would prepare for offensives, and a period of from eight to ten months was allowed for a build up of forces. No one had known early in 1942 that the Coral Sea and Midway battles would occur, and that they would radically change the whole strategic outlook. Now that an offensive was to be launched earlier, neither the South nor the Southwest Pacific Area had sufficient strength. Under the circumstances, both Nimitz and MacArthur in May 1942 submitted proposals which would draw men and materiel from the adjacent theater.

The manner in which aircraft carriers were to be employed was the pivotal consideration in the dispute. Marshall and MacArthur recognized the value of these ships, and the fact that their use would speed the advance of troops out of Australia and Port Moresby by beating down enemy air strength and by lengthening the stride taken at any one time. Without carrier air, each advance along the relatively large land masses in MacArthur's theater would be restricted to the operating radius of land-based fighters, and further delays would ensue while the logistical and engineering problems of rolling air fields forward were solved. MacArthur was sending tentative plans to Washington which, in the eyes of navy officers, would expose carriers to almost certain loss. The navy did not consider its carriers so highly expendable. MacArthur was recommending a series of rapid thrusts from the

Papuan Peninsula against Rabaul. Ships covering and supporting such movements, including carriers, would be compelled to enter the Solomon Sea. This body of water was surrounded on three sides by Japanese land bases, all a part of the Rabaul network. On many of these bases were navy planes and navy pilots well trained in the low-altitude attack tactics then essential to sea warfare. Furthermore, the Solomon Sea was so full of foul ground as to be most dangerous to navigation. Charts of the sea were a century old. Maneuvering would be exceedingly difficult and at times impossible, and of course room to maneuver was essential to any ship squirming under an air attack. The Solomon Sea was far worse than its companion waters to the south, the Coral Sea, of which a competent mariner has said: "The place is reef-littered, treacherous, ill charted, and unlit . . . a nightmare, a reef-filled backwash of the misnamed Pacific Sea."¹⁸

A premature incursion into the Solomon Sea might have given the Japanese an easy revenge for Midway. They already had navy planes and navy pilots land-based in the target area, and these could be reinforced by other carrier-type planes and navy pilots winging southward from a web of internal bases, as well as by craft flown from Japan's remaining carriers, which in turn could be deployed with complete immunity from counterattack. Later in the war, after the United States had better types of carrier aircraft and a greatly increased number of floating anti-aircraft batteries of a vastly improved quality, American carriers did operate adjacent to large land masses and hundreds of Japanese navy and army planes, and did, with the help of Army Air Forces, isolate such targets as Rabaul—but never for extended periods in waters comparable to the Solomon Sea.

Another aspect of MacArthur's theater planning incensed ranking naval officers as much as his desire to send carriers into the dangerous waters of the Solomon Sea. MacArthur had one United States Army and two Australian divisions in combat readiness, but none was either amphibiously trained or equipped. He was therefore requesting that the First Marine Division, early elements of which were already en route to New Zealand, be placed at his disposal. He continued to request these marines even after they had been committed to Guadalcanal, in August 1942. Since they would be the only amphibiously competent troops at his command for a speedy sweep into Rabaul, his headquarters contemplated using them with a rapidity which even on paper was breathtaking.¹⁹ Navy and marine officers were aghast at this strategic plan and tactical schedule. The Commandant of the Marine Corps, Lieutenant General Thomas Holcomb, urged that MacArthur never be permitted to command either the fleet or ship-to-shore aspects of an amphibious operation. King's war plans officer bluntly asserted, "MacArthur . . . has no conception of the factors that enter



into an amphibious force organization." Both King and Nimitz feared the consequences of placing fast carriers under the supervision of a headquarters which so evidently looked upon them as expendable.²⁰ Marines and escort carriers were later assigned to the Southwest Pacific Area, but never once throughout the course of the Pacific War did that headquarters exercise direct tactical command of a single fast carrier.

Even if MacArthur's plan of May 1942 were modified so that precious carriers were not placed under the command of an army officer, the navy had fundamental objections to it. The alternative to the use of carriers in the Solomon Sea, the construction of land fighter bases on the Papuan Peninsula and on the western and central portions of New Britain, was almost as bad. The Allies were short of amphibious shipping as well as covering, screening, and gunfire support vessels, and in addition to the threat of enemy planes and submarines, the poorly charted shoals of the Solomon Sea were especially hazardous to inshore navigation. Time was a vital factor. To divert strength from the South Pacific in order to supply the Southwest Pacific Area with the additional increments of men, shipping, and supplies needed, and to await the construction of a series of land bases, would be inviting the Japanese to outflank the entire venture by continuing south out of the Solomons into New Caledonia.

MacArthur's plan had some merit, although hardly enough to offset its inherent disadvantages. An offensive in his theater would operate from more secure land bases, and would enjoy better logistical support than the South Pacific Area could for some time provide. On paper at least, MacArthur's plan struck quickly at the heart of enemy activity in the Southern Pacific. He reasoned correctly that only by moving directly into Rabaul could Japanese shipments to that fast developing fortress be immediately cut off, and that otherwise each separate attack in the New Britain-New Guinea-Solomons sector would meet violent enemy reaction, especially in the air and on the sea. MacArthur rightly contended that at the time the Southwest Pacific Area alone had the necessary intelligence personnel, adequate facilities for air reconnaissance, and the requisite planning agencies for an offensive. He stressed the fact that his available land-based strategic air was a stronger offensive weapon than that of the South Pacific, since its numbers were greater and the planes were not so tied down by defensive missions over many islands relatively isolated by wide expanses of water. Even so, he must have marines and carriers. With such reinforcements, he was confident that Rabaul could be quickly seized. Then the threat from the Southeastern Solomons against the line of communications between Australia and the United States would automatically wither away.

Thus the basic question was whether MacArthur with carrier and marine components should mount the first offensive up the Papuan Peninsula toward Rabaul, or whether a navy officer, who might be expected to be more considerate of carrier vulnerability, should move from the South Pacific Area into the Southeastern Solomons. More than a limited offensive was beyond the capacity of the navy. Not even a limited undertaking could be inaugurated unless carriers could cover and support the attack with relative safety, or at least with an even chance of survival. For this reason, among others, American navy planners looked for a means of striking the enemy under auspices more favorable than those offered by the New Guinea-New Britain project. The principal objective of the navy's counterproposal was to remove quickly the threat against the Allied line of communications. Its immediate effect, in terms of planning and the availability of means, was to slow down the movement of MacArthur across New Guinea and into New Britain until enemy air strength in the region of Rabaul had been in large part depleted by an advance from a different direction; but one may maintain that the end result was to speed up MacArthur's advance toward the Philippines by diverting Japanese strength from New Guinea into the Solomons and by helping to secure his right flank, thus facilitating his sea-borne leaps.

The geographical target selected by the navy was Ndeni of the Santa Cruz group and the island of Tulagi, located in the Solomons less than 600 miles southeast of Rabaul. (See map 2.) The enemy had occupied Tulagi early in May; but contrary to his usual procedure, apparently because of naval reverses, he failed even to begin an airfield until July, when he started work on a site along the lower reaches of the Lunga River on Guadalcanal, some twenty miles south of Tulagi. Nor had the Japanese by that date completed any strong bases in the Central Solomons. Knowledge of this procrastination made a landing in the Southeastern Solomons attractive in the eyes of the United States Navy.²¹

Still other features fastened naval attention to the lower tip of the Solomons. About 800 miles south of Tulagi lay New Caledonia, on which island, at Nouméa, American installations were being erected. Southeast of Tulagi, and roughly 250 miles closer to that objective than Nouméa, was situated another scarcely begun Allied establishment on Espiritu Santo, in the New Hebrides. Carriers supporting and covering an attack against Tulagi would be removed from enemy land-based air, and could rely on antisubmarine and reconnaissance patrols from Espiritu Santo.

Also attractive was the wide expanse of water suitable for carrier maneuverings southeast and south of Tulagi. The enemy had not yet overrun the islands in this region, notably the Santa Cruz group and Rennell and San Cristobal of the Solomons chain. East and slightly

south of Tulagi by little more than 325 miles was Ndeni of the Santa Cruz cluster. If this promising airtite could be developed, carriers sending planes over the Southeastern Solomons, in addition to more efficient performance in every other respect, could enjoy the security of land-based fighter combat air patrols.

MacArthur's plan and that of the navy were premised on two diverse strategic concepts, one calling for a direct stab at the principal target, the other requiring the gradual reduction of the outer positions as essential preliminaries to an onslaught against the main objective. These differences were harmonized in Washington, for in spite of them Marshall was informed by his War Department planners that they could reconcile all disagreement with their counterparts from the Navy Department except the question of command.

When MacArthur was informed by Marshall of the navy's opposition to his plan, he insisted that it had been misunderstood. He did not intend to strike directly at Rabaul because he lacked the land-based airpower to support such an operation. Rather, he wished to make a progressive advance against the Solomons and the north coast of New Guinea to secure the airfields necessary to launch an attack against Rabaul and to cover the naval forces. To carry out this modified offensive he still wished to employ the naval forces requested for the original plan. MacArthur's modification of his earlier plan removed one of the major differences between the army and navy proposals but left the question of command still unresolved. MacArthur again insisted that he should be in charge of the first operation because his theater possessed the better planning and implementing agencies. He felt that only confusion would result if ground forces from the Pacific Ocean Areas, responsible to a distant navy officer, were employed in the Southwest Pacific Area.

While negotiations between the War and Navy Departments were still going on, King despatched on June 25 a warning order to Nimitz for the Tulagi-Ndeni undertaking. During the week following this order, King and Marshall met personally to reconcile their final difference. Command of the initial attack went to the navy, but Marshall was so convinced of the importance of the Southwest Pacific Theater that, although he was willing to direct MacArthur to lend air and Australian naval support to the first attack, he refused to deplete MacArthur of trained troops and insisted that the occupation forces for Tulagi-Ndeni be drawn from the South Pacific rather than from the Southwest Pacific Area. Moreover, the directive to which Marshall agreed provided that, after the completion of the Tulagi phase of the New Guinea-New Britain-Solomons campaigns, MacArthur would take over.²²

This compromise was embodied in the formal directive of the Joint

Chiefs of Staff issued on July 2, 1942. Singling out Rabaul as the final objective of a series of forthcoming offensives, the directive named Tulagi and adjacent positions, plus the Santa Cruz group, as targets for the first offensive, and set August 1, 1942, as the planning date for this attack. To give the navy officer in command of this operation full freedom of action from MacArthur, the directive moved the Southwest Pacific Area boundary westward to 159° east longitude, thus shifting the entire Southeastern Solomons to the control of Nimitz. (See map 2.) Later offensives at times unspecified were called for, all to be under the strategic direction of MacArthur. These were the occupation of the remaining Solomons; the seizure of Lae, Salamaua, and the northeast coast of New Guinea, and then the conquest of Rabaul and adjacent positions.²³

3. Significance of the July 2, 1942, Directive

Historically, the campaign for the Southeastern Solomons went far in determining the future role of the army and naval forces in the Pacific War. This, in the final analysis, rather than the command of carriers and marines, was the fundamental problem. MacArthur acknowledged it in one of his despatches to Marshall. To quote an official Air Force historian: "MacArthur expressed a fear that the Navy's proposals would reduce the Army's functions to subsidiary ones and implied that army forces would be used largely for garrisoning the islands."²⁴ This fear, while exaggerated, was based on a brilliant insight into the real significance of the pending directive of July 2, 1942, and it is likely that the fear increased rather than diminished once the naval drive across the Central Pacific began, late in 1943. The question was which service, army or navy, would play the major part in defeating Japan. The directive favored the navy, and having gained the upper hand in this instance, neither King nor Nimitz relented.

Before and during the course of the Pacific War, two broad concepts for the defeat of Japan developed. One of these was MacArthur's, and the other that of King and Nimitz. The navy's concept called for the constant employment of fast carrier forces over waters most suitable to their maneuverability in order to gain and retain control of the sea and air. The most favorable waters were to be found east and south of the Solomons and in the Central Pacific. A progressive advance through the Central Pacific depended, of course, on amphibious operations against land masses so small that the amphibious assault was inevitable. This was the type of warfare which later dominated the march across the Central Pacific. The July 2, 1942, directive helped to make it possible by protecting the left flank of the Central Pacific, by draining Japanese strength from those waters, by affording the United

States Navy time to build up its fleet and amphibious strength, and by giving the amphibious forces experience adjacent to the large land masses in the Solomons. It should be further noted that in so far as MacArthur's concept was that of the United States Army, the nearly independent status obtained by the Army Air Forces during the war gave added weight to the navy's concept, for in Nimitz's theater were the best bases and the most readily available logistical services for the very long-range bombing of Japan by B-29's. Otherwise, although admittedly important, land-based aircraft in the naval drive across the mid-Pacific served as an auxiliary to carrier air.

MacArthur sought to reverse this concept, making carriers the auxiliary weapon. This is a crucial consideration in any treatment of the development of amphibious techniques. Had his concept been adopted, an effort would have been made to employ naval air-sea power only for offensive amphibious thrusts from bases situated around the southwestern and eventually the western rim of the Pacific basin. These operations would always have been conducted adjacent to relatively large masses of land. The mission of the navy would have been to secure and hold the line of communications into the Southwest Pacific Area, and to neutralize rather than bowl over Japanese strength in the mid-Pacific. The naval role would have been to provide carrier air as a supplement to land-based planes, the fields for which would have been rolled forward by transporting troops and supplies in regions where a relative abundance of suitable beaches and airfield sites would lessen the danger of opposition to a ship-to-shore movement.

Whereas the navy, in the best tradition of Alfred T. Mahan, wished to employ carriers as continuously as was possible in order to gain and hold command of the sea and air, it seems clear that MacArthur wanted to use carriers in deliberate thrusts and to rely on land-based planes to retain his advances. It is not known, of course, how far MacArthur's views were shared by the army, but certainly he was not alone.

In the final analysis, even had MacArthur's unmodified plan for the first offensive in the Pacific been accepted in Washington, it is hard to see how his strategy could have prevailed throughout the Pacific War. The navy's job was so important that its concept would have emerged as decisive. It could not long function in unfavorable waters. The only way the navy could clear MacArthur's right flank was by driving up the Solomons and then through the Central Pacific—in other words, by becoming the predominant service in the Pacific War. Time after time, MacArthur was unable to move until the Navy, assisted by Army Air and Ground Forces and committed principally from Nimitz's theater, had reduced such obstacles as Rabaul to MacArthur's advance. Two similar reductions later in the war further

illustrate this point. MacArthur entered Dutch New Guinea only after the navy, working in the Central Pacific, had neutralized the Japanese base at Truk in the Caroline Islands; and he returned to the Philippines only after Palau had been invaded by forces under the command of Nimitz.

This is not to say that since the navy's concept was supported, MacArthur's theater was unimportant. The compromise which Marshall effected was backed by sound political and logistical as well as sound strategical considerations. By directing the initial Pacific offensive into the Southeastern Solomons, the Joint Chiefs of Staff assured continued communications with Australia, and a build up for MacArthur. In fact the thinking among Washington planners in the summer of 1942 was predominantly defensive in nature. King, in his published report, refers to the Southeastern Solomons campaign as "the offensive-defensive," in other words as an offensive effort to improve a defensive position.²⁵ Moreover, MacArthur's theater was important not only in guarding the Anzac countries but also in retaking the Philippines and, along with American submarines and carrier aircraft, in thus severing Japan's vital line of communications. During 1943 and 1944, cutting this line and reaching the beleaguered Chinese became the principal objectives of the coordinated drives which the Joint Chiefs of Staff directed Nimitz and MacArthur to undertake. Also, the Southwest Pacific offered suitable land masses for the deployment of large bodies of men and for mounting an invasion of Japan. But, as operations in the Central Pacific picked up momentum, and as B-29's began rolling in numbers off the assembly lines, Nimitz and the Army Air Forces were able to strangle and pound Japan into submission. For this reason, historically, MacArthur's theater occupied a secondary role during the Pacific War. He held the navy's flank while fast carrier task forces seized command of the sea and air and made possible the launching of amphibious assaults in the mid-Pacific.

Subsequent events proved that the Joint Chiefs of Staff in the summer of 1942 made the best possible decision under the circumstances. Even if the men, supplies, and amphibious shipping for the rapid execution of MacArthur's original plan had been available, it is highly doubtful that such an undertaking would have been successful at this stage of the war. The reason was a shortage of fast carriers. Assuming that an overall army command would have been as considerate as the navy of these vessels, it would have been suicidal, at this time, to send them into the Solomon Sea, or into any of the waters within striking radius of the Japanese navy pilots who were flying from the Rabaul network of land bases. As it was, American carrier strength was barely sufficient for the limited Southeastern Solomons undertaking. On two critical and separate occasions during this offensive the Pacific Fleet

was reduced to a single fast carrier at sea, and at one of these junctures that carrier was damaged and unable to work at full efficiency.²⁶

Despite all the favorable circumstances that surrounded the attack against Tulagi and Guadalcanal, the navy was unable to hold continuous command of the sea in the target area. This subjected the marines to logistical hardships and inadequate reinforcements. For good reason the campaign in the Southeastern Solomons earned the sobriquet, "Operation Shoestring."

CHAPTER VI

THE FIRST MAJOR ASSAULT, TARAWA

THE lessons derived from landings in the Solomons-New Britain-New Guinea area were valuable, but much remained to be learned. This became evident when the drive across the Central Pacific began. Here for the first time a major amphibious assault was delivered, and the Second Marine Division sustained some 3,300 casualties in taking Tarawa, the only strongly defended atoll in the Gilbert Islands.

Tarawa was a notable victory and would have been worth the cost even if the casualties had been double those incurred. Strategically it opened the road to Kwajalein Atoll in the Marshall Islands and inaugurated the march across the Central Pacific with a tempo that mounted rapidly in momentum to stop only with the advent of peace, at the threshold of the home islands of Japan. Tactically it established the pattern of warfare which above all others would defeat the enemy; it gave valuable experience in the amphibious assault.

Knowledge gained at Tarawa led to improvements in every field of amphibious warfare. Many of these were directly related to a more effective delivery of air and naval gunfire support. The experience pointed out the necessity for new types of amphibious craft, for improvement in the technique of shore party control and in the tactics of offshore, beach, and inshore fighting best suited to storming small objectives surrounded by coral and to overrunning strong enemy emplacements. Tarawa, in short, was the testing ground for the amphibious assault. Therein lies its true significance.

1. Geography and High-level Planning

Seizure of the Gilberts was a necessary preliminary to entering the Marshalls. This was true because the problem of localizing a target for an amphibious operation was complex, and especially so since the Japanese navy was still believed to be a most formidable adversary, and because land-based planes were desired to help neutralize the Japanese in the Marshalls. Most important, however, was the fact that carrier-based aircraft were incapable of integrated photographic reconnaissance and only land-based photographic planes could furnish the information absolutely essential to storming the Marshalls. This lesson was clearly indicated by America's early amphibious experiences both in the Pacific and in the Mediterranean. Land-based photo-

graphic planes have long legs, but in 1943 the United States had none that could reach enemy bases in the Marshalls from fields already established. After the war Holland M. Smith concluded that taking the Gilberts was an error, that the first Central Pacific offensive should have struck directly into the Central Marshalls. To this Admiral Raymond A. Spruance replied: ". . . I do not agree with General Holland Smith's thesis that Tarawa was a mistake and that we should have gone directly to Kwajalein. I feel sure that he would have been most unwilling to attempt the capture of any defended island without adequate aerial photographs, and . . . those of Kwajalein became available only after we had taken the Gilberts and built airfields on them." ¹

The Gilbert and Marshall Islands, separated from one another by three degrees of latitude, lie in the west central portion of the Pacific basin. (See maps 1 and 10.) The Gilberts, sixteen atolls, straddle the equator north-northwest of the Ellice group by 700 miles and west-northwest of the Phoenix Islands by 900 miles. American land-based bombers and reconnaissance craft were operating within range of the Gilberts from both the Phoenix and Ellice Islands, and from Baker Island, 660 miles east of Tarawa.

