

**NAVAL GUNFIRE SUPPORT OF AMPHIBIOUS OPERATIONS:
PAST, PRESENT, AND FUTURE**

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FOREWORD

A continuing issue since World War II has been the future role of naval gunnery. In fact, many senior leaders in the Navy and Marine Corps have concluded in recent years that we have lost our corporate memory on the use and effectiveness of naval gunnery. Nearly every reason postulated for this conclusion will meet as many in agreement as disagreement.

This paper is the first in a series to provide accurate, historical information on the use of naval guns. Specifically, this paper addresses the role of naval guns in World War II, Korea, and Vietnam in amphibious assault and in support of ground troops in littoral regions. The case studies presented are designed to help planners and decision makers bridge the gap between operational experience and the hypothesis of future needs.

Major General Donald M. Weller, USMC (Ret), the author, has been a student of maritime strategy throughout his professional career and in retirement. He is considered the father of modern naval gunfire support, having devised the basic doctrine and tactics in the thirties. His experience and proven foresight qualify him to evaluate naval gun performance and potential. General Weller's biography follows the bibliography at the end of this paper.

Future treatises of this type will address the total history of naval gunnery in strike warfare, gunfire support, surface-to-air and antisubmarine roles. It is hoped that the primary source material being developed will be of value to our schools, as professional reading, and in assisting decision makers in the weapon system acquisition process.



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mines, or eliminate defenses. Artillery may have to be pressed into service to break through stout defenses at bridges, defiles, and other terrain obstructions. Refueling and rearming operations are required in assembly areas before reaching final attacking positions; finally even when tanks deploy for attack, supporting infantry and artillery are normally required. It follows then that armored formations are weapons systems. Firepower can disrupt or halt attacks by depriving the tanks of engineer, infantry, artillery, and logistic support; consequently, firepower effectiveness does not depend on direct hits on individual tanks. Effectiveness can be reduced by successful engagement of any component of the armored division.

Infantry formations lacking armor protection are even more vulnerable to firepower. Components of an infantry division include engineer, artillery, logistic, and communication units which share the same vulnerability to firepower as their counterparts in armored formations.

Blockhouses, pillboxes, and covered artillery emplacements mounting machine guns, antitank, and antiboat weapons comprising the backbone of beach defenses are less susceptible to firepower because of their self-contained nature and decentralized mission. Consequently, their destruction requires direct hits, although their operations can be inhibited by smoke and dust.

The effectiveness of all weapons systems can be degraded by indirect effects of firepower; smoke and dust can blind operating personnel, while blast has physical effects. Tanks are particularly susceptible to smoke and dust when "buttoned up." Terrain hazards and targets can be obscured by smoke and dust to the point where tanks lose cohesion and direction.

The psychological impact of fire on operating personnel can levy heavy constraints on weapons system performance, the degree of which is dependent on the quality of the personnel and their morale and discipline.

WORLD WAR II

OPERATIONS IN THE MEDITERRANEAN THEATER—1943

Strategic Environment

The surrender of Axis forces in North Africa in May 1943 set the stage for the campaign in the Mediterranean. The impotence of the Italian Navy and the limited German naval resources posed a minimal threat to amphibious operations. The Italian Air Force was to be destroyed on the ground by Allied air attack, and the capitulation of Italy on the eve of the Salerno operation in September eliminated both air and naval forces from consideration. The German Air Force remained a significant threat in both the Sicily and Salerno

campaigns, particularly with the introduction of heavy guided bombs at Salerno that were used so effectively against fire-support ships and amphibious shipping. In neither campaign was Allied land-based air able to control the skies over the amphibious objective areas, even though British escort carriers were committed to assist in the Salerno operation. On Sicily, Italian ground forces were generally ineffective, with the exception of a few elite units.

Defensive strategy of Axis forces was dictated by the geography of the amphibious objectives and the inventory of military forces. The large land masses and numerous potential landing beaches, coupled with the small numbers in the military force inventory, limited the organization of beach defenses and coastal artillery positions and forced the Axis to depend on prompt counter-attack with infantry and armored reserves against Allied landings. Consequently, the major contribution of naval gunnery was to assist in the disruption of these counterattacks, although guns were directed against beach defenses and coastal artillery whenever the situation so required.

