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South Pacific Destroyers: The United States Navy and the Challenges of Night Surface Combat

in the Solomons Islands During World War II

A thesis

presented to

the faculty of the Department of History

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Arts in History

by

Johnny H. Spence, II

August 2009

Dr. Ronnie Day, Chair

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Dr. Stephen Fritz

Keywords: Destroyers, World War II, Pacific, United States Navy, Solomon Islands

### ABSTRACT

South Pacific Destroyers: The United States Navy and the Challenges of Night Surface Combat in the Solomons Islands during World War II

by

### Johnny H. Spence, II

During the South Pacific campaigns of World War II, the United States Navy faced a formidable challenge in waging nighttime surface battles against the Japanese Navy. In a war that emphasized the carrier and battleship, the little destroyer became a key player in these actions. By studying this campaign from the perspective of the destroyers, three key factors emerge that allowed the Americans to achieve victory: innovation in tactics, adaption of technology, and efficient use of resources.

The research for the thesis was based upon action reports, oral histories, and other documents obtained from the National Archives, Naval War College, Naval History and Heritage Command Center, and East Carolina University. The Japanese perspective was attained from numerous secondary sources.

Innovation in tactics, technology, and resources allowed the Americans to persevere through severe defeats to achieve success against a very skilled Japanese Navy in the seas of the South Pacific.

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## DEDICATION

This thesis is dedicated to Amy and Will.

### ACKNOWLEDGEMENTS

This thesis would not have been written had it not been for the support of several people. Archivists at the National Archives, Naval War College, East Carolina University, and Naval History and Heritage Command Center provided help and guidance as I learned to navigate my way through historical records. My committee members, Dr. Emmett Essin and Dr. Stephen Fritz, reviewed my manuscript and offered insightful advice. My advisor and mentor, Dr. Ronnie Day, guided me through the research and writing process with a mixture of professional advice, personal encouragement, and overall sage wisdom. His influence will be with me throughout my career. I also appreciate the funding and support provided by the Department of History at East Tennessee State University. Last but not least, I would like to thank my family (Amy, Will, Dad, Gail, Betty, John, and Louise) for being patient, supporting, and encouraging while I worked on my thesis.

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### CHAPTER 1

### THE SOUTH PACIFIC, DESTROYERS, AND SURFACE COMBAT

As night descended on 8 August 1942, American and Australian warships took up patrol positions per the orders of Rear Admiral Victor Crutchley of the Royal Navy. These ships guarded an Allied invasion force that had assaulted Guadalcanal and Tulagi in the Solomon Islands the day before. Off the northwest tip of Guadalcanal, the tiny volcanic island of Savo split the western approach into two passages (see Map in Appendix). Crutchley assigned two cruisers and two destroyers to guard the southern passage and three cruisers and two destroyers to guard the northern passage. He also posted two picket destroyers farther west to provide early warning of any approaching Japanese ships. Confidant in his defensive plans, Crutchley left the forces to meet with his superior, Rear Admiral Richmond Kelly Turner, who commanded the invasion force.

Shortly after midnight on 9 August, a Japanese force of seven cruisers and one destroyer commanded by Vice Admiral Mikawa Gunichi steamed undetected past the Allied picket destroyers. Mikawa led his force counterclockwise around Savo Island pummeling the American and Australian ships in both passages. Fearing a daylight air raid if he lingered too long in the area, Mikawa withdrew his ships back to the Japanese base at Rabaul on the island of New Britain. In his wake, he left four Allied cruisers sinking or sunk, one cruiser damaged, and two destroyers damaged.<sup>1</sup> Obviously, the Allies, particularly the American Navy, had much to learn about nighttime naval combat.

<sup>&</sup>lt;sup>1</sup> Bruce Loxton and C. D. Coulhard-Clark, The Shame of Savo: Anatomy of a Naval Disaster (Annapolis: Naval Institute Press, 1994).

The Battle of Savo Island was the first of many nocturnal naval clashes fought between the Allies and the Japanese in the South Pacific. These battles were part of a larger three dimensional air-sea-land campaign fought to control the Solomon Islands, of which Guadalcanal is a part. Each aspect of the campaign depended upon the other two dimensions. Both sides needed aircraft and their associated airfields to control the surrounding islands and seas. Ground forces had to defend and attack the airfields while naval forces kept supplies and men flowing to key areas. Naval forces also ruled the seas during the dark of night when aircraft could not operate effectively.<sup>2</sup>

In hindsight, it is easy to conclude that America's industrial might assured them of victory over the Japanese Empire. However, the reality of having to fight both Germany and Japan plus the fact that American industry had not yet reached its full potential ensured that the Allies would fight the Japanese on roughly equal terms during much of the Solomons campaign. The Americans, therefore, could not rely upon a preponderance of power in arms, men, or supplies to attain victory at this stage of the conflict.

The eventual Allied success in the Solomon Islands depended upon their proficiency at warfare in the air, at sea, and on land. They faced challenges in all three areas, but the American Navy had particular difficulty in winning the naval surface actions. Even though the naval surface battles in the Solomon Islands involved other ship types such as battleships and cruisers, the use of destroyers proved to be an essential key in winning these clashes. Due to their size, availability, and versatility in accomplishing different tasks, destroyers participated in every

<sup>&</sup>lt;sup>2</sup> Description and analysis of the campaigns are contained in Richard Frank, Guadalcanal: The Definitive Account of the Landmark Battle (New York: Penguin, 1992), hereafter Frank, Guadalcanal; and Samuel Eliot Morison, Breaking the Bismarcks Barrier: 22 July 1942-1 May 1944 (Edison, NJ: Castle Books, 1949, 2001), hereafter Morison, Bismarcks Barrier.

major surface battle during the Solomons campaign. Their small size and speed made navigating in the restrictive waters easier than for larger vessels. They thus had room to maneuver and fight. Also, destroyers could perform a variety of combat missions including gunnery and torpedo attacks.<sup>3</sup> Despite the American emphasis on gunnery, the employment of torpedoes in these nocturnal fights would prove to be crucial. Because destroyers were the only ships in the American Navy to be armed with torpedoes, they assumed a larger role than envisioned by prewar planners. Eventually, destroyers evolved from being a supporting combatant useful only in scouting and flank attacks to being a major player in these nocturnal clashes.

The destroyers that fought in these battles consisted of several different design classes ranging from the *Farragut* Class constructed in the early 1930s to the newer *Fletcher* class vessels that would arrive during the later months of 1942.<sup>4</sup> A host of war planners, sea commanders, naval architects, and engineers contributed their input to ship designs. Nearly everyone agreed that the destroyers should be constructed so as to play a major role in a Jutland-style encounter between enemy battle fleets. However, they debated the details such as power plant design, armament, and hull design. The debates produced a constantly evolving idea of ship design that resulted in several classes being constructed. Employing different shipyards to produce the same class of ship, the Navy also experienced slight differences within the same class with regard to superstructure details and equipment configuration. As weaponry and electronics evolved, the classes themselves were altered in periodic refits at a naval yard. Radar,

<sup>&</sup>lt;sup>3</sup> Discussions of the weaponry and missions of the destroyer can be found in Theodore Roscoe, United States Destroyer Operations in World War II (Annapolis: Naval Institute Press, 1953), hereafter Roscoe, Destroyer Operations.

<sup>&</sup>lt;sup>4</sup> Details about destroyer design discussed in the next few paragraphs can be found in Norman Friedman, U.S. Destroyers: An Illustrated Design History (Annapolis: Naval Institute Press, 1982); and John C. Reilly, United States Navy Destroyers of World War II (New York: Blandford Books, 1983). Students of destroyer design debate the exact definition of some classes resulting in conflicting classifications for the same ship. In general, such debates focus on technical details and do not affect analysis of the surface battles outside the general information contained in the main body of the thesis.

improved anti-aircraft weapons, and altered superstructures designed to improve load bearing and seaworthiness changed some of the basic characteristics of the ship types. As a result, differentiation between certain classes can be difficult.

Facing size restrictions imposed by the naval treaties, destroyers of the early 1930s had to be constructed under 1,500 tons standard displacement (weight not counting fuel and boiler feedwater). Vessels designated as flotilla leaders could displace 1,850 tons. Designers found it challenging to meet the weight requirements while still maintaining the desired hull strength and weaponry. Weight considerations often played a bigger role in gun and torpedo selection than operational use. After the treaties expired, engineers had more leeway so later versions displaced greater weight. The *Fletchers* had a standard displacement of 2,150 tons.

For the power plants, oil-fired boilers heated steam that powered rotating turbines that turned the drive shaft of the ship and provided the ship with electrical power via a generator. Engineers found that engines operating at higher temperature and pressure performed more efficiently. In the quest for more powerful and reliable propulsion systems, different classes often possessed different engines. In general, destroyers possessed two boiler rooms and two engine rooms containing the turbines. Early designs used two stacks for exhaust gases. Wanting to conserve deck space, later classes merged the exhausts from the two boiler rooms into one stack. Designers soon realized that a single shell hit in the stack, however, could remove both engines from service. Subsequent designs returned to using two stacks so a single shell hit on one would not incapacitate both propulsion trains.

For weapons, destroyers possessed 5-inch guns, torpedoes, depth charges, and various anti-aircraft guns. Designers envisioned the ships fighting against both surface and air targets so

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they selected the single mount 5-inch/38 caliber dual purpose gun for use in most of the destroyer classes.<sup>5</sup> Each ship possessed either four or five guns. Single mounts were used because twin mounts would violate weight restrictions. Exceptions were the destroyers of the 1850-ton *Porter* and *Somers* classes which possessed four twin mounted 5-inch/51 caliber single purpose guns. Designers envisioned these classes fighting against surface targets more than air targets. In addition, the heaver weight allowance for these vessels allowed a twin mount so more guns could be brought to bear on the target.<sup>6</sup> Both gun types could be fired manually or in remote control by a gun director. Early models possessed a Mark 33 gun director while later classes had the improved Mark 37. Both models had crews operating range finders and an electromechanical target computer. The crews fed enemy range and bearing information while a gyro inputted roll and pitch data. The computer would then produce a targeting solution that automatically trained the guns on target. It could also fire the guns as long as a firing key was engaged. In this mode, the gun crews had only to load the gun. As soon as the breech closed, the gun fired. If the director became disabled in combat, the guns would revert to manual control, and the crews would train and fire the gun.

American naval doctrine considered the gun as the decisive weapon in fleet actions so the battleships and cruisers lacked torpedoes. For a torpedo attack, naval doctrine relied upon the destroyers; thus, every destroyer possessed a certain number of torpedoes. Torpedoes came in triple or quadruple mounts. Depending on the class, they were mounted on the centerline or waists of the ships. Centerline mounting allowed all tubes to be fired in one broadside but

<sup>&</sup>lt;sup>5</sup> Single purpose meant that the gun could be used only against surface targets because it could not elevate enough to engage aircraft. Dual purpose meant the gun could be used against both kinds of targets. Many designers believed that the single purpose was more effective against surface targets than the dual purpose.

<sup>&</sup>lt;sup>6</sup> Information on weapons taken from John Campbell, Naval Weapons of World War II (Annapolis: Naval Institute Press, 2002); Peter Hodges and Norman Friedman, Destroyer Weapons of World War II (Annapolis: Naval Institute Press, 1979); and Roscoe, Destroyer Operations.

targeting was complex. Waist tubes could only be fired forward or at targets on one side of a ship but possessed easier firing solutions. As events would prove, these torpedoes became a crucial factor in winning the nocturnal battles fought against the Japanese.

The destroyers of the Imperial Japanese Navy proved to be just as well-designed as their American counterparts. In broad terms, the destroyers of both navies shared similarities in propulsion, gun control, and overall ship design while specific equipment differed. Japanese planners and designers strove to build ships that outclassed American destroyers in terms of firepower in order to offset the disparity in ship numbers. The *Fubuki* class, constructed in the 1920s, set the standard for later models of Japanese destroyers. Armed with six 5-inch guns and nine 24-inch torpedoes, the ships displaced over 2,000 tons and had a rated speed of 38 knots. This class outweighed and outgunned the destroyers of both the British and American navies at the time. The American Navy would not commission a destroyer in excess of 2,000 tons until the *Fletchers* entered the fleet during the early 1940s.<sup>7</sup>

As with the American navy, the Japanese destroyer force consisted of several classes that differed from one another in design characteristics while still adhering to general principles. Most ships of the *Fubuki* class and afterwards possessed 5-inch guns and 24-inch torpedoes. After 1933, the oxygen-propelled Type 93 "Long Lance" replaced the older air-driven torpedoes. Along with this formidable weapon, most destroyers possessed a quick-reload system that enabled them to rearm their tubes while underway which effectively doubled their torpedo armament. Also like the Americans, the Japanese added more anti-aircraft weapons to the ships

<sup>&</sup>lt;sup>7</sup> Information on Japanese destroyers can be found in Hansgeorg Jentschura, Dieter Jung, and Peter Mickel, Warships of the Imperial Japanese Navy, 1869-1945 (Annapolis: Naval Institute Press, 1977), 130-152; Anthony J. Watts, Japanese Warships of World War II (New York: Doubleday, 1966), 117-157; and Evans and Peattie, Kaigun, 220-223, 251-252, 386-387.

during periodic refits at Japanese shipyards. One class that differed from other Japanese destroyers was the *Akizuki* class. Originally designed to be anti-aircraft cruisers, Japanese shipyards constructed them as destroyers. As a result, they displaced 3,700 tons and possessed eight 3.9-inch dual purpose guns instead of the normal 5-inch guns. They still carried torpedoes and depth charges, however, and served well as destroyers. Another class, the *Shimakaze*, also displaced over 3,000 tons, but only one ship entered the fleet before the end of the war. The Japanese developed radar sets for use on ships, but they lagged behind the Americans in outfitting their ships with the technology. In addition, these sets proved to be inferior to American models.<sup>8</sup>

With regard to naval tactics, neither Japan nor the United States anticipated fighting a campaign in the Solomon Islands during their prewar planning. Both sides had to make adjustments to their strategic plans in addition to altering naval tactics and doctrine. On the American side, the American Navy dominated prewar planning for the Pacific. Called War Plan Orange, the Navy's strategy evolved over the years to meet the economic and political realities on both the domestic and international scenes. In general, the plan anticipated three phases. The first phase called for the fleet to fight a holding action while America's military and industry mobilized. In phase two, the fleet would advance across the Central Pacific establishing bases and pushing the Japanese westward. Eventually, a decisive battle would be fought somewhere in the watery vastness of the Central Pacific in which the Japanese fleet would be defeated. Phase three involved the siege and eventual capitulation of Japan.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> Evans and Peattie, Kaigun, 411-415.

<sup>&</sup>lt;sup>9</sup> An excellent survey and analysis of prewar American planning is the focus of Edward S. Miller, War Plan Orange: The U.S. Strategy to Defeat Japan, 1897-1945 (Annapolis: Naval Institute Press, 1991), hereafter Miller, War Plan Orange.

Battleships played a key role in American prewar strategy and tactics. Other types of ships had their roles as well, but naval planners believed the large guns of the battleships would be the critical factor in achieving victory at sea. As a result, the Americans spent a lot of time prior to the war developing fire control techniques, ammunition, and gunnery doctrine.<sup>10</sup> The devastating raid on Pearl Harbor and later logistical limitations on the supply of fuel oil, however, kept the battleships from playing a key role in the early phase of the war.<sup>11</sup> Other ships such as carriers, cruisers, and destroyers would be crucial in defeating the Japanese at sea.

Once the war started, the Americans did not have the resources or bases to launch an offensive across the Central Pacific. As the fight developed in the South Pacific, their desire to seize the initiative from Japan as well as the availability of bases in New Caledonia and the New Hebrides Islands made this area a key theater in the war. The geography of the Solomon Islands meant that ships would have to sail and fight in confined waters and be wary of uncharted reefs and shoals. The Japanese supplied their forces at night to avoid American aircraft that caused the nocturnal naval clashes in which the Americans fared poorly. Thus, the Americans were challenged to adapt their strategy, tactics, and doctrine to meet a situation few prewar planners foresaw. Destroyers would be crucial to this adaption.

As for the Japanese, they anticipated an American offensive across the Central Pacific and acknowledged that the American fleet would possess a numerical superiority. Their planning called for destruction of the American Asiatic Fleet in the Philippines early in the war. After this threat was removed, their Navy would meet the American main fleet somewhere in the

<sup>&</sup>lt;sup>10</sup> Trent Hone, "The Evolution of Fleet Tactical Doctrine in the U.S. Navy, 1922-1941," The Journal of Military History 67 (October 2003): 1107-1148.