To the northwest of the Gilberts are the Marshalls, totaling thirty-six atolls. Kwajalein is the core of this group, and lies 700 miles northwest of Tarawa, heart of the Gilberts. The principal atolls in the Eastern Marshalls, Majuro, Maloelap, and Wotje, are between 150 and 270 miles from Kwajalein; while the westernmost of the Marshalls, Eniwetok, is 350 miles northwest of Kwajalein. Important atolls in the Southern Marshalls, Jaluit and Mili, are between 200 and 340 miles southeast of Kwajalein. Truk, key enemy base in the Central Carolines, sprawls 700 miles southwest of Kwajalein.

The idea of driving through the Marshalls toward Truk had been the most favored naval plan of operating against Japan since the early 1920's; but circumstances, largely brought about by earlier Japanese successes, delayed formal approval of this scheme until mid-1943.

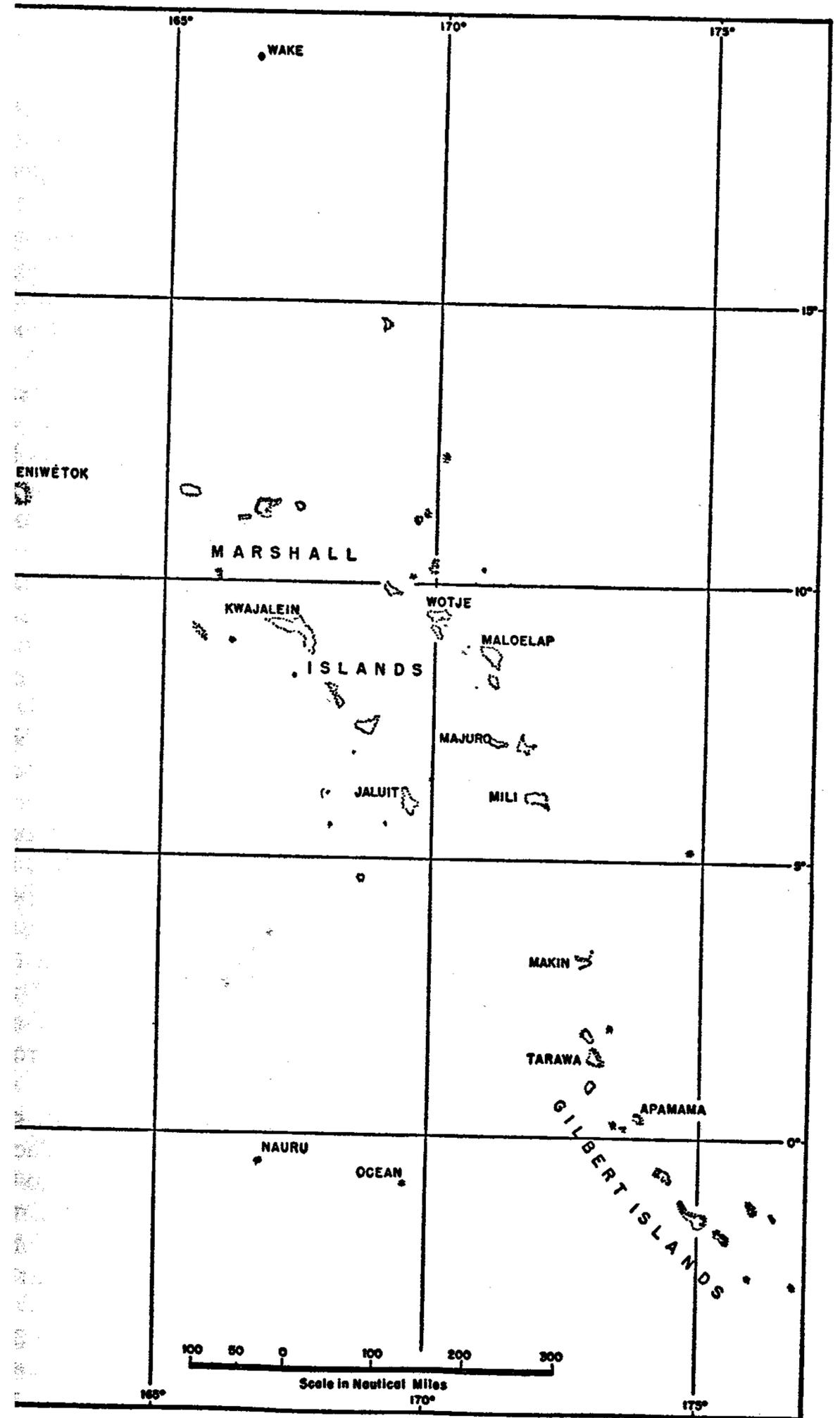
Late in 1942, however, Admiral King began reopening the question of Pacific strategy within the Joint Chiefs of Staff, and he continued the discussion until the Casablanca Conference with the British early the next year. The British were worried lest Pacific commitments involve the United States so deeply as to jeopardize success in Europe, but King countered with an accurate surmise. His overall objective was to place and keep unremitting pressure on the Japanese. He insisted that the longer the Pacific foe was given to strengthen his holdings and recent conquests, then the stronger he would become. King wanted more power injected into the war with Japan. He suggested thirty per cent of the Anglo-American total war output; and he wanted this additional strength used to open up the Central Pacific

front and ultimately to recapture bases in the Philippines. These he considered essential to keeping China in the struggle and to defeating Japan. The result at Casablanca was the drawing up of a new statement of intentions for Pacific operations in 1943, in which the British made important concessions to King's point of view. Operations to reopen the Burma Road, to recapture the Aleutians, and to seize Rabaul were agreed upon, and in addition an offensive in the Central Pacific was included. The general consensus was that the Central Pacific front would be opened up only after Rabaul had fallen, but the final draft of the conference report said that this would be done "as practicable."

King thus concurred with General Douglas MacArthur on a basic point, the desirability of returning to the Philippines. But King intended to use the Central Pacific route for the principal drive, while MacArthur was proceeding on the assumption that the main effort would be made from the Southwest Pacific Area. While the Casablanca Conference was in full swing, MacArthur's headquarters were well along with plans for reconquering the Philippines. His staff believed that the capture of Rabaul and islands in the Bismareks would provide adequate bases to support entry into Mindanao in the Philippines, if the United States Navy could be prevailed upon to protect the right flank of this offensive.

Soon after the Casablanca Conference, the Joint Chiefs directed their planners to study long range Pacific strategy in the light of recent decisions made by the Combined Chiefs of Staff. By late April 1943, after a series of Washington conferences in which both Nimitz and MacArthur were represented, future strategy in the Pacific began to take shape. MacArthur's concept that the main offensive against Japan should originate in the Southwest Pacific was not accepted. Two of the most important agencies working under the Joint Chiefs of Staff seem to have been instrumental in shaping the ultimate decision. These were the Joint Strategical Survey Committee, composed of experienced and highly independent senior officers of all services, and the Joint Staff Planners, which labored over the details of strategical problems and the allocations of men and materiel and was thus also influential in shaping military policy.

The Joint Staff Planners reasoned that before the war could be brought home to the Japanese people, large air bases and their supporting arms and services would have to be built up in China, and this would require the possession of a port somewhere along the China coast. Hong Kong looked good, and the best route to it lay through the Celebes Sea. The most feasible approach to the Celebes Sea ran through the Marshalls and the Carolines. This was true not only because it was shorter than the route through MacArthur's area,



and hence more economical of shipping, but also because "strategically speaking the Central Pacific route is decisive. . . . As compared to any other route," said the Joint Planners, "success here is most certain to sever the homeland from the overseas empire to the south. Should our naval operations destroy or contain the Japanese Fleet, our strategic dispositions would favor striking directly, and without delay, at the Japanese homeland." Then came vigorous language: "There are strong reasons to believe that carrier aircraft, although untested, are equal to the task of supporting amphibious operations against island fortresses in the absence of land-based air."² Nimitz and his staff were simultaneously reaching the same conclusion.³ At another place the Joint Staff Planners asserted that "the old maxim that carriers and carrier aircraft are at a disadvantage when exposed to shore-based air is subject to revision when large carrier forces become available. The carrier is an offensive weapon which, due to its mobility, will permit a large concentration of aircraft at any desired point and time."⁴

Then the Joint Staff Planners answered MacArthur's headquarters. Whereas Japanese reinforcements into the Southwest Pacific were restricted only by the forces and shipping available, "the geographic character of the Central Pacific is such that there is a limit to the possible Japanese air and ground forces that can be employed to advantage." Furthermore it was feared that to accept MacArthur's New Guinea-Philippines axis of approach alone "might force the defensive dispersion of our greater naval forces and will certainly require a greater deployment of defensive aircraft." This was a pivotal consideration in view of General Arnold's efforts to mass land-based airpower for crushing blows against Germany. Finally, "offensive operations in the Central Pacific flanks [*sic*] the enemy holding along the north coast of New Guinea, but operations along that coast will neither eject him, nor flank him in the Central Pacific bases and he could hold his relative freedom of naval maneuver. The Japanese could continue operations on our flanks and rear if we use the southern route exclusively."

No one suggested that MacArthur's advance be halted, but only that it be made contingent upon movements in the Central Pacific. The recommendation was that a line of communications to the Celebes Sea be opened "by advances in the Central and Southwest Pacific with a view to shortening the sea routes, providing for its security, and denying to Japanese bases any means by which they can interfere with it."⁵

Despite the fact that this report met with certain objections from some members of the Joint Staff Planners, and one officer submitted a minority report, the Joint Chiefs of Staff approved it early in May

1943, and later that month the allocation of the necessary men and materiel was agreed to by the Combined Chiefs of Staff meeting in Washington. The aim of the Joint Chiefs was "to maintain and extend unremitting pressure on Japan," and in the most expeditious manner possible to gain positions from which the unconditional surrender of the Japanese could be forced. Such surrender would probably come by invasion of the home islands after repeated air strikes on her industrial cities, but prophetically these words were used: "It may even be that the scale of such an air offensive can be great enough to ensure unconditional surrender without invasion."⁶

MacArthur's reaction was immediate. He was ignorant of the inner workings leading to this high-level decision, and repeated his belief that "the best course of offensive action is a movement from Australia, through New Guinea, to Mindanao." As for the decision made: "A move through the mandated islands will be a series of amphibious attacks with the support of carrier-based aircraft against objectives defended by naval units and ground troops supported by land-based aviation." He apparently believed that the American victory at the Battle of Midway had been one of land-based versus carrier-based air, and warned that "Midway stands as an example of the hazards of such operations." He disliked this revival of the navy's prewar plans, since to his mind the circumstances had been "greatly altered by the conquest of Malaya and the Netherlands Indies, and by the availability of Australia as a base."⁷

A group of War Department planners came to MacArthur's support, and it was Nimitz who pushed through an acceptable compromise. The original plan was to withdraw two divisions from MacArthur's command into the Central Pacific. Nimitz, however, did not wish to go directly into the Central Marshalls, as proposed, since it would result in by-passing the Japanese-held Gilberts, Wake, and the Eastern Marshalls. He lacked the necessary sea-air strength for such a move, as well as the troops. The Joint Staff Planners replied that, since MacArthur objected so strenuously to giving up any of his forces, the date for knifing into the Central Marshalls could be set back to permit additional troops to be trained and made available from the United States; but King rejoined that this defeated one of the primary purposes of the plan, which was to prevent the Japanese from strengthening their positions further.

With all proposals and counterproposals in, the Joint Chiefs again instructed their planners to review the problem. The directive issued to Nimitz on July 30, 1943, was to invade the Gilberts and Nauru (an island 360 miles due west of the Gilberts) as preliminaries to the Marshalls. This would permit land-based bombers and reconnaissance planes to support first the Gilberts and then the Marshalls campaign,

and would allow carriers to concentrate in two separate attacks, thus avoiding the spread of their strength too thinly over a wide area. By supervising the timing of the Central Pacific operations and those already approved in the South and Southwest Pacific, especially the landing on Bougainville, the Joint Chiefs gained strategical coordination. The target date for the first Central Pacific campaign was set for November 15, 1943; with the second to follow six weeks later, on January 1, 1944. No forces for the Marshalls were designated at the time, but for the Gilberts and Nauru, Nimitz was instructed to use the Second Marine Division, then resting and training in New Zealand, and one United States Army division from the Hawaiian Islands. Also, Nimitz got three marine defense battalions, and three army engineer and construction battalions. In terms of naval strength, he was told to expect five new battleships, seven old battleships, six heavy and four light carriers, seven escort carriers, eight heavy and four light cruisers, sixty-six destroyers, twenty-seven attack transport and cargo vessels, and nine merchant ships for additional transport and cargo duties, provided antisubmarine warfare in the Atlantic continued to go well and nothing unforeseen happened.⁸

Thus the Gilberts campaign was largely instigated by Nimitz as an essential means of obtaining a jump off position for entering the Marshalls. Two objective areas were suitable for this purpose, Wake and the Gilberts. The first lay 600 miles north of Kwajalein, and the second 700 miles south and slightly east of that important atoll in the Marshalls. The Gilberts were selected because they lay nearer friendly bases in the Southern Pacific, because once seized they offered several dispersed land-based aersites, and because once overrun, without awaiting further fighting, the supply route to the South and Southwest Pacific Areas would be shortened and bases throughout the Southern Pacific would be made more secure.⁹

Aside from the coordinated Central Pacific-Southwest Pacific movement toward the Philippines and the China coast, only one other means of bringing the war to the enemy's homeland existed. This was the Aleutian-Kurile route through the North Pacific. It was undesirable because weather conditions would prevent maximum employment of sea-air and land-based plane strength, and because, unless the United States wished to jeopardize Russia's neutrality with Japan, the next land operation after the Aleutians had been recaptured must of necessity strike the Kuriles, which were thought to be strongly defended. Nor was American sea-air power deemed sufficient to prevent the Japanese from reinforcing the Kuriles at will from their home islands. The threat of an American move westward from the Aleutians was therefore of limited but important usefulness. It caused Japan to be cautious in her dealings with Russia, which in turn helped the

Allies to win the war in Europe. At the same time, however, Russia's military deployment in Siberia and the Maritime Provinces remained of some benefit to the United States throughout the Pacific War. It, and the presence of America forces in Alaska and the Aleutians, kept Japanese land and naval strength dispersed in Manchuria and the Kuriles, and hence distant from the actual zone of conflict. As long as the enemy responded thus to the retaking of Attu and Kiska, these amphibious operations had achieved their purpose. They had cost little, having been conducted in May and August of 1943 with no resistance at the beach in the first instance and no opposition whatsoever in the second. Air raids out of the Aleutian fields and a small naval force in the North Pacific were enough to retain the strategic gains of the Aleutian campaign; and almost to the end of the war, Nimitz stood prepared for a major redeployment of forces in the event that Russia entered the conflict against Japan.¹⁰

The Central Pacific drive was needed to bring increased pressure on the Japanese and to facilitate MacArthur's reentry into the Philippines. Even with the neutralization of Rabaul, he could not obtain the full fleet support essential to an amphibious advance along the northeast coast of New Guinea into the Philippines until Truk, the pivotal Japanese base in the Carolines, had been seized or contained. Otherwise, MacArthur's water communications in both the Bismarck and Philippine Seas would be outflanked and vulnerable. As in the case of the first Joint Chief directive in July 1942, MacArthur was again compelled to permit the United States Navy, operating as it saw fit, to move toward Truk and the Celebes Sea.

King and Nimitz together deserve the bulk of the credit for pushing through the strategical concept of using fast carriers to isolate targets in the mid-Pacific for amphibious operations. They were responsible for coordinating America's growing carrier strength with her constantly improving amphibious techniques. It was this strategy that gave the Central Pacific drive its great momentum. While operations in the Solomons-New Britain-New Guinea area were, after the landing on Guadalcanal, restricted for a long period to the range of land-based fighters, in the Central Pacific, with aircraft carriers supplying the agility and marines the muscle, leaps from the outset covered record distances.¹¹

As Nimitz and MacArthur moved Pacific bases closer to Japan, logistical support of America's increasing fleet of submarines was improved, as was their performance in hacking at the Japanese coprosperity life line which dangled from the homeland down through the South China Sea into the Netherlands East Indies.

In addition, the basic intent of the July 1943 directive was to reach China quickly and to mount bombers against Japan, as well as to strew

Japanese home waters with magnetic mines. However, by the time the very long-range bombers were being mass produced, it was seen that the Mariana Islands were, logistically and tactically, better bases for the B-29's; and the Marianas became, to use Admiral King's figure, the "key" to Pacific victory.¹² Anxious to begin bombing Japan as soon as possible, the Army Air Force joined with the Navy in pushing operations along the axis of the Central Pacific.¹³ And now it was realized more clearly than ever that a body of troops expertly trained in amphibious fighting was an essential ingredient of a well-balanced fighting force. The navy had long since recognized this prerequisite to obtaining bases required for its air, surface, and subsurface strength. Now, and for a similar reason, the Army Air Force needed troops who could implement the amphibious assault. The two new techniques of warfare to emerge from the Pacific, very long-range strategic bombing and the amphibious assault, complemented each other as effectively as the navy and the marines had always done in the past.

The curtain on the Central Pacific drive went up with the Gilberts campaign, which, principally because of hydrographic considerations, began on November 20, 1943, five days later than scheduled by the Joint Chiefs of Staff.¹⁴ Nimitz created a new command in order to achieve unity of control at the implementing level. This was the Central Pacific Force, headed by Vice Admiral Raymond A. Spruance. The quality of Spruance's strategical and tactical planning had already gained him an enviable reputation, and in the early months of the war he had exhibited firm abilities as a commander afloat. He became the officer responsible for all phases of the Gilberts offensive, and to him were assigned the forces earmarked for that campaign.