The strategic decision to commit the bulk of the U.S. Navy to the Pacific reduced the firepower resources for the support of amphibious operations in the Mediterranean. In the heavy-ship category, only one light cruiser division, made up of PHILADELPHIA, BOISE, SAVANNAH, and BROOKLYN, was assigned, together with up to eight BRISTOL-FLETCHER destroyers rotating out of the screen. However, these ships were to overcome their numerical limitations by their technical competence and professionalism, and, fortunately, their armament was well adapted to support landing forces.

The main limitation of the cruiser force was the obsolescence of spotting aircraft essential for maximum effectiveness. Their Scout Observation Curtis (SOC) float planes, with a top speed of 126 knots, were easy targets for German fighters, both at Sicily and Salerno, with the inevitable result that the light cruisers' potential suffered. It was only determination and sheer bravery on the part of the pilots that permitted these aircraft to function at all in their target-detection and spotting roles. This deficiency was finally overcome in the landing in Southern France, September 1944, with activation of a squadron of carrier-based aircraft (VOF), specifically trained in target detection ashore and in the adjustment of ships' fire.

British naval resources were more numerous and powerful. Eight-inch heavy cruisers, HUNT-class destroyers with 4.7-inch guns, and two monitors, each with two 15-inch guns, were employed to support British troops. During the crisis at Salerno, battleships were ordered forward but arrived too late to lend assistance.

The prewar doctrine for employment of naval guns against shore targets had already been modified by experience gained in the North African landings, November 1942, where success of the BROOKLYN against coastal batteries

had disproved "A ship's a fool to fight a fort."* The small number of Italian coastal batteries reinforced confidence in the ability of the naval guns. Instead of firing at long range while maneuvering at high speed, cruisers and destroyers were to close the beach, either lying to or steaming slowly, to maximize accuracy and lethality of their fire. The necessity to conserve ammunition for surface engagement was also eliminated since British covering forces could readily counter reaction from the weak Axis naval forces. Finally, instead of terminating naval gunfire support once field artillery had been landed, support was to continue as long as targets were within range.

Sicily Operation

Operation Husky, scheduled for 10 July 1943, was the second amphibious operation to be conducted in the European area following operation Torch in North Africa in late 1942. General George Patton's 7th Army, consisting of three divisions, was to land under cover of darkness on three beaches along a 40-mile coastal stretch of southern Sicily beaches (Figure 1).

H hour was scheduled during darkness in order to gain maximum surprise, as well as to limit the effectiveness of the coastal defenses. After all, the participating troops had no experience with naval gunfire support and lacked confidence in its ability to deal with beach defenses.** The 1st Infantry Division, landing in the center adjacent to the coastal town of Gela, was to absorb the mass of the Axis counterattacks, so discussion will be limited to the action of this unit. The beaches were defended by elements of an Italian coastal division, specially organized for beach defense and manning coastal defense artillery. These units were backed by armored and infantry reserves composed of three groups: an Italian group with light tanks, supporting infantry, and artillery; an Italian infantry division; and the powerful Hermann Goering Panzer Grenadier Division with over 100 tanks, supporting infantry, and artillery.

* BROOKLYN made a direct hit on the fire-control range finder and one gun of a four-gun 138-mm battery. The French crews abandoned the remaining serviceable three guns.

** Lack of confidence in the capabilities of naval gunfire support on the part of the troop units with no previous experience was a characteristic constraint.