<sup>&</sup>lt;sup>11</sup> David C. Fuquea, "Task Force One: The Wasted Assets of the United States Pacific Battleship Fleet, 1942," The Journal of Military History 61 (October 1997): 707-734.

Central Pacific for the decisive battle. As the American fleet advanced, the Japanese hoped to whittle away the American advantage in numbers by a series of raids upon the fleet. Once the American Navy had been weakened, the Japanese main fleet would engage the American line and defeat it. Demoralized, the American people would seek peace negotiations.<sup>12</sup>

Night combat and the use of torpedoes played key roles in Japanese tactics. Arming both their cruisers and destroyers with torpedoes, they envisioned vigorous nighttime attacks against the American fleet. The cruisers would puncture the outer screen of ships while destroyers would pour through the hole and attack the central formation of battleships. With such a doctrine, the Japanese emphasized the development of night optics and the deadly Type 93 "Long Lance" torpedo which was superior to any torpedo in the American arsenal.<sup>13</sup>

The Japanese did not neglect the battleships. As in navies around the world at this time, they believed these ships to be the keystone of any doctrine. Prior to the war, they started building the huge battleships *Yamato* and *Musashi* armed with eighteen-inch guns and a host of secondary batteries. These ships were the largest battleships in any navy and the Japanese believed ships of such quality would offset more numerous but inferior ships of other navies.<sup>14</sup>

As with the Americans, the Japanese also had to adapt their strategy and tactics to the actual situation of the war. With their phenomenal success in overrunning Allied bases early in the war, the Japanese decided to expand their defensive perimeter outward. Originally, operations in the South Pacific were secondary in importance to others such as Midway. As the battles for these areas intensified, however, the Japanese eventually realized that they were

<sup>&</sup>lt;sup>12</sup> David C. Evans and Mark R. Peattie, Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy, 1887-1941 (Annapolis: Naval Institute Press, 1997), 286-292, hereafter Evans and Peattie, Kaigun.

<sup>&</sup>lt;sup>13</sup> Evans and Peattie, Kaigun, 220-223.

<sup>&</sup>lt;sup>14</sup> Evans and Peattie, Kaigun, 370-383.

critical to the outcome of the war. As a result, more forces were funneled into the South Pacific. Due to Allied airpower and the restrictive geography of the Solomon Islands, the Japanese were reluctant to risk their battleships in regular combat operations. They thus relied upon their cruisers and destroyers to maintain their fight against the Allies. Fortunately for the Japanese, the prewar emphasis on torpedoes and nighttime combat would be a big advantage for them.<sup>15</sup>

In addition to their ships, the Japanese would also rely on a national spirit that they believed would give them the advantage in battle. According to them, this spirit included moral superiority, willpower, and bravery. With such a spirit, the Japanese believed they could overcome numerical and material deficiencies in order to defeat any foe. Although a boost to morale, this spirit caused recklessness in Japanese military operations, including their naval surface actions, which would do much to undermine their cause.<sup>16</sup>

A second critical factor in the surface battles was technology. Both the Japanese and Americans relied on technology to provide an edge in the surface naval battles. Of course, this technology included the ships themselves with the associated seaworthiness, power plants, armament, and design. Certain key technological factors, however, such as radar and torpedoes proved to be the crucial areas in which these battles were lost and won.<sup>17</sup>

The use of radar improved scouting, gunnery aim, and navigation. The Americans researched radar throughout the 1930s and started equipping their ships with early versions before the Japanese. However, the Japanese knew about radar from diplomatic missions to the

<sup>&</sup>lt;sup>15</sup> Paul S. Dull, A Battle History of the Imperial Japanese Navy, 1941-1945 (Annapolis: Naval Institute Press, 1978), 115-121, hereafter Dull, Imperial Japanese Navy.

<sup>&</sup>lt;sup>16</sup> Dull, Imperial Japanese Navy, 4; Evans and Peattie, Kaigun, 211-212.

<sup>&</sup>lt;sup>17</sup> Wayne Hughes, Fleet Tactics: Theory and Practice (Annapolis: Naval Institute Press, 1986), 117-118, hereafter Hughes, Fleet Tactics.

Germans and quickly developed their own sets.<sup>18</sup> Fortunately for the Americans, the Japanese did not effectively use radar until the Solomon Islands campaign had passed.

With regard to torpedoes, the Japanese Type 93 outshone the American torpedoes and would prove to be the bane of the American Navy. The Type 93 possessed both excellent range and reliability. The American Mark 15 torpedo, on the other hand, often failed to detonate, had shorter range, and suffered problems with its depth settings. To make matters worse, the Americans were tardy in realizing the threat of the Type 93 and the deficiencies of their own torpedoes. They were slow, therefore, in developing tactics to offset the Japanese advantages.<sup>19</sup>

Overall, the deftness and creativity in which both sides used their technology would be just as crucial to the naval surface actions as the number of ships and amount of weaponry. For destroyers, both radar and torpedoes played a large role in combat proficiency. How Americans adapted them to the situation in the South Pacific affected the outcome of the surface actions.

Finally, the use of resources was a third factor in the naval surface actions. Japan could focus only on one naval theater of war, but it had limited industrial capability to replace ships lost in combat. Because of this limitation, the Japanese had to be wise in the ways they deployed and used their ships. During the Solomons campaign, America had not yet fully mobilized its industry and faced both Germany and Japan, so South Pacific commanders had to fight the war with relative few ships compared to later in World War II. Wasteful and inefficient handling of

<sup>&</sup>lt;sup>18</sup> Hughes, Fleet Tactics, 115; Louis Brown, A Radar History of World War II: Technical and Military Imperatives (Philadelphia: Institute of Physics Publishing, 1999), 135-140, hereafter Brown, Radar History.

<sup>&</sup>lt;sup>19</sup> A good discussion of American and Japanese torpedoes can be found in Stephen F. Davis, "Perfect in Every Respect: Battle of Vella Gulf," Naval History 22, no. 4 (August 2008): 26-33, hereafter Davis, "Battle of Vella Gulf"; more detail on the American torpedo development is covered by Robert Gannon, Hellions of the Deep: The Development of American Torpedoes in World War II (University Park, PA: The Pennsylvania State University Press, 1996).

ships, men, and supplies would doom military endeavors. The manner, therefore, in which the Americans and Japanese committed their ships to battle, especially destroyers, is very important.

During the Solomon Islands campaign, the United States Navy achieved victory in the night surface battles by being able to innovate in three key areas: (1) adaption of tactics and strategy; (2) implementation of technology; and (3) use of resources. These three factors influenced and relied upon each other so it is unrealistic to discuss them separately. The factors, therefore, will be discussed as a whole through three chapters of surface battles that correspond roughly with the phases of battle that made up the Solomon Islands campaign: Guadalcanal (August 1942-February 1943), New Georgia (February 1943-October 1943, and Bougainville (October 1943-December 1943). As one campaign was ending, the combatants were preparing for the next campaign which resulted in the phases overlapping one another chronologically. The dates listed, therefore, should be used as for general reference only and not as concrete timeframes. Studying the actions of the destroyers in selected battles from the campaigns illustrate the evolution of the three factors. As the following chapters show, the American learning curve was not a steady course to success. It involved a series of advances and setbacks that interacted with the Japanese learning curve as well. Both sides sought to learn from their experiences and craft a plan for victory that could withstand the dynamics and chaos of modern warfare. The Americans did not achieve victory because the Japanese sailors proved incompetent at surface warfare. Instead, the excellent performance of the Imperial Fleet forced the Americans to use all their available resources to achieve victory in the South Pacific seas.

### CHAPTER 2

### **GUADALCANAL PHASE**

In the early dawn hours of 22 August 1942, destroyers *Blue* and *Henley* searched the waters off Guadalcanal for a Japanese landing force reported to be in the area. They cruised back and forth across Iron Bottom Sound using their SC radar sets to penetrate the darkness of moonless tropical night. Twice, the *Blue* detected a fast-moving object on the SC radar but it quickly disappeared each time. Guns and torpedoes were trained on the object, but visibility was poor so no visual confirmation of the target could be obtained. The captain, Commander Harold N. Williams, assumed they had made contact with a friendly patrol craft.

Unknown to the Americans, the Japanese destroyer *Kawakaze* had been sent to the area to hunt for American ships. The ship did not possess radar, but it had well trained lookouts with superb night optical gear. When they spotted the American vessels, the captain, Commander Wakabayashi Kazuo, ordered a torpedo attack. The ship launched six Type 93 torpedoes and retired toward Savo Island. At 0359 local time, one of the torpedoes smashed into *Blue* wrecking her stern, stopping the main engines and killing two sailors. Twenty-two more were wounded. The torpedo damaged the ship so badly that the Americans could not tow the stricken ship to Tulagi harbor, so they had to scuttle her the next day. Once again, Japanese deftness at night attacks had added another ship to the depths of Iron Bottom Sound.<sup>20</sup>

Even though the action of 22 August was a minor skirmish, it illustrated the challenges faced by the American Navy in the nighttime naval battles of the Solomons campaigns. Neither side may have been fighting the war as foreseen in prewar plans, but the Japanese emphasis on

<sup>&</sup>lt;sup>20</sup> USS Blue, After Action Report, August 25, 1942, Box 854, Record Group (RG) 38, National Archives and Records Administration (NARA), College Park. Japanese perspective found in Frank, Guadalcanal, 162-166.

attritional nocturnal combat suited the situation in the Solomons more than American naval doctrine. As a result, the Imperial Japanese Navy punished the U.S. Navy severely in surface actions. Examination of ship losses illustrates this fact. During the Guadalcanal phase of the fighting, the Japanese lost 24 warships in the area while the Allies lost 25. These losses were due to airplanes, mines, and submarines in addition to surface actions. If only the surface actions are counted, the Allies lost 15 ships while the Japanese only lost 8.<sup>21</sup>

Originally, the Allies decided to attack Guadalcanal and Tulagi in order to counter Japanese threats against the shipping lanes between the United States and Australia. The Japanese had established a seaplane base at Tulagi and were constructing an airfield on the Lunga plain of Guadalcanal. These bases projected Japanese power too far south to suit the Americans, so Admiral Ernest King, Chief of Naval Operations and Commander-in-Chief of the United States Fleet, pushed for offensive action against them in order to seize the initiative and maintain the momentum gained by victories at Coral Sea and Midway. Officially, the United States had promised its allies that priority would be given to building up resources for an offensive against Germany. Thus, any offensive in the Pacific would have to be implemented with a scarcity of men and materiel.<sup>22</sup>

After the initial American landings, both sides raced to reinforce their troops on the island. For six months, the two foes battled in the air, at sea, and on land. The Japanese achieved the upper hand in the naval surface battles due to factors such as their intensive night training in combat. Despite this advantage, they failed to supply enough troops, medicine, and food to Guadalcanal. On land, they consistently underestimated American forces, so they

<sup>&</sup>lt;sup>21</sup> Statistics are found in Frank, Guadalcanal, 601-602.

<sup>&</sup>lt;sup>22</sup> Louis Morton, Strategy and Command: The First Two Years (Washington: Center for Military History, 1962), 305-323; Frank, Guadalcanal, 3-53.

squandered their men in suicidal attacks on a superior foe. In the air, the lack of nearby airfields and poor tactics proved disastrous for Japanese aircrews. Despite setbacks at sea, the Americans were more effective in getting additional troops and supplies to Guadalcanal. Due to all these factors, the Japanese were forced to admit defeat and evacuated the island in February 1943.<sup>23</sup>

The Americans and Japanese fought five major surface engagements during this phase: Savo Island, Cape Esperance, two nocturnal battles that comprised the Naval Battle of Guadalcanal, and Tassafaronga. Gradually, the Americans improved somewhat in their performance, but they still lost the final battle off Tassafaronga. Nonetheless, the American Navy acquired valuable combat experience. Each individual battle had its own cause and effect but studying the roles of the destroyers highlights the themes of tactical adjustment, technology implementation, and use of resources. For brevity's sake, only the Savo Island, Cape Esperance, and Tassafaronga battles are discussed as they amply illustrate these factors. In addition, not all of the destroyers are discussed, but selected ones illustrate the overall experience and key themes of the surface battles.

The Battle of Savo Island was briefly described in the Introduction. During that dark night of 8-9 August 1942, the American Navy suffered one of the worst defeats in its history.<sup>24</sup> The forces that fought the battle served under the overall command of Rear Admiral Richmond Kelly Turner who had responsibility for the entire amphibious force around the Guadalcanal area. Under Turner, Rear Admiral Victor Crutchley of the Australian Navy commanded the screen whose responsibility was to defend against surface attack. Various reasons given for the

<sup>&</sup>lt;sup>23</sup> Frank, Guadalcanal, 598-618; another good account of the Guadalcanal campaign can be found in Stanley Coleman Jersey, Hell's Islands: The Untold Story of Guadalcanal (College Station, TX: Texas A&M University Press, 2008).

<sup>&</sup>lt;sup>24</sup> General information about the battle found in Office of Naval Intelligence (ONI), Combat Narrative, Solomon Islands Campaign II: The Battle of Savo Island (Washington, 1943), hereafter ONI Combat Narrative II; Japanese perspective from Dull, Imperial Japanese Navy, 187-194, and Frank, Guadalcanal, 102-117.

defeat include the failure of Allied air reconnaissance, misinterpretation of intelligence by Rear Admiral Turner, dispersal of forces by Rear Admiral Crutchley, and the skill of the Japanese force. In addition, the Allied ships' crews had been operating with little sleep over the last few days and were surprised by the arrival of Japanese ships in their midst.

A majority of the destroyers in the Allied force came from Destroyer Squadron 4 (Desron 4) consisting of Destroyer Divisions 7 and 8 (Desdiv 7 and Desdiv 8). During the war, destroyers of the Pacific fleet were organized into destroyer squadrons that consisted of two or more destroyer divisions. Four ships made up a division. Outside the divisions, a separate destroyer served as flagship for the squadron. This type of organization served mainly as an administration function. Although squadrons could serve as battle units, they were often separated pursuing different tasks. Operationally, the navy organized into task forces made up of subordinate task groups and task units. Ship assignment to these forces could change frequently. The demands of war necessitated separation of squadrons among different task forces and groups, but the situation prevented a group of ships from training extensively together as a unit.

Five of the six destroyers that participated in the battle came from Desron 4 and its component divisions: Desdiv 7 and Desdiv 8 (*Patterson, Blue, Ralph Talbot, Bagley, and Helm*). *Wilson*, from Destroyer Division 15, replaced the Desron 4 ship *Jarvis* which had been badly damaged by an earlier Japanese air raid. The other vessels of Desron 4, including flagship *Selfridge,* guarded the transports anchored around Tulagi and Guadalcanal.<sup>25</sup> The replacement of *Jarvis* by *Wilson* instead of another ship from Desron 4 illustrated the Navy's lack of ability about keeping squadrons and divisions operating together.

<sup>&</sup>lt;sup>25</sup> Squadron and division organization found in Commander-in-Chief Pacific (Cincpac) Organization Report, August 1942, Box 240, Command Files, Pacific Fleet, Naval History and Heritage Command Center (NHHCC), Navy Yard, hereafter Cincpac Organization Report, August 1942.

Per Crutchley's orders, *Blue* and *Ralph Talbot* assumed their picket positions to the west of Savo an hour before sundown. The Allied ships assigned to the Northern and Southern groups assumed their positions to the northeast and southeast of Savo respectively as night fell on the southern Solomons. In case of attack, the Northern and Southern cruiser-destroyer groups would mutually support each other. If ordered, the destroyers of Desron 4 would form a striking force five miles to the northwest of Savo.<sup>26</sup> Crutchley and his flagship *Australia* was supposed to be in the Southern group, but Turner ordered him to attend a conference aboard the Task Force flagship *McCawley* near the Guadalcanal anchorage. Crutchley steamed away to the conference in *Australia* and left Captain Howard Bode of *Chicago* in command.