From the outset, Spruance's decisions were governed by a paramount consideration—namely, the pressing necessity of completing the attack with the utmost speed, once it was launched. In the Gilberts campaign, fear of enemy counterattack placed a premium upon speed. Violent Japanese subsurface and air reaction from land bases in the Marshalls was anticipated. It was rightly felt that the Bougainville operation would tend to immobilize the Japanese fleet, but the threat of a major naval engagement in the vicinity of the Gilberts remained a distinct possibility.¹⁵

As it happened, no such threat materialized, and the enemy was able to offer only token counterstrokes in the air and under the sea. The reason for this weakness—unexpected and unknown to American intelligence at the time—is now apparent. Operations in the Solomons, in addition to speeding up MacArthur's advance along the New Guinea coast and through the Bismarck barrier, had also drained enemy naval and air strength from the Central Pacific. Beginning in September 1943, the Japanese suspected an American advance into

the Central Pacific, and sent reinforcements to the Marshalls; but when this attack failed to develop, fleet units returned to Truk. On the 30th of that month, Imperial Headquarters in Tokyo designated Rabaul as "the ultimate point of resistance," and this was followed by throwing more naval pilots into the Solomons slaughterhouse. During the next month, the Japanese again thought action in the Central Pacific imminent and once more sent the bulk of their fleet into the Marshalls; but nothing happened, and on October 24 the naval units retired to Truk. Then the Bougainville landing got under way, and the Japanese fed still more naval pilots into Rabaul, expended precious cruisers and screening destroyers at the Battle of Empress Augusta Bay, and in early November lost temporarily other cruisers and destroyers in Rabaul Harbor to the carrier planes of Rear Admirals Frederick C. Sherman and Alfred E. Montgomery. By the time the Gilberts offensive was launched, few reinforcements were available to the Japanese for the Central Pacific. Their carriers lacked pilots, and their heavy surface units were inadequately screened. Finally, their submarine potential in the Central Pacific was weak. The American strategy of by-passing in the South and Southwest Pacific was having its effect. The Japanese were already using some of their underseas craft logistically rather than tactically.¹⁶ Nothing better illustrates the value of the initiative in warfare than this period in which the Japanese shuttled strength back and forth between the Marshalls and Rabaul. As Robert Sherrod comments, by the time of the Gilberts attack, the ranking Japanese naval officer at Truk "was turning his head faster than a man watching a tennis match."¹⁷

American commanders, however, could not gamble in planning for the Gilberts. An amphibious expedition is a vulnerable target and one difficult to protect. A torpedo into a loaded transport might easily result in more deaths than an amphibious assault. It was agreed that the Gilberts had to be taken in a hurry. Strategic surprise was mandatory, and this ruled out any concentration of preliminary aerial bombing and naval bombardment (that is gunfire and air preparation against a target previous to the arrival of the troops in the transport area and the beginning of disembarkation). In order to keep the enemy guessing, the preliminary air and naval gunfire preparation must be spread over several possible geographical areas. Once the Japanese learned the Americans were headed for the Gilberts, the land objectives had to be taken at once, and the carriers and amphibious shipping withdrawn before the full fury of the anticipated Japanese air and subsurface counteraction could be mounted. At most, a few days could be allowed. No one wanted tactical surprise ashore, since efforts to obtain it would sacrifice the far more valuable air and naval gunfire preparation that could be squeezed into the early morning hours be-

fore the landings. For this reason it was necessary to concentrate the greatest possible volume of bombing and naval gunfire in a brief period of time. In the end, however, this decision—determined by naval considerations of the most compelling nature—forced marines to go ashore in a withering crossfire from the beaches.

2. *Plans and Preparations by Implementing Commanders*

The demand for speed permeated the commands that implemented the Gilberts campaign. Spruance as the top-ranking officer was also named Commander of the Fifth Fleet. This was his important command since it was operational, and in this capacity he retained under his supervision the covering naval force of new fast battleships, heavy and light aircraft carriers, and a quota of cruisers and destroyers. These ships had the dual mission of protecting the amphibious expedition from hostile surface intent, and of neutralizing or standing guard against enemy bases to the west and to the north of the target area. Subordinate to Spruance and assisting in this work, as well as administering preliminary bombing and carrying out the necessary reconnaissance missions over the Gilberts, was the land- and tender-based air command of Rear Admiral John H. Hoover USN.¹⁸

Spruance's amphibious commanders, navy and marine, occupied a peculiar but successful mutual relationship. Rear Admiral Richmond Kelly Turner had been recalled from the South Pacific in July 1943 and made Commander Amphibious Force, Pacific Fleet, and thereupon he began planning the amphibious aspects of the first Central Pacific campaign. Turner was brought under Spruance's supervision a month later when he was made Commander Fifth Amphibious Force. At the same time, in August 1943, Major General Holland M. Smith USMC was given tactical duties. As Commanding General Amphibious Corps, Pacific Fleet, he had been in charge of the amphibious training of all troops under Nimitz. Now Holland Smith was named Commanding General Fifth Amphibious Corps.

Initially Holland Smith was subordinate to Turner in every respect, a condition distasteful to the hot-tempered marine general and contrary to the better interests of his men. He was soon able to obtain a far-reaching modification of this status. There could be only one top amphibious commander at times of actual training maneuvers and fighting, and Turner continued to occupy this position; but during the highly important planning period of this and all subsequent Central Pacific campaigns in which Holland Smith participated, he ranked equal with Turner on Spruance's echelon of command.

Duties in the Aleutians delayed Holland Smith's arrival in Pearl Harbor until September 5, 1943, whereupon he was instructed, with

two reinforced divisions plus garrison troops, to plan the seizure and occupation of the Tarawa and Apamama Atolls in the Gilberts, and of Nauru Island. The Second Marine Division reinforced, to be embarked from Wellington, was scheduled for Tarawa and Apamama, while the 27th Infantry Division, embarked at Pearl Harbor, was assigned to Nauru. Evaluation of information, however, soon made it apparent that Nauru, because of defenses and hydrographic and terrain features, could hardly be taken with the forces available. There was insufficient amphibious shipping to lift two reinforced divisions plus the necessary garrison and construction echelons. Holland Smith recommended that a much weaker target, Makin Atoll, northernmost of the Gilberts and only 100 miles distant from Tarawa, be substituted for Nauru. This was done, but there were annoying delays in allocating to Turner and Holland Smith the ships and troops to be employed, which in turn complicated lower echelon planning, training, and rehearsals. "For future operations," complained the marine general, "it must be remembered that an early assignment of forces is absolutely imperative."¹⁹

The operation plan issued by Nimitz in early October directed Spruance to prepare the way for entering the Marshalls by taking Makin, Tarawa, and Apamama; to cover the amphibious expeditions involved; and with carrier planes vigorously to deny the enemy use of land bases adjacent to the Gilberts, in the Marshalls and on Nauru.²⁰

Preliminary planning on a divisional level had begun in August. The army's 27th Infantry Division was led by Major General Ralph C. Smith. With both the division and its commander, Holland Smith would have trouble throughout the Central Pacific. He relates in his memoirs that at Pearl Harbor before the Gilberts campaign he had doubts about the capabilities of the 27th Division, but it was destined for Makin which was known to be weakly defended. There were only about 250 first-line Japanese troops plus a few prepared installations (some of the gun emplacements later turned out to contain dummy weapons). Since Holland Smith could lift only a part of the 27th Division, he assigned the most thoroughly trained army regimental combat team, the 165th, to Makin. Then he picked a regiment from the Second Marine Division, the Sixth Marines, for his corps reserve.

This choice was momentous. It meant that the Second Marine Division would have only two reinforced rifle regiments, the Second and the Eighth, with which to plan the seizure of Tarawa. Conservatively Tarawa was, and was known to be, at least ten times more heavily held than Makin;²¹ yet the Sixth Marine Regiment reinforced was committed to corps reserve. It was to accompany its parent division to Tarawa, but was to be released only with the permission of Turner, as well as that of Holland Smith. It was to be employed at

Makin, Tarawa, or Apamama, as might be necessitated by tactical situations ashore. Of course it was used at Tarawa, but the commanding general of the Second Marine Division was unable to plan on such a development. Holland Smith was belatedly criticized for such an allocation of forces. "Under present conditions," said Nimitz, "it is necessary to plan for the employment of not less than one division for the capture of an enemy position comparable in strength to Tarawa."²²

A third Smith, Major General Julian C. Smith USMC, quiet and unassuming, commanded the Second Marine Division. His navy counterpart at Tarawa was Rear Admiral Harry W. Hill USN, and the command relationship between these two officers was identical with that between Kelly Turner and Holland Smith on the next higher echelon. Hill and Julian Smith were also given the task of taking Apamama. This atoll, some eighty miles south and slightly east of Tarawa, was very lightly held, and for the purpose of reconnoitering it in force, Julian Smith was allotted three platoons of the Fifth Amphibious Corps Reconnaissance Company. The fourth platoon of this company would help army troops at Makin.²³

Although Julian Smith had been advised in August of his part in the Gilberts offensive, it was mid-September before his division was transferred from the First to the Fifth Amphibious Corps. Not until early October did he and members of his staff have an opportunity to confer with Holland Smith in Pearl Harbor, and to establish liaison between the two headquarters.

Weakened by one-third, the Second Marine Division was ordered directly into the heart of Japanese strength in the Gilberts. No other course was open. To occupy lightly defended atolls and neutralize Tarawa by air would turn the conflict into a struggle of attrition. The navy had had enough of this type of warfare in the Solomons. It would jeopardize warships, transports, and cargo vessels, and unduly delay the pending advance into the Marshalls. Similarly, the requirement of speed deprived Julian Smith of the possibility of fully utilizing his artillery on Tarawa Atoll. Less than three hours of naval gunfire and air support were being scheduled during the morning before the landing. Julian Smith would have felt more confident if given an opportunity to emplace his artillery at first light on a strip of land within Tarawa Atoll adjacent to the islet of Betio, which was the principal target since it contained the enemy's airfield and the bulk of his defenses. (See map 11.) Such use of artillery, however, would require too much time. It would divert naval gunfire and escorting men-of-war from the main objective. Assaulting Betio without artillery assistance was a necessary concession to haste and a shortage of naval support. Julian Smith was himself devising a thoroughgoing replacement plan,

should any of his battalion landing teams be sent to the bottom of the sea.²⁴ Even though Japanese air and subsurface reaction was far weaker than expected, a single event during the Gilberts campaign proved that the navy's caution and insistence on speed were justifiable. An enemy submarine off Makin Atoll sent a torpedo into the escort carrier *Liscome Bay*. The loss of life in this single sinking ran almost as high as the total marine dead on Tarawa.

Even if the navy had been willing to grant the time necessary for the establishment of artillery adjacent to Betio, it could not have been done. Holland Smith had so depleted the Second Marine Division that his subordinate no longer had the forces for an auxiliary landing. It had long been recognized that in assaulting a defended shore, the attacker should have at least a three to one superiority over the defender. By concentrating all men and firepower left under his control, Julian Smith could expect to land only twice the strength the Japanese were known to have on Betio Islet. Automatically this ruled out either a diversion or a preliminary landing on an adjacent islet. Julian Smith's chief of staff, Merritt A. Edson of Guadalcanal fame, now a full colonel, brilliantly summarized the problem: ". . . the relative superiority of strength with the troops now available to us as opposed to the hostile strength on Betio alone, which is our primary objective, does not permit the detachment of any part of the Second Marine Division for secondary landings. Reliance must be placed on supporting air and naval forces to neutralize or destroy hostile weapons which may successfully interfere with our landing on Betio."²⁵ Julian Smith, in other words, had no freedom of action. He asked his superior to make this clear in his operation order, and Holland Smith minced no words. He directed the Second Marine Division reinforced (less the Sixth Regimental Combat Team) to "land on Betio Island, seize and occupy that island; then conduct further operations to reduce the remainder of Tarawa Atoll."²⁶

The Second Marine Division had been evacuated to Wellington early in 1943 for rehabilitation and further training following extensive ground operations on Guadalcanal. It was a seasoned outfit, but with the exception of one regiment had as yet to participate in an amphibious landing, much less an amphibious assault. The Second Marines had served in the Guadalcanal area from August 7, 1942, until mid-January 1943. To this experienced regiment and a battalion of the Eighth Marines went the difficult job of being first to cross the beaches at Betio.

The commanding officer of the Second Marines was ill and unequal to the task ahead, and was replaced by a young aggressive lieutenant colonel, spot-promoted a grade. This officer was David M. Shoup. A battalion of the Eighth Marines was attached to Shoup's regiment, thus

giving him four full reinforced rifle battalions. The plan was to land three battalions abreast, and to hold one battalion from the Second Marines in regimental reserve. Shoup's reinforcing elements were strong. He had a company of medium tanks, the special weapons group of the Second Marine Defense Battalion, combat and shore party engineers, eight shore fire control and air liaison parties, medical and service units, and a battalion of 75-millimeter pack howitzers.²⁷ The artillery and support groups were placed under Lieutenant Colonel Presley M. Rixey of the First Battalion, Tenth Marine Regiment. Beachhead logistics were to be supervised by Lieutenant Colonel Chester J. Salazar of the Second Battalion, Eighteenth Marines, the Second Division's regiment of engineers.

Strengthening Shoup weakened Julian Smith's division reserve. It consisted principally of Colonel Elmer E. Hall's Eighth Marine Regiment reinforced, less one battalion and its attached components. The support group for the division, headed by Colonel Cyril W. Martyr of the Eighteenth Marines, contained one battalion of artillery and miscellaneous personnel.

Not under Julian Smith's control, but ordered to the transport area off Tarawa along with its parent division, was the Sixth Marine Regimental Combat Team. The three reinforced infantry battalions comprising this command were under Colonel Maurice G. Holmes.

Tarawa is situated in the north center of the Gilberts group. It is shaped like a right triangle. (See maps 10 and 11.) The hypotenuse forms the northeast side, and consists of elongated islets; the southern leg is similarly formed; while to the west the islets disappear, and on that side only a reef shelters the lagoon. There is but one navigable entrance to the lagoon, a break in the western reef just north of the northwest end of the islet of Betio. Betio is at the southwestern corner of the atoll, forming, along with the western reef, the right angle of the geometric figure. Betio, like the other islets of the atoll, is entirely surrounded by a fringing coral reef. Before the war it had served as the center for British economic and governmental activities in the Gilberts, and for this reason, on the lagoon side, was equipped with a stubby wharf which could take small boats at high tide, and a more serviceable pier which ran into the lagoon to the edge of the reef.

Taking advantage of these facilities, the Japanese had converted Betio into their principal base in the Gilberts. They reconnoitered Tarawa in December 1941, and came back in September 1942 to construct an airfield suitable for medium bombers. As the marines planned to capture the objective, the enemy was busy completing formidable ground defenses on Betio.

Submarines and aerial photographic reconnaissance was the chief Allied means for obtaining information on Tarawa in general and

Betio in particular. A periscope showed Betio as a flat lying cluster of palm trees and undergrowth, with the terrain height everywhere less than ten feet. The place was without natural defilade positions. The attacker would have to come in from the water organized and fighting. There was only one possibility of taking cover from the enemy's fire, and that was to seek the protection of man-made defenses.

From the air, Betio appeared thin. There would be very little maneuver room ashore. The long axis ran east-west for a distance of two and one-half statute miles. The small body of land was shaped like a crescent, with the southern shore gently concave toward the open sea. The western end was relatively wide, some 800 yards; but as the islet ran eastward a sharp cove or reentrant cut for a short distance into the lagoon side, and then even more suddenly turned northward toward the lagoon, restoring the width to its 800 yards. There, in the east center portion of the islet, the Japanese had built an airstrip, which with its two adjacent taxiways looked from the air as if a triangular branding iron had seared the belly of the islet. From the eastern end of the airstrip, the convexing lagoon coast tapered slowly on southeastward to form a long narrow tail, dipping into the shallow reef about 4,000 yards short of neighboring Bairiki Islet—on which Julian Smith would have liked to land artillery before the assault on Betio was made.

Photographic reconnaissance of Betio was so good that an estimated ninety per cent of the enemy's defensive installations were pinpointed before the target date. The bulk of this work was done by Nimitz's highly efficient Joint Intelligence Center, Pacific Ocean Areas. The services of this organization were of great benefit to the marines throughout the Central Pacific drive.

From an analysis of enemy construction, as well as other data, it was possible to determine with fair accuracy the number of enemy personnel on the islet. After the battle the total was set at slightly less than 5,000, of whom more than one-half were first-line special landing force troops. "Naval units of this type," noted Julian Smith's intelligence officer in late October, "are usually more highly trained and have a greater tenacity and fighting spirit than the average Japanese Army unit."²⁸

Large-scale maps of Betio were drawn. On them were blocked out enemy defenses and other constructions, and this intelligence was of utmost value to the marines and their supporting arms. Not yet, however, had the beach underwater demolition party been organized, nor had the kodachrome technique of determining hydrographic conditions within the vicinity of geographic objectives been perfected. Apparently Holland Smith's intelligence officer was unaware of the possibility of such a development. "*It should be emphasized,*" he said after

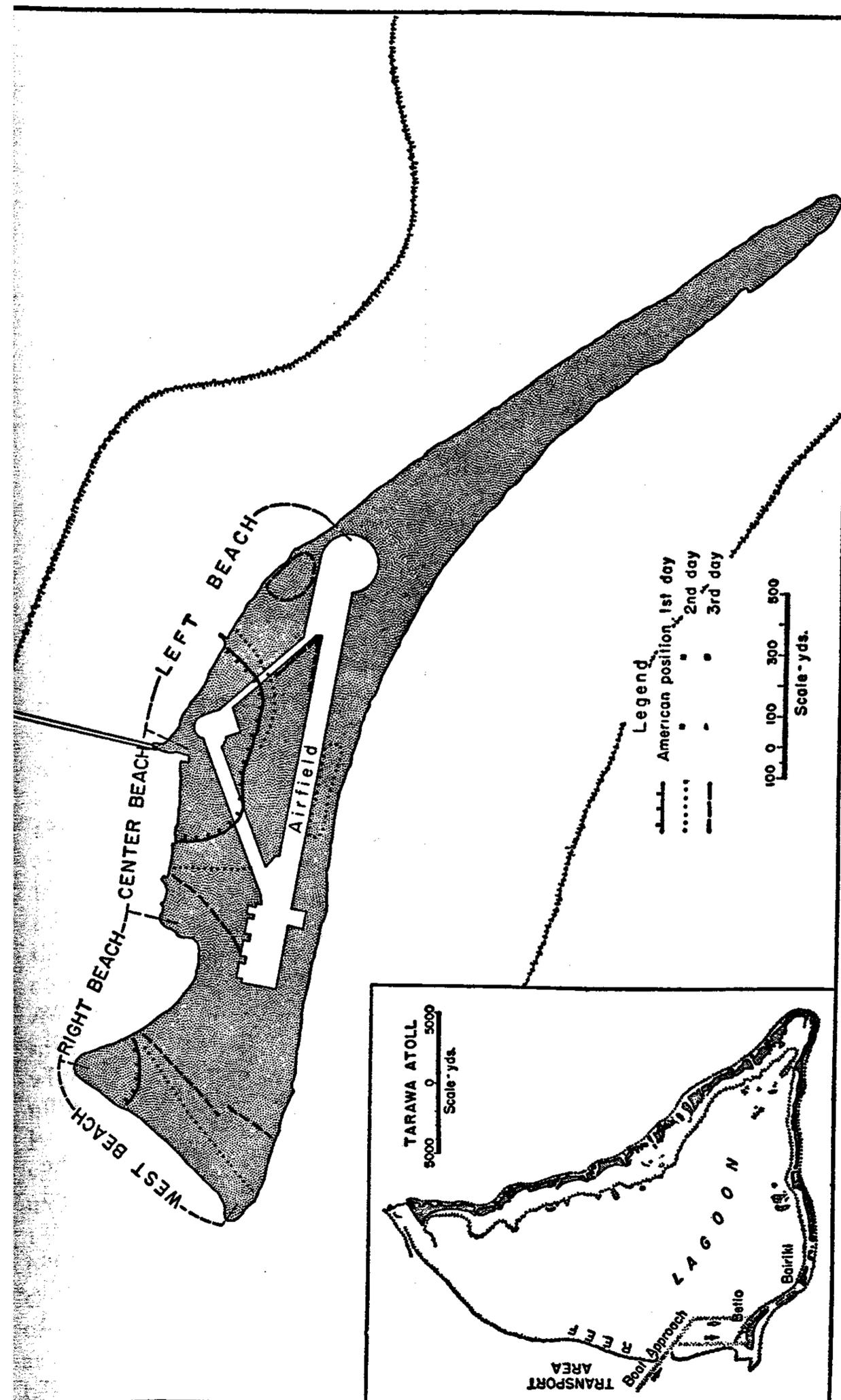
the operation was over, "that accurate depths of water cannot be determined from photographs." Rear Admiral Harry Hill showed more foresight. He believed that black and white photography would turn the trick, and advised that in future operations photographic missions prior to the target date be flown at widely varying times in an effort to determine the periods of tides and to reveal beach obstructions and mines with an accuracy sufficient to permit their being plotted on a chart.²⁹

Absence of accurate hydrographic data complicated the planning of the Second Marine Division. Tide tables and reef soundings for Tarawa were unreliable and incomplete. The British in 1941 had been using charts made by an American exactly a century earlier. As in the planning phase of Guadalcanal, British shippers and pilots were called in for consultation. Again they cooperated enthusiastically, and again their memory left much to be desired.³⁰

The fringing reef around Betio was a natural obstacle which would block most landing craft. The Second Division staff did everything in its power to solve this problem. The decision was to employ amphibian tractors tactically. This was an innovation. Previously they had been used only logistically, and marines fighting in the jungles argued that to load them with weapons and protective plate for tactical use would curtail their cargo-carrying capacity. The men planning the Betio assault had no choice but to disregard such advice. The Second Division's amphibian tractor battalion managed to collect seventy-five serviceable craft of the vintage used at Guadalcanal. With the cooperation of the navy,³¹ extensive tests were held to prove the feasibility of crossing reefs with these vehicles; machine guns were mounted forward; and efforts were made to armor the craft by riveting on boiler plates.