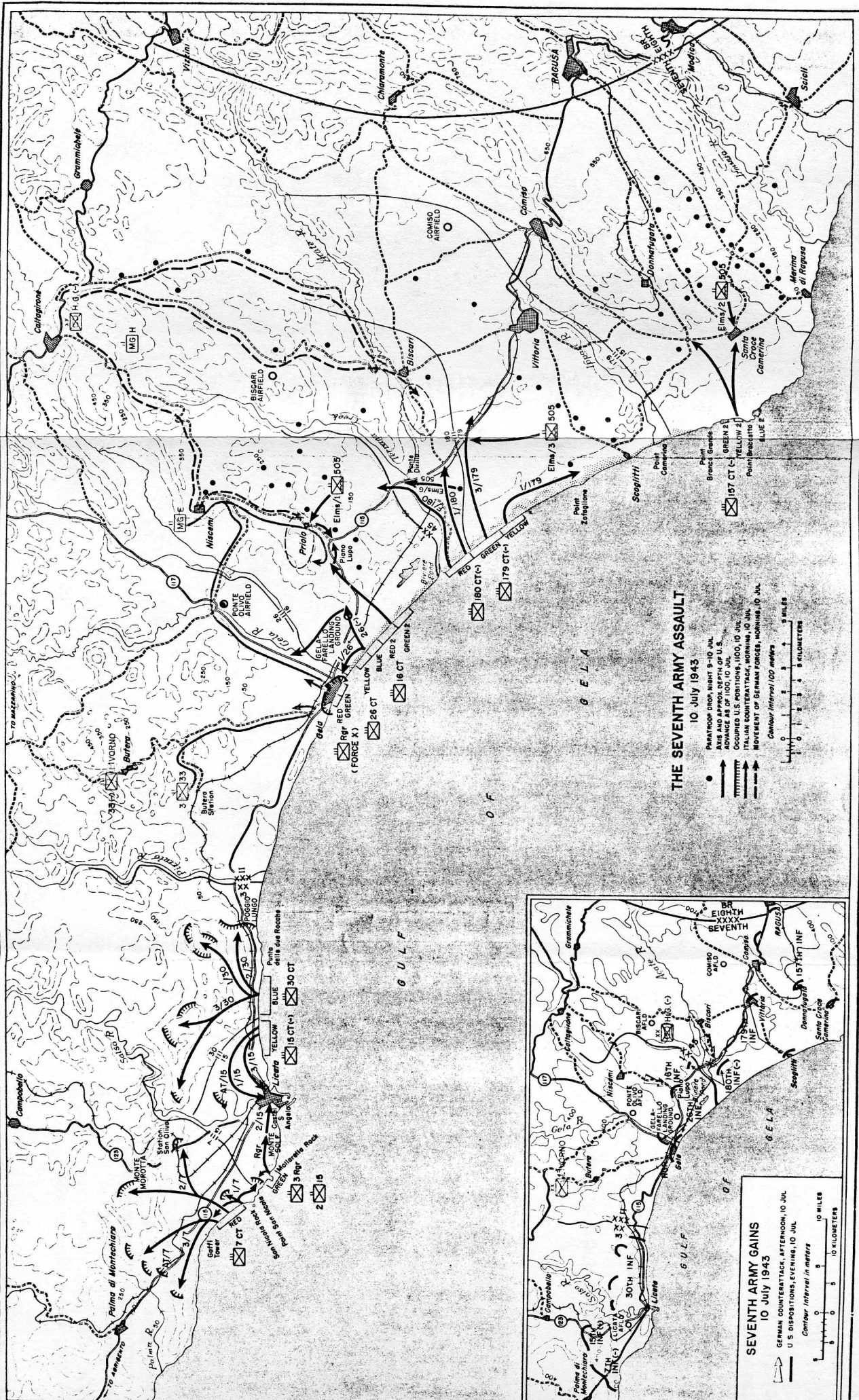


Figure 1. Seventh Army assault, 10 July 1943

The 1st Division, landing at 0335, was able to break through the crust of coastal defense positions with fewer casualties and less delay than had been anticipated, and by 0900 the infantry was on its way to their inland objective. In the meantime, the Italian and German counterattack forces had been set in motion; three separate tank-infantry forces* were converging on the 1st Division.

Tank Attacks--D Day, 10 July. The day had not begun auspiciously for the spotting aircraft of BOISE and SAVANNAH, the two heavy ships in support of the 1st Division. Two SOCs had been catapulted at first light from each of the two light cruisers, and SAVANNAH's aircraft were almost immediately shot down by roaming German Messerschmitts. Two more of SAVANNAH's aircraft were immediately catapulted--one was promptly shot down and the other driven off. BOISE's SOCs were a bit more fortunate. One spotted tanks comprising one of the prongs of the Italian infantry-tank attack and passed the coordinates to BOISE but was unable to adjust the fire because of pursuit by another German fighter. Nevertheless, BOISE fired 2 minutes of rapid fire with her main battery without spot. In the meantime, DD JEFFERS opened up on the same target in response to a request from the shore fire-control party with an infantry battalion in the path of the counterattack. About 100 five-inch rounds left several tanks burning, but the remainder ran the gauntlet. However, destroyer fire had stripped the tanks of their supporting infantry and neutralized their artillery. When the remaining tanks encountered fire from another U.S. infantry element, which destroyed several additional tanks, the Italian thrust came to a halt. In the words of an Army historian:

Without infantry support, its artillery under heavy counterbattery fire from American warships, the Italian tankers broke off the fight and retired.²¹

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- * a. Italian tank group--60 light tanks supporting infantry and artillery.
 - b. Italian infantry division (Livorno Division).
 - c. Hermann Goering Panzer Grenadier Division (reinforced) with 90 Mark III and IV tanks. The Mark III was a medium (25-1/2-ton) tank, carried a 5-man crew, and was armed with a long-barrel 50-mm or short-barrel 75-mm gun. It was 17-1/2 feet long, almost 10 feet wide, and could do 22 miles an hour on roads or about half that speed cross-country. The Mark IV medium (26-ton) tank also carried a 5-man crew but was armed with the long-barreled, high-velocity (3200-feet-per-second) 75-mm gun. It was 19 feet long, about 9-1/2 feet wide, and had roughly the same speed characteristics as the Mark III.
 - d. Seventeen Tiger heavy tanks were attached from 15th Panzer Division. The Tiger, a heavy battle tank (60 tons) with a 5-man crew, carried an 88-mm gun as main armament and had the thickest armor ever fitted up to this time on a German tank. The vehicle was 21 feet long, 12 feet wide, and could do 15 miles an hour on roads and 5 miles an hour cross-country.

The second prong of the Italian tank-infantry counterattack fared no better. As the force approached Gela, a shore fire-control party with the defenders in Gela called for support from DD SHUBRICK at about 0830. She responded with 125 five-inch rounds. SAVANNAH also delivered 25 rounds of 6-inch projectiles about the same time, but since she had no air-spot available, the source of the request or the spotting means is not clear. Several tanks were hit and the infantry was immobilized. About 10 of the 25 attacking tanks actually reached Gela, but deprived of their supporting infantry, they were ineffective against the infantry force with antitank weapons and grenades, which fought from the protection of the stone buildings. This hot reception forced the remnants to withdraw. For all intentions, the Italian tank-infantry force had been destroyed, for the survivors launched no further attacks on the 1st Division.

But more was soon to come. The tank-infantry counterattack of the Hermann Goering Division, coordinated with the Italian attack just described, had been slow in reaching its attack positions. The German attack was not launched until 1400. The right prong of the attack (90 medium 75-mm tanks plus artillery and infantry) followed the same route as that of one of the Italian thrusts that had been defeated in the morning. Leading elements collided with the U.S. infantry, which still lacked organic artillery, tank, and antitank support that had not yet been landed. Support would have to come from naval gunfire. Shore fire-control parties immediately brought cruiser and destroyer fire down on the tanks. In the words of the official history:

Calls for naval gunfire soon had shells dropping on the Niscemi road, but the German tanks, accompanied by reconnaissance and engineer troops in an infantry mission, rolled slowly past Casa del Priolo. Not far from Casa del Priolo, the tanks slowed, sputtered, and eventually stopped. The tankers could not go on because they had nothing to cope with the five-inch and six-inch naval shells that came whistling in from the sea. Conrath (Division Commander) ordered the tank attack renewed at 1500. But even Conrath's inspiring and hard-driving presence was not enough to furnish impetus. The attack failed to get rolling. Still uncertain about the location and the fate of the infantry-heavy task force, Conrath called off his offensive action. "The tanks are trying to withdraw," the 16th Infantry reported around 1700. And at 1845, "Tanks are withdrawing, it seems we are too much for them."²²

In spite of the fact that the German and Italian counterattacks had been checked, the night was uneasy. The beaches were so congested that landing of artillery, antitank guns, and tanks was proceeding with great difficulty. U.S. air cover was so minimal that the Germans had almost complete control of the air. The three remaining float planes of the cruisers could spot only intermittently, and there was danger that the Axis armor might well force the 1st Division off the beaches.