As Mikawa's force passed Savo and entered Iron Bottom Sound, the picket destroyers *Blue* and *Ralph Talbot* remained unaware of its presence. Earlier at 2345, *Ralph Talbot* detected Japanese cruiser float planes dispatched by Mikawa to drop flares over the Allied ships. The destroyers, however, could not identify the planes as enemy or friendly. *Ralph Talbot* radioed a warning to the commander of Desron 4 and the Task Force Commander but could not get the message through. Some ships did not possess the relatively new Talk Between Ships (TBS) shortwave radio that the *Ralph Talbot* used, so they did not get the warning. The commander of Desdiv 8, Commander Frank Walker in *Patterson*, received the message and passed it on to the Task Force Commander who finally received the message a little after midnight. No one connected the plane to an approaching enemy force.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup>Victor Crutchley, "Special Instructions to Screening Group and Vessels temporarily assigned", August 1942, Box 71, RG 38, NARA.

<sup>&</sup>lt;sup>27</sup> USS Ralph Talbot, After Action Report, September 1, 1942, Box 60, RG 313, NARA, hereafter AA Report, USS Ralph Talbot, September 1, 1942; USS Ralph Talbot, After Action Report, August 11, 1942, Box 71, RG 38, NARA, College Park, hereafter AA Report, USS Ralph Talbot, August 11, 1942; Frank, Guadalcanal, 104-105.

The SC radar that *Blue* and *Ralph Talbot* carried was an early version of search radar, but neither it nor human eyes detected the Japanese force. The Japanese sailors, however, spotted *Blue* and trained their guns on her but, blissfully unaware of being a target for the entire Japanese task force, she continued on her patrol vector away from the enemy ships. Relieved at not being detected, Mikawa ordered his forces forward and prepared to attack any American ships that he encountered. *Blue* spotted flashes around 0145, but detected no enemy ships and took no part in the ensuing battle. The only vessels that she saw was the *Jarvis* leaving the area after being damaged by bombs earlier in the day and a two-masted inter-island schooner.<sup>28</sup>

As Japanese cruiser *Chokai* led the force around the southern side of Savo Island, they spotted the Allied ships of the southern group in the darkness. Mikawa gave the order for torpedoes to be launched and they shot into the water toward the unsuspecting Allied vessels. While screening for the southern group of cruisers, *Patterson* first spotted the Japanese vessels at 0146. She radioed a warning to the rest of the fleet, but the Japanese had already attained their surprise. As the *Patterson* swung left so she could launch torpedoes, the sailors on board her spotted wakes from the Long Lances streaming by the ship. Fortunately for *Patterson*, none hit her. Commander Frank Walker, captain of the *Patterson* and commander of Desdiv 8, ordered the guns to open fire as the ship wheeled to the east and fought a running battle with the Japanese light cruisers *Tenryu, Furutaka*, and *Yubari*. The ship terminated action at 0200 when the enemy fleet steamed out of view toward the northeast.<sup>29</sup> In the meantime, the Japanese ships had pummeled *Patterson* and the other ships of the southern group mercilessly with guns and torpedoes. The destroyer had its number three gun disabled and a brief fire enflamed the aft

<sup>&</sup>lt;sup>28</sup> USS Blue, After Action Report, August 12, 1942, Box 237, RG 38, NARA; Japanese perspective from Frank, Guadalcanal, 103, and Dull, Imperial Japanese Navy, 187.

<sup>&</sup>lt;sup>29</sup> USS Patterson, After Action Report, August 13, 1942, Box 1296, RG 38, NARA.

portions of the ship. However, *Patterson* could still fight and maneuver. As for the heavier ships, a torpedo damaged the American cruiser *Chicago* and shells perforated the Australian cruiser *Canberra* causing it to list heavily. *Patterson* quickly steamed to the sinking ship's aid but the *Canberra* eventually slid under the waves.

*Bagley* had sighted the Japanese ships immediately after *Patterson*. The ship launched four torpedoes but did not confirm any of them hitting targets. Losing contact with the Japanese force, the destroyer started toward a rendezvous ordered by Admiral Crutchley. After his conference with Turner, the Australian admiral had decided to remain near the transports for the night. Once firing began, Crutchley had *Australia* steam to a position that placed it between the hostile forces and the transports and ordered the destroyers to congregate around him. Some ships became confused and went to the original rendezvous point specified in the admiral's orders. Others got lost in the darkness and mists and could not link up with the *Australia*. As for *Bagley*, she passed by a burning ship that turned out to be the *Astoria* of the Northern Group. The destroyer went to the sinking ship's aid and saw no combat for the rest of the night.<sup>30</sup>

Mikawa's force became separated during the first fight and steamed toward the Allied Northern group in two columns. They engaged the American ships in a murderous crossfire that eventually sank all three of the cruisers (*Astoria, Vincennes, and Quincy*). Destroyers *Helm* and *Wilson* were screening the northern force when they observed gunfire to the south about 0145. The column kept steaming ahead, but they had no knowledge of the Southern group's plan of action, nor whom exactly they were engaging in battle. Suddenly, the Japanese force illuminated the American vessels and opened fire. As the Japanese started firing on the Northern group, the *Helm* opened fire but immediately stopped because she could not discern targets. Ordered to

<sup>&</sup>lt;sup>30</sup> USS Bagley, After Action Report, August 12, 1942, Box 237, RG 38, NARA.

attack by the group commander in *Vincennes*, the destroyer headed to the south and confronted an unknown ship that turned out to be an American destroyer. The commander of Desdiv 7 ordered the destroyer to proceed to the rendezvous point as originally stated in Crutchley's orders. The ship's captain, Lieutenant Commander Chester Carroll, did not receive the message from Crutchley ordering him to a new meeting place, so the destroyer failed to meet up with the *Australia*. *Helm* saw no more combat that night and went to assist survivors from the sinking ships the next morning.<sup>31</sup>

*Wilson* received the *Patterson's* warning and observed the gunfire to the south. Readying for action, the ship was still surprised when Mikawa's force opened fire. The destroyer engaged various targets with its main batteries, narrowly avoiding a collision with another vessel that it identified as an American destroyer. After the action, the ship steamed toward Savo Island until she received reports of a Japanese cruiser in the same area. Spotting no cruiser, the *Wilson* feared she had been wrongly identified as an enemy vessel and left the area to avoid being fired upon by friendly ships. Like *Helm*, the *Wilson* conducted rescue operations the following morning.<sup>32</sup>

The final shots of the battle were fired by picket destroyer *Ralph Talbot*. The Japanese force sailed around Savo Island straight past the small *Ralph Talbot*. The destroyer's radar failed to detect the enemy ships a second time. At 0217, the American ship was illuminated and fired upon. Thinking that the ship was being fired upon by friendly vessels, the *Ralph Talbot* flashed recognition lights until it identified the attacking ship as a Japanese cruiser. Commander Joseph Callahan, ship's captain, ordered guns and torpedoes fired and the destroyer gamely fought the

<sup>&</sup>lt;sup>31</sup> USS Helm, After Action Report, August 12, 1942, Box 71, RG 38, NARA.

<sup>&</sup>lt;sup>32</sup> USS Wilson, After Action Report, August 20, 1942, Box 71, RG 38, NARA.

Japanese task force by itself. Several shots smashed into the destroyer causing it to list to starboard and setting it afire. Fortunately for the *Ralph Talbot*, Mikawa decided to end the action and return to bases at Rabaul and Kavieng. The Japanese hurriedly steamed by and action terminated by 0230. The American destroyer implemented effective damage control techniques and managed to limp back to its base for repairs.<sup>33</sup>

Thus, in under an hour the Japanese had sunk four cruisers, damaged a fifth, and scored hits on two destroyers. In return, *Chokai* and its sister ships had only received relatively slight damage from American gunfire. No torpedoes fired by the American destroyers hit their targets. According to post-battle analysis, division of forces, bad communications, ineffective use of radar, confused command structures, and lack of training in night combat all played a part in the American defeat.<sup>34</sup> Unbeknownst to the Americans at this time, they also possessed faulty torpedoes and did not realize the extreme range of the Japanese Type 93. Some of the torpedo hits suffered by the Allied ships were attributed to submarines because the Americans refused to believe that surface ships could score hits at long ranges with torpedoes.<sup>35</sup> As news of the disaster spread across the Allied high commands, officers studied the battle in order to learn lessons that would help in future engagements. They had a chance to use the lessons with the next major surface battle, Cape Esperance.

After several weeks of clashes on land, at sea, and in the air, both the Japanese and the Americans realized that Guadalcanal was crucial to the course of the Pacific war. Both sides reinforced their garrisons on the island. The Americans usually operated by day while the

<sup>&</sup>lt;sup>33</sup> AA Report, USS Ralph Talbot, September 1, 1942; AA Report, USS Ralph Talbot, August 11, 1942; Frank, Guadalcanal, 104-105.

<sup>&</sup>lt;sup>34</sup> Memorandum from Commander, South Pacific (Comsopac) to Cincpac, October 17, 1942,Box 71, RG 38, NARA; United States Navy Battle Experience #2, Chapter 15: Savo Island, Box 260, Battle Experiences, NHHCC.

<sup>&</sup>lt;sup>35</sup> ONI Combat Narrative II, 22, 41.

Japanese made their runs at night. In addition to reinforcements, the Japanese frequently bombarded Henderson Field, the American air base on Guadalcanal. As this caused disruption in both air and ground operations, the Americans realized that they needed to counter the Japanese night operations.

Trying to learn from the debacle at Savo, the Americans formed a cruiser-destroyer force, Task Force 64, under the command of Rear Admiral Norman Scott. Originally, the force consisted of two heavy cruisers (*Salt Lake City* and *San Francisco*), one light cruiser (*Boise*), and three destroyers from Desron 12 (*Farenholt, Laffey*, and *Buchanan*). Captain Robert G. Tobin commanded the destroyers from flagship *Farenholt*. Later, the light cruiser *Helena* and destroyers *Duncan* and *McCalla*, both from Desron 12 as well, reinforced the task force. These were the ships that fought at Cape Esperance.<sup>36</sup>

Scott formed a battle plan where the ships operated in a column led and trailed by destroyers with cruisers in the middle. They conducted night firing exercises and formulated a night fighting doctrine. According to this doctrine, the van destroyers would illuminate targets upon contact and fire torpedoes. After the torpedoes were in the water, both destroyers and cruisers would engage the enemy with gunfire. The last two cruisers in the column and the trailing destroyers would keep a watch on the disengaged side for other enemy forces. If ships became disabled, they were supposed to fall out on the disengaged side to avoid being hit by friendly fire. Scott stressed the importance of maintaining formation to facilitate identification

<sup>&</sup>lt;sup>36</sup> General information about the battle found in ONI Combat Narrative, Solomon Islands Campaign IV: Battle of Cape Esperance (Washington, 1943); Japanese perspective from Dull, Imperial Japanese Navy, 215-220, and Frank, Guadalcanal, 292-312.

between American and Japanese ships.<sup>37</sup> By the plan, Scott hoped to avoid the communication problems, dispersal of forces, misidentifications, and other problems encountered at Savo Island.

In early October, Task Force 64 helped cover a convoy of Army troops reinforcing Guadalcanal. They lingered for a couple of days outside of enemy air range near Rennell Island, located to the south of Guadalcanal, waiting for word of enemy ships approaching Ironbottom Sound. Finally, on October 11, 1942, American aircraft reported two cruisers and six destroyers steaming toward Guadalcanal. Scott ordered his force forward to intercept the Japanese ships. However, he remained unaware that two different Japanese forces were approaching.

The Japanese had decided to reinforce their island garrison again so they dispatched a Reinforcement Group consisting of the seaplane carriers *Chitose* and *Nisshin* escorted by six destroyers, all carrying troops and supplies. The American planes spotted this force but they did not detect another Japanese force sent to bombard Henderson Field.<sup>38</sup> This force, led by Rear Admiral Goto Aritomo consisted of three cruisers and two destroyers. The Reinforcement Group arrived that night off Tassafaronga on Guadalcanal and started unloading men and supplies. They would play no part in the upcoming battle.

While they worked, Scott sailed up the west coast of Guadalcanal. The heavy cruiser *San Francisco* served as his flagship, but it used the old SC radar set that had not operated very reliably in past battles. Several ships now had the newer SG radar that possessed improved detection characteristics and better optical scopes. The ships with SG radar detected Goto's force approaching from the west although they could not yet identify them. Maintaining radio silence, they did not inform the flagship. Scott felt he was steaming too far north so he reversed

<sup>&</sup>lt;sup>37</sup> Norman Scott, "Memorandum for Task Group 64.2", October 9, 1942, Box 239, RG 38, NARA.

<sup>&</sup>lt;sup>38</sup> The pilot incorrectly identified the two seaplane carriers as cruisers. Aerial reconnaissance frequently made errors in reporting ship types. This proved to be a problem on both sides during the war.

his column. By performing this maneuver, he inadvertently performed the classic naval tactical maneuver of "crossing the T" by placing his column ninety degrees relative to the approaching enemy column. In this position, he could use full broadsides against the force while they could only use their frontal batteries. The American column opened fire and pummeled the Japanese force despite communication misunderstandings over the bearing and identification of the enemy ships. As the ships began to radio information about the enemy contacts they failed to designate whether the reported bearings were true or relative to the column's position. Also, one ship used the designation "bogies" which usually meant aircraft instead of ships. <sup>39</sup>

Goto believed that American ships had cleared the Guadalcanal area so his ships were not alert as they should have been. Thus, they were caught by surprise as salvos started landing amongst their ships. By the time the action ended at 0020 on the morning of 12 October, Task Force 64 had sunk one cruiser and one destroyer and had damaged the other three ships of Goto's command. Goto himself received mortal wounds from American shells. Allied aircraft would draw more blood the following morning. As for Scott, he lost the *Duncan*, and received damage on the *Farenholt, Boise*, and *Salt Lake City*.

Scott's pre-action course change caused considerable disarray in the van destroyers. The rear admiral ordered a column movement, but his own flagship misunderstood him and made an immediate turn. The other ships followed the flagship, but the van destroyers were left behind. *Farenholt* and *Laffey* raced to reassume the van position while *Duncan*, detecting Goto's force, launched a torpedo attack on the Japanese ships. According to Lieutenant Commander Edmund

<sup>&</sup>lt;sup>39</sup> Task Force 64, After Action Report, October 22, 1942, Box 239, RG 38, NARA. When reporting the bearing of a contact, the crew could use either true or relative bearing. True bearing related to actual compass bearings. For example, a contact at 90 degrees true would be to the east. Relative bearing related to the direction of the friendly task force with 0 degrees being the direction in which the task force is heading. For example, a contact at 90 degrees being the direction in which the task force is heading. For example, a contact at 90 degrees relative would be to the right of a task force with no relation to cardinal direction.

Taylor, captain of the *Duncan*, he thought the *Farenholt* was starting to attack the approaching enemy vessels. Thus, he followed suit and the destroyer wound up charging the Japanese battle line by itself. *Duncan* engaged the cruisers with guns and torpedoes. As it maneuvered, the ship placed herself between the two opposing lines of ships. Shells started hitting the *Duncan*, killing sailors and starting fires. The ship flashed recognition lights to the American column, but some of the shells hitting the destroyer may have been from friendly vessels. The sailors tried to extinguish the fires and save the ship, but it had received too much damage and finally sank.<sup>40</sup>

*Farenholt*, as the destroyer squadron flagship, assumed the van position when ordered into column formation at 2223. Lacking search radar, she used the FC fire control radar to scan for enemy vessels. Possessing a much narrower beam than standard search radars, the FC radar was not as effective when examining large swaths of ocean. After Scott's shift in column direction at 2332, the destroyer found herself out of the van along with *Duncan* and *Laffey*. She moved to reassume the lead position, but the action started before she could accomplish that task. Shells from the American cruisers sailed over the destroyer but fortunately did not hit her. Admiral Scott momentarily ordered a cease fire to ascertain if the destroyers were indeed being hit by friendly fire. Captain Tobin, onboard *Farenholt*, reassured the Admiral so he ordered the firing renewed, although some ships had continued to pepper the Japanese with shots. *Farenholt* combated Goto's force using her main batteries, but she occupied a very exposed position. At 2348, shells began to hit the ship flooding the firerooms and causing a 30-degree list. By 0005 on 12 October, *Farenholt* had to withdraw from the fight. She stayed afloat and made it back to the base at Espiritu Santo for repairs.<sup>41</sup>

<sup>&</sup>lt;sup>40</sup> USS Duncan, After Action Report, October 16, 1942, Box 955, RG 38, NARA.

<sup>&</sup>lt;sup>41</sup> USS Farenholt, After Action Report, October 20, 1942, Box 980, RG 38, NARA.