Seventy-five amphibian tractors were not enough. Finally the staff was able to procure fifty additional new models, armed with machine guns and partially armored. These were in San Diego. There was not time enough to get them to the division for tests and rehearsals. They were dispatched in tank landing ships via Samoa, where they were met by a special amphibian tractor company formed by the division. On the morning of the target date, November 20, 1943, they met the division at Tarawa.

Nor were 125 amphibian tractors sufficient. Julian Smith's preferred plan, which was used, called for the employment of 100 in the first three assault waves. Twenty-five of the older models were held in division reserve,³² which showed excellent judgment for otherwise few would have remained for necessary logistical services. Since, however, only the amphibian tractor could cross the reef off Betio, it meant that after the first three waves were ashore, the assault bogged



MAP 11. Betio Islet with insert of Tarawa Atoll.

down. Above everything else the amphibious assault should pack a sustained wallop. That at Tarawa did not. The number of amphibian vehicles at Betio was sufficient barely to win the islet, and little more. "Without the amphibian tractor," asserted Holland Smith, "it is believed that the landing at Tarawa would have failed." After the war, Julian Smith was asked for the precise moment that the Japanese on Betio were licked, and he replied (perhaps somewhat optimistically) that their morale suffered irreparable damage when they saw amphibian tractors belly up over the reef and then head for the beach. Immediately after the operation he recommended (and Holland Smith emphatically approved) that at least 300 of these craft be assigned to each amphibious division, and that they be more heavily armed and armored, be given more speed, and be equipped either with a ramp or a light crane for unloading cargo.³³ Undersecretary of the Navy James Forrestal concurred with this recommendation and with characteristic energy translated it into increased production. He warned that heavy casualties must be expected in future amphibious assaults in the Pacific, but added that the more amphibian tractors available the less would be the loss of American blood "in this most hazardous of military operations, the landing on a hostile shore in the face of a determined, experienced, well-equipped enemy. . . . Success of invasions to come will depend upon the sweat that we put in these landing craft today. The sooner they are built, the sooner will the war be over and the lower the cost in human lives. They must be built quickly."³⁴

More and better amphibian tractors, however, were a thing of the future. They would not help the men of the Second Marine Division at Betio, whose planners knew that the number available was insufficient to get more than the first three waves of Shoup's three assault battalions onto their beaches. Thereafter, unless the tide were favorable, the assault would lose its punch. The remaining two waves (principally reinforcing elements) of the first three battalion landing teams must be boated in landing craft. These required at least four feet of water over the reef. There were only enough tractors to lift roughly one-half of the personnel in Shoup's three beach assault battalion landing teams.

The question of tides and the absence of sufficient water over the reef to float landing craft at Tarawa will probably never be resolved satisfactorily. The tide range, that is the difference in depth of water between high and low tides, varies considerably according to the moon's cycle. The greatest range occurs when the moon is new or full and is called the spring tide; while the point of least range is called the neap tide and occurs when the moon is in the first or third quarter. Tarawa was attacked in the neap tide period, and (since the assault for

logistical reasons and because of tactical commitments in the South and Southwest Pacific could not be delivered earlier than it was) the question arises: why not wait seven days and land with a spring tide? The answer is that the times for peak water points of neap and high spring tides progressively change to complete a full cycle of twenty-four hours. During late November 1943 the spring tide was coming in either during darkness or relatively late in the day. Tactically a landing at either of these times was unacceptable. The first would preclude air and naval gunfire support; and the second would allow insufficient daylight to secure a beachhead. Only by delaying the operation from November 20 to December 27, or thereabouts, would the spring tide occur at the time of day that the assault, for sound tactical reasons, must be launched.

Of course, these general considerations of tides were well known by all concerned in planning Tarawa. Beyond such general knowledge, however, there was an area of ignorance because, while the tidal and reef data for Tarawa was the best that could be compiled, it was full of inaccuracies. Thus the absence of sufficient amphibious tractors posed the basic problem of whether to delay a month and go in with the spring tide, or to try and determine on the basis of data at hand whether or not it was feasible to get landing craft over the reef on the day that the neap tide coincided most nearly with the hour the assault should be made. If it were feasible to land in late November, then to postpone the operation another month was out of the question, since this would in turn set back the entire Central Pacific offensive and give the Japanese just that much longer to fortify the Marshalls and all other future targets. The planners decided that a landing in late November was feasible. The decision was correct, but the calculation of water over the reef turned out to be faulty, and according to the estimate of an eyewitness, low water increased casualties fifty per cent. Assuming that this estimate is correct, one may conclude that American lives would have been saved by awaiting a properly timed spring tide. Another possible conclusion, however, is that the delay, while saving marines at Tarawa, would have probably cost a far greater number of marines and soldiers at Kwajalein, Eniwetok, the Marianas, Palau, Iwo Jima, and Okinawa. The second conclusion seems the more valid. Strategical momentum, in short, is apt to be more economical of means than tactical momentum. Admiral King realized this in July 1943 when, having taken cognizance of the heavy pressure being brought on the Japanese in the Solomons-New Guinea area, he concluded: "It appears to me urgent that we take the maximum advantage of this situation by mounting the operations in the Gilberts-Marshalls at the earliest convenient date practicable, even at the expense of not being completely ready." Admiral Spruance, who at the time of the

planning for Tarawa was personally concerned with both the performance of the amphibian tractors over coral reefs and with the number available, emphasized the same point after the surrender of Japan. "War is a tough business," he said, "and often we gain more than we lose by pressing forward against the enemy before we are entirely ready. This was certainly true against the Japanese in the Central Pacific."³⁵

On the basis of the best calculation possible, the most favorably timed neap tide for late November would begin to flood rapidly at roughly half-past eight o'clock on the morning of November 20. The entire operation was planned around that moment. Most of the British acquainted with the Gilberts promised five feet of water over the reef by the time the non-amphibian craft were wanted on the beach. Since four feet would be adequate to float the landing craft, then there would be (if the data and the overwhelming majority of the people experienced in navigating the waters of the Gilberts were right) twelve extra inches of depth over the reef, and the assault would carry through with sustained momentum.

One British officer who stood out against his compatriots, however, happened to be right. He was Major F. L. G. Holland of the New Zealand Army who had lived on Tarawa for fifteen years. He predicted something he called a "dodging tide" for around November 20. The United States Coast and Geodetic Survey, however, is unfamiliar with the term "dodging tide." Holland had been around Tarawa long enough to have sensed, at least, that the tidal and reef data being used was unreliable; but he had at his disposal none that was better. His ominous prediction for November 20 created grave doubts in the minds of Julian Smith and others, and caused them to drill the marines in what to do in case of low water. As far as men can ever be mentally prepared, they were prepared for the contingency that the boats would ground at the edge of the reef and some of them would have to wade in. But there was no other choice than to plan the time of the landing on the most highly scientific basis possible, and to hope that it was correct. Had the accurate hydrographic data compiled after the capture of Tarawa been available, it would have been obvious that there would not be enough water over the reef at high neap tide to allow non-amphibian landing craft to reach the beach.³⁶

Deciding which beaches to use in assaulting Betio was painful, but hardly difficult. Hydrographic consideration and the Japanese defenses, combined with the requirement of speed and the withdrawal of one of the regimental combat teams from the Second Division, dictated that Julian Smith select the northwestern lagoon beaches.

The Japanese had approximately 200 coastal defense, antiaircraft, antiboat, and beach defense guns on Betio. These ranged in size from

8-inch naval cannon to mortars and light automatic weapons. A slightly greater number of emplacements, most of them well-constructed with coconut logs or reinforced concrete and mounded up with coral and sand, seems to have existed. Except for the 8- and 5-inch coastal batteries, everything on the island could be used against landing craft. All antiaircraft weapons, for example, were dual purpose, and were emplaced for beach defense.

Nor was this all. In addition to the natural obstacle that was the fringing reef, the Japanese had planted in the water immediately surrounding the islet a large variety of man-made barriers. These included concrete tetrahedrons, piles of coral rock, fences of heavy coconut log, antiboat mines, and aprons of defensive wire. Along almost the entire length of the coast, with only a few gaps and interspersed breaks permitting inshore guns to fire, a beach barricade had been constructed from coral stone and from coconut logs. This was designed to house light and medium antiboat weapons, and was integrated with the more solidly built emplacements just inshore which contained larger caliber guns. Fields of fire were superbly laid. Full enfilade was the purpose. Attackers would be channeled by the reef, the man-made obstacles, and the beach barricade into a crossfire of all types of weapons. "The Japanese at Tarawa Atoll," reads the post-operational verdict of the Joint Intelligence Center, "organized Betio Island for an all-around, decisive defense at the beach."³⁷

Study of the preoperational aerial photographs and low-level submarine camera shots showed that the Japanese expected a landing on the south or west coast of Betio. (See map 11.) Defenses in those sectors were heavier and more nearly complete. Of the two, the west coast offered the better possibility of effecting a landing. Here the coast line was short, only 800 yards, but once occupied, there would be no land to the right or left of the attackers and hence no enemy flanking fire. However, the high surf which characterized the seaward beaches was feared, and immediately inshore from the west beach the cove along the northwest lagoon coast would sharply curtail maneuver room. In addition, just south of the reentrant, which cut the width of the island to a mere 450 yards, was the western end of the enemy airfield, roughly 150 yards wide, and this could be swept by Japanese machine gun fire. An assault on the west coast, in other words, looked like plunging into a hangman's noose.

If the southwest coast were struck, maneuver space as ample as was possible on tiny Betio would open to the assaulting units, but here in addition to the surf and the heavy defenses, the concaving coast line would facilitate flanking fire. Similar reasoning, plus a lack of maneuver room, ruled out the southeast coast.

The lagoon coast was convex. This would tend to mask at least some

enemy fire. The northeastern beaches were, however, unsuitable. They offered no maneuver room once ashore and reaching them would require a long run into the lagoon while flanked by defenders' guns. The lagoon itself was poorly charted and was known to be treacherous with coral heads; and it might be mined.

Only the northwestern lagoon beaches remained. They had to be used. Enemy weapons on the eastern lagoon coast would be partially masked, but unless friendly naval gunfire and air supporting arms did their jobs well, the reentrant itself would form a small and deadly pocket. These arms, especially the naval guns, should be able to take out the defenses along these beaches. Heavy warships could lie to off the west end of Betio, outside the lagoon, and enfilade the northwestern beaches.

Other considerations pointed to these beaches. Here the Japanese installations were, relatively at least, weak. By first seizing the long pier and then straddling its base with two beaches to the right and one to the left, the attackers could utilize this crib-like obstacle, rising eight to ten feet out of the water, to reduce enemy crossfire in the immediate vicinity of the coast. Once in friendly hands, the pier would greatly facilitate the problem of beachhead logistics.³⁸

The scheme of maneuver adopted was to send in a scout-sniper platoon to clear the long pier, and then to land three reinforced battalions abreast on as many northwestern lagoon beaches. Each of the beaches was about 600 yards in length. As the marines raced southward in 100 amphibian tractors over lagoon waters onto the northwest coast of Betio, their right flank beach stretched from the northwestern tip of the islet eastward to include the entire reentrant; the center beach ran from that point in the same direction to the eastern base of the long pier; and the left flank beach continued eastward beyond the wharf to the eastern extremity of the airstrip.

While the staff of the Second Marine Division was evaluating the information available on Tarawa, selecting its beaches, and planning the training, rehearsal, and operational features of its mission, higher echelons were working on the overall strategical and logistical aspects of the Gilberts offensive.

In addition to the land- and tender-based planes under Hoover, Spruance had a mighty array of naval power. His covering force consisted of six new fast battleships, six heavy and five light carriers, two heavy and two light cruisers, and twenty-one destroyers. Operating as four fast carrier task groups, these warships entered the area of combat early, delivered air strikes and naval bombardment against the geographical objectives, and then proceeded to the north and west of the Gilberts and continued the neutralization of certain enemy bases while guarding against Japanese air attacks from others. It was the

successful strikes of this covering force which localized the target area and kept the Japanese air reaction down to minor night harassments, but in another important respect, the work of Spruance's covering force was a failure. It was scheduled, on the two days immediately previous to the target date, to take over from Hoover's land-based planes the chief responsibility of hitting the atolls marked for seizure. A variety of islands were taken under attack, to keep the enemy confused as to the ultimate goals, but major attention was devoted to Tarawa. The principal targets were the coastal defense guns on Betio, which must be taken out before the transports and cargo vessels could operate adjacent to the atoll. These enemy weapons were concentrated on the three tips of Betio. They were pinpointed on aircraft and gunnery charts. Spruance's presumably accurate carrier-based bombers dropped almost 200 tons of explosives at these targets, and then a cruiser division tried to work the installations over with naval bombardment. The enemy weapons remained intact. Fortunately, the American gunners accompanying the attack forces would be more competent because they were better trained in shore bombardment, but this was a good indication of the lack of efficiency, when striking ground objectives, of all carrier pilots then in the Pacific. Failure of the preliminary air and surface strikes caused no forebodings because the results were not accurately known; pilots reported exceedingly weak anti-aircraft fire, and concluded that all worthwhile targets on Betio had been demolished before dawn of November 20.³⁹

Spruance allocated other men-of-war, as well as the transports and cargo shipping, to Turner. These constituted the two naval attack forces, one to Makin and the other to Tarawa. The three platoons of the amphibious reconnaissance company destined for Apamama were carried in a submarine.

Turner decided to accompany the expedition to Makin. That atoll was closer to the Marshalls than Tarawa, and was therefore in the danger zone of probable Japanese air and subsurface reaction. It was the critical naval target, and Turner's choice was sound. Holland Smith accompanied his naval counterpart on the echelon of command, and was absent from the bitter Tarawa fighting.

Since Makin was the more dangerous target from a naval point of view, it meant that the army troops taking that atoll had a greater potential volume of naval gunfire support than the marines at Tarawa. Fewer escort carriers were assigned to Makin, but three of the four fast carrier groups were operating in that vicinity. Allotting preponderate naval support to the weaker of the ground targets was necessary for a number of reasons. The transport area at Makin required the stronger anti-aircraft guns, as well as the more powerful combat air and antisubmarine patrols. Finally, there was always the possibility

that the enemy fleet would sortie, and the fear of such a development would mount if an equatorial weather front closed in over the Marshall Islands and hampered American reconnaissance. The warships accompanying both amphibious expeditions might have to drop other duties and deploy for a naval engagement.⁴⁰

Accompanying Turner and under his immediate control at Makin were four old battleships, four heavy cruisers, and six destroyers. Turner's flag was in the old battleship *Pennsylvania*. Three escort carriers furnished direct air support, assisted by planes from one fast heavy and two fast light carriers during the early phase of the operation. Combat and garrison troops for Makin were lifted in nine assorted transport and cargo vessels, plus three tank landing ships, and a dock landing ship, accompanied by a minesweeper and screened by six destroyers.

Turner and Holland Smith delegated full tactical control of operations at Tarawa to Rear Admiral Harry Hill and Major General Julian Smith. Hill picked the old battleship *Maryland* for his flag. The choice was poor, but the best available since Turner had *Pennsylvania*. *Maryland* was overcrowded, and her communication facilities were antiquated. She was necessarily a part of the naval gunfire support group, and every time she fired a salvo, her communications were apt to go dead.⁴¹ The naval attack force commander was not well situated to fulfill his duties, and Julian Smith was even worse located to keep abreast of progress ashore; but the problem of accommodating the attack and landing force commanders remained unsolved until the construction of amphibious force flagships equipped with special communication facilities (AGCs).⁴² Two vessels of this type were first used in the Marshalls.

Including *Maryland*, naval gunfire at Tarawa was furnished by three old battleships, two heavy and three light cruisers, and nine destroyers. Five escort carriers were on hand for close air support, supplemented on the first day of the assault by aircraft from two heavy and one light fleet carrier. Thirteen transports, three cargo vessels, three tank landing ships, and a dock landing ship lifted the marines and their equipment to Tarawa, accompanied by two minesweepers and screened by seven destroyers. The Tarawa and Apamama garrison troops, principally composed of the Second and Eighth Marine Defense battalions respectively, were echeloned forward in tank landing ships with additional destroyer escort.⁴³

Logistical planning on the higher echelons was, with one exception, good. The supply section of Nimitz's staff was a highly efficient well-integrated body of men, and by late 1943 was functioning smoothly. This section handled the logistical details for most of the Gilbert attack forces, and followed through with complete resupply plans. The

high caliber of this work was indicative of the future excellence of Nimitz's supply section. Not only did it, in cooperation with the Navy Department in Washington, perform near miracles in base developments, but also it devised a floating train capable of keeping the Pacific Fleet at sea for weeks on end. This in turn reduced the number of advanced bases required, and eased the burden on assaulting marines.⁴⁴

Shipping shortages plagued the supply section of Nimitz's staff and delayed the assignment of transports and cargo vessels to the attack forces. The logistics section of the Second Marine Division staff was unable at a convenient date to obtain reliable data on the characteristics of the vessels involved. Under the circumstances, combat-loading was well done. Only in one instance was there an annoying passage of several hours before meeting a demand for light tanks which had been bottom loaded, and this was not the fault of combat-loading since it was caused by a transfer of cargo in the transport area while lying to off Tarawa.⁴⁵ Few pallets (bulk packaging of supplies in an effort to facilitate beach logistics) were used because the necessary equipment arrived late at Wellington.