Tank-Infantry Attacks--D plus 1 (11 July). During the night, the Axis command ordered the Goering Division to renew the attack against the 1st Division from the northeast, while the Livorno Division was to drive toward Gela from the northwest. Both moved out in the early morning. A destroyer, responding to a shore fire-control party, took the German tanks under fire with 200 five-inch rounds; however, lack of air spotters for both BOISE and SAVANNAH severely hampered their response. BOISE was able to deliver only 40 rounds on the attack before it reached the wide plain east of Gela and closed with our front lines. Fortunately, elements of the division artillery, some antitank guns, and a few tanks which had landed that morning took the German armor under fire and saved the beachhead. However, intervention by SAVANNAH against the Livorno infantry, attacking Gela from the northwest, was decisive. Only two Ranger companies were available to stop the Italians. The Rangers were ordered "to fight with the troops and supporting weapons you have at this time; the units in the eastern sector are all engaged in stopping a tank attack." A shore fire-control party with the Rangers called for support from SAVANNAH with dramatic effect.

Almost 500 devastating rounds struck the Italian columns. Through the smoke and dust, Italians could be seen staggering as if dazed. Casualties were heavy. The attack stalled. Moving out to finish the task, the Rangers captured almost 400 troops. There were human bodies hanging from the trees. A large proportion of the officers and more than 50% of the Italian soldiers were killed or wounded. The battering received during this attack finished the Livorno Division as an effective fighting unit.²³

On the eastern flank, a second task force of the Goering Division, composed of 16 Tigers armed with 88-mm guns and a regiment of motorized infantry, directed their massive effort against 200 infantrymen. Destroyers played a significant role in the defeat of this counterattack, delivering about 2000 five-inch rounds from early morning until late at night, and enabled this tiny infantry element to frustrate a vastly superior force.

By mid-afternoon, the Goering Division faltered. Orders for a withdrawal were issued, which was sped by fires of the cruisers. The crack Panzer division had been badly mauled, losing about half of its organic tanks. The threat to the beachhead of the 1st Division had been beaten off.

The significant contribution of the naval guns was recognized by General Patton who wrote in his notes on the Sicilian campaign that:

The naval gunfire support--that is, naval fire put on the beaches from vessels at sea--has been outstanding. We have even called for this support at night and got it on the target on the third salvo.²⁴

A German colonel was even more specific:

Naval gunfire forced us to withdraw, but if the Allies pursue too far inland they will be engaged by superior German forces and destroyed.²⁵

Salerno--9 September 1943

The landing at Salerno (Figure 2), following closely on the heels of the capture of Sicily, was to demonstrate the contribution of naval guns against infantry and armored counterattacks on a grander scale. Armored reserves amounting to four Panzer divisions with 600 tanks and armored vehicles, together with supporting infantry and artillery, were thrown into the fight to drive the Allied invasion into the sea. In addition, a Panzer Grenadier Division had occupied defensive positions in the landing area 48 hours before the Allied assault. Consequently, the assault forces were to encounter stubborn resistance at the beaches, as well as heavy counterattacks after the landing.

The Allied plan of attack called for simultaneous landing of two U.S. and two British divisions of General Clark's 5th Army under cover of darkness in order to achieve surprise. Although gunfire support was offered by Admiral Hewitt's naval forces, it was rejected. On the other hand, on-call support was accepted by the British. The U.S. decision was unfortunate since, as we have seen, the Germans had anticipated the landing and reinforced the beaches.

Gunfire support was to come from the veterans PHILADELPHIA, SAVANNAH, and BROOKLYN, who had distinguished themselves at Sicily. The inability of the SOC aircraft to operate in the hostile air environment in Sicily led to the hasty training of an Air Force reconnaissance squadron (P-51s) in spotting for the cruisers. A complement of destroyers supplemented the light cruisers.

Support for the British landing was more powerful. A heavy cruiser division, mounting 8-inch guns, was assigned together with HUNT-class destroyers with 4.7-inch guns. Both U.S. and British forces were backed up by a British monitor mounting 15-inch guns. Unfortunately, the one assigned to the U.S. forces struck a mine early on D day. Later, when defeat loomed as an ominous possibility, Admiral Hewitt's request for heavy support was answered by the dispatch of two British battleships. Unfortunately, these ships arrived too late for practical help.

The Battle for the Beaches (9 and 10 July). As we have seen, H hour had been set at 0330 in order to achieve surprise, but General Kesslering had already reinforced the beach defenses with the 29th Panzer Division.* A fierce

* Mark III and IV tanks, SP artillery, and motorized infantry.