The Americans achieved a victory at Cape Esperance although fortune played a bigger part than tactical skill. Americans only "capped the T" by chance and the Japanese lacked their normal alertness at night. Nonetheless, the American captains handled their ships well and American gunnery was fast and relatively accurate. The column formation had performed well even though it did not eliminate the confusion of maneuvering and fighting by night as the experiences of the *Farenholt* and *Duncan* attest. Some naval officers proposed that destroyers be separated and used as a distinct force apart from the cruisers. The difficulty of differentiating friend from foe at night, however, precluded the implementation of this plan at the time.<sup>42</sup> The ships with the new SG radar sets noticed improved search and targeting characteristics, but officers still did not appreciate the full usefulness of the technology in command and control as exemplified by Scott's choice of a flagship without the SG. Despite these difficulties, they were learning. Post-battle analysis recommended that flagships have the SG radar and also a tactical plot be established to correlate the TBS communiqués, radar contacts, and sight reports.<sup>43</sup> This concept would evolve into the combat information center discussed in the next chapter.

Tassafaronga became the final surface action of the Guadalcanal phase. Despite the experience attained in four previous night surface battles, an American cruiser-destroyer group sustained a humiliating defeat at the hands of a smaller Japan force that consisted solely of destroyers. Worse, most of the destroyers had supplies on their decks that inhibited their ability to fight and maneuver. The Japanese were trying to get supplies to their starving troops on Guadalcanal, so they devised a plan where destroyers hauled drums of food to the island. The ships would steam in at night and drop the drums in the water near the coast and let tides carry

<sup>&</sup>lt;sup>42</sup> United States Navy Battle Experience #3, Chapter 20, Cape Esperance, Box 260, Battle Experiences File, NHHCC, hereafter US Navy Battle Experience: Cape Esperance.

<sup>&</sup>lt;sup>43</sup> US Navy Battle Experience: Cape Esperance.

them ashore to be recovered by the ground troops. Unfortunately for the Japanese, American aircraft and torpedo boats would often use the drums as target practice the next morning.<sup>44</sup>

In late November, Rear Admiral Tanaka Raizo led a force of eight destroyers in a supply mission to Guadalcanal where they planned to drop food barrels off Tassafaronga Point. Six destroyers carried barrels on their decks while two others screened the group. The Americans received word that the Japanese would try a reinforcement run so Admiral William F. Halsey, Jr., now Commander South Pacific, ordered it to be intercepted. Earlier in the month, Halsey had ordered Rear Admiral Thomas Kincaid to form Task Force 67 which was another cruiserdestroyer force intended to replace the ones shattered at the Naval Battle of Guadalcanal. Kincaid devised an operational plan for his force but was replaced by Rear Admiral Carleton Wright two days before the battle. Wright adopted Kincaid's plan and reviewed it with the ships under his command that included four heavy cruisers (Minneapolis, New Orleans, Northampton, and *Pensacola*), one light cruiser (*Honolulu*), and four destroyers from assorted divisions (Fletcher, Drayton, Maury, and Cole). Commander William Cole of Fletcher, the senior destroyer captain, commanded the destroyer force. Another flag officer, Rear Admiral Mahlon Tisdale in Honolulu, commanded that ship along with Northampton. According to the plan, the four destroyers would lead the force followed by the cruisers. After radar contact, a night action would start by the destroyers firing torpedoes, followed by all ships engaging the enemy with gunfire. Starshells instead of searchlights would be used to illuminate because searchlights drew enemy fire.45

<sup>&</sup>lt;sup>44</sup> General information about the battle found in ONI, Combat Narrative, Solomon Islands Campaign VII: Battle of Tassafaronga (Washington, 1944); Japanese perspective from Dull, Imperial Japanese Navy, 254-258, and Frank, Guadalcanal, 500-518.

<sup>&</sup>lt;sup>45</sup> Carleton Wright, "Operational Plan 1-42, Appendix F", November 27, 1942, Box 241, RG 38, NARA.

Wright led his forces into Iron Bottom Sound from the east via Lengo Channel on the night of 30 November 1942. As they entered the Guadalcanal area, Task Force 67 passed an American transport group heading back to Allied bases in the rear. Per Halsey's orders, two ships from Desdiv 9 (*Lamson* and *Lardner*) left the transport group and joined Wright's force to provide reinforcement. They had no knowledge of the operational plan and Wright lacked the time to properly brief them. Therefore, he placed the two destroyers in the rear of the column.<sup>46</sup>

Meanwhile, Tanaka had arrived from the west and was unloading supplies near Tassafaronga. *Takanami* screened the force from the front while two destroyers started unloading under the watchful eye of Tanaka in *Naganami*. The four remaining destroyers under Captain Sato Torajiro steamed along the coast to a second drop point. This was the Japanese configuration when Allied radar detected them shortly after 2300. Around the same time, sharpeyed Japanese lookouts aboard *Takanami* warned Tanaka that Allied ships were approaching. He ordered ships to desist from supply operations and prepare to attack enemy ships.

The Americans initiated the action first with torpedoes followed by gunfire. Their SG radar helped them find targets but they unfortunately concentrated all their fire on the ship nearest to them which was *Takanami*. The unfortunate Japanese destroyer suffered many shell hits and became a flaming wreck. Sato's group blended in with the coast and remained undetected. Swinging around behind the American force, they launched a devastating torpedo attack. Tanaka's group fired Long Lances as well. All these torpedoes wrecked the American cruisers. *Northampton* sank and *Minneapolis, New Orleans,* and *Pensacola* suffered extreme damage. Only *Honolulu* remained undamaged and Admiral Tisdale led it in a sweep around

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<sup>&</sup>lt;sup>46</sup> Task Force 67, After Action Report, December 9, 1942, Box 241, RG 38, NARA, hereafter AA Report, TF

Savo Island. Barely afloat, the other three cruisers had to make repairs in the Guadalcanal area before being able to return to bases further south. All three cruisers would be out of action for over a year.<sup>47</sup> Tanaka's force retired from the area having lost only one destroyer. A simple supply mission had turned into a resounding victory for the Japanese.

The two destroyers of Desdiv 9 had trouble spotting targets and possessed little knowledge of the operational plan. Thus, they participated very little in the action. *Fletcher's* actions illustrate the general experiences of the van destroyers. According to Commander Cole's report, the destroyer made radar contact at 2310. By 2316, the ship had calculated a firing solution for its torpedoes with a range of 7,000 yards and requested permission to launch. Admiral Wright denied permission due to concerns over the range being too great. According to *Fletcher's* executive officer, Joseph Wylie, it was foolish for a destroyer to waste time by requesting permission to fire if a destroyer had a good solution. Cole did not receive authorization until 2321 by which time the good firing solution had changed to a poor one. Ten torpedoes hit the water, but no hits could be confirmed. *Fletcher* and the other destroyers fired their main batteries until they passed by the Japanese ships and away from the action. As the ship maneuvered around Savo Island to get back into combat position, the cruisers got hammered by the torpedoes.

According to Wylie, Wright censured Commander Cole for firing the torpedoes with a poor solution and not supporting the cruisers more effectively. Cole got relieved of command, but subsequent investigations vindicated his actions and he went on to command a destroyer

<sup>&</sup>lt;sup>47</sup> Frank, Guadalcanal, 515.

squadron during the Philippines campaign.<sup>48</sup> In the words of one prominent historian, "it seems clear that Wright's hesitation spoiled the torpedo attack and Cole's maneuvers precisely paralleled those of Admiral Tisdale in *Honolulu*, who escaped criticism."<sup>49</sup> At the time, however, Cole's superiors criticized his actions. In his report, Wright indicated that the torpedo solution used by Cole was bad and complemented the destroyers that did not fire their torpedoes. A report by Nimitz also criticized the destroyers for not closing within 4,000 yards before firing torpedoes. The 7,000 range, however, was well within the operational ranges of the Mark XV torpedo. Such a situation displays the accusations and finger-pointing associated with a devastating loss.<sup>50</sup>

Cole did not lead the cruisers into a devastating torpedo attack, nor did he cause many of the problems that resulted in the severe defeat suffered by the American Navy that night. Americans still lacked an appreciation for the Long Lance. Wright and Nimitz believed that submarines or an alternate force of cruisers and destroyers in the area fired some of the torpedoes that hit the cruisers. They had trouble believing that the Long Lances could have all originated with Tanaka's force, and they refused to believe reports from captured Japanese that lookouts spotted American ships in the dark night. Instead, they believed that the Japanese intercepted TBS transmissions that warned them of the American's presence. Such ignorance of Japanese capabilities would continue into future campaigns. The battle also generated discussions about keeping destroyers tethered to the cruiser column as well as the use of heavy cruisers in such restricted waters. In addition, American commanders began to realize that the constant shifting

373.

<sup>&</sup>lt;sup>48</sup> Samuel Eliot Morison, Leyte: June 1944-January 1945 (Edison, New Jersey: Castle Books, 1958, 2001),

<sup>&</sup>lt;sup>49</sup> Frank, Guadalcanal, 516.

<sup>&</sup>lt;sup>50</sup> USS Fletcher, After Action Report, December 3, 1942, Box 241, RG 38, NARA; Joseph Wylie Oral History File, Naval War College, Newport, Rhode Island, hereafter Joseph Wylie Oral History; Cincpac Operations Report, February 15, 1943, Box 236, Command Files, Pacific Fleet, NHHCC, hereafter Cincpac Report, February 15, 1943.

of ships and commanders between groups not only affected training but inhibited team cohesion in battles. A force that trained together for night actions would be far more effective. <sup>51</sup>

The brief descriptions of these three battles (Savo Island, Cape Esperance, and Tassafaronga) provide examples of how destroyers conducted surface combat actions. In addition, they illustrate the three key factors discussed earlier: tactical evolution, use of resources, and adaption of technology. As mentioned in the Introduction, prewar American naval tactics centered upon fighting a Mahan style battle in the open ocean with battleships as the key element. Carriers, cruisers, destroyers, and submarines all had their role but as supporters and protectors of the battle line.<sup>52</sup> The situation in the restricted waters of the Solomons necessitated a change in tactical thought. Battleships were not ideally suited for use in such an area because they lacked room to maneuver and became susceptible to attacks by lighter craft. The only night surface battle in which they fought during this time was the Naval Battle of Guadalcanal and Halsey only dispatched them to the area because he had nothing else to send.<sup>53</sup> Thus, the lighter vessels assumed preeminent roles in such combat. Over the course of the battles, all thirteen heavy cruisers dispatched to the area had either been sunk or damaged. Naval leaders noticed that light cruisers and destroyers fared better in the night battles than heavier ships. As the action moved into the New Georgia area, the resultant task forces would display this lesson.<sup>54</sup> Destroyers, especially, would play a bigger role.

<sup>&</sup>lt;sup>51</sup> Cincpac Report, February 15, 1943; AA Report, Task Force 67; United States Navy Battle Experience #5, Chapter 31: Tassafaronga, Box 261, Battle Experiences, NHHCC.

<sup>&</sup>lt;sup>52</sup> Examples of prewar naval tactical doctrine can be found in documents such as Fleet Tactical Publication #143, War Instructions, United States Navy, 1934, Box 108, War Instructions, NHHCC, hereafter FTP 143, War Instructions; a good secondary source that discusses prewar doctrine is Thomas Hone and Trent Hone, Battle Line: The United States Navy, 1919-1939 (Annapolis: Naval Institute Press, 2006), 68-89.

<sup>&</sup>lt;sup>53</sup> William Halsey and J. Bryan, Admiral Halsey's Story (New York: McGraw-Hill Book Company, 1947), 128-129.

<sup>&</sup>lt;sup>54</sup> Frank, Guadalcanal, 516.

The battles around Guadalcanal demonstrated the evolution of Allied tactics. At Savo Island, Crutchley's disposition of his forces looked good on paper. All avenues of attack appeared to be covered, but the dispersal of forces led to defeat, confusion, and lack of support among the groups. Night battles turned into fast and furious melees that only lasted for a short time period. There were no long periods of scouting, maneuvering, and fighting as in Mahan style battles. Thus, a force had to be well trained, familiar with the characteristics of the other ships in the formation, and in possession of a good plan. After Savo Island, the American navy thought the solution was to keep their forces concentrated in a single column of ships. This tactic apparently worked well at Cape Esperance but ended in disaster at Tassafaronga. Obviously other factors such as training needed to be considered.

Prewar tactical instructions stressed that night combat should be avoided by the battle line with only destroyers making nocturnal torpedo attacks to disrupt an enemy fleet. As a result, training in night combat was neglected by the navy prior to the war. According to one officer, his ship never trained in night tactics prior to the war. <sup>55</sup> Thus, the Japanese had the upper hand in training. As the war progressed, more night training was conducted by the navy but the constant shuffling of ships between task forces and combat losses hampered efforts to build a well-trained night fighting force.

The use of resources emerges as a second key factor. Nimitz and his commanders began to realize that keeping ships together as a unit made them more effective in battle, especially the destroyer divisions and squadrons. The ships available to naval commanders in the South Pacific, however, were limited and the number of missions numerous. Convoys had to be

<sup>&</sup>lt;sup>55</sup> FTP #143, War Instructions, 119; WPL-6, Destroyer War Instructions, United States Navy, 1922, Box 5, RG 38, NARA; William Jones Oral History File, East Carolina University, Greenville, North Carolina, hereafter William Jones Oral History.

escorted, carriers screened, and patrols conducted. Ships also had to go stateside to repair battle damage or to have normal maintenance conducted. Often, commanders had to grab the first ship available for a particular mission. Thus, no set group of ships operated together for very long. As will be seen, these lessons in tactics and resources were carried by the Navy into the New Georgia campaign with mixed results.

As for adaption and use of technology, radar, communications, and torpedoes became the critical factors. During this phase, American naval officers recognized the importance of radar, particularly the newer SG models. Radar aided ships not only in battle but in other areas such as navigation. Radar benefited the Americans in many ways; however, they did not always use it effectively. American forces had a tendency to concentrate their fire on the largest blips and neglect the other ships displayed on their radar. In order to be more effective, they needed to learn to disperse their fire among targets. This problem would plague the Americans throughout the Solomons campaigns. As combat shifted to the New Georgia area, radar occupied center stage so a more detailed discussion about this topic is found in Chapter 3. Communications such as TBS were relatively new. As demonstrated at Savo, lack of effective communications between ships could cripple a force's fighting ability. As TBS became common, ships had to use standard terminology and remember to clarify expressions such as relative versus true bearing.

Torpedoes bedeviled the Americans during this phase. As a general rule, American guns and gunnery techniques operated well although they realized that they needed flashless powder as opposed to smokeless powder during night fights. American torpedoes, however, failed miserably. They often ran too deep and passed beneath their targets and the magnetic contact exploders failed to work. Torpedo tests conducted by destroyers during the early days of the war failed to reveal the problems with the depth running mechanisms and magnetic contact

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exploders. According to Russell Crenshaw, an officer on board *USS Maury*, they used dummy warheads and the torpedo was intentionally set to run under the practice target so it could be recovered afterward. Therefore, it was impossible for the tests to detect problems with contact exploders and depth mechanisms. A random survey of test reports early in the war failed to find any of them documenting problems with the depth runs or exploders. Combat performance, however, convinced many sailors that the torpedoes had big problems. Joseph Wylie, executive officer on *Fletcher*, reported that they disabled their magnetic exploders and used contact exploders during the Naval Battle of Guadalcanal in November 1942. They also set the torpedoes to run at the shallowest setting. By 1943, memos circulated reminding officers to disable the magnetic contact exploders and to adjust depth settings.<sup>56</sup>

Unfortunately for the Americans, they were slower in grasping the capabilities of the Japanese Type 93. After Tassafaronga, they respected the Japanese torpedo but still did not recognize its incredible range as evidenced in reports blaming submarines for American losses. The torpedo had been developed some years before the war so why had American intelligence not realized the lethal potential of the weapon? According to Arthur McCollum, head of the Office of Naval Intelligence Far East Desk prior to the war, it was hard to obtain reliable information on Japanese weapons not only due to their secrecy but because many people dismissed the capabilities of Japanese designers because they deemed them racially inferior. Thus, any report that they had developed something superior to the Americans was met with scorn. Any technical information that Intelligence gathered had to be sent to one of the Navy's technical bureau. In the case of the Type 93, Naval Intelligence reported to the Bureau of

<sup>&</sup>lt;sup>56</sup> Torpedo exercise reports found in Commander Destroyer Pacific Fleet(Comdespac) Flag Files, Boxes 20 and 40, RG 313, NARA; Russell Crenshaw Oral History, East Carolina University, hereafter Russell Crenshaw Oral History; Joseph Wylie Oral History; Memos from Comdespac to destroyer commanders, June 12, 1943 and July 20, 1943, Box 340, Command Files, Comdespac, NHHCC.