Julian Smith's supply section did an excellent job. It made no effort to lift more than five units of fire and thirty days of supplies. Motor transport was cut to what seemed to be a bare minimum, and that was more than was needed.⁴⁶

Some marines complained that they carried more on their backs than could possibly be used in an operation like Betio. Evidence indicates, however, that at least a few carried more than their administrative order specified, and thus they had only themselves to blame. After the battle, some argued that the combat pack was cumbersome and should be discarded, that it cut down efficiency and lessened mobility. While men storming a coral atoll neither ate, slept, nor moved their bowels during the period of intense fighting, a pack of some description was necessary. Arms, ammunition, water, salt tablets, the intrenching tool, the gas mask, and dextrose and a bar of hard chocolate were essential—and as early as Guadalcanal it should have been learned that water supplementary to the canteens should be brought ashore in porcelain containers, otherwise it tastes of rust.⁴⁷

The Second Marine Division finished its loading in time to sortie from Wellington on November 1 and to arrive for simulated combat landings at Efate in the New Hebrides Islands from the 7th through the 12th of November. This set of rehearsals, said Julian Smith, "was satisfactory but not complete." This was, to quote Holland Smith, "because the forces had such a short time to prepare and coordinate the rehearsal plans." The corps commander could have been more specific if he had singled out the absence of carrier pilots. This does not include those on the fleet carriers assigned to Tarawa, who, while

the rehearsals were going on, were busy striking Rabaul; but it does include those on the escort carriers. These airmen needed to practice their mission; yet, up to the time of the actual assault, the squadrons of three of the five escort carriers which furnished the bulk of the air support at Tarawa, had not operated together as a group.⁴⁸

Two separate rehearsal landings were made. They were principally of value in continuing to acquaint the men with the novel employment of amphibian tractors tactically. The verdict of the marines as regards their training for the Tarawa assault was generally favorable, but not universally so. There was a tendency to get ready for another jungle operation, for another Guadalcanal rather than for an assault against heavy fortifications on a coral atoll. Holland Smith, perhaps unwittingly, reaffirmed this misconception after Betio had been taken. The members of the Second Marine Division, he stated, "were veterans of a campaign and needed little training other than amphibious training."⁴⁹

More than amphibious training was required. Some riflemen complained that in large part they were readied for jungle fighting, rather than for the type of warfare in which they had to coordinate their work with tanks and engineers. Julian Smith counters that of the 14,500 men evacuated from Guadalcanal in the spring of 1943, a total of around 12,000 had malaria. Rehabilitation was essential before training could begin, and rotation plus a large number of replacements further complicated the problem. The principal concern of the staff was, correctly under the circumstances, amphibious training, and with the assistance of the navy this was carried out. But coordinated tactics to take out heavy installations were not sufficiently stressed, a fact admitted by Julian Smith. He and his staff were somewhat surprised by the type of obstacles encountered on Betio. While the Japanese perfected a static defense tied down to heavy construction along the beaches and solid block-houses just inshore, the Americans planned their offensive with minds steeped in occidental warfare, with its sector defensive zones, defensive mobility, and greater reliance on artillery. The skill of the Japanese in erecting low-lying massive strong points as nearly as possible impervious to the flat trajectory of naval gunfire was enough to startle anyone; and their tactics of standing pat in individual groups well-protected by defensive installations until the last man was killed, rather than obtaining the sector coordination conventional in defensive fighting, surprised western minds. Under the circumstances, it is notable that after the battle both Julian Smith's engineers and his tankmen praised the practice they had received in coordinating their demolitions, flamethrowers, and firepower to the end of knocking out well-constructed emplacements. The missing link, in so far as there was any, was the absence of polished teamwork be-

tween riflemen on the one hand and demolition engineers and tankmen on the other. Had the training been more complete, one of the more serious flaws to appear in the struggle on the beach and inshore would have been corrected in time. This was the lack of communications between the tactical infantry commanders and their supporting tanks. In this connection it is evident that coordination between the riflemen and the light tanks was better than that between the men worming forward on their stomachs and the medium tanks. The reason was simply that the light tanks were with the division throughout the training period, whereas the medium tanks were lifted in a dock landing ship directly from New Caledonia and, like the new amphibian tractors from San Diego, were never fully integrated into the battalion landing teams. Thus a combination of circumstances is responsible for faulty rifleman-tank communications. "We did not lose a man inside the tanks," recalled the commanding officer of the Second Marine Tank Battalion, "but most of them were lost getting out and trying to communicate with the infantry."⁵⁰

Rehearsals were of value in further acquainting the naval gunfire and air liaison parties with their duties. Personnel for these billets were scarce, and it was necessary to draw upon men in the artillery regiment of the Second Marine Division; but the plans for the use of these groups were more advanced than in any previous operation. Each battalion landing team was to have its own air and naval gunfire liaison groups, which, once communications were established ashore, were to help supervise close air support and call fires.⁵¹ Such a decentralized system was essential. Integration was gained through the use of regimental, landing force, and naval attack force air and gunfire control officers, who monitored requests from the lower echelons and supervised the planes and gunfire ships held in reserve. Despite the use of pilots poorly trained in ground support duties and despite grave difficulties in establishing and maintaining communications ashore, the system proved its worth. Emphatically, the most effective periods of both air and naval gunfire support came after the troops were ashore.

Great strides in the direction of better naval gunfire support had been taken in September 1943, when headquarters of the Fifth Amphibious Corps and the administrative command for the cruisers and destroyers of the Pacific Fleet had established training facilities for naval gunfire ships and their shore fire-control parties in the Hawaiian area. Arrangements were made to evaluate scientifically the ability of naval gunners against shore targets, and the training improved marksmanship and shore control greatly as the Central Pacific drive gained momentum. Unfortunately, this gunfire course was set up too late fully to benefit the Tarawa assault. Only a few of the ships involved ran through the course.⁵²

Although flaws later appeared in naval gunfire support, Tarawa stands as the dividing point between the discrediting of naval gunfire at Gallipoli and its vigorous and successful employment in the amphibious assault. Both marines and navy officers collaborated in drawing up the naval gunfire plans for Tarawa, and alike must share the praise for its merits and the criticism for its shortcomings. Praise, however, should far outweigh criticism when one considers that a lack of appropriations had hamstrung experimentation in the years between the wars, that a critical shortage of warships and fighting amid the jungles and large land masses of the Solomons-New Britain-New Guinea area had afforded no clear-cut opportunity to polish naval gunfire support, and that moving both heavy and light men-of-war into point blank range of a shore line in the face of coastal batteries was a revolutionary procedure.

Nerves were taut and tempers ragged as the rehearsal ended at Efate. A press conference was held, and the implementing commanders hid their concern, fears, and doubts behind a cloud of confidence. This was as it should have been. The navy officers were particularly proud of the fact that they were going to bore through with their ships until gun muzzles almost touched the coast. Reporters were told in detail how this concept was new, untried, dangerous. But it was necessary to get the marines ashore. One of the ranking navy commanders rose to heights of eloquence (and exaggeration) as he said of his chief gunnery target, Betio Islet: "We do not intend to neutralize it, we do not intend to destroy it. Gentlemen, we will obliterate it."

The Marine Corps has never been deficient in the art of public relations. Julian Smith listened to such talk as long as he was able, and then rose to say: "Even though you navy officers do come in to about 1,000 yards, I remind you that you have a little armor. I want you to know that marines are crossing the beach with bayonets, and that the only armor they'll have is a khaki shirt."⁵³

3. Approach and the Seizure of Makin and Apamama

The Tarawa attack force departed its rehearsal area on November 13, and rendezvoused at sea with the army troops headed for Makin five days later. The approach of both attack forces was without serious incident. As Spruance had expected, the Bougainville operation and carrier strikes against Rabaul were timed perfectly to assist the Gilberts offensive.

Army troops destined for Makin had been trained amphibiously under the supervision of Holland Smith's staff, and were rehearsed in the Hawaiian area. They were attacking a target with overwhelming strength, since they had something in the vicinity of a six or seven

to one superiority in numbers and firepower. Defenses on Makin were light, concrete and heavy coconut log emplacements being the exception rather than the rule, and for this reason the air and naval gunfire supporting arms were much more effective than at Tarawa. Over 1,700 tons of naval shells alone were poured into the principal geographical objective, Butaritari Islet of the Makin Atoll, before the landing began. Failure of the army troops once ashore to use naval gunfire on call indicates the lack of heavy opposition, as well as the fear of men inexperienced in the value of this excellent support that it might rain down on their own heads. Shore fire-control parties, however, had been trained, army personnel had been incorporated, and these were landed. Naval ships stood by to deliver fire, but, said Holland Smith's naval gunfire officer, "there was no fire called for by battalion or regimental shore fire-control parties."⁵⁴

This was the first time the 165th Infantry Regiment had met the enemy, and under the circumstances it carried itself well. Forty-eight amphibian tractors lifted the initial waves to the beaches. There, fortunately for the soldiers, no resistance, or very little, was met. "The major difficulties encountered," reads one official army version, "came from the terrain. . . . The ineffective Japanese opposition to the landings . . . ceased in less than ten minutes." Another official account quotes the commander of the leading battalion landing team: "I jumped down from my boat and stood straight up for two or three minutes, waiting for somebody to shoot me. Nobody shot! I saw many other soldiers do the same thing."

There was trouble in getting tanks and artillery ashore, and the troops were hesitant to move without them; yet even inland, opposition was desultory. As the troops moved out to secure their beachhead, again quoting an army historian, "only insignificant rifle fire was met, the main obstacles being the debris and the water-filled craters resulting from the air and naval bombardment." At noon of the first day, "the American troops were opposed only by snipers."⁵⁵ Four nights passed, and the soldiers showed their lack of basic training by indiscriminate firing, revealing their positions and causing their casualties to mount. The regimental commander was killed trying to spur his men forward against sniper fire. He seems to have been a competent and energetic officer, but on the whole Holland Smith had reason to be annoyed with the performance of the army leaders of all ranks. It was not the fault of the men. They simply had not been well indoctrinated and were not being well commanded. The operations officer of the Fifth Amphibious Corps noted this emphatically: "On the land the heavy growth was such that visibility was limited so that even a squad leader could not observe his entire squad, if deployed, from a single location. The necessary control required a great deal of per-

sonal supervision by commanders of all grades. There was an evident lack of such supervision and fire discipline, which may account for entire units being held up for rather long periods by sniper fire. One such instance was observed when a battalion was held up by sniper fire for approximately four hours."⁵⁶

This was certainly a poor showing when contrasted with what the marines did on Tarawa. Despite the weakness of the Japanese on the islet of Butaritari, it took the army longer to seize it than the marines needed to overrun Betio. Such a contrast, however, is grossly unfair. Since this was the first action for men of the 165th Infantry Regiment, a more valid basis of comparison exists with Guadalcanal. There the marines on Tulagi and Gavutu-Tanambogo showed up well in their first contact with the enemy, but those on Guadalcanal, and especially the battalion on the right flank of the movement toward the airfield, had been slow. The men of the Second Marine Division who landed on Tarawa were experienced in combat. It would be foolish to contend that there was any inherent difference between the men of the 165th Infantry Regiment and those of the Second Marine Division. Both came from similar families and had enjoyed similar backgrounds. Both had been given basic training in ground tactics from the same field manuals. It is true that marines are imbued with the compelling naval requirement of speed in such operations as that at Makin; while the army is accustomed to fighting on a larger land mass, and for this reason is anxious to employ advantageous terrain with artillery rather than naval gunfire support; but this consideration alone fails to account for the slowness with which Makin was seized.

As well as inexperience, inadequate basic training and poor leadership unquestionably delayed the capture of Butaritari, and increased the number of army casualties. The best way to prevent the enemy from reorganizing and stiffening his resistance again and again on a small objective such as an islet on a Central Pacific atoll was to drive relentlessly forward. Relative to opposition encountered, army losses were higher than those of the marines, who endured a beach assault at Tarawa. American casualties ashore on Makin were 216 dead, wounded, and injured; and at that, it was the supporting naval arms that really suffered at this northernmost objective. Including the men on the ill-fated *Liscome Bay*, the navy's losses were more than 1,000. Over 750 of these officers and bluejackets were dead.⁵⁷

Apamama turned out to be a simple job, but one filled with excitement. The amphibious reconnaissance personnel aboard the submarine *Nautilus* came near being lost because of gunfire from an American destroyer. On the night before the morning of the Tarawa assault, she upped periscope off Betio to observe the enemy on that objective, but when she headed eastward toward Apamama, of necessity sub-

merged, she encountered an unfavorable current. Having lost precious time, she surfaced to regain position as the Tarawa attack force approached, and an escorting United States destroyer suspecting hostile intent sent a 5-inch shell through her conning tower. *Nautilus* dived to 300 feet before control was regained, and after this additional delay went on to fulfill her mission.

Another countercurrent at Apamama during the night of November 20/21 carried the rubber boats of the three marine reconnaissance platoons out of position, but the men got ashore without additional mishap and proceeded to investigate the atoll. Resistance was encountered early the next morning. *Nautilus*, assisted later by a destroyer, provided naval gunfire, and most of the twenty-four Japanese on Apamama, conveniently for the Americans, committed suicide. The marines lost one man dead, one wounded, and a third suffered a hernia in unloading supplies.⁵⁸

4. Tarawa: Gunfire and Air Preparation and Disembarkation

Tarawa was the difficult target in the Gilberts, and this assault would have been easier if the supporting arms had been better coordinated and more accurate. Almost from the moment the transports arrived in the vicinity of Tarawa, things began going contrary to schedule. Once introduced, the confusion of shifting times became cumulative, and the ill-effects lasted until the principal objective had been seized.

The major fault of both naval gunfire and air support was the lack of flexibility in delivering preparation once the planned schedule had broken down. The touchdown of troops on the shore is the important moment in planning an amphibious assault. All calculations must be premised on the precise minute when the first wave of troops is expected to hit the beach, and about this moment in turn revolves a long and complicated timetable for the supporting arms before, during, and after the run in from the line-of-departure to the shore. Doctrine recognizes, however, that should the time of the first landing be altered by the circumstances of execution, then all other scheduled activities must be shifted forward or backward as the case may be. In naval parlance, the time of the touchdown is normally called "H-hour," and all other activities move around H-hour, whatever that may turn out to be. This introduces such terminology as "H-hour minus 27 minutes" or "H-hour plus 48 minutes."

During the planning phase, however, it is necessary to equate H-hour to the precise moment that the landing is expected to begin, and this pegs all other undertakings on the dial of a clock. Thus regardless of doctrine a certain amount of rigidity is seemingly introduced into

the schedule; and actual experience was needed to drive home to both naval gunners and carrier pilots the point that all aspects of amphibious warfare pivot around, not an arbitrarily selected moment, but the actual time, planned or not, that the first troops touch foot ashore. There are extenuating circumstances which go far in excusing the naval gunners, but no one has yet been able to explain fully what the airmen were doing. They were overconfident and inexperienced.

Pilots were late when their strike could have been and should have been delivered on schedule. They were right on the spot when the exigencies of the situation below compelled delay. They not only failed to hit the target with their quota of bombs and machine-gun fire, but interfered with the naval gunfire and helped to dissipate its effect. Nimitz noted the performance of these airmen with concern. Some came over Betio with little semblance of order, bombing and strafing at will and apparently to the individual tastes of their flight leaders. "It was evident," concluded Nimitz, "that the carrier squadrons were not fully trained to provide efficient air support of amphibious operations."⁵⁹

The set schedule began going awry during the early morning darkness of November 20. The amphibious shipping, following a radar beacon pulsating from a destroyer, entered the transport area in good order; but while the marines were being served a big breakfast of steak and eggs, these vessels were caught in a surprisingly strong current to the southwest and began drifting out of position. They had to get under way again, and this led to some confusion as the amphibian tractors and landing craft plowed through the darkness in search of their assigned ships.⁶⁰

Then a more serious event occurred. Twilight had scarcely begun when the enemy's coastal batteries on Betio fired. Near misses splashed the water in the transport area. Fortunately for the marines, no vessel was hit. Either the Japanese gunners needed practice, or, more probably, their fire-control instruments had been damaged by the preliminary bombing and bombardment delivered by Spruance's Fifth Fleet.

The possibility that the Japanese coastal guns would fire on the morning of the target date had been covered in the plans. From the outset, heavy warships took counterbattery positions, and Harry Hill lost no time in ordering them to reply to the Japanese. Temporarily, the large enemy weapons were silenced. Those on the western end of Betio were not entirely destroyed until after some of the marines were ashore, and those on the eastern end were still firing on the second day of the assault. But silencing enemy guns during the early twilight of November 20 was costly to the American cause. Communication difficulties on the flagship were expected, and *Maryland* had been assigned only two types of naval gunfire support in an effort to keep her

radios in trim. It was hoped that she could hold off with her main batteries until just before the marines were to land; but she had to be used if counterbattery became mandatory. *Maryland* fired 16-inch projectiles at the Japanese coastal batteries, and her transmitting facilities temporarily went dead at a most inopportune moment, when they were needed to contact carrier planes scheduled for a twilight strike. In another respect, early morning counterbattery caused the prelanding gunfire and air support to lose some of its effectiveness. It had been hoped that the first heavy strike from the carriers could be brought in at twilight to precision bomb the enemy's coastal guns; but no one expected a bomber to hit a small ground target unless he could see it. Projectiles from warships burst first on Betio, raising clouds of dust and debris that would not completely settle until the islet was in American hands. There was yet another reason for concern. At this stage of the war, it was considered unsafe for bombers to operate over a target being pounded by naval projectiles, since no scheme had yet been devised to keep airmen out of the line of fire.

But the bombers failed to arrive on schedule. No one has yet explained exactly why. Nimitz's staff was unable to ascertain the cause. "For reasons as yet unknown," he reported to King, "this air strike was late in developing. . . ." Samuel Morison, in the first draft of his volume on the Gilberts and Marshalls (written while the war was still in progress), says that the confusion arose because the fast carriers assigned to Tarawa were plastering Rabaul at the time of the rehearsals, and that their commander could not be briefed on the plans. Rather than a dawn strike at 0545, this officer, Rear Admiral Alfred E. Montgomery, planned a sunrise attack at 0615.⁶¹

Hill stopped counterbattery a few minutes before the planes were due. When they failed to arrive, since the coastal weapons were still firing, counterbattery was resumed. *Maryland's* radio voice was finally restored, and the planes brought in some twenty-five minutes late. The strike had neither volume nor accuracy. Dust and confusion were partly to blame. The bombers were supposed to work over Betio for a half-hour, but they were withdrawn after ten minutes. It was necessary to get the first phase of the naval gunfire support under way.

Marines and naval gunners, prior to Tarawa, generally felt it impossible to do more than to neutralize shore targets. Planning for Betio modified this concept, the intent being to neutralize the entire islet and at least to destroy the enemy on and in the vicinity of the landing beaches. Executing the Betio assault revolutionized the concept of naval gunfire. It proved that destruction was not only feasible, but essential. As Admiral Hill observed, "the assault waves were opposed by only a few automatic weapons, the total on two of the three beaches being only about five. That was five too many, and regardless of

whether future landing plans provide for taking care of them by tanks or other weapons, it is considered necessary that future naval gunfire plans provide for the destruction of these strong points before the assault." ⁶²

Firing previous to the assault was divided into two phases. The first was to begin immediately after the early plane strike, just as the sun rose, and was to last for seventy-five minutes. At the end of this period, it was anticipated that the exact time when the marines would hit the beaches could be accurately foretold. There followed an interval of adjustment to allow all remaining preassault gunfire and plane strikes to be correctly calibrated. Naval gunners were to lessen the volume rather than cease fire altogether at the end of the first phase. They were to maintain neutralization on the tail of the islet until the marines were ashore and had turned left to clear out that sector. Elsewhere they were to continue to interdict (interdiction is slow, well-aimed fire intended to harass the enemy and to curtail his mobility) favorable targets of opportunity as their navigators checked data and most of the warships shifted position to the best fire support sectors from which to pound the landing beaches. Then the second period, one of intensive point blank firing, was to begin forty-five minutes before the moment the first wave was expected to touch the coast.

Five minutes before the time the marines reached the beaches, naval gunners were instructed to lift their fire inland. At that moment, fighters were to begin strafing the beaches, continuing up to the time of the actual landings, when naval gunfire would be lifted altogether and bombers would for fifteen minutes strike inland targets. After the first troops were ashore, the supporting arms would enter the third and final phase of their duties. This was the period of call strikes and of naval gunfire controlled by the naval attack force commander on the basis of requests by the division, the assaulting regiment, and, later, the air liaison and naval gunfire parties assigned to the battalion landing teams.