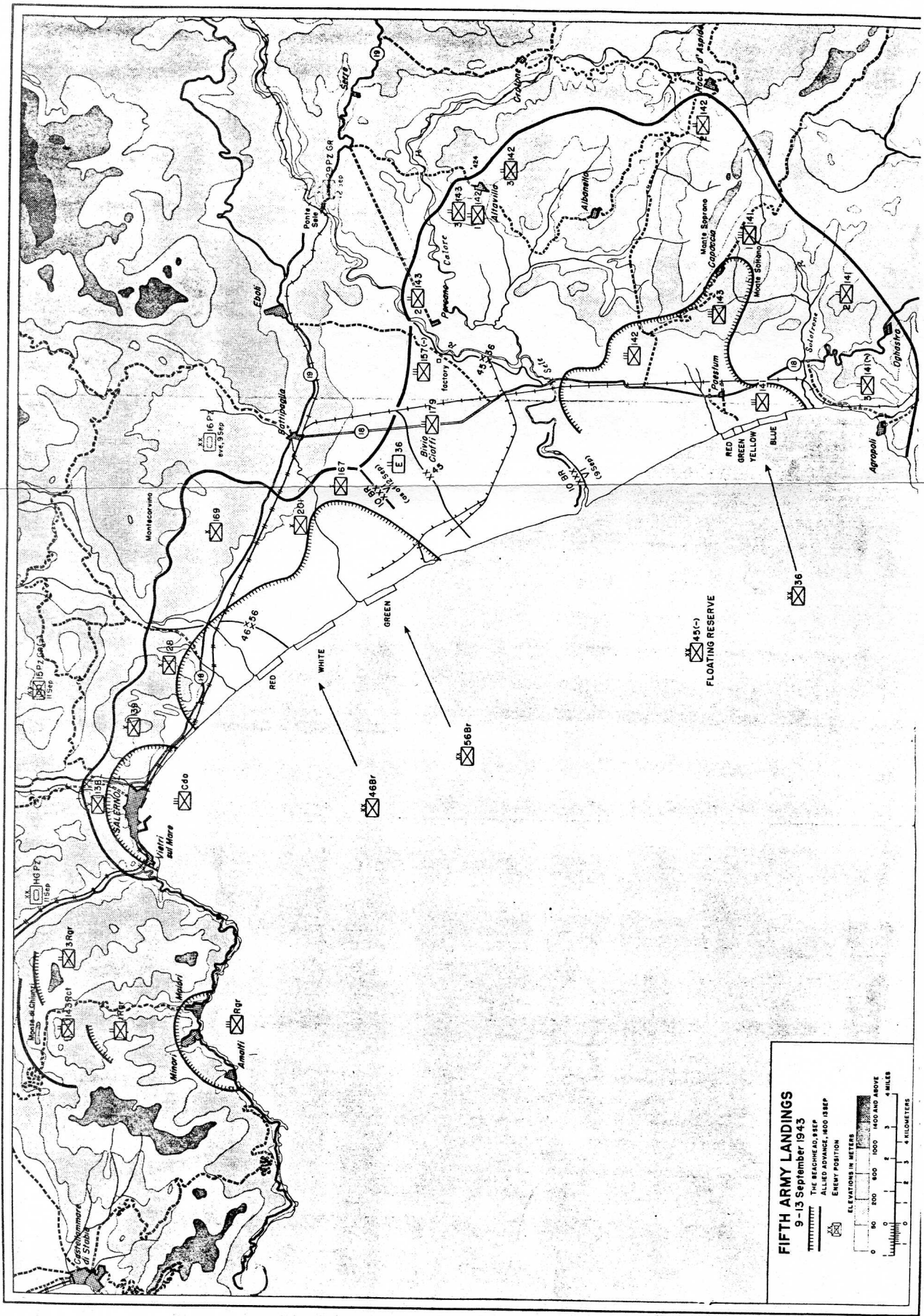


Figure 2. Fifth Army landings, 9-13 September 1943

struggle was to be waged before friendly troops gained a foothold. The experience of one U.S. infantry regiment landing on two beaches is typical of that encountered by the entire assault force. The Germans had constructed a strongpoint covering these beaches, in which antitank and machine guns were emplaced. The strongpoint was backed by tank and infantry teams positioned under cover further inland. In addition, six coastal defense batteries could bring fire on the approaches to the beaches.