Ordnance prior to the war that the Japanese had developed a 24-inch torpedo with a 1000kg warhead that had a range of 10,000 yards at 45 knots. The Japanese torpedo actually had a test range of 22,000 yards. The Bureau of Ordnance did not like outsiders intruding upon its affairs, they favored the gun over the torpedo, and they had a bureaucracy that impeded efficient reaction to reports such as Long Lance. For all these reasons, they refused to believe that the Japanese could develop a better torpedo than the Americans and forced Intelligence to rescind the report. Only during the war would American naval officers and sailors realize what the Long Lance could do to a fleet caught unaware. This legacy carried into the New Georgia phase.<sup>57</sup>

The American Navy learned much during the Guadalcanal phase that would help it during the coming battles in the Central Solomons. However, it still faced several setbacks before it finally developed a winning formula for these night battles. As the Americans inched slowly up the Solomon Ladder, the role of the destroyers continued to grow.

<sup>&</sup>lt;sup>57</sup> Arthur McCollum Oral History, NHHCC; for other reports of officers trying to deal with the obtuseness of Bureau of Ordnance, see Raymond Calhoun, Tin Can Sailor: Life Aboard the USS Sterett (Annapolis: Naval Institute Press, 1993), 49, hereafter Calhoun, Tin Can Sailor; and Russell Crenshaw, South Pacific Destroyer: The Battle for the Solomons from Savo Island to Vella Gulf (Annapolis: Naval Institute Press, 1998), 231-234, hereafter, Crenshaw, South Pacific Destroyer.

## CHAPTER 3

## NEW GEORGIA PHASE

During the early evening of 5 March 1943, Japanese destroyers *Minegumo* and *Murasame* set out from Shortland Island to resupply their airbase on Kolombangara Island. The base had been built on the southeastern tip of the island at Vila which gave the Japanese two options in accessing the area. They could steam through the narrow Blackett Strait to the south, or they could use the broad Kula Gulf to the east that separated Kolombangara from the nearby island of New Georgia (reference Map in Appendix). Captain Tachibana Masao chose to lead the two vessels through Blackett Strait. He anchored off Vila and started unloading supplies. By midnight, they had finished unloading operations and prepared to return to their base at Shortland. Tachibana opted to return via Kula Gulf because it would be easier to navigate in the moonless night than Blackett Strait. This decision would cost the Imperial Navy two destroyers.<sup>58</sup>

As Tachibana's force headed north, an American task force under Rear Admiral Aaron Merrill comprised of three light cruisers and three destroyers rounded the tip of New Georgia and entered Kula Gulf. Admiral Halsey had dispatched the ships to bombard the Vila airfield while a smaller force of four destroyers bombarded Munda airfield on New Georgia. As Merrill's force steamed through Kula Gulf, a radar-equipped PBY patrol plane known as a Black Cat scouted ahead of his vessels. A radio message from Guadalcanal had warned Merrill that two Japanese light cruisers had been spotted heading towards New Georgia. The admiral

<sup>&</sup>lt;sup>58</sup> Information on the action with the Murasame and Minegumo found in ONI Combat Narrative, Solomon Islands IX, Bombardment of Vila-Stanmore and Munda (Washington, 1944); and Task Force 68, After Action Report, March 9, 1943, Box 243, RG 38, NARA; Japanese perspective found in Dull, Imperial Japanese Navy, 272-273 and Morison, Bismarck's Barrier, 106-110.

decided to proceed with the bombardment while remaining alert to the presence of any Japanese ships in the area.

As his ships navigated their way to Vila, radar plot detected a blip that it interpreted as being Sasamboki Island. However, the "island" started moving and separated into two distinct blips. Aware that he had detected enemy ships, Merrill closed his force to within 10,000 yards and opened fire. Tachibana's force steamed in column with *Murasame* leading *Minegumo*. Aiming at the largest blip on the radar screen, the American force concentrated fire on the *Minegumo* until it stopped moving and became a floating funeral pyre. A torpedo from *Waller* added the coup de grace a few minutes later and she sank by 0115. *Murasame* tried to return fire, but quickly became inundated with six-inch and five-inch shell fire. Outgunned, she slid under the waves by 0130.<sup>59</sup> The United States fleet had won another night surface action.

After securing a foothold in the southern Solomons with the victory at Guadalcanal, the Americans sought to neutralize the Japanese base at Rabaul and penetrate the enemy perimeter of island strongholds in the Pacific. Their next move would be an assault on New Georgia and other islands of the Central Solomons as part of an overall South Pacific strategy that also involved campaigns in New Guinea. The first half of 1943 saw the Americans bombarding Japanese bases around New Georgia combined with air raids and naval mining operations. In late June 1943, an American force invaded the New Georgia Island group sparking another violently fought campaign. Despite tactical problems with their ground forces, the Americans

<sup>&</sup>lt;sup>59</sup> Most accounts such as Morison, Bismarck's Barrier, 106-110, and Dull, Imperial Japanese Navy, 272, state that the Americans fired upon Murasame first. According to this view, Minegumo then steamed to the east of Murasame's burning wreck and headed north where Merrill's force then engaged and sank Minegumo. New research into Japanese records by Professor Ronnie Day at East Tennessee State University indicates that Minegumo was the first target fired upon. Being a larger ship than Murasame, Minegumo would have showed up on American radar screens as a bigger blip. In support of this research, the account in Task Force 68, March 9, 1943 clearly states that the American force fired on the second ship in the enemy column which showed as a bigger blip on their radar screens, not the first as reported in Morison and Dull.

eventually achieved victory by the end of October after another arduous land-sea-air contest that included several night surface actions. Once again, the Americans suffered heavy losses in these battles, but they showed overall improvement and had crafted a winning combination of strategy, technology, and resource use that would serve them well in future campaigns in the Northern Solomons.<sup>60</sup>

As the Allied and Japanese forces shifted their attention to the Central Solomons, the American Navy sought to apply lessons learned during the bloody months around Guadalcanal. Unlike August 1942, the American Navy now boldly steamed into enemy areas on night missions. They were making more effective use of radar not only on board their ships but in planes such as the Black Cats. As before, destroyers played a major role in the campaign and even fought some actions without the heavier cruisers. Newer ships such as the *Fletcher*-class destroyers now arrived in the area in significant numbers boosting American combat capability. Commanders still had to shuttle ships back and forth among a multitude of tasks, but the naval forces fighting in these battles maintained more unit coherence than before. This allowed them to train together and become familiar with items such as operational plans and communications procedures that forged a more effective force. However, the Japanese Navy still fought aggressively and with skill. They would inflict defeats upon the Americans despite American advantages in radar and new ships.

Six major surface actions occurred during this phase: the action with the *Murasame* and *Minegumo*; Kula Gulf; Kolombangara; Vella Gulf, a destroyer action off Horaniu (a station on Vella Lavella); and Vella Lavella. Overall, destroyers would play a larger role than in previous

<sup>&</sup>lt;sup>60</sup> Descriptions of the New Georgia campaign are found in Morison, Bismarck's Barrier, 138-253; John Miller, Cartwheel: The Reduction of Rabaul (Washington: Center for Military History, 1959), 67-188, hereafter Miller, Cartwheel; and Eric Hammel, The Munda Trail (Pacifica, CA: Pacifica Press, 1999).

battles. The emergence of this enhanced role partially resulted from cruiser losses that often left destroyers as the only available ships; however, American commanders were also beginning to realize the true potential of the destroyer and their torpedoes in these night actions. Americans finally began to deal with their torpedo problems and destroyers would increasingly use them with skill, but they still underestimated Japanese torpedoes and suffered the consequences. A small victory at Kula Gulf in early July was followed by a devastating defeat at Kolombangara a week later where Japanese torpedoes smashed an American cruiser line. In early August, the American Navy performed admirably at Vella Gulf and won an overwhelming victory against the Japanese forces. Significantly, only destroyers participated in the battle. However, the winning formula constructed at Vella Gulf did not prove to be a cure all for American naval doctrine. It had to be applied wisely and in the right situation. The action off Horaniu later in the month proved indecisive and the Americans suffered a slight defeat off Vella Lavella in October. Nonetheless, the American Navy now had a viable doctrine that could be used to great effect in the hands of a well-trained force and skilled commander.

In order to illustrate the key factors of tactical evolution, resource use, and technology implementation, the experiences of the destroyers at Vella Gulf and Vella Lavella are discussed in detail. The Battle of Vella Gulf in early August 1943 signified a key turning point in the naval night battles. <sup>61</sup> An American task group of six destroyers sank an entire Japanese force consisting of four destroyers without suffering any major damage to their own ships. They accomplished this feat not through the use of gunfire, the key weapon in the eyes of many

<sup>&</sup>lt;sup>61</sup> General information about the battle found in ONI, Combat Narrative, Solomon Islands Campaign XI: Kolombangara and Vella Lavella (Washington, 1944), hereafter Combat Narrative XI; and Commander Destroyer Division 12, After Action Report, August 16, 1943, Box 26, RG 313, NARA, hereafter AA Report, Comdesdiv 12; Japanese perspective from Morison, Bismarck's Barrier, 212-222; Dull, Imperial Japanese Navy, 278-279; and Tameichi Hara, Japanese Destroyer Captain (New York: Ballatine Books, 1961), 178-195, hereafter Hara, Japanese Destroyer Captain.

American naval tacticians, but by using torpedoes. At Vella Gulf, American sailors overcame deficiencies in torpedoes and took advantage of their superiority in radar to inflict a crushing defeat on the Japanese destroyers. This victory boosted American morale and demonstrated that the Japanese Navy was not infallible on the nocturnal seas.

The destroyers that fought at Vella Gulf came from a striking force stationed at Tulagi. In early 1943, American commanders decided to station a destroyer striking force at Tulagi to provide local commanders with a core group of destroyers for use in various missions around Guadalcanal and New Georgia. Instead of having to steam from bases located at Espiritu Santo, Efate, and New Caledonia, these vessels could now operate from a base located in close proximity to the combat zone. The force was a fluid organization consisting of five to eight destroyers that routinely rotated in and out of the station.<sup>62</sup> Command of the force also changed frequently because the duty was assumed by the senior destroyer officer present in the area instead of by a permanent commander. The group conducted bombardment, mining, and resupply missions around New Georgia in addition to reinforcing cruiser-destroyer task groups sent to combat the enemy navy.

In July 1943, Commander Arleigh Burke assumed command of the group, now designated Task Group 31.2, when part of his Desdiv 44 was posted to the area. Burke developed a battle plan for his destroyers if they encountered enemy surface forces around New Georgia while conducting their various missions of bombardment and resupply. Since arriving in the South Pacific in early 1943, Burke had been studying the results of battles and training exercises trying to craft an effective destroyer doctrine to use in the nocturnal surface battles.<sup>63</sup>

 <sup>&</sup>lt;sup>62</sup> Crenshaw, South Pacific Destroyer, 56.
<sup>63</sup> Arleigh Burke Oral History, NHHCC, hereafter Arleigh Burke Oral History.

He got a chance to test his doctrine in the later battles of Empress Augusta Bay and Cape St. George fought during the Bougainville campaign in November 1943.<sup>64</sup> For the time being, however, Burke had to leave the combat area for another assignment before he got a chance to implement his plan. The responsibility of leading Task Group 31.2 now fell to Commander Frederick Moosbrugger.

On 3 August 1943, Moosbrugger, commander of Desdiv 12 and senior destroyer officer present, took command of Task Group 31.2, which at that moment consisted of six destroyers divided into two sections. Moosbrugger's Desdiv 12 flagship, *Dunlap*, and two destroyers from Desdiv 11, *Craven* and *Maury*, made up the first section designated as Division A-1. Commander Rodger Simpson, commander of Desdiv 15, led the second section that was designated Division A-2 and included *Lang*, *Sterett*, and *Stack*, all from Desdiv 15.<sup>65</sup>

On 5 August 1943, Rear Admiral Theodore Wilkinson, Halsey's amphibious forces commander, ordered Moosbrugger to take Task Group 31.2 and conduct a sweep of Vella Gulf. Intelligence reports indicated that Japanese ships would steam through Vella Gulf to Kolombangara with troops for the Munda battlefield. Vella Gulf lay on the opposite side of Kolombangara from the well-traveled Kula Gulf. American vessels had patrolled Kula Gulf many times but had rarely ventured into Vella Gulf. The islands of Vella Lavella, Gizo, and Kolombangara framed Vella Gulf on three sides with the fourth side open to the waters of New Georgia Sound. In addition to New Georgia Sound, ships could enter the gulf via Gizo Strait

<sup>&</sup>lt;sup>64</sup> A full discussion of Burke's tactical doctrine is included in Chapter Three which covers the Bougainville campaign.

<sup>&</sup>lt;sup>65</sup> Divisions A-1 and A-2 were local organizational designations and possessed no official administrative functions, so they should not be confused with official Navy destroyer divisions such as Desdiv 12 and Desdiv 15. Craven and Maury's assignment to Desdiv 11 taken from Cincpac Organization Report, July 1943, Box 240, Command Files, Pacific Fleet, NHHCC. Other accounts such as Combat Narrative XI classify these two destroyers as being part of Desdiv 12.

between Gizo and Vella Lavella or Blackett Strait between Gizo and Kolombangara. Blackett Strait continued around the south of Kolombangara into Kula Gulf.

Destroyer officers had long complained about their ships being tied to a battle line of cruisers. They coveted independent action where they could be free to conduct torpedo attacks on the enemy without waiting for permission from a cruiser task force commander.<sup>66</sup> With no cruisers available to accompany them, Moosbrugger and his sailors would finally get their chance to fight a surface battle without having to screen bigger warships. After discussing Burke's plan with Simpson, Moosbrugger decided to use it on this mission. According to this plan, the American destroyers would enter Vella Gulf via Gizo Strait. Once in the gulf, Division A-1 would lead the force north along the coast of Kolombangara toward New Georgia Sound while Division A-2 steamed in a separate column off the starboard rear quarter of Division A-1. If the destroyers happened to encounter enemy ships, Division A-1 would approach and launch a torpedo attack, hopefully catching the Japanese by surprise. This division would then veer away to avoid Japanese torpedoes and get into position to engage with gunfire. Division A-2 would cover the first division with its guns while it conducted the initial torpedo attack. After the torpedoes hit, Division A-2 would engage with gunfire and launch a second torpedo attack if necessary. The two forces could keep track of each other's location using the SG radar and communicate by TBS.