Because of the delayed arrival of the planes for the first strike, the initial phase of naval gunfire was seven minutes late in beginning, but most of this lost time was made up at the other end of the period. Firing in the first phase was done principally by capital vessels. Battleships opened up from ranges varying from five to seven and one-half miles, paying particular attention to the three strongly fortified ends of the islet. Cruisers joined as the range was closed, and in some instances came with the battleships to within one mile or less of the beach. Destroyers fired little during the first phase, but screened the heavier warships.

The first phase provided for complete coverage of the islet, with pinpointed accuracy on important targets and heavy concentrations

on the areas containing strong installations. Slow, deliberate fire was called for, but the tempo of actual delivery was too great to permit full spotting and hence accuracy. Some targets were designated as requiring a high-angle plunging trajectory with armor-piercing shells. A few anti-aircraft shrapnel projectiles were used, but most were of the high-capacity explosive variety. Some of the latter were armed with steel nose plugs and equipped with base fuses to give them delayed detonations. ⁶³

Meanwhile, disembarkation was continuing. A few minutes after sunrise, at about 0615, the two minesweepers began clearing the lagoon channel. (See map 11.) They continued eastward into the lagoon, preparing the way for the boat waves. The minesweepers were followed in close support by two destroyers. These four vessels were fired on from the lagoon beach, but smoke was effectively employed and the destroyers, although one was hit by a couple of duds, delivered splendid counterbattery fire. ⁶⁴

A combination of circumstances delayed the arrival of the first and subsequent waves at the line-of-departure. Two of the explanations seem to be based on rumor. These were the discovery that high water over the reef was going to be later than anticipated, and that what has been termed a "strong unseasonable" wind was blowing from the southeast across the port bow of the tractors and boats. ⁶⁵ It is impossible to see how anyone could, on the morning of November 20, have determined just when the depth over the lagoon reef would be at its maximum, and, while the direction of the wind was from the southeast, tending to blow the water off the reef and to establish a surface current counter to the approaching amphibious craft, it was normal for the season, and it was not of undue or unexpected intensity. All told, this wind was favorable to the operation. Smoke used to hide the minesweepers and to obscure the formation of the waves at the line-of-departure was carried northwestward from the point laid. This added nothing to the dust and confusion on the islet, and thus did not further black out those targets being sought by the naval gunners and pilots.

There are plenty of acceptable reasons why the tractors and boats were late in arriving at the line-of-departure. The confusion began right in the middle of the disembarkation, when the transports had to get under way. Tractor drivers of the fifty newer models had missed the rehearsals, and their inexperience added to the time-consuming task of transloading the first three waves, at sea, from boats into the amphibian tractors. Inside the lagoon, the minesweeper *Pursuit* was so busy sweeping and then firing counterbattery that she moved to the north. She was to mark the line-of-departure, and when the amphibian tractors reached her, they still had some distance to go before getting

into position. Finally, some of the older models were developing mechanical failures; and although Julian Smith does not see why this should have held up entire waves, some tractor drivers thought that it did.⁶⁶

No one could nor did anyone desire to interfere with the movement of the first wave. It was on its way to the shore, and could travel only so fast. The point was that every other aspect of the undertaking must be timed around the estimated moment when the first wave would reach the beaches. Harry Hill, in consultation with Julian Smith, was responsible for determining when this pivotal minute would fall. He miscalculated. Circumstances were against him.

The naval gunfire ships completed seventy-three minutes of phase one fire at 0735. They readjusted positions, continuing to interdict targets of opportunity, and were ready to begin the next phase exactly on time, that is, at 0745.

Almost simultaneously, Hill received news of the first tractor wave. A liaison plane informed him that the tractors were late and at the time were still short of the line-of-departure. Immediately, the naval attack force commander radioed new instructions to the supporting arms. The predicted time of landing was set back fifteen minutes, to 0845. Again, communications broke down between *Maryland* and the aircraft. The naval gunfire ships, as ordered to do in the plans, checked fire. Phase two, scheduled for forty-five minutes, was delayed but would be delivered in full.

Most of the firing in phase two was also to be done by heavy ships. These were to enfilade the landing beaches by lying to off the western end of Betio, a dangerous practice for men-of-war, but the risk was accepted in the hope of obtaining the desired result. Throughout most of this final phase of preparatory bombardment, the plan was for the firing to remain deliberate. This would improve vision and permit accurate destruction; but just before the marines reached the beach, the tempo was to be increased fifty per cent in an effort to obtain the maximum neutralization at this critical moment.⁶⁷

The amphibian tractors were slower than expected. Tests had been held, but it had been impossible, given available data, to duplicate accurately conditions of wind, current, and reef. Everyone during the planning and rehearsals had concurred that these tractors would cruise at four and one-half knots. At Betio on the morning of November 20, they averaged slightly less than four knots.⁶⁸

Hill was informed at 0823 that the first wave had just crossed the line-of-departure. Here was the difficult and vital decision. He was not in a good position to control naval gunfire, since he was outside the lagoon. Betio was obscured by smoke and dust, which was being carried by the wind into the lagoon. Repeated tests had set the figure of

forty minutes (the time needed to cover 6,000 yards at four and one-half knots) for the run in from the line-of-departure to the beaches. This was the calculation on which Hill must rely. He did not know exactly why the tractors were late in reaching the line-of-departure, and he had no grounds for premising his decision upon a run to the beach of more than forty minutes. He wanted to lift the gunfire before it endangered the advancing marines. At this stage of the war, few suspected that maintaining naval gunfire up to the last possible moment, even at the risk of hitting friendly troops, would in fact save American lives. Hill added forty minutes to 0820 and reset the target hour a second time, at 0900. This meant that the final phase of preparatory naval gunfire was spread over an hour rather than forty-five minutes.⁶⁹

Precisely at 0855 Hill ordered naval gunfire lifted inland for the final five minutes of the second phase. This, as it happened, was exactly fifteen minutes before the first troops landed. The tractors came in at staggered intervals. Officers tried to keep the drivers of the newer models from forging ahead. Apparently, some were more successful than others. From right to left, the beaches were reached at 0910, 0922, and 0917.⁷⁰ Lifting the gunfire inland at 0855 was as planned (coming as it did at what was thought to be "H-hour minus five minutes"), but as Hill later confessed, he thereupon placed his faith in a very weak arm. Fighters were supposed to strafe the beaches as the tractors cut through the last few hundred yards of water. Even if the pilots had performed as well as expected, machine-gun fire against the defenses of Betio was about as effective as dropping marbles on the sidewalk.

Unlike Hill, the carrier pilots were in a position to observe what was going on in the lagoon. They failed to get word of either change in the target hour. No matter, Turner had underscored the instructions handed to these airmen. The original plans were for strafing to begin at 0825, but that was only tentative, and, Turner had specified, "*the distance of the boats from the beach is the governing factor.*"⁷¹

Naval guns were still firing at 0825. Betio and the lagoon were as usual obscured by smoke and dust; but men in the control vessels could see that at 0825 the first wave had just crossed the line-of-departure. The ranking officer in the lagoon had made artificial smoke during the period of minesweeping, but he then stopped for fear of obscuring the progress of the boats from such friendly eyes as those of the pilots—a wise decision. Officers in Hill's liaison plane could see the delayed tractors. Apparently not so the carrier pilots. They started strafing the beach at 0825.

Finally they were reached by *Maryland's* croaking radio. The strafing was called off, and naval guns resumed their thunderous fire. The beaches were pounded steadily until 0855, and then at 0900 with two

exceptions naval gunfire was lifted from the entire islet. One of these exceptions was two destroyers which continued interdiction of the southern coast until 0915. The other exception was the two destroyers in the lagoon, which were able to keep close tabs on the first wave and therefore were instructed by Hill to shoot until they were stopped by tractors loaded with marines at the water's edge.⁷²

The fighters and the bombers, in a disorganized fashion, resumed the fulfillment of their mission at sometime around 0855 and 0900. The fighters had been told to make their last strafing pass when the first wave was 100 yards from the shore, but they all cleared out when the tractors were several times that distance away.⁷³ As they left they informed Hill that they were out of ammunition, which was the result of their premature strafing earlier in the morning. Those airmen returning to the fleet carrier *Essex* were confident. They reported that they had done their work well. The bombing, strafing, and bombardment, they said, had been almost completely destructive. Landings could be made without much opposition.⁷⁴

This was a complete distortion of reality. Without the preassault bombing and bombardment, any type of a landing would have been impossible; but the naval gunfire and air support arms had failed to function as expected. About 3,000 tons of naval projectiles were hurled at Betio, the great bulk of it just before the landing on the morning of November 20—all this on an islet less than a half mile square. The allotted quota of bombs was not dropped, but the volume delivered was impressive. "Heavier support of this kind is not to be expected in the Central Pacific Campaign," judged Nimitz, "but increased efficiency in that support is to be expected."⁷⁵

All hands turned to after Tarawa to improve the quality of naval gunfire and air support. One of Julian Smith's first messages from Betio went to his command counterpart, Harry Hill: "Strongly recommend that you and your chief of staff come ashore . . . to get information about the type of hostile resistance which will be encountered in future operations."⁷⁶

The most obvious need was for pilots better trained in close air support. Holland Smith, however, was never successful in getting the type of pilots he wanted. "It is recommended," he urged after Tarawa, "that consideration be given to the assignment of at least one Marine Aircraft Wing specifically for direct air support in landing operations. This wing would make direct air support a specialty and would train specifically for this purpose. They should be given a complete background of amphibious operations and a thorough and considerable period of training."

The navy refused. Accepting such a recommendation would withdraw pilots from the decks of carriers who, in addition to air support,

were needed for strictly navy functions, and possibly for use in a fleet engagement. As long as the navy judged its own flight personnel superior to marine airmen in strictly navy duties, and as long as both fast and escort aircraft carriers were scarce and the enemy retained a strong fleet, the navy's position in this regard was understandable. The decision, however, prevented marine pilots from supporting their comrades and army troops ashore in the Marshalls and the Marianas. Marine pilots in the Central Pacific before Tarawa served important defensive missions, but after that battle, since their craft were of short range, they watched the war leave them far behind. Their principal function in that section of the globe was bombing by-passed atolls.

Holland Smith doubtless anticipated a refusal of his request for a Marine Air Wing aboard escort carriers. He ended his recommendation by asking for the best possible alternative. Before the next operation he wanted an opportunity to train navy escort carrier pilots in the tactical details of fighting on the beaches and inshore. "If it is impractical to assign a Marine Aircraft Wing for this purpose," he concluded, "a suitable assignment should be made with the same objective in mind."⁷⁷

Marine casualties at Tarawa shocked navy airmen into a better understanding of their air support mission. Aside from practice in point bombing targets smaller than any ship, studies were inaugurated to determine the size and characteristics of bombs best suited to penetrate and demolish ground installations. Never again, as at Tarawa, did the pilots fail even to try to drop those heavy demolition charges designed to destroy buildings and rip aside camouflage and undergrowth. The napalm bomb (tanked gasoline mixed with a jelly substance that would stick to any surface) later produced was of further assistance in this work. Finally, in no future operation were any half-submerged hulks off the coast or buildings along the shore in the vicinity of the beaches left purposely intact. These, notably Japanese privies built over the sea water, were allowed to stand as aids to navigation and hence gunfire accuracy. The enemy from the first employed them to conceal his sniper and other small arms fire. The error was obvious as soon as friendly troops were ashore, but then too frequently these havens for the enemy were bombed and shelled only at jeopardy of American lives.⁷⁸

Likewise, naval gunfire, which was by far the more effective of the two supporting arms, improved because of Tarawa. Recommendations poured into Nimitz's headquarters from every echelon of command. Together, these constituted one of the more important lessons to be derived from the assault. On the basis of these recommendations, Betio's installations were duplicated on the gunnery range of the Fifth Amphibious Corps in the Hawaiian area. Data accumulated in

demolishing these targets were set beside interpretations of future photographed objectives, and the needed ammunition was allotted to the fire support schedule on a really scientific basis.⁷⁹

Up to the time of the actual landings on Betio, almost all navy and marine officers believed that their bombardment was of decisive effect. Those, however, who went in with the support waves were shocked to discover how little this belief was justified. Members of the shore fire-control parties were "quite unnerved upon closer approach to the beach to see many batteries of all calibers still firing at the waves engaged in landing."⁸⁰ One of them was more emphatic. "We did not neutralize pillbox installations," he said, "nor did we even neutralize the beaches." In amazement he added: "Six layers of coconut logs reinforced with sand, concrete, and steel formed a chain of pillboxes, gun positions, and a net of passageways along the shore. Intense pre-arranged direct fire from close inshore for a considerable period would have been necessary to neutralize that beach."⁸¹

The last quotation is an exaggeration since a small part of the selected beaches was not barricaded and since the barricade elsewhere along the western lagoon coast was usually not as strong as described. But that is not the important part of the quotation. This particular member of a shore fire-control party was, like many of his colleagues at the time, confused in his terminology. He used the word neutralization when he meant destruction.

Destructive fire requires deliberate, pinpointed accuracy. Neutralization, on the other hand, is obtained through a huge volume of explosives, and can best be gained by quickly saturating larger areas. After Tarawa, these two types of fire were specifically called for in the plans, and received rigid adherence. The naval gunfire annex to Admiral Hill's Tarawa report admitted that the plans for Betio asked for the impossible: simultaneous neutralization and destruction in the same target areas. The old precept of keeping the enemy "guessing where to jump next" was carefully arranged. This required placing sequences of fire into areas unpredicted by the previous fall of shot. To achieve such an end, gunners shifted targets repeatedly and rapidly, with a resultant loss of control, a lowering of the effectiveness of fire, and a waste of some ammunition. The precept, in short, was of value for neutralization, but unacceptable where destruction was the objective.⁸²

Nor was the fire at Betio deliberate enough. Slow deliberate fire had been stressed in the plans, but here again the navy and marine officers who drew up the naval gunfire schedule stumbled over themselves by confusing the terms neutralization and destruction. The gunners threw shells too rapidly into Betio. This stirred up dust and smoke and tended to convert what should have been direct pinpointed

fire into radar-controlled indirect area coverage.⁸³ After Tarawa this error was avoided by extending the time for delivering the fire scheduled in the prelanding phases.

Efforts at destruction were not as successful as those designed to obtain neutralization at Tarawa. One reason, in addition to the lack of deliberate firing, was found by the naval gunfire support commander, Rear Admiral Howard F. Kingman USN. The number of armor-piercing and base-fused shells was not sufficient. "Our high-capacity projectiles, with superquick fuses," he said, "made a grand display, but accomplished little if any real destruction of installations or personnel."⁸⁴ Examination of Japanese defenses after the battle revealed that, while formidable, each could have been penetrated if hit by the proper trajectory and type of shell. An armor-piercing shell with a plunging trajectory would have knocked out the strongest installation on Betio, a small command post built almost flush to the ground with a roof of reinforced concrete 6½-feet in thickness.⁸⁵

Likewise neutralization would have been greater if frequent shifting of target areas had been avoided in the first phase of naval gunfire support, and if while enfilading the beaches in the second phase a coverage of the water immediately offshore had been obtained. The mean center of impact during the second period was inshore, rather than along the beaches.⁸⁶ This occurred despite clear orders to the contrary, which called for enfilade fire on the beaches and in the water adjacent to detonate possible mines.⁸⁷ Such a failure was not repeated after Betio. "We must," commented one observer, "plaster the beach with prearranged fire, even at the cost of slighting inland strong-points."⁸⁸ Fall of shot at the water's edge would have helped rather than hindered the assault. Officers were impressed by the offshore defenses at Betio, particularly those more nearly completed, along the south and west coasts. Some method must be devised to detonate mines and demolish man-made obstacles, but this task was probably beyond the capabilities of naval gunfire. This fact stimulated further thinking in the direction of the underwater demolition team,⁸⁹ first conceived by Major Earl H. Ellis USMC in the early 1920's.

Thus Tarawa showed that it was possible to destroy, as well as merely to neutralize, beach defenses, and also that it was possible to furnish a rolling barrage with naval guns. In the future this barrage moved just ahead of the troops as they landed, inshore and outward along both flanks. Landing craft mounting rockets assisted in this work. There was no time to get rockets and the necessary equipment to the Second Marine Division in New Zealand. Rockets were used at Makin, but at Betio nothing more than a token display was employed; at least so the reports indicate, although Julian Smith cannot recall the firing of a single rocket.⁹⁰ Especially, however, were destroy-

ers needed to provide both barrage and close in gunfire support. Harry Hill was justified in making two complaints. The destroyers he had at Tarawa were armed to fight enemy planes, rather than to fire at targets ashore. They were supplied with anti-aircraft 5-inch projectiles, rather than high-capacity common. The latter type of explosive possessed a smaller bursting radius, and was therefore safer for friendly troops when being laid down in a rolling barrage adjacent to their expected advance. Nor did the naval attack force commander have enough destroyers, although this of course was a continuing complaint throughout the Central Pacific drive. The lagoon at Tarawa on November 20 lacked maneuver room to accommodate more than two destroyers, but Hill pointed out that in the future, at more commodious targets, destroyers should be used in relays to furnish a rolling barrage as well as call fire after the troops were ashore. Destroyers were always running out of ammunition, so it was necessary to use them in relays; but often the sound heads with which they ferreted out enemy submarines were damaged by inshore work. It was therefore desirable to have a sufficient number of these valuable vessels in order to leave some constantly screening the transport area and the heavier warships, while others were used for naval gunfire. Hill wanted destroyers brought so close inshore that they would be able to use not only their 5-inch batteries, but also their 40-millimeter anti-aircraft guns.⁹¹

One of the more notable features about all of the action reports on Tarawa, marine and navy, is the zeal with which the officers concerned picked out the flaws of their performance and sought far-reaching remedies. No higher commendation than this can be offered to these men; but, unless the historian is careful, their reports distort the picture, throw the operation out of its true perspective, and obscure the brilliance of the success actually gained. Another quotation from the naval gunfire support commander, Admiral Kingman, illustrates this danger. "From an observer's viewpoint," he said as he recalled the morning of November 20, "it seemed almost impossible for any human being to be alive on Betio Island. Ton after ton of explosives was rained upon an island less than 0.4 miles square, and yet, when the bombardment was stopped, Japanese manned machine guns and literally annihilated the . . . waves."⁹²

That statement is a gross exaggeration, made by the man who above all others would have been responsible had it been true. If not destruction, naval gunfire did achieve a period of neutralization. The first three waves of marines got ashore almost intact. This transpired despite the interval of from fifteen to twenty-seven minutes which elapsed between the lifting of naval gunfire and the time the first tractors touched the beaches. The Japanese began showing signs of life after the first three waves were in. This fact casts an entirely new light on

the operation. The critical failure at Tarawa was the lack of momentum in the assault, rather than somewhat faulty naval gunfire and haphazard air support. Blame, if there be any, should rest on the lack of amphibian tractors; or, if the reader prefers, on the absence of sufficient water over the reef to float landing craft.

The marines in the first three waves received some hostile fire while in their tractors, but their casualties began to mount after they were ashore, when they tried to scale the barricade. It was the members of the subsequent waves who were shot in the water off Betio. Since the landing craft of the later waves tied up on the reef, the assault lost its impact. Almost as important was that unfortunate set of circumstances which caused the naval guns to be lifted too soon from the beaches. Just as the marines of the first three waves needed help in crossing the barricade and overrunning the beach defenses, the Japanese, battered in their dugouts by avalanche after avalanche of neutralizing fire, shook their dazed minds free from shock, left their underground shelters, and manned their beach defenses.