Landing craft transporting assault troops ran into heavy machine gun and antitank fire as they approached the beach. This fire was severe enough to pin one of the two assault battalions to the beach for 20 hours. However, the other battalion, after some delay, was able to infiltrate through the defenses, causing the defenders to eventually evacuate the strongpoint. LSTs carrying badly needed armor were thwarted by 88-mm gunfire until midday; then only 20 minutes of unloading time ensued before the beach was again closed by artillery fire, which continued until late afternoon. In the meantime, German tank and infantry teams launched a series of almost continuous counterattacks that were only prevented from overrunning the beaches by a combination of infantry, limited artillery, and naval gunfire support. Rear Admiral Sam Morison describes the support of SAVANNAH and PHILADELPHIA:

At 0914, Savannah established communication with her shore fire-control party, which wanted a railway battery silenced. That was accomplished with an expenditure of 57 rounds. For more than an hour, beginning at 1132, Savannah fired on a concentration of tanks at the good range of 17,450 yards, yet (so it was reported from shore) forced them to retire. Other targets were German infantry, artillery batteries, observation posts, and the town of Capaccio. The cruiser answered eleven calls for fire support on D-day and expended 645 rounds of 6-inch ammunition.

Flagship Philadelphia's work on D-day, the first of ten spent off the Salerno beaches, began at 0943 when, on call from shore fire-control party, she opened on an enemy battery. At 1033 she launched an SOC spotting plane, and two minutes later took a bridge under fire to hold up approaching panzer units. At 1057 she launched a second spotting plane and then following a minesweeper through a swept channel to close the beach. From 1220 to 1309, with destroyer Ludlow, she fired at a German battery which was shelling beached LSTs on Beach Blue, then recovered her planes. Shortly before 1400 she launched another plane which, simultaneously with one of Savannah's discovered a covey of German tanks concealed in a thicket adjacent to Beach Red. Philadelphia's 6-inch salvos flushed 38 of these birds and kept them under fire as they scurried to the rear; about seven were destroyed.

Continuing almost to midnight, the cruiser expended 305 rounds of 6-inch shell on D-day.²⁷

Destroyers boldly penetrating minefields to positions within 1500 yards of the beach fired on a full spectrum of targets, artillery, assault guns, and tanks, visible from seaward. They were particularly effective in neutralizing artillery firing on LSTs during the approach to the beach and during unloading operations. About 1500 rounds were expended.

The effectiveness of the cruisers and destroyers was praised by a U.S. division artillery commander in a message to Admiral Hewitt:

Thank God for the fire of blue-belly Navy ships. Probably could not have stuck out Blue and Yellow beaches.²⁸

Meanwhile, on the northern beaches, the British were encountering equally fierce opposition. Again, the intervention of heavy cruisers and destroyers was significant. The heavy cruiser NUBIAN broke up a particularly heavy tank and infantry counterattack, and destroyers closing the beaches took a variety of targets under fire.

By the night of D plus 1 day, a precarious foothold had been carved out, but important inland objectives securing the beach had not been seized, and a dangerous 7-mile gap between U.S. and British forces lay open for exploitation by the Germans. However, the effectiveness of the naval guns led the German Commander, General Vietinghoff, to request that Luft Flotte air attacks be concentrated on the naval gunfire support ships. Their elimination was considered the prime prerequisite for repelling the Allied invasion.

German Counterattacks--13 through 15 September. During the morning of 13 September, General Vietinghoff discovered the massive gap between the British and American forces, which he interpreted as an intention of the assault forces to withdraw from the beachhead. Other evidence reinforced this conviction. Sensing victory, his objective changed from simply driving the invaders off the beach to one of total annihilation. By this time, the depleted 29th Panzer Division, which had borne the brunt of the Allied assault, was being reinforced by elements of four additional Panzer divisions that had been ordered up to contain the beachhead. These forces were brigaded into Panzer corps. In essence, the German command had achieved parity, if not superiority over the four Allied divisions.

Beginning about midday of the 13th, the XXIV Panzer Corps, comprised of elements of two armored divisions, counterattacked the weakly held juncture between the British and Americans and overran the hasty infantry defenses. Fortunately, two 105-mm U.S. artillery battalions happened to be positioned squarely in the path of the armored attack, and their fires, reinforced by infantry with bazookas and a few tank destroyers, stopped the attack within 30 yards of General Clark's headquarters. Unfortunately, there were no shore

fire-control parties with these units, so naval gunfire could not be called in to assist. British forces also came under heavy armored attack by the Panzer divisions. All reserves were committed and the defensive line was barely held.