Rear Admiral Wilkinson approved the plan and Moosbrugger's force departed Tulagi at 1130 on 6 August. A little after 1730, Moosbrugger received a report that a search plane had spotted a Japanese force headed for Vella Gulf that could possibly arrive that night. This report verified the earlier intelligence provided by Rear Admiral Wilkinson. The destroyers

<sup>&</sup>lt;sup>66</sup> Morison, Bismarck's Barrier, 212.

approached the New Georgia group from the south, passing Rendova Island and arriving off Gizo near 2200 that evening. Assuming positions as called for in the plan, the force proceeded through Gizo Strait into Vella Gulf searching the dark, overcast night with SG radar. After cruising eastward towards Blackett Strait, the force turned north and steamed along the western shores of Kolombangara. *Dunlap* made a radar contact at 2318 and spent some time tracking it before operators determined it to be a phantom contact. Immediately after discarding the phantom, the *Dunlap's* radar operators reported another blip at 2333. This blip would prove to be no phantom.<sup>67</sup>

Four Japanese destroyers had entered Vella Gulf that night, steaming toward Blackett Strait. With Kula Gulf increasingly patrolled by American ships, the Japanese had started using Vella Gulf for their resupply missions. The format of such missions had been repeated a few times in past weeks and had proved successful for the Japanese. Per the plan, they would cruise through Vella Gulf using darkness to shield them from Allied air attack. Entering Blackett Strait, the destroyers would unload supplies or troops onto waiting barges that would then transfer the materiel and men to Kolombangara. After unloading, the destroyers would head back to their bases at Shortland or Rabaul hopefully avoiding contact with Allied aircraft. For this particular mission, destroyers *Hagikaze, Arashi, Kawakaze,* and *Shigure* had departed Rabaul at 0300 on August 6 under the command of Captain Sugiura Kaju. The ships carried over 900 troops and 50 tons of supplies for the garrison on Kolombangara. Captain Hara Tameichi, commander of *Shigure,* had just completed a mission to Kolombangara a few days earlier using the same plan. He was concerned about repeating the same format and feared that the Allies would discern the Japanese intentions and be waiting with an ambush. Hara voiced

<sup>&</sup>lt;sup>67</sup> USS Dunlap, After Action Report, August 18, 1943, Box 955, RG 38, NARA, hereafter AA Report, USS Dunlap.

his concerns in an 4 August conference of officers held to discuss the mission, but Sugiura overruled him and decided to proceed.<sup>68</sup>

The Japanese ships cruised into Vella Gulf with Hagikaze leading Arashi and Kawakaze. Shigure's old engines prevented her from maintaining the same speed as the other destroyers so she lagged slightly behind the other ships in the rear. The Japanese sailors remained unaware that they were being tracked by American radar. Dunlap's radar now showed four blips on its screen. Moosbrugger reported the contacts on TBS and got verification from Craven that other ships were also picking up the contacts on their radar. At 2340, Moosbrugger implemented his plan of attack by ordering the ships of Division A-1 (Dunlap, Craven, and Maury) to launch torpedoes. At a range of roughly 4,500 yards, twenty-four torpedoes hit the water and headed for the Japanese column. Moosbrugger then led his ships in a turn towards the east in order to avoid possible Japanese torpedoes. After several long minutes, the Americans detected three huge explosions followed by a succession of smaller explosions. They had achieved their surprise torpedo attack.69

The torpedoes had hit the first three Japanese destroyers (Hagikaze, Arashi, and *Kawakaze*). *Kawakaze* took a direct hit into one of her magazines and exploded in a huge fireball. *Hagikaze* and *Arashi*, although both crippled by hits, tried to fire at the American destroyers. According to Hara, Shigure's lookouts had spotted the American ships moments before the explosions and had launched her own torpedoes into the water. Spotting torpedo wakes, Hara ordered the *Shigure* to conduct evasive maneuvers. One torpedo hit *Shigure* in the rudder, but fortunately for the Japanese, it proved to be a dud. None of the torpedoes fired by the

 <sup>&</sup>lt;sup>68</sup> Hara, Japanese Destroyer Captain, 185-187.
<sup>69</sup>AA Report, Comdesdiv 12; AA Report, USS Dunlap.

Japanese destroyer hit any targets. Temporarily withdrawing from the action under the cover of a smokescreen, *Shigure* began to reload torpedoes and prepare for a second attack.<sup>70</sup>

Per Moosbrugger's plan, Simpson led the ships of Division A-2 (Lang, Stack, Sterett) in a sharp turn to the southwest after Division A-1 fired torpedoes. After these torpedoes exploded, Lang opened fire on the burning Japanese vessels with her 5-inch guns at 2346 followed by the Sterett a minute later. The torpedo officer aboard Stack reported to the captain that he had a good firing solution so that destroyer launched four torpedoes at the enemy before joining Lang and *Sterett* in hosing the Japanese with 5-inch fire.<sup>71</sup> Their target was probably *Kawakaze* which sank quickly. After turning south to rejoin the action, the ships of Division A-1 also started firing on the Japanese vessels at 2355. These ships continued firing as the division swung to the northwest passing just to the north of the burning wrecks. While they kept watch for other enemy forces, Division A-2 changed course to the east and mopped up the damaged Japanese ships. The gunfire coming from *Arashi* and *Hagikaze* had ended by midnight, but they continued to receive punishing fire from both American divisions. At 0010, Arashi exploded in a huge fireball seen for miles around. The floating wreck of Hagikaze became the sole target of the Americans a few minutes later and also exploded and sank. Torpedoes from Lang finished off the Arashi by 0030.

Meanwhile, *Shigure* had reloaded torpedoes and returned to the scene of action. Hara could not establish radio contact with his fellow destroyers and he quickly surmised that they had been sunk. After seeing *Arashi's* explosion, Hara realized that it would be suicide to remain in

<sup>&</sup>lt;sup>70</sup> Hara, Japanese Destroyer Captain, 188-191; Morison, Bismarck's Barrier, 217-218.

<sup>&</sup>lt;sup>71</sup> USS Stack, After Action Report, August 14, 1943, Box 1445, RG 38, NARA; USS Sterett, After Action Report, August 10, 1943, Box 1450, RG 38, NARA; USS Lang, After Action Report, August 15, 1943, Pemberton Southard Papers, East Carolina University.

the area. He contacted Rabaul and received permission to withdraw. As for the survivors of the Japanese destroyers, their only hope was to make their way to nearby Kolombangara. As ordered by Moosbrugger, Simpson's division tried to pick them up as prisoners but the Japanese swam away as the destroyers approached. Moosbrugger and Simpson laid on a course for Tulagi and steamed away shortly after 0100. They had sunk three Japanese destroyers while sustaining no battle damage or fatalities. Around 300 of the Japanese soldiers and sailors made it to Kolombangara, but nearly 1,200 perished in the waters of Vella Gulf. The Americans had won a smashing victory.<sup>72</sup>

What had the American destroyer sailors done to accomplish such a feat of arms? Contemporary reports praised radar and cautiously endorsed the tactics used at Vella Gulf. They realized the importance of training ships in both individual performance and in operating as part of a team using good communications and planning. In addition, they also recognized that destroyers could be major players in surface battles instead of being solely used as screens for larger warships.<sup>73</sup> Obviously, the Americans had the benefit of good intelligence before they started. In addition, Moosbrugger was an excellent commander who used a good battle plan and effectively controlled his forces in battle. The tactics used by the Americans that involved separating their forces and withholding gunfire before firing torpedoes violated naval dogma concerning the supremacy of the gun and concentration of forces. Nonetheless, no one could argue with the results such tactics achieved at Vella Gulf.

<sup>&</sup>lt;sup>72</sup> Hara, Japanese Destroyer Captain, 191-192; Morison, Bismarck's Barrier, 219-220.

<sup>&</sup>lt;sup>73</sup>Cincpac Operations Report, November 20, 1943, Box 236, Command Files, Pacific Fleet, NHHCC, hereafter Cincpac Operations Report, November 20, 1943; United States Navy Battle Experience #11, Chapter 58, Vella Gulf, Box 261, Battle Experience File, NHHCC; Battle of Vella Gulf Staff Presentation, November 9, 1943, Naval War College; Memo from Comdespac to Destroyer Commanders, September 13, 1943, Box 26, RG 313, NARA.

Technology and training also proved crucial to the success of the Americans. Increased training in both night combat and torpedo attacks benefited sailors because they became familiar with the assets and liabilities of their weapons. Before the battle at Vella Gulf, American sailors deactivated the faulty magnetic exploders and set the depth settings at minimum values in order to compensate for the torpedoes running too deep.<sup>74</sup> As a result, the torpedoes fired during the battle worked very well. Such success demonstrated the importance of the destroyer as a torpedo platform and proved its capability as an effective surface-fighting warship.

Tipping the balance in favor of the Americans, radar had become essential for navigating and fighting in the dark. Ships now had Combat Information Centers (CICs) that coordinated the massive amount of information generated during the modern naval battle (discussion of CIC development follows later in chapter). The CIC processed communication reports, radar contacts, air plots, and other information and fed it to the captain on the bridge who used the data to maneuver and fight the ship. On vessels that served as flagships, the CIC was extremely important in aiding the task force commander while he controlled ships in operations and battle. Such technology proved vital in the success at Vella Gulf.

The Americans appeared to have finally found a solution to their problems in winning night battles; however, the enemy response, the skill of a commander and the individual ships, and the fortunes of war can offset the best laid plans. The American defeat off Vella Lavella in October 1943 illustrated this point. Allied forces had moved to Vella Lavella as part of a leapfrog strategy crafted to bypass and isolate Japanese strongholds instead of expending men, materiel, and time taking enemy-held islands one by one. After the fighting ended on New Georgia in August, 1943, American commanders chose to bypass the Japanese base on

<sup>&</sup>lt;sup>74</sup> Crenshaw, South Pacific Destroyer, 208-209; AA Report, Comdesdiv 12.

Kolombangara and take lightly held Vella Lavella instead. A small force of Americans landed at Barakoma on the island's east shore in mid-August and began to build an airbase. They gradually moved northwest across the island capturing a Japanese barge base at Horaniu on the north shore in September. Relieving the American combat forces, New Zealand troops continued the drive and had nearly 600 Japanese cornered on the northwest tip of Vella Lavella by the beginning of October.

Meanwhile, the Japanese decided to withdraw from the Central Solomons and concentrate on reinforcing their strongholds on Bougainville and around Rabaul. They evacuated their base at Kolombangara in September and early October despite Allied efforts to blockade the island and isolate the garrison. Other bases on Santa Isabel and Gizo islands were also abandoned by the Japanese. With these evacuations, only the garrisons on Choiseul and Vella Lavella remained to be withdrawn. The Japanese had time to evacuate Choiseul but the pressure from the New Zealand troops on Vella Lavella forced the Japanese to take immediate action to remove the 600 men left on the island. Their attempt at evacuation sparked the Battle of Vella Lavella.<sup>75</sup>

Rear Admiral Ijuin Matsuji commanded the Japanese evacuation force. According to his plan, three older destroyers would cover the actual evacuation force that consisted of subchasers, torpedo boats, and barges. Six other destroyers would screen this force and attack any American ships that ventured into the Vella Lavella area. The destroyers departed Rabaul early on the morning of 6 October 1943. As Ijuin's force passed Bougainville that evening, he detached Captain Hara Tameichi with *Shigure* and *Samidare* along with the three old destroyers to rendezvous with the evacuation force near Shortland. The evacuation force had left Buin, a base

<sup>&</sup>lt;sup>75</sup> Morison, Bismarck's Barrier, 225-243; Miller, Cartwheel, 171-184.

in southern Bougainville, late that afternoon. Ijuin's remaining destroyers (*Akigumo, Isokaze, Kazegumo,* and *Yugumo*) steamed onwards toward Marquana Bay off the northwest tip of Vella Lavella. Aware that he had been spotted by American aircraft, Ijuin hoped that his dispersal of forces would confuse his enemy. After escorting the old destroyers and the evacuation force to the area, Hara's two destroyers would steam to rejoin Ijuin. The Japanese admiral hoped to engage the attention of any American force that he encountered while *Shigure* and *Samidare* delivered a torpedo attack into the enemy flank.<sup>76</sup>

Rear Admiral Wilkinson received a report on 5 October that the Japanese might send another evacuation force into the area. Using Task Group 31.2 again, he dispatched Commander Frank Walker, Commander Desron 4, and the three destroyers *Selfridge, Chevalier*, and *O'Bannon* to sweep the area between Choiseul and Vella Lavella on the night of 5-6 October. They detected no Japanese but lingered along the coast of Choiseul the next day. During the afternoon of 6 October, Wilkinson received reports that a Japanese force of nine destroyers was heading towards Vella Lavella and could arrive in Marquana Bay that night. The Rear Admiral sent Walker's force to intercept the Japanese and detached three more destroyers under Commander Harold Larson from a New Georgia convoy to join Walker at Vella Lavella. The two American destroyer forces planned to rendezvous around 2300.

Walker's three destroyers reached the Vella Lavella area first. Along the way, they had been harassed by Japanese sea planes that dropped bombs and flares around the destroyers. Walker's force suffered no hits, but the planes reported his position to Ijuin. Unfortunately for

<sup>&</sup>lt;sup>76</sup> General information on the battle found in Combat Narrative XI; Vincent P. O'Hara, The U.S. Navy Against the Axis, 1941-1945 (Annapolis: Naval Institute Press, 2007), 201-206, hereafter O'Hara, U.S. Navy Against the Axis; and Commander Destroyer Squadron 4, Preliminary After Action Report, October 13, 1943, Box 28, RG 313, NARA; Japanese perspective found in Morison, Bismarck's Barrier, 243-253; Dull, Imperial Japanese Navy, 283-286; and Hara, Japanese Destroyer Captain, 214-225.

the Americans, they lost any chance of conducting a surprise attack like they had achieved at Vella Gulf. Unfortunately for the Japanese, their pilots erred and reported Walker's force to consist of four cruisers and three destroyers. Fearing the radar-controlled guns of American cruisers, Ijuin conducted the subsequent battle differently than he would have if he had known that he faced an inferior force of only three destroyers. This error in intelligence would plague Ijuin later that evening.<sup>77</sup> The evacuation force of small barges and boats continued to Vella Lavella, but the three old destroyers withdrew. Hara's two ships were ordered to hurriedly rejoin Ijuin.

Shortly after 2230, Walker's destroyers detected the Japanese forces on radar while steaming northwest of Vella Lavella. *Selfridge* led the American column followed by *Chevalier* and *O'Bannon*. The radar on all three ships showed two different groups of Japanese ships with the first group containing five ships and the second group containing four. From the American's perspective, the second group appeared to be leaving the area while the first group interposed itself between the second group and the American destroyers. At this time, the Japanese forces were split into four groups. The smaller force of barges, subchasers, and torpedo boats were trying to sneak past the American force to reach their troops on Vella Lavella. The three old destroyers were leaving the area while Hara's *Shigure* and *Samidare* raced towards Ijuin. Ijuin's four destroyers made up the fourth group of Japanese ships. The first group detected by the American's radar was probably Ijuin's group while the second group was probably the retiring old destroyers although the actual ship numbers did not correlate with the American's radar. It must be remembered that the SG radar, although an awesome advantage to the Americans, still could be imperfectly interpreted by radar operators.

<sup>&</sup>lt;sup>77</sup> Hara, Japanese Destroyer Captain, 216-217.

Despite these discrepancies, the information on the American radar screens correlated with their intelligence reports of nine Japanese ships reported to be in the area. Walker tried to contact Larson's force on the TBS, but Larson was still too far away and could not pick up the radio signals. Despite being outnumbered, Walker decided to engage the Japanese and try to lure them back toward Larson's approaching force. He chose the first group of five ships (which was actually Ijuin's four destroyers) and began to close the range. As the Americans maneuvered into position, *Chevalier* and *O'Bannon* reported several radar contacts in different directions and classified them as torpedo boats. Walker ordered them to track the targets but remained concentrated on Ijuin's force.<sup>78</sup>

Meanwhile, Ijuin led his four destroyers in a complex series of course changes. He managed to place his ships in a prime position to attack the American destroyers, but, for unexplained reasons probably because he believed himself to be fighting cruisers, squandered the advantage and wound up with his ships strung out in an exposed position. One ship, *Yugumo*, managed to get in between the two opposing forces preventing the other three Japanese destroyers from firing torpedoes. At 2255, both forces engaged the other with guns and torpedoes. The Americans launched torpedoes first and followed a minute later with 5-inch gunfire. *Yugumo* fired torpedoes and opened fire with her guns. Their torpedo solutions fouled by *Yugumo*, the other Japanese ships could not use their Long Lances. *Kazegumo* fired her guns while Ijuin led his ships in a radical course change to the south. Hit by a torpedo and several 5-inch shells, *Yugumo* could not follow the other three ships and floated helplessly on the water engulfed in flame and sinking.

<sup>&</sup>lt;sup>78</sup> USS Selfridge, After Action Report, October 14, 1943, Box 72, RG 313, NARA, hereafter AA Report, USS Selfridge; USS Chevalier, After Action Report, October 15, 1943, Box 42, RG 313, NARA, hereafter AA Report, USS Chevalier; USS O'Bannon, After Action Report, October 15, 1943, Box 66, RG 313, NARA, hereafter AA Report, USS O'Bannon.

Walker shifted *Selfridge's* attack towards Hara's two ships. *Chevalier* started to join the attack then turned to engage some torpedo boats that showed up on her radar. Suddenly, a Japanese torpedo slammed into her side and exploded one of her magazines. The wounded destroyer veered to the right into the path of the *O'Bannon* that had been following from behind. Unable to avoid a collision, the *O'Bannon* rammed into *Chevalier's* engine spaces. *O'Bannon* managed to back clear of the torpedoed ship, but her bow had suffered heavy damage. *Chevalier* could not be saved and had to be abandoned later in the night. Now, Walker only had *Selfridge* to fight the Japanese force. As he tried to press his attack, torpedoes launched from *Shigure* and *Samidare* streamed around his ship. Despite the best efforts of her crew, the *Selfridge* could not avoid them all and one hit the ship at 2308.<sup>79</sup>

Fortunately for Walker, Larson's three destroyers now approached the battle site. Japanese seaplanes reported his arrival to Ijuin who decided to break off the action that night and retire. He ordered his destroyers to return to Rabaul but did not recall the evacuation force of barges, subchasers, and torpedo boats. Continuing with their mission, they managed to slip undetected behind the Americans and evacuate the 600 troops off Vella Lavella. After torpedoing the burning hulk of *Chevalier*, the Americans withdrew towards Tulagi. The United States Navy had lost one destroyer and suffered damage to two others and had failed to prevent the evacuation of Vella Lavella. In comparison, the Japanese accomplished their mission that cost them only one destroyer. After performing so ably at Vella Gulf, the Americans had suffered another defeat.