The left flank of the easternmost beach provides a further case in point. In that area the two lagoon destroyers continued to fire for twenty-one minutes after the other warships to the west of Betio had ceased. These destroyers, in other words, plastered the left flank beach until the first tractors headed into that zone were only sixty seconds from the shore. The Japanese on the left flank of the assault waves were the last to rally themselves and to open fire.⁹³

5. *Tarawa: The First Thirty-six Hours of the Assault*

The temporary neutralization of the northwestern lagoon coast of Betio permitted the first three waves of marines to get ashore and to gain two isolated toeholds, rather than a beachhead. Thereafter the obstacle of the reef and enemy opposition robbed the assault of its momentum. Neither the three battalions in the van nor any subsequent unit during the first thirty-six hours of the battle reached the beaches intact. Unless infantry components can cross the coast with some semblance of organization, they cannot advance against determined resistance. For a day and a half there was no fully organized American unit on Betio. Marines were shot in the water, on congested beaches seeking desperately some defilade from enemy fire, and as individuals or small groups as they tried to penetrate inland. Men with rifles, demolition engineers, artillerymen, and tanks had to make up for all the previous errors and miscalculations. As Vandegrift later said, "On Betio, our operation was assault from beginning to end."⁹⁴ And, until a unit was landed with organization intact on the evening of the second day of the contest, the battle hung in the balance.

Or, so it seemed at the time to Julian Smith and his staff. Little can be said of the Japanese side of this story. The island commander, Rear Admiral Meichi Shibasaki IJN, is dead, and few of his records were recovered from the holocaust that began sweeping Betio on November 20. One of the tiny group of prisoners of war testified that Shibasaki was a man of great drive and confidence, who had claimed that not even 1,000,000 Americans could seize Tarawa in 100 years.⁹⁵ He did his best to make good that boast. His defenses, although not quite complete, were superbly planned; and in October he had instructed his special naval landing force personnel to "wait until the enemy is within effective range (when assembling for landing) and direct your fire on the enemy transport group and destroy it. If the enemy starts a landing, knock out the landing boats with mountain gunfire, tank guns and infantry guns, then concentrate all fires on the enemy's landing point and destroy him at the water's edge."⁹⁶ It seems likely that Shibasaki intended to counterattack on the night of November 20/21, when the Americans were very much "at the water's edge." It is impossible to say whether or not such an effort would have been successful. The marines expected it and had trained for it, but it did not come.

The probable explanation is that Shibasaki's communications were destroyed by the prelanding naval gunfire and bombing. He had only begun to bury his telephone wires, and these were knocked out from the start.⁹⁷ Thereafter he had to rely on runners, who could not get through because of the constant pounding of naval shells and bombs, which were later joined by shore-based American artillery and continued to batter the Japanese on Betio after the first waves of marines were ashore. Thus Shibasaki lost control of his troops. His October orders prove that he wanted to achieve at least some mobility and to concentrate at the beaches. It is also possible that, at least in part, he desired his men to remain in their dugouts and pillboxes and to fight to the last, individually and in groups; at any rate, whether from choice or necessity, that is in the main what happened. No counterattack developed on either the first or the second nights; it finally came on the third night, after the enemy had been squeezed into the tail of the islet and there was no chance of success.

The first three waves on the morning of November 20 met no flanking fire from the long pier. The regimental scout and sniper platoon, led by Lieutenant William D. Hawkins USMC, had removed the enemy from this structure. Hawkins, like most of the aggressive junior officers and noncommissioned ratings, was later a casualty. He died of his wounds. Of him Shoup, the regimental commander, asserted: "It's not often that you can credit a first lieutenant with winning a battle, but Hawkins came as near to it as any man could. He was truly an inspiration."⁹⁸

Inspiration was essential. The tractors met relatively little enemy fire in the water, and much of this was ineffectual. Air bursts from artillery pieces began when the tractors were about 3,000 yards out, but the cases were overcharged with explosive and the shrapnel was almost as small as sand. It was after the first three waves of tractors had hit the beaches that enemy fire rose in quantity and improved in quality. The plan was to push the tractors inland before the marines disembarked, but the beach barricade halted all vehicles but two. These two, crossing the left flank beach, found a convenient opening at the base of the long pier and took their human cargo inshore to the south side of the northwestern taxiway. All others discharged their loads at the water's edge.⁹⁹

Even well-trained men with battle experience on Guadalcanal lost their equanimity when face to face with the coast defenses of Betio. They threw themselves at the base of the beach barricade. They sought some defilade. To one observer in the first waves, "it looked as if it was going to be impossible to get them to advance forward beyond the protection of the revetment along the beach. Had not several junior officers and noncommissioned officers actually jumped over this revetment and led their troops, the results would have been disastrous."¹⁰⁰

Most of the marines who provided such inspiration and leadership were, like Hawkins, early casualties. From the outset, the high percentage of dead and wounded among officers and noncommissioned officers was a handicap. Their absence ashore was further aggravated by other circumstances. Almost all the men in the final waves of the three assault battalions, as well as those later committed to the lagoon beaches from regimental and division reserve, had to wade in from the edge of the fringing reef. Again, many of the aggressive leaders were shot, this time in the water. Or, if they got ashore, the leaders were apt to be separated from their men. The three battalion commanders of the men landing in beach assault were in the fourth wave, lifted in landing craft. In no place was there more than three feet of water over the reef, and in spots the depth was a matter of inches.¹⁰¹ So, these battalion commanders were among the first to jump in and start wading. What became of them typifies the confusion along the lagoon beaches during the morning of November 20. Only one of them got ashore alive and in a position to control his men. Thus it happened that the marines, once on the beach, frequently found that the officers and noncommissioned personnel in the vicinity were strangers. Control under these conditions was exceedingly difficult. The first battalion committed to the center beach was led by an absolute stranger. The regular commander was shot in the water, and the executive officer landed out of position. An observer from the Fifth

Amphibious Corps voluntarily took over command. After trying to move a reluctant group of marines forward, he said to the correspondent Robert Sherrod: "They don't know me, you see. They haven't got the confidence men should have in their officers."¹⁰²

It was almost a miracle that, under the circumstances existing offshore and on the northwestern lagoon beaches, any control whatsoever was obtained and retained. Certainly it is a tribute to Marine Corps indoctrination that an amount of control was maintained sufficient to clear the beach at the western end of Betio, to cross from the lagoon to the south coast and split the islet in two, and ultimately to secure a full lagoon beachhead.

Good planning committed medium tanks in the fifth wave to the lagoon beaches, and most of these got ashore at around noon on November 20. These tanks were able to lumber through water that after the reef was crossed might suddenly drop to a depth over a man's head. Wading marines were not so lucky. Some were killed outright by enemy fire; others, heavily laden, were wounded and a few stepped into water pits and drowned.

The one battalion commander who got ashore in position was Major Henry P. Crowe, whose Second Battalion Eighth Marines was attached to Shoup's Second Regiment. Crowe's men landed on the easternmost beach, to the left of the base of the long pier. (See map 11.) Assisted by the destroyers firing from the lagoon, Crowe lost very few men in the first three waves, but in the fourth and fifth waves (the fifth containing tanks), casualties jumped to eight or ten per cent. Both of his half track 75-millimeter guns broke down early, and he set up his two 37-millimeter weapons defensively. By noon he was fortunate enough to get his full platoon of medium tanks ashore, and he ordered them to attack directly to the south and knock out all enemy positions encountered. By sunset only one of his four tanks remained in action. One was destroyed by friendly dive bombers; a second by enemy fire; and the planes and the enemy cooperated on the third.

Crowe employed his tank, demolition, and infantry teams well. He early gained some depth on his right, and was able to establish lateral contact with friendly troops in that area. The difficult thing about his situation was that the Japanese were entrenched on the entire left half of his beach. At about noon, Shoup tried to send Crowe organized reinforcements. Shoup had already committed his battalion in regimental reserve to another beach, but Julian Smith released one of the two battalion landing teams in division reserve, the Third Battalion Eighth Marines, Major Robert H. Ruud, to his assaulting regimental commander; and Shoup ordered this unit to land on the easternmost beach and to move into position on Crowe's critical left flank. By this time Japanese fire across the water to the east of the long pier was in-

tense. Ruud's first wave, dismounting from boats at the edge of the reef, was greeted by a hail of fire and all semblance of formation was lost. Subsequent waves angled to the right, over to the long pier, and followed it in along both sides to its base. Getting ashore was a time-consuming and costly process. Ruud reached the coast in the late afternoon. He found many of his officers and noncommissioned officers missing. The men remaining to him were disorganized and badly shaken. They were incapable, even if daylight had remained, of gaining ground the first day. Ruud's outfit was weaker than Crowe's, which had been fighting ashore for nine hours. Rather than on Crowe's left flank, the Third Battalion Eighth Marines was placed on the easier right flank of Crowe's position.

Crowe and Ruud, at nightfall of November 20, held not a continuous line but a series of foxhole positions running from a point just short of the base of the wharf, about 300 yards east of the long pier, for an inland depth of some 100-250 yards. The men were strung out almost due south from the coast, across the northeastern taxiway, and then westward parallel and about 200 yards distant from the main airstrip. There, at a point due south of the long pier, Ruud tied in for the night with the marines who had crossed the center beach. Both battalions of the Eighth Marines had sustained heavy casualties. They would be unable to clear out the left flank of their beach until the end of the third day of fighting, and then only with the help of very close naval gunfire support from the lagoon.¹⁰³

The situation on the center beach at sunset on November 20 was worse than Crowe's. The unit sent in assault onto the center beach was the Second Battalion Second Marines. The executive officer of this unit was lost in the confusion. Intense enemy fire drove his party far to the right, about a half mile off his designated point of landing. He got ashore on the right flank of the westernmost beach. The commanding officer of the Second Battalion Second Regiment, Lieutenant Colonel Herbert R. Amey, was an early casualty. In the absence of the executive officer, a corps observer with Amey's command group, Lieutenant Colonel Walter I. Jordan USMC, took over the battalion.

Ashore, Jordan found the situation precarious. He set up his command post in a shell crater on the beach at about 1000. He was from the outset short of officers and noncommissioned ratings. At first he had no communications. Runners advised him that marines from his first three waves were about seventy-five yards in from the water's edge, "but could not advance due to machine gun positions to their front and flanks, and sniper fire from trees in their immediate vicinity. All information received was very, very brief and vague, so we continued to hold where we were. At this time there was no contact be-

tween elements on my right or left and I could not find out how many men of each company had landed." ¹⁰⁴

Jordan soon got reinforcements, although the original intent was not to assist him. Shoup, boated at the line-of-departure in a landing craft, was in communication with all of his assault battalion commanders until they reached the coast. The regimental commander was most concerned with his right flank beach. By 1000 he knew that Crowe had landed, and he had watched men cross the center beach. Everything he heard from the assault unit on his right flank, the Third Battalion Second Marines, was discouraging. Neither the executive officer nor the commander of this battalion got ashore on the proper beach. The commanding officer of this unit, Major John F. Schoettel, later reported he had withdrawn from the vicinity of his beach because of heavy fire and because he believed his first three waves "all wiped out." The regimental commander, having been advised of the mishap to the first waves, ordered the subsequent ones onto the center beach. The last Shoup heard from Schoettel was this reply:

"We have nothing left to land." ¹⁰⁵

Shoup had to remedy that situation at once. He felt it foolish to try again the direct approach to the westernmost beach. Even before he was ashore, he committed his regimental reserve. He ordered Major Wood B. Kyle to land the First Battalion Second Marines on the center beach, to turn right, and to work his way west to the relief of whatever marines might be on the right flank beach.

Since Kyle's men started in before those under Ruud, it was possible to try to set Kyle and the First Battalion Second Marines ashore in amphibian tractors. This was the last time an effort was made to use these vehicles tactically. Few had been lost in running the first three waves to the beaches, but on retracting and heading for the line-of-departure, a great number were struck in the stern and began succumbing to enemy fire, as well as to mechanical breakdowns. Only a small group sufficient to lift two-thirds of Kyle's battalion could be assembled, and one of his companies was forced to wait till noon for transportation. The other two companies crossed the reef and approached the center beach at about 1130. The reentrant, as had been feared, contained a threatening pocket of Japanese. Fire from this area, which extended from the right half of the center beach across most of the right flank beach, was deadly. Even the tractors, at this late hour, could not safely make the coast. The battalion sustained around 200 casualties on the beach or just offshore. One officer and slightly more than 100 men were driven far to the right by enemy fire. They landed out of position, on the western edge of the right flank beach. The others came ashore onto the left half of the center beach. They were disorganized, shaken, and without their heavy equipment. ¹⁰⁶

By noon of November 20, Shoup had committed the four battalion landing teams under his direct control and one of the two in division reserve. He and his party reached the beach after considerable difficulty at around 1200. Along with Shoup, among others, were Lieutenant Colonel Evans Carlson who had led a raider battalion on Guadalcanal and was now a corps observer, and Lieutenant Colonel Presley Rixey, Shoup's artillery commander. In getting ashore these officers had discovered an important fact, but it was too late fully to benefit from it. There was a way into the northwestern lagoon coast less dangerous than any other. As Carlson described it, "the only approach to the beach that was relatively secure was a corridor about 100 yards wide which extended west from the pier."

Rixey used this corridor that afternoon and evening in following Shoup's first order once ashore, and bringing in 75-millimeter pack howitzers for general support. Since Shoup as yet had no reliable communication with the division staff on *Maryland*, he next ordered Carlson back along the pier and out of the lagoon to give Julian Smith a personal account of conditions on the coast. "He asked me to say to General Smith," Carlson later recalled, "that he proposed to stick and fight it out regardless of how tough the situation became, and requested that further reserves be sent in through the center beach. His plan was to expand the beachhead at this point to the south, and to link up all landing teams on all beaches." ¹⁰⁷

Shoup set up his command post beside a well-built Japanese installation just inshore on the center beach. The walls of this structure gave him some protection from enemy fire, but sentries were placed to guard the entrances and vents, for it still contained more than a score of live Japanese.

At an early hour Shoup gained lateral contact with Crowe, and, being on the scene, the regimental commander was acquainted with the situation on the center beach. Three medium tanks arrived on the center beach at about noon, and aided the advance across the northwestern taxiway. By nightfall the First and Second Battalions of the Second Marines held a beach of some 250-300 yards depth, and it was also constricted laterally. To the west these marines faced strong enemy positions occupying the entire right flank of the center beach. These Japanese prevented Shoup from learning what was happening on the right flank beach, much less gaining lateral contact with the marines in that area.

Communication difficulties plagued the Americans as well as the Japanese at Tarawa from beginning to end. *Maryland's* faltering voice was more than duplicated by failures in ship-to-shore and beach-to-beach radio networks. Basically the fault lay with the sets, which were bulky and hard to handle, and which were not adequately water-

proofed. Once wet, which happened to all in getting them ashore, they refused to function before drying out. This not only complicated close air and naval gunfire support once the marines were on the beaches, but more seriously it kept Shoup and Julian Smith in the dark tactically speaking, and caused them to fumble through and to make decisions on the basis of inadequate knowledge.

Although it was about sunset before the men on the right flank beach found a radio and got it functioning, they were far better off than anyone suspected. The Japanese pocket in the cove of the lagoon beaches began on the right portion of the center beach and ran continuously westward along almost the full length of the reentrant, covering, as well as one-half of the center beach, more than four-fifths of the right flank beach. It was only on the extreme northwestern end of Betio that any marines capable of fighting got ashore. It was a mixed group. One of the company commanders, Major Michael P. Ryan, took charge. Most of his men were from his own battalion, that is the Third Battalion of the Second Marines, but there were present as well marines from both battalions committed to the center beach, who had been driven off course by heavy enemy fire and had landed far to the right.¹⁰⁸

These men managed to clear out the extreme northwestern tip of the islet, and about noon what was left of a platoon of tanks arrived. When Ryan wrote his report, he was not in a talkative mood. "Two medium tanks got in over the reef," he said, "and the engineers blasted a hole in the sea wall for them to come through. We put three companies abreast, took two medium tanks, but the two tanks were knocked out. It was then about 1630. We could not find a radio in communication with Division and later found the Second Battalion's."¹⁰⁹

Those few words include a lot of fighting. The two tanks were early put out of action by enemy fire, but Ryan managed to push his men southward along the west coast to a depth of some 500 yards. That position could not be held for the night, however. Enemy installations had been by-passed, and Ryan lacked the heavy equipment to crush them and needed flamethrowers to kill the Japanese inside. There was nothing left to do at nightfall but to retire to the northwestern tip of the islet and dig in. At about the same time, Ryan managed to inform Shoup and Julian Smith of his night position. Hardships of communication, however, prevented a clear understanding of the course of events on the western end of Betio. Nor could Ryan predict the enemy's next move in that zone. Thus he was unable to promise that his weak force could, the next day, clear the western beach entirely. Shoup and Julian Smith believed Ryan hard-pressed in a tiny pocket on the northwestern tip of Betio. There was no reason for them

to believe anything else. The golden opportunity of getting a battalion landing team ashore, intact and fully organized, across the western beach of Betio went unnoticed for more than twelve hours.

Aboard *Maryland* Julian Smith was in a tight spot. Aside from infrequent radio messages from the shore, all of them pessimistic, he was kept informed of the tactical situation by observers aloft in scout planes. He knew it was difficult to get men ashore, but he was also convinced that only utmost pressure applied as rapidly as was possible against the Japanese on Betio would bring victory. An assault fails unless the attacker brings overwhelming firepower against the defender. Julian Smith had to commit his men and commit them fast. This necessity brought the division commander face to face with two problems—where to get the men and at what point to land them.

By noon of November 20, Julian Smith had but one battalion landing team in division reserve. Before he could safely commit this unit, he needed more reserves. At 1331, having previously advised Holland Smith of the seriousness of the situation at Betio, he requested the release of the corps reserve. Less than fifty minutes later this request was approved.¹¹⁰ Julian Smith now had four battalion landing teams in division reserve. For the first time he could start thinking in terms of a three to one superiority over the defenders.

The second problem was by far the more difficult to solve. It was obvious by mid-afternoon that units could not be sent intact across either the flank or center beaches. The situation on the westernmost beach was obscure and so far as was known most unfavorable. Carlson had not yet arrived aboard *Maryland* with Shoup's request that reserves be sent in to the center beach.

Julian Smith had to make his decision on the basis of information available. Elmer Hall and his headquarters group of the Eighth Marines were already boated and standing by at the line-of-departure with the First Battalion of the Eighth Marines available for commitment. After the battle was over, Julian Smith was confident that an enemy counterattack could have been successfully repulsed on the first night; but he lacked sufficient knowledge to have even a shred of confidence on the afternoon of November 20. He was still thinking that the Japanese would use zone defenses and mobility (as indeed they might have, in part, had Shibasaki been able to control his men). Julian Smith feared most of all what might be developing on the southeastern tail of Betio. As yet the Japanese in that zone were relatively untouched by either naval gunfire or bombing. They might fall on Crowe's left flank and roll the marines off the lagoon beaches. Julian Smith was desperate, and to disrupt such a move made a desperate decision. He was willing to sacrifice the First Battalion Eighth Marines. He ordered Elmer Hall to land on Betio to the eastward of

Crowe's beach. Hall would go ashore, or try to, in the late afternoon, with little remaining daylight to secure even so much as a toehold. The price was high but in Julian Smith's mind the threat from the eastern end of the island warranted the expenditure. Hall would at least divert some of the Japanese expected to strike at Crowe's left flank. The next day, if the northwestern lagoon beaches still had Americans on them, Julian Smith could send the Sixth Marines across, and then he planned to muster every marine who could walk and to follow himself with his division support group.¹¹¹

Retrospect shows this decision to have been an error, and for once a communications failure benefited the marines at Tarawa. Hall never received these orders. Just after they were issued, one of Julian Smith's liaison pilots saw a battery of Rixey's artillery leave the line-of-departure and head for the center beach. How a single battery of 75-millimeter pack howitzers could have resembled a boated battalion is a mystery, but in defense of the pilot it must be added that by this time the lagoon was littered with boats going in all directions in confusion. He mistakenly assumed that the First Battalion Eighth Marines was entering the center beach. He so advised *Maryland*. No one knew how the mixup had occurred, but on the division's situation map, the First Battalion Eighth Marines was plotted on the center beach. Actually, Hall and his outfit spent the night at the line-of-departure, awaiting orders.