Fears of a successful renewal of the enemy thrust led General Clark to request Admiral Hewitt to prepare evacuation plans for the entire force, a proposal viewed with consternation by the naval command. And there were other concerns, for guided bombs had heavily damaged two cruisers, forcing their withdrawal. BOISE was brought forward to replace SAVANNAH, and a British cruiser replacement also came forward.

On 14 September, German armored and infantry counterattacks continued with elements of five Panzer divisions, although these divisions were somewhat depleted by casualties. However, these attacks were successively beaten off by a combination of firepower, including effective assistance by the naval guns of cruisers and destroyers. In the words of Rear Admiral Morison, who was there:

Philadelphia, as usual, was to the fore. She continued to shoot at targets designated by her shore fire-control party throughout the night of 13-14 September, firing 921 rounds of 6-inch on tanks, batteries, road intersections and massed troops, and receiving such messages as: "Very good--we are under attack--stand by," and "Thank you--stand by." Between 0844 and 1345 September 14, Boise relieved her, firing almost continuously at tanks and troops--18 different targets--and expending nearly 600 rounds. Shore fire-control party reported "Very Well!" after a tank concentration had received 83 rounds. At 1503, Philadelphia returned for a two-hour session. There followed another lull in naval gunfire support; then at 2130 Boise was called on for rapid fire on troops. With shore fire-control party reporting "No Change" and "Straddle, straddle!" she unloaded 72 rounds in short order. An hour later, she was called on again, and after firing 121 rounds got the word, "Cease firing; thank you, stand by." At 2310 she delivered interdiction fire on German troops marching down from Eboli; "You are doing well," said the shore party. All night 14-15 September she continued firing on call. In the British sector the pattern of gunfire support was much the same. Four light cruisers and four destroyers got into the shooting, with good results.²⁹

Conclusions

The fog of war prevents a precise assessment of the role of naval guns in beating off the counterattacks of 13 through 15 September. The varied assortment of firepower simultaneously brought to bear on the counterattacking

forces makes it impossible to sort out the individual effects. Here again, we fall back on the testimony of the Germans themselves:

Of the 14th Vietinghoff wrote: "The attack this morning pushed on into stiffened resistance; but above all the advancing troops had to endure the most severe heavy fire that had hitherto been experienced; the naval gunfire from at least 16 to 18 battleships, cruisers and large destroyers lying in the roadstead. With astonishing precision and freedom of maneuver, these ships shot at every recognized target with very overwhelming effect.³⁰

Early on the morning of 15 September, Kesslering remarked to Vietinghoff during a conference that the counterattacking Panzers seemed to be reverting to positional warfare. He warned, "This must not happen. If attacks on the level ground of the Salerno plain were impractical because of Allied air and naval bombardment, perhaps the Panzers could attack further south." General Herr thought not. "Allied naval fire made it doubtful that he could ever reach the coast."³¹

That same night, Vietinghoff recommended to Kesslering that the German forces be withdrawn to the north. In his recommendation, he stated, "The fact that the attacks which have been prepared fully and carried out with spirit, especially by the XIV Panzer Corps, were unable to reach their objective owing to the fire from naval guns and low flying aircraft makes withdrawal imperative."³²

OPERATIONS IN THE CENTRAL PACIFIC—1943-45

Strategic Environment*

In late 1943, the naval balance of forces had swung sharply in favor of the U.S. Pacific Fleet. The erosion of Japanese naval forces first began at the Coral Sea battle, had continued through Midway, and culminated in the struggle for the Solomons. On the other hand, the Pacific Fleet had recouped its battle losses manifold and was in a position to take the offensive. Pre-World-War-II battleships, with heavy guns but without sufficient speed to contribute to carrier operations, were available in quantity for support of amphibious operations.

* Amphibious operations in the South and Southwest Pacific during 1942 and 1943 were characterized by limited enemy beach defensive positions, and coastal defense guns were never a significant factor. Gunfire support was confined to a short neutralization bombardment of beach defenses. Once the troops were ashore, limited support was available. So far, the prewar concept of neutralization of defenses remained valid.