In addition to being outnumbered, several factors contributed to the American's defeat. With Larson's force not arriving at the scene of battle until after the action was over, the

<sup>&</sup>lt;sup>79</sup>AA Report, USS Chevalier; AA Report, USS O'Bannon; AA Report, USS Selfridge.

Americans found themselves unable to execute the plan that had worked at Vella Gulf where two forces engaged the enemy from different directions. In addition, the Japanese knew that American destroyers were approaching so the element of surprise that had benefited the United States Navy at Vella Gulf could not be repeated. Finally, after the initial firing of torpedoes, Walker chose to maneuver his ships so that he could continue the engagement by gunfire instead of steering clear of torpedo-infested waters using radical course changes like those performed by Moosbrugger at Vella Gulf.

Walker's actions in fighting a superior force are a credit to his bravery and aggressiveness, but it might have benefited the Americans had he decided to delay the action until Larson joined up with him. In Walker's defense, he could not contact Larson on the TBS so he did not know when the rendezvous could be accomplished. From his perspective, had he delayed, he would have lost a possible opportunity to interfere with a Japanese operation. Such an action would be seen by Walker's superiors as a lack of aggressive fighting spirit. Usually, it benefited the careers of naval commanders to err on the side of aggression, not caution. Nonetheless, both Larson's and Walker's forces could probably have changed the outcome of the battle.

After the battle, the captains of both *Selfridge* and *Chevalier* asserted that the torpedoes that struck their ships came from torpedo boats, not destroyers. Examination of Japanese accounts, however, show that no torpedo boats operated near the ships. The only ones present in the area were attached to the evacuation force and were too far away to participate in the battle.<sup>80</sup> In all probability, the sightings reported on the American radar of torpedo boats were erroneous

<sup>&</sup>lt;sup>80</sup> Commander Destroyer Squadron 4, Final After Action Report, October 26, 1943, Box 28, RG 313, NARA; Hara, Japanese Destroyer Captain, 221.

interpretations of the confused jumble of ships present around Vella Lavella. These incidents coupled with the American radar reports at the beginning of the battle mentioned earlier show that radar was not a magic crystal ball for the Americans that allowed them to know everything about a tactical situation. Although a great asset, radar had to be used correctly to positively influence a battle.

Even though he won a victory, Ijuin's superiors criticized him for not using his ships more effectively. Ijuin based the maneuvers that he conducted at the onset of the battle on the assumption that he was fighting cruisers. When Ijuin started to fire torpedoes, he realized that the ships were destroyers which meant that a different firing solution for his torpedoes had to calculated because the presumed range to the American ships were wrong.<sup>81</sup> Although Ijuin never explained his subsequent maneuvers, he probably sought to regain a prime battle position and made errors in his course changes that inhibited his force from engaging the Americans more effectively. Despite his errors, the Japanese destroyers had again demonstrated their skill at night combat.

These two battles and the experiences of the destroyers that fought in them demonstrate how the American Navy changed its tactics, used its resources, and adapted new technology to improve its performance in the night surface actions. American naval tactics continued to evolve during the New Georgia phase. United States task forces and groups no longer hung around Guadalcanal waiting for the Japanese to attack but boldly patrolled near enemy held islands such as New Georgia, Kolombangara, and Vella Lavella. After torpedoes smashed cruisers at Kula Gulf and Kolombangara, many American commanders finally began to respect the lethality of Japanese torpedoes and realized that they must adapt their tactics to match the situation. The

<sup>&</sup>lt;sup>81</sup> Hara, Japanese Destroyer Captain, 217-218.

sharp maneuvers performed by Moosbrugger after he launched the torpedo attack at Vella Gulf demonstrate that the Americans were applying these lessons to their tactics. Obviously, the lesson had not been fully learned as evidenced by the lack of those same maneuvers at Vella Lavella.

Except for instances such as Vella Gulf, the Japanese night combat tactics proved successful most of the time, so they had less impetus to radically change their tactics. Their failures could be attributed to bad luck or errors and misjudgments of the battle commanders as opposed to faulty tactical doctrine. As for the Americans, the string of failures at Savo, Tassafaronga, and Kolombangara proved the inadequacies of their doctrine. The key to solving these problems did not lie in finding one plan that worked in all situations. Arleigh Burke believed that no one plan could ensure victory all the time. Too many variables existed in battle that could disrupt the best laid plans. In his view, skilled commanders with well-trained crews that proved to be flexible and adaptable in their tactical doctrine comprised the real principles that led to victory.<sup>82</sup> The results that he would obtain during the next phase of battles would substantiate his beliefs.

The United States Navy was also learning to use its resources more wisely. Although transfer of ships among task groups occurred frequently, commanders were able to keep some ships operating together for a period of time. This allowed them to train together and become experienced in working as a team. The destroyers assigned to Task Group 31.2 at Tulagi usually only served at that station for a few weeks before being assigned to another force; however, they still had some time to train with the other destroyers as a unit and develop common communication and operational protocols. As proved by Moosbrugger and his ships, such

<sup>&</sup>lt;sup>82</sup> Arleigh Burke Oral History.

teamwork could provide substantial results in battle. The ships of Moosbrugger's force had a chance to work out a battle plan in addition to communications and navigation procedures. Such a feat stands in contrast to battles in the Guadalcanal phase such as Tassafaronga where the destroyers *Lamson* and *Lardner* joined Rear Admiral Wright's task group immediately before battle with no time to become acquainted with a plan.

Unfortunately, the American navy had to relearn this lesson at Vella Lavella. The destroyers of Task Group 31.2 had been scattered over the area performing different tasks, so Walker and Larson had to hurry into a battle with no chance to formulate a viable plan. As a result, Walker fought a superior force and failed to impede the Japanese evacuation mission. The Americans would carry this lesson into the Bougainville phase and apply it with excellent results.

As in the first phase, technology again proved to be a critical factor. The American Navy finally learned to correct its torpedo problems and started to gain a proper appreciation for the Japanese torpedo. For communications, the Americans used TBS more effectively and had standardized procedures that reduced confusion in battle. Both of these technologies proved crucial to victory, but radar stood out as the key technology in these night battles. The United States Navy had grown adept at using it for both fighting and navigation. They not only used in their ships but onboard aircraft as well. The Black Cat PBY search planes accompanied naval task forces and scouted for Japanese vessels lurking in the dark. The extra pair of eyes in the sky benefited commanders immensely.

The navy used different types of radar for surface search, fire direction, and air search. Early models of radar included sets such as the CXAM that did not have adequate resolution for

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smaller objects and used an indicating scope known as an A-scope that was difficult for operators to read. Early radar training for sailors proved inadequate and the mixed results achieved in its use caused many commanders to doubt its effectiveness.<sup>83</sup> By the New Georgia campaign, however, the newer SG radar had an improved scope and superior resolution so it quickly proved invaluable to commanders.

The SG radar operated using an antenna fastened to a ship's mast that both emitted the concentrated radio beam and received the signal as it reflected off objects on the sea. The data received were displayed on a Plot Position Indicator (PPI) scope that was a circular luminescent screen that had the ship using the radar located at the center. Superior to the old A-scope, all the objects detected by the radar were displayed on the screen according to their actual location relative to the ship. At a glance, a skilled radar operator could determine the locations of other ships and landmasses. Using basic principles of physics and geometry, distance, range, and bearing (of moving objects) could be determined.<sup>84</sup>

Unlike the Guadalcanal phase, an increasing number of ships now possessed SG radar and it became an essential piece of equipment when operating at night. One officer commented that at night "you depended on the radar for everything."<sup>85</sup> Ships navigated with it, kept track of allied ships with it, located the enemy with it, and used it to direct their gunfire. As mentioned earlier, ships now used a Combat Information Center to coordinate and process information from radar and communications. These centers replaced the bridge as the nerve center of the ship and

<sup>&</sup>lt;sup>83</sup>Shipboard Surface Search Program Report, Box 448, World War II Command Files, Bureau of Ships, NHHCC, Navy Yard; David Armstrong Oral History, East Carolina University; HAI Suggs Oral History, East Carolina University.

University. <sup>84</sup> Information on naval radar found in series of radar bulletins published by United States Navy during the 1940's; bulletins located in Boxes 267-268, World War II Command Files, United States Fleet, NHHCC, hereafter United States Fleet Radar Bulletins.

<sup>&</sup>lt;sup>85</sup> John Newsom Oral History, East Carolina University, Greenville, North Carolina.

proved especially valuable to commodores and admirals commanding groups of ships. Radar not only allowed them to see the enemy but permitted them to keep track of their own ships in addition to enemy vessels.

Realizing the need for ships to have a CIC, the Navy established a CIC training center at Noumea on New Caledonia in early 1943. Older destroyers that did not have radar installed when they were built received their SG radar sets from either periodic refits at stateside ports or from auxiliary repair ships at bases such as Noumea.<sup>86</sup> Once they received their radars, it behooved them to develop a CIC somewhere on the ship. Later models would have a special CIC built into the superstructure, but for now officers had to find space somewhere in the already crowded vessel. For many destroyers, the chart room, which housed the numerous maps and charts required for navigation at sea, became the CIC.

In addition to the SG set and PPI, the CIC contained a long chart table for keeping track of the ship's position. A moving Dead Reckoning Tracer (DRT) represented the ship as it moved across the sea. PPI contacts, ship movements, and other pieces of information were plotted around the DRT on the table. This setup became the surface plot and served as a record of the various operations and battles conducted by the individual ship and the fleet as a whole. A smaller circular air plot was located nearby and served the same function for air contacts reported by the air search radar. For destroyers, sixteen men usually staffed the CIC and included a CIC officer, CIC evaluator (often the destroyer's executive officer), plotters, radar operators, communicators, and liaison officers who kept in contact with the guns and any accompanying aircraft.<sup>87</sup>

<sup>&</sup>lt;sup>86</sup> Crenshaw, South Pacific Destroyer, 118-121; Calhoun, Tin Can Sailor, 108-109.

<sup>&</sup>lt;sup>87</sup> United States Fleet Radar Bulletins; Crenshaw, South Pacific Destroyer, 120-121.

The CIC fed vital information to both the ship's captain on the bridge and to the task group commodore if located on the ship. It became a huge advantage in night operations including the various battles fought during the campaign. Realizing the importance of radar's information, officers started requesting that multiple PPIs be established in other areas such as the bridge so the information could be better disseminated.<sup>88</sup> The use of SG radar, however, did have its problems. Air masses, waves, and even birds could cause false contact images on the PPI. In the heat of battle with ships scattered around the area, operators could misinterpret the various blips on the PPI. An example of this occurred at Vella Lavella when *Chevalier* thought enemy torpedo boats operated nearby. In addition, the early instruments proved somewhat fragile and the shock of the ship's guns firing could render them inoperable.<sup>89</sup> The benefits of the SG radar, however, far outweighed the problems. With proper training and use, sailors used the radar to great advantage.

The Japanese also possessed various kinds of radar, but it was inferior to the American radar sets and not widely used in the Solomon Campaigns. For the Japanese Navy, surface search radar installed aboard ships included the Mark 2 Models 1, 2, and 3. During this time period, destroyers usually used the Model 1 or 2. The Model 3 was not developed until late 1943. The Japanese lagged behind the Americans in radar research and the structure of its electronic industry proved inefficient and cumbersome. The Japanese Navy, therefore, never was able to implement radar as effectively as the Americans. Above all other factors, the

<sup>&</sup>lt;sup>88</sup> Cincpac Operations Report, November 20, 1943.

<sup>&</sup>lt;sup>89</sup>Examples of such problems reported in USS Dunlap, August 18, 1943; Cincpac Operations Report, November 20, 1943; Russell Crenshaw Oral History.

advantage attained by the Americans using radar enabled them to counter the superb night-fighting talents of the Japanese seamen.<sup>90</sup>

Overall, the New Georgia campaign illustrated that the American Navy had improved its ability to fight the night surface battles. Although they achieved mixed results over the course of the campaign, the Americans now had the tactical experience, technological expertise, and resources that they would use with great success as the fighting shifted northward to the island Bougainville.

<sup>&</sup>lt;sup>90</sup>Brown, Radar History, 135-140; O'Hara, US Navy Against the Axis, 9; ONI Bulletin on Japanese Radar, May 1945, Box 449, World War II Command Files, Bureau of Ships, NHHCC.

## **CHAPTER 4**

## BOUGAINVILLE PHASE

During the early afternoon of 31 October 1943, Rear Admiral Aaron S. Merrill led a force of four light cruisers and eight destroyers out of Port Purvis near Florida Island. His mission was to support the Allied invasion of Bougainville by bombarding Japanese airfields located at the northern and southern ends of the island. Once the bombardments had been accomplished, Merrill was to screen the Allied invasion force from possible Japanese surface forces. Before the sailors and officers under Merrill's command returned to Tulagi, they would experience a three-day odyssey in which they would fight four engagements with the Japanese including a major surface battle.<sup>91</sup>

Shortly after midnight on 1 November, Merrill's Task Force 39 arrived off northern Bougainville and commenced its bombardment run. The Japanese had two airfields in the area: Bonis on the northern shore of Bougainville and Buka on the small island of the same name just across the Buka Passage (See Map in Appendix). The 6-inch and 5-inch guns of the four cruisers pounded the airfields while the accompanying destroyers engaged shore batteries and other coastal targets. The Japanese guns along the coast fired upon the American ships, but they only managed one hit on the cruiser *Montpelier*. Fortunately for the Americans, the shell did not score a direct hit and Merrill's typewriter became the only casualty from the blast. A few Japanese planes also dropped flares and bombs around the ships, but they were as ineffective as the shore batteries.

<sup>&</sup>lt;sup>91</sup> The account of Task Force 39's mission found in Task Force 39, After Action Report, November 3, 1943, Box 168, RG 38, NARA, hereafter AA Report, Task Force 39.

Completing their bombardment at 0038, Merrill's force steamed south and arrived off southern Bougainville at dawn where it began to bombard the Japanese airfields in the Shortland Islands. The Japanese were alerted this time, however, and their shore batteries peppered the waters around the American force with 3-inch and 6-inch shells. Despite several near misses, they only succeeded in hitting the American destroyer *Dyson* in the bow. After completing this bombardment, Merrill's force steamed to the vicinity of the Treasury Islands north of Vella Lavella where it awaited word of any Japanese surface strike. Later that day, American planes detected a Japanese surface force heading toward Bougainville and Merrill sallied forth to meet the enemy.

In the early morning hours of 2 November, Merrill's four cruisers and eight destroyers battled a Japanese force consisting of two heavy cruisers, two light cruisers, and six destroyers near Empress Augusta Bay. The Americans experienced some trouble in ship identification and maneuvering, but they managed to repel the Japanese surface force sinking one destroyer and one light cruiser while damaging four other ships. In return, the Americans did not lose a single ship although several of them sustained damage. Destroyer *Foote*, whose bow was smashed by a torpedo, had to be towed back to Tulagi, but the others could steam under their own power. This battle, dubbed the Battle of Empress Augusta Bay, ended in another American surface victory.

Task Force 39 had not finished with its mission, however, because it had to withstand a vigorous Japanese air attack at dawn. Enemy aircraft swarmed around the ships, but they only scored two hits on *Montpelier* that caused no major damage. With the aid of Allied aircraft, Merrill's ships repelled the attack without loss of life. As Merrill's weary force headed for home, it had to escort transports that had unloaded troops at Bougainville. On the afternoon of 3 November after three days with very little sleep and intense action, Merrill's exhausted sailors

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arrived at Purvis Bay where they could rest, resupply, and refuel. Although, their performance had not been flawless, the Americans had achieved an impressive feat of arms by conducting multiple missions successfully over a small time period. Compared to the debacle at Tassafaronga almost a year previous, the United States Navy appeared to have improved its performance across the board particularly in the realm of night surface combat.

The island of Bougainville proved to be the last stop for the Allies in the Solomon Islands. Bypassing Japanese strongholds on the southern part of the island, American forces landed on the western coast near the center at Empress Augusta Bay on 1 November 1943. Initially, the ground forces faced relatively little resistance from the Japanese so they established a defensive perimeter and constructed airfields. Not until March 1944 would the Japanese be able to cross the jungles and mountains from their main base in the south to attack the American perimeter and airfields. The attack failed after a ferocious fight and for the rest of the war the remaining Japanese forces posed little threat to the Allied position on the island. At sea, the Americans applied lessons learned from past experience and won victories against Japanese surface forces in Empress Augusta Bay and off Cape St. George.<sup>92</sup>

Learning from past mistakes, the American Navy had, by the Bougainville phase, finally developed a feasible doctrine for surface combat in the confined waters of the Solomons. The victories at Empress Augusta Bay and Cape St. George illustrated the Americans' ability to adapt their technology, tactics, and resources to attain a successful doctrine. The Japanese on the other hand were hampered by a lack of effective radar and failed to adjust their tactics adequately to meet the American challenge. As for resources, they failed to use their ships wisely committing

<sup>&</sup>lt;sup>92</sup> Accounts of the Bougainville campaign can be found in Morison, Bismarcks Barrier, 279-368; Miller, Cartwheel, 222-268 and 351-378; and Harry Gailey, Bougainville, 1943-1945: The Forgotten Campaign (Lexington, KY : University of Kentucky Press, 1991).

them piecemeal to various campaigns and losing valuable ships to submarine, air, and surface attack without gaining an appreciable advantage. As a result, the awesome fighting ability of the Japanese seaman was squandered and the Japanese defensive perimeter slowly shrunk like a deflating balloon.

In addition to enjoying technical advantages such as radar, the Americans worked out a tactical doctrine that emphasized the torpedo and independent action by destroyers. The commander of Merrill's destroyers, Captain Arleigh Burke, had worked with other naval officers to develop a tactical doctrine for destroyers that he believed would improve the Navy's performance in the night surface battles. After arriving in the South Pacific in early 1943, Burke started studying the action reports from the previous battles. These reports coupled with experiences from training exercises convinced Burke that the key to victory lie in allowing destroyers to operate independently from cruisers with the ability to launch torpedo attacks without first getting the approval of the task force commander.<sup>93</sup>

In past battles such as Tassafaronga, destroyer commanders experienced delays in getting approval to launch torpedoes that ruined their targeting solutions and negated the effects of any torpedoes the ships eventually fired. Also, the cruisers with which the destroyers were grouped usually started firing as soon as they detected the enemy on their radars, giving away the position of the task force and removing the element of surprise needed for a successful torpedo attack. Night surface battles unfolded quickly and by the time destroyer commanders got permission from the task force commander to launch torpedoes, the optimal moment had passed. Operating separately and with authority to fire torpedoes, destroyers could range in front of the cruiser line, launch a devastating surprise torpedo attack, and then maneuver to assist the cruisers as they

<sup>&</sup>lt;sup>93</sup> Arleigh Burke Oral History.

opened fire with their guns. However, such independence ran counter to the common wisdom of the time. Problems of communication and identification in the night between separate groups of ships caused great concern among many commanders. They feared a repeat of the confusion experienced by the different groups of ships at the Savo Island disaster in August 1942. Also, few task force commanders relished the thought of delegating part of their authority. Such views prejudiced many officers against dividing their forces and allowing the destroyers greater freedom of action.<sup>94</sup>

As discussed in Chapter 2, Burke missed his chance to implement his plan in August 1943. His command had been transferred out of the Solomons area and Commander Moosbrugger used Burke's plan to win a substantial American victory at the Battle of Vella Gulf. By the first of November, however, Burke had arrived back in the combat zone as Commander Desron 23 that included Desdiv 45 (*Charles Ausburne, Dyson, Stanly,* and *Claxton*) and Desdiv 46 (*Spence, Thatcher, Foote,* and *Converse*). In addition to squadron command, Burke personally commanded Desdiv 45 while Commander Bernard Austin led Desdiv 46. These eight destroyers sailed with Merrill and Task Force 39 at Empress Augusta Bay.

The battle at Empress Augusta Bay resulted from a Japanese attempt to achieve another victory such as the one they won at Savo Island. As soon as the Japanese learned of the Allied landing at Bougainville on 1 November, they dispatched Rear Admiral Omori Sentaro to land reinforcements and attack any enemy ships that he found. They hoped to ravage the transports unloading troops and supplies and check the advance toward Rabaul. For this task, Omori had two heavy cruisers, *Myoko* and *Haguro*, supported by two destroyer squadrons. Rear Admiral Ijuin Matsuji led one squadron that consisted of his flagship, light cruiser *Sendai*, and three

<sup>&</sup>lt;sup>94</sup> Arleigh Burke Oral History.

destroyers (*Shigure*, *Samidare*, and *Shiratsuyu*). Rear Admiral Osugi Morikazu led the other squadron that consisted of his flagship, light cruiser *Agano*, and three destroyers (*Naganami*, *Hatsukaze*, and *Wakatsuki*). Five old destroyer transports carrying nearly 1,000 men accompanied the warships to Bougainville.<sup>95</sup>

As mentioned earlier, Merrill's ships were waiting near the Treasury Islands for word of any possible Japanese surface threat to the American transports at Bougainville. American planes had detected Omori's force near Rabaul and kept a steady stream of reports on its progress going to Allied headquarters. Wasting no time, Rear Admiral Theodore Wilkinson, commander of the forces landing at Empress Augusta Bay, ordered Merrill to steam north and intercept the Japanese ships. Unfortunately for Merrill, he had only four of his destroyers with him. The bombardment missions against Buka and the Shortlands had depleted the fuel supply of the American destroyers. All of them were *Fletcher*-class vessels that used up prodigious amounts of fuel at high speeds; therefore, Captain Burke led the four ships of Desdiv 45 to Kolombangara where they refueled from a fuel barge off Kula Gulf. After drinking their fill, the four ships hurried back to rendezvous with Merrill and rejoined the Task Force at 2330 on the night of 1 November. Commander Austin's Desdiv 46 also had low fuel levels, but they did not have time to steam all the way to Kolombangara. Soon after Burke rejoined the force, Merrill

<sup>&</sup>lt;sup>95</sup>General information on the Battle of Empress Augusta Bay found in ONI, Combat Narrative, Solomon Islands Campaign XII: The Bougainville Landings and the Battle of Empress Augusta Bay (Washington, 1945); AA Report, Task Force 39; Comdesron 23, After Action Report, November 4, 1943, Box 30, RG 313, NARA, hereafter AA Report, Comdesron 23, November 4, 1943; Japanese perspective from Hara, Japanese Destroyer Captain, 230-242; Morison, Bismarck's Barrier, 305-322; Dull, Imperial Japanese Navy, 288-290, and Omori Sentaro Interrogation, November 16, 1945, United States Strategic Bombing Survey, Box 30 Samuel Eliot Morison Papers, NHHCC, hereafter Omori Sentaro Interrogation.

led his force on a low-speed approach to the seas west of Empress Augusta Bay to intercept Omori. Austin and the four ships of his division would have to fight with the fuel on hand.<sup>96</sup>

Omori's force approached Bougainville in three groups. The first group steamed in the center of the Japanese formation and consisted of Omori's flagship, *Haguro*, and *Myoko*. The second group steamed on the right of the Japanese formation and consisted of Ijuin's squadron. On the left, Osugi's squadron formed the third group of ships. American planes equipped with radar, SB-24 bombers and PBY "Black Cat" Catalinas, shadowed Omori and plagued him with periodic attacks. In addition to slowing Omori, they reported his progress to Merrill. Due to the delays and reports of American warships near Empress Augusta Bay, Omori recommended to his superiors at Rabaul that the transports be recalled. His force would continue to Bougainville and attack any American ships that they found.

Merrill arranged his forces in a column with Burke's Desdiv 45 in the van, the four light cruisers (*Montpelier, Cleveland, Columbia*, and *Denver*) in the center, and Austin's Desdiv 46 in the rear. Prior to the battle, Burke had explained his thoughts on destroyer doctrine to Merrill and had gotten his approval to launch an independent torpedo attack without having to obtain Merrill's permission. According to plan, Desdiv 45 would strike first at the enemy from one flank while Desdiv 46 would attack from the other flank. Once torpedoes struck their targets, Merrill's cruisers would engage with gunfire supported by the guns of the destroyers. In the days leading up to the battle, Desdiv 45 had time to train as a unit and with Merrill's cruisers. Austin's four destroyers, however, had only united right before the Bougainville operation so they had neither time for training as a unit nor with Merrill's cruisers.<sup>97</sup>

 <sup>&</sup>lt;sup>96</sup> Arleigh Burke Oral History; Bernard Austin Oral History, NHHCC, hereafter Bernard Austin Oral History.
<sup>97</sup> Bernard Austin Oral History.

American naval officers had finally began to recognize the lethal range of the Japanese torpedo, so Merrill planned to keep his cruisers at a healthy distance from the Japanese ships. He believed that what he sacrificed in gunfire accuracy would be compensated for in safety from the long-range torpedo. In addition to fighting at long ranges, Merrill also planned a series of course changes and non-routine speed changes to foul Japanese torpedo fire-control solutions. With these tactical innovations, he hoped that the heavy losses at Tassafaronga and Kolombangara would not be repeated.<sup>98</sup>

The American force had steamed to a point nearly 50 miles to the west of Empress Augusta Bay when it detected Omori's ships at 0229 on the morning of November 2. The three Japanese groups were arrayed roughly north to south with Ijuin's squadron in the north and Osugi's squadron on the south. Omori's two heavy cruisers occupied the middle position. From aircraft contact reports, the Japanese knew that American ships lurked somewhere ahead in the darkness, but they had not yet spotted Merrill's force. Once again, American radar had trumped Japanese optics. Merrill had the element of surprise if he could only take advantage of it.

Burke's flagship, *Charles Ausburne*, detected the Japanese on her radar at 0231. Per the plan, Burke immediately ordered the four ships of his division to make a torpedo run on the enemy vessels. *Charles Ausburne*, *Dyson*, *Stanly*, and *Claxton* dashed away from Merrill's column and plowed through the seas toward Ijuin's squadron. After closing to within 5,600 yards, they swept by on the Japanese ships' port bow and launched half their torpedoes. The American destroyers wheeled starboard to clear the area and avoid any possible enemy torpedoes heading their way. As the division headed northeast, *Claxton* developed a good solution on one

<sup>&</sup>lt;sup>98</sup> AA Report, Task Force 39; a good discussion of Merrill's tactics can be found in Robert M. Marsh, "Tactics Rule at Empress Augusta Bay," Naval History 17, no. 6 (December 2003): 42-47, hereafter Marsh, "Tactics Rule".

of the Japanese ships and fired her remaining torpedoes. Burke's force steamed away from the Japanese column and anxiously awaited for the explosions that meant their torpedoes had found their target. After seeing the Japanese ships swerve to a new course, Burke and his officers feared the torpedo attack had been futile, but then they noticed explosions among the enemy ships. The American destroyer captains thought that they had sunk at least one Japanese ship. When they saw the cruisers opening fire on the Japanese at 0249, Burke's ships joined in with their 5-inch guns for a few minutes, then stopped as the distance between them and the enemy grew. Burke found his division had scattered so, wanting to avoid a wild melee, he maneuvered to collect his destroyers together as a group before he headed back toward the Japanese ships.

Meanwhile, Ijuin's forces had finally spotted the American ships and fired their torpedoes while they maneuvered to get out of the way of the American torpedoes. Contrary to what Burke and his officers believed, the Japanese maneuvers thwarted the American attack and they suffered no hits from American torpedoes. The Japanese, however, did not escape unscathed. Destroyer *Shigure* barely missed being smashed by the larger cruiser *Sendai* as they changed course in the dark sea. *Samidare* and *Shiratsuyu* did collide which damaged both vessels so severely that they had to withdraw from the battle. As the two ships retreated, *Samidare* got hit by three 5-inch shells, but both she and *Shiratsuyu* managed to escape and eventually made their way back to Rabaul.

Shortly after Burke separated from Task Force 39 to make his torpedo run, Merrill had ordered his cruisers and destroyers to change course from north to south. Austin reported that he now had the Japanese forces on his radar, so Merrill released him to make a torpedo attack on the

<sup>&</sup>lt;sup>99</sup> Dyson, After Action Report, November 10, 1943, Box 956, RG 38, NARA; Claxton, After Action Report, November 2, 1943, Box 913 RG 38, NARA; AA Report, Comdesron 23, November 4, 1943.

Japanese ships in the center. *Foote* had become separated from the rest of Austin's division during the course change so Austin led only three of his destroyers on the torpedo run. As *Foote* sped to catch up with her fellow destroyers, a Japanese torpedo hit her and blew a portion of her bow off in the water. *Foote* would survive, but she could no longer participate in the battle.<sup>100</sup>

Merrill's cruisers had already initiated gunfire on the Japanese ships. When he saw the Japanese ships making course change, Merrill realized that the element of surprise had been lost, so he did not wait for the torpedo explosions before he opened fire. Typical for a night action, the Americans concentrated their fire on the biggest radar blip which turned out to be the light cruiser *Sendai*. The Japanese cruiser got pummeled by the American guns and soon became a burning wreck. Destroyer *Shigure* watched helplessly as their squadron flagship became inundated with fires and explosions. *Shigure* maneuvered fruitlessly for awhile trying to fix the positions of Omori's ships and Merrill's cruisers, but she contributed nothing else to the action that night. She later withdrew toward Rabaul.<sup>101</sup>

Merrill led his cruisers in a series of radical course and speed changes. These changes not only served to foul Japanese torpedoes but also kept the Japanese ships in range of Merrill's guns and maintained Task Force 39 between Omori's force and the transports near Empress Augusta Bay. The cruisers shifted their fire to Omori's heavy cruisers and Osugi's squadron around 0310. In return, Omori's heavy cruisers fired back at the Americans and used starshells to illuminate Merrill's force. Even though the ships had their positions revealed by the Japanese star shells, the cruisers sustained no hits in the early part of the action. Eventually, three shells

<sup>&</sup>lt;sup>100</sup> Comdesdiv 46, After Action Report, November 4, 1943, Box 26, RG 313, NARA, hereafter AA Report, Comdesdiv 46, November 4, 1943; Foote, After Action Report, November 7, 1943, Box 987, RG 38.

<sup>&</sup>lt;sup>101</sup> Hara, Japanese Destroyer Captain, 237; Omori Sentaro Interrogation.

struck *Denver* but none of the four cruisers were critically damaged. Merrill ordered a smoke screen to be laid and continued the fight.

Austin tried to lead his remaining three destroyers in a torpedo attack, but while changing course to stay clear of the cruisers' fire and trying to attain a good position to fire torpedoes, the *Spence* and *Thatcher* collided. Both ships were damaged but tried to continue the fight. In addition to the collision damage, a Japanese shell struck the *Spence* and damaged some engineering equipment which slowed her speed. Despite these setbacks, the ships managed to finally get into position to deliver a torpedo attack against Omori's heavy cruisers. Austin's CIC officer misidentified the ships as friendly, however, and the Americans lost a chance to inflict a severe blow on the enemy.<sup>102</sup>

Austin's division headed for the northern group and finally attained a position to launch a torpedo attack. At 0328, the *Spence* and *Converse* launched torpedoes at the remnants of Ijuin's squadron. They probably hit the wreck of the *Sendai* which has not sunk yet. The American destroyers chased the retiring *Samidare* and *Shiratsuyu* and attacked them with torpedoes and gunfire. Other than the three shell hits on *Samidare*, the Americans caused the ships no further damage. A little after 0400, the shell hit that *Spence* received earlier finally caused her to slow down enough to withdraw from the fight. Austin ordered *Converse* and *Thatcher* to continue chasing the Japanese ships while *Spence* started to retire from the action.<sup>103</sup>

As Omori's heavy cruisers maneuvered to avoid American shells, his and Osugi's column became entangled. The heavy cruiser *Myoko* collided with the destroyer *Hatsukaze* and

<sup>&</sup>lt;sup>102</sup> AA Report, Comdesdiv 46, November 4, 1943; Spence, After Action Report, November 9, 1943, Box 1443, RG 38, NARA, hereafter AA Report, Spence, November 9, 1943.

<sup>&</sup>lt;sup>103</sup> AA Report, Comdesdiv 46, November 4, 1943; AA Report, Spence, November 9, 1943; Converse, After Action Report, November 7, 1943, Box 926, RG