Since Julian Smith now thought he had two full regiments ashore, he was anxious to get a general officer onto the beaches to integrate the tactics of Shoup and Hall. Julian Smith ordered his assistant division commander, Brigadier General Leo D. Hermle USMC, to land on the center beach and take over tactical command ashore. Again communications failed. Hermle remained in the lagoon awaiting instructions.

During the night, while the marines on Betio were nervously awaiting a counterattack that failed to materialize, the situation as regards the First Battalion Eighth Marines was clarified. Hermle, while standing by for instructions, worked his way to the end of the long pier as he tried to get some dry communications equipment in to Shoup. There Hermle met two runners sent out to the pier by Shoup in an effort to contact division headquarters. Hermle learned what Carlson had just told Julian Smith, that Shoup wanted reinforcements over the center beach. However, Hermle knew something of which Julian Smith was unaware, namely that the First Battalion Eighth Marines was at the line-of-departure. Hermle boarded a destroyer in the lagoon and radioed *Maryland*. Hall's orders were changed; he was to try to make the center beach at sunrise on November 21.¹¹²

At dawn, Hall and his remaining battalion landing team, com-

manded by Major Lawrence C. Hays, Jr., dismounted at the edge of the reef and began wading ashore. Shoup's messengers had failed to inform Hermle of the least dangerous route. Carlson was returning from *Maryland* as this unit approached the coast. "It sustained heavy casualties on the way in," he reported. "The hulk northwest of the pier again contained snipers and machine gunners. As I waited off the pier for an amphibian tractor, planes came over and got four direct hits on the hulk, and in so doing strafed the wounded of the First Battalion Eighth who dotted the water nearby." Then he added two sentences that underline the gravity with which the Americans in the lagoon then regarded the whole undertaking. "Apparently the commander of the First Battalion Eighth Marines was not aware of the 100 yard corridor west of the pier. In fact, those on the water off the beaches at this time were uncertain of the situation ashore and were even under the impression that the enemy had reoccupied the pier."¹¹³

In getting ashore, the organization of Hays' battalion was shattered. He lost many of his leaders and much of his heavy equipment. Shoup fed these marines into positions facing the Japanese core to his right. By now Rixey's pack howitzers were firing at point blank range against enemy installations, but Shoup still lacked the strength to erase this enemy pocket.¹¹⁴

Likewise Crowe and Ruud, despite heavy fighting by their men during the second day, were unable to budge the enemy on their left flank. Success in terms of ground gained, in the vicinity of the long pier, went to elements under the command of Kyle and Jordan. By noon these center beach marines had reached the southern coast. The Japanese on Betio were finally cut in two.

Over on the northwestern tip of Betio, Ryan prepared during the night of November 20/21 to retrace his steps south. By the morning of November 21, he had flamethrowers and two additional medium tanks. Two separate plane strikes managed to take out as many enemy artillery weapons. Supported by close naval gunfire from two destroyers, the marines attacked at 1100. "There was," said Ryan, "little opposition."¹¹⁵

When news of Ryan's almost phenomenal success reached *Maryland*, there was cause to rejoice. This was what everyone had been praying for, a chance to get a fully organized battalion across a beach. Carlson had reported in to Shoup during the morning of November 21, and immediately was sent back with another message to *Maryland*. He was in low spirits. Shoup had "reiterated his determination to stick and fight it out," but more than stubbornness was needed and the situation was, if anything, worse than that on the 20th. But Carlson climbed aboard *Maryland* on the afternoon of November 21 to find his bad tidings out of date. Julian Smith and his staff had just learned

that the western beach was clear, and that the coast south of the long pier had been reached. "I was frankly skeptical," Carlson admitted "that so radical a change had taken place in so short a time after my departure from the beach."¹¹⁶

6. *Tarawa: Securing Betio and the Remainder of the Atoll*

Carlson's skepticism was ill-founded. Colonel Maurice Holmes' Sixth Regimental Combat Team was already being boated. The plan was to land two battalions in echelon on the western beach, and to have them attack directly east, overrunning the south coast of the islet lengthwise. The first of these was scheduled to go ashore on the evening of November 21, and to pass initially to Shoup's control; but as soon as possible Julian Smith was to land, and meanwhile his chief of staff, Edson, was going onto the center lagoon beach. Edson would relieve Shoup of overall tactical command ashore. The all-out attack was to begin on the morning of November 22. Shoup was to devote his full attention to clearing out the Japanese pocket between the center and westernmost lagoon beaches. (See map 11.) For this task, he would have what was left of four battalions, all three of the units in his own Second Regiment, plus the First Battalion Eighth Marines attached. The other two battalions of the Eighth Regiment, led by Crowe and Ruud, were to revert to Hall's control, allowing him to integrate a drive to oust the enemy from the left flank of the easternmost lagoon beach.

Plans were also made for committing the final battalion landing team, a unit of the Sixth Regiment. Reports had reached Julian Smith that Japanese were crossing from the southeast tip of Betio over to Bairiki. Naval gunfire alone could not be expected to interdict this movement. It posed a threat which could not go unattended. After Betio, Julian Smith's orders were to overrun the entire atoll, and no marine wanted to let the Japanese get set on Bairiki to make another determined stand at the beach. A battalion of the Sixth Marines was sent to Bairiki, to be followed ashore by a battalion of 75-millimeter pack howitzers from the Tenth Regiment. Once the artillery was emplaced and registered, it was hoped that the unit of the Sixth Marines on Bairiki could be withdrawn to relieve Hall's depleted units on Betio. Then for the final drive down the tail of that islet, Maurice Holmes would have all three of the battalions of the fresh Sixth Regiment at his disposal.

With few unimportant exceptions, these plans were carried out. Lieutenant Colonel Raymond L. Murray landed the Second Battalion Sixth Marines on Bairiki during the late afternoon of November 21. There was no resistance. Here close air support really came into its

own. About fifteen Japanese were on Bairiki, manning two machine guns. The Nipponese, for some strange reason, had a can of gasoline in their vicinity. A strafing plane hit the can with a .50-caliber bullet, and burned out the enemy. At last the way was cleared for Julian Smith to set up his artillery on Bairiki. It registered late, but was of value in helping marines to bowl over the southeastern end of Betio.¹¹⁷

Shortly after Bairiki was seized, the First Battalion Sixth Marines landed with few casualties on the western beach of Betio. The commanding officer, Major William K. Jones, was guided ashore by Ryan, who managed to warn the incoming waves that the southern portion of the western beach was heavily mined. Jones' men were loaded in rubber boats, towed by landing craft. One of the latter struck a mine and was blown apart, but otherwise no mishap occurred in landing.

Jones commanded the first fully organized unit to reach the coast of Betio. On the morning of November 22 he began a drive which within twenty-eight hours completed the assault. Two factors were of assistance in speeding up this final attack. During the night of November 22/23, after the enemy had been crowded into the tail of the islet, he depleted his strength in a series of futile countercharges. Even more important, as a post-operational study of Betio's defenses revealed, the enemy's "organization for defense inshore was haphazard. While it does not appear that they were intended for that use, the bombproof ammunition and personnel shelters inshore from the beach defenses were used in the later stages as defensive positions in depth. The fires from the doorways of these were, in some cases, mutually supporting, but by accident; for the most part, they were blind to attack from several directions in that they were not designed as blockhouses, and had but few firing ports."¹¹⁸

At 0805 on the morning of the third day of the assault, November 22, Jones began his attack. He was ordered to fight his way along the south coast between the beach and the airstrip eastward until he reached the pocket of marines already situated on that coast, due south of the long pier. Assisted by naval gunfire and effectively employing teams of tanks, flamethrowers, and riflemen, the First Battalion Sixth Marines "had little or no trouble going along the coast," and reached its initial objective, a distance of about 2,500 yards, at slightly before noon. Jones was then ordered to continue fighting his way along the south coast, and at nightfall to tie in with the Eighth Marines to his left. Finally the men under Crowe and Ruud, with excellent artillery and destroyer gunfire support, were making progress eastward along the lagoon beach.

The going became more difficult for Jones' First Battalion Sixth Marines that afternoon. Resistance stiffened, and more than ever Jones felt the need of medium tanks. He had only one of these ma-

chines, plus seven light tanks. The light tanks were, however, of little value other than psychological. Their 37-millimeter guns, even at point blank range, failed to penetrate enemy installations, and they lacked the weight needed for a crushing effect.¹¹⁹ The fact that the light tanks were of little assistance in working over Japanese defenses had first become apparent on New Georgia, but this lesson came only a few months before the attack on Betio. A company of medium tanks was all the Second Marine Division could obtain for the Tarawa operation, and by the third day of the assault most of the medium tanks were lost.

At nightfall of November 22, Jones reached the eastern end of the airstrip and sent one of his companies across to the lagoon beach to assist the exhausted Eighth Marines in holding their gains of the day. Julian Smith, who had landed during that afternoon, was encouraged by the progress of the day, but expected hard fighting ahead. He did not know that the Japanese were ill prepared to fight inshore, nor did he expect them to dissipate their remaining strength in banzai charges. And, after Betio was secured, he had the rest of the islets of the atoll, except Bairiki, to capture. "Complete occupation," he advised Hermle who was then on *Maryland*, "will take at least 5 days more."¹²⁰

Betio was seized by the afternoon of the next day, November 23. The Japanese began their counterattack during the late evening of the day before. Jones' men were in line across the width of the islet at the eastern end of the airstrip. Naval gunfire was called down in the areas where the enemy was assembling for his attack, and Rixey's artillery pieces as well as those on Bairiki joined in the massacre. The riflemen exercised splendid fire discipline, refusing to disclose their positions. When the sun rose on the morning of November 23, more than 300 Japanese were dead. Jones' casualties were light.

The next morning the Third Battalion Sixth Marines, Lieutenant Colonel Kenneth F. McLeod, passed through Jones' lines and resumed the attack to the east. Meanwhile, Shoup was continuing the arduous task of clearing out the Japanese pocket along the reentrant of the northwestern lagoon beaches. Using the remnants of the Second Marines and of the First Battalion Eighth Marines, this job was completed at about the same time McLeod reached the southeastern tip of the islet, at shortly after 1300 on November 23. Taking the rest of the islets of the atoll was relatively easy, and was done, as Julian Smith had predicted, by November 28.¹²¹

7. Tarawa: Naval Gunfire and Air Support Ashore. Beach Logistics

One reason that the fighting on Betio was finished so quickly was that both air and naval gunfire support improved during the struggle

ashore. It was found that naval guns and bombers could safely work together on the same target. After a period of hesitancy and uncertainty, naval gunfire was of necessity called down less than fifty yards in front of friendly troops. Destroyers were used for these missions, and their 5-inch projectiles tore gaps in the enemy's line. Thereupon, in the opinion of Holland Smith's naval gunfire officer, "the troops gained a large amount of confidence in naval gunfire."¹²² Carrier pilots also showed up better after the first landings were made, and these men and their machines exerted a psychological influence all out of proportion to their performance. Marines rejoiced as the planes struck, and the enemy was terrified; but communications difficulties prevented the airmen from being well controlled by the air liaison parties, and the flyers either could not see or failed to heed the panel and pyrotechnical devices which marked the advance of friendly troops.¹²³ They showed up best when striking ahead of marines who were advancing rapidly, when helping Ryan on the west coast and Jones along the south coast of Betio, and in the seizure of Bairiki. Crowe with his left flank wrinkled up by enemy pressure was not pleased by the pilots. He somewhat unjustly summarized their activities with these words: "Don't know how much good they do, but we know their bullets will kill men if they hit anything. One fifty-caliber slug hit one of my men—went through his shoulder, on down through his lung and liver. He lived about four minutes. Well, anyway, if a Jap ever sticks his head out of his pillbox the planes may kill him."¹²⁴

Beach logistics were also essential to the marines once they were ashore on Betio. Plans for beach logistics were faulty, and by the afternoon of November 21 the supply situation ashore was becoming critical. The marines had landed with only one unit of fire, and this was being rapidly expended. As early as noon of the first day the division staff was receiving urgent requests for water and blood plasma, as well as for ammunition. On the second day some of the battalion commanders began improvising. Small parties of men were formed and given the sole duty of retrieving and repairing rifles, and salvaging ammunition from the friendly dead. This, however, was but a temporary solution to a pressing problem.¹²⁵

Plans for beach logistics were premised upon the assumption that a beachhead would be secured at an early hour. When this failed to materialize, there was no alternate organized means of sending supplies to the coast.¹²⁶ Navy officers, understandably anxious to unload their vessels and retire, kept dumping cargo into available boats. These in turn milled around the lagoon with no place to go. Boat control was lost, since there were not sufficient control vessels and those on hand were not properly equipped with communications. Fortunately the situation in the lagoon looked worse than it actually was. In only

one instance, and this too late in the period of the assault to matter much, was it impossible to round up a sufficient number of boats for a tactical movement of troops.

Some of the boats off loaded at the end of the long pier, but there was no means of screening their cargoes and, in order not to overcrowd the pier, of taking off only the items really needed ashore. From the first, amphibian tractors were of great assistance in relaying supplies from the end of the pier onto the beaches. What was needed was a means of integration and control.

This became apparent to Carlson as he worked his way back from *Maryland* on the morning of November 21. After he had reported to Shoup, he was requested to return with a second personal account of the situation ashore to Julian Smith. Shoup's lack of supplies, particularly ammunition, water, and medicines, was evident. Carlson asked for and was given permission to help organize the logistical endeavor as he went back toward *Maryland* a second time.

When Carlson reached the end of the long pier on his second outward journey he found the regimental shore party officer, Lieutenant Colonel Chester Salazar. Together Carlson and Salazar improvised a brilliant scheme in which the navy officers in the lagoon cooperated enthusiastically. Salazar established a control and transfer point for supplies at the end of the pier, and sent in nothing but selected and greatly needed items to the center beach. Carlson then proceeded to the control ship in the lagoon, the minesweeper *Pursuit*, contacted the ranking navy officer, Captain John B. McGovern USN, and sought his cooperation. McGovern was asked to dispatch to the end of the pier only those items needed ashore, and to organize all amphibian tractors available, placing them under Salazar's supervision. The tractors were to be used only in ferrying the supplies from the end of the pier, along the west wall, to the center beach, evacuating wounded on return trips. McGovern, said Carlson, "grasped the picture immediately, and promised full cooperation. While I was there he gave orders which resulted in rounding up 18 amphibian tractors and in sending boats to the pier."¹²⁷

In view of the dire shortage of amphibian tractors at Tarawa, it was essential that such a logistical arrangement be made. Of the 125 tractors taken to Tarawa, only thirty-five were operational when the assault was over.¹²⁸

Thus in another notable respect, beachhead logistics, the assault on Betio improved the quality of planning and of execution for future operations. This went beyond the obvious need for a greater number of better tractors. It improved the concept of ship-to-shore movement by giving the tactical troop commander, through his shore party officer, control over the priority in unloading from ship to boat. Fur-

ther, it showed the need for control and transfer points offshore. Since the presence and feasibility of using a pier could not be relied upon in the future, the idea of floating stockpiles of critical supplies, loaded in boats and idling at the line-of-departure, was born.¹²⁹

8. Tarawa and the Amphibious Assault

Marine casualties at Tarawa shocked the American people. Despite the fact that navy dead off Makin totalled almost as many as the number of marines killed at Betio, this information, even had it been made public at the time, would probably have gone unnoticed beside the glaring headlines of marine losses. When a man-of-war goes down, one expects men to die. The public did not understand the fundamental point that only after rapid seizing of targets such as Makin or Tarawa can ships and the men in them be withdrawn to safety. The point, perhaps, would have been generally accepted by the American people only if the Japanese fleet had been able, in the Gilberts or later, to move through and demolish transports loaded with marines and army troops. That would have been too high a price to pay for general understanding of a basic lesson in naval strategy.

Nimitz, his staff, and the implementing officers in the Pacific, of course, thoroughly understood this point. The Gilberts campaign showed them that fast carrier forces could localize a target for amphibious assault, and they gained so much confidence in their covering force that speed in subsequent operations was made secondary to obtaining the maximum naval gunfire bombardment and air bombing in the preliminary phase.

Tactically, Betio became the textbook for future amphibious landings and assaults. Lessons learned were widely disseminated. The necessity of coordinating the supporting arms and of timing everything around the moment the first troops actually touched the beach was recognized by all. Air and naval gunfire support observed their errors and emerged the stronger.

The experience gained at Tarawa was useful. Thirty-three hundred casualties are low when compared with the total for any other Central Pacific offensive, with the exception of the seizure of Kwajalein and Eniwetok in the Marshall Islands. Assaults against the Marianas, the Palaus, and Iwo Jima were not only more expensive in terms of lives lost—it may confidently be said that these later victories were possible at all only because of the lessons learned at Tarawa.

These lessons included, in addition to a more effective application of naval gunfire and air support, means for obtaining a smoother flow of supplies from ship-to-shore. More control boats with better communications were to become the nerve center of both the logistical and

tactical aspects of future operations. Also, facts of tremendous value in the tactics of actually storming a beach were learned. The principal need was for more thorough training in teamwork among tanks, artillery, flamethrowers, demolition experts, and riflemen in isolating and overrunning strong defensive installations. Regardless of their specialties, all marines must know something of the use of demolitions, heretofore left to the combat engineers. Also, more and better weapons were required. Additional flamethrowers were essential, and since the light tank was of value for little else, the idea of converting it into a flamethrowing tank arose. Likewise, work was pushed on the development of an armored amphibian tractor which could accompany the first waves ashore and protect their flanks as they worked their way inland.¹³⁰

Faulty communications stood out like a beacon light. The special command ship for the attack and landing force commander would not alone solve the problem. Improved portable equipment was required, lighter and more mobile, and waterproofed so that once ashore hours of precious time would not be spent in drying out instruments and batteries. Well-trained communications personnel were another necessity, especially for assignment to the fire-control parties, the air liaison groups, and the beachhead logistical parties. After Tarawa, the Joint Chiefs of Staff became interested in this problem. Following in essence the recommendations made by Vandegrift from Guadalcanal, they directed that naval gunfire, air liaison, and shore party communications personnel be pooled into joint assault signal companies, that these be trained under supervision of the Fifth Amphibious Corps, and that one such company be temporarily allocated to each division assigned to an amphibious landing.¹³¹

These, along with the stepped up production of vehicles capable of crossing reefs, were the chief results of Tarawa. Nor were these lessons gained in an operation of no strategical importance. On the contrary, the line of communications to the South and Southwest Pacific was shortened, and new bases were seized from which to bomb the enemy in the Marshalls and to photograph his installations. This intelligence of the enemy, plus the Tarawa experience, permitted the compilation of such superior plans for invading the Marshalls that the losses in the Gilberts were more than compensated for in the next campaign. Penetrating into and controlling the Marshalls turned out to be such an easy task that it gave the Central Pacific drive a momentum which was breath taking for the American commanders as well as for the Japanese. The enemy fleet fled from Truk without offering battle. Nimitz scrapped his earlier intentions, and advanced the target date for entering the Marianas by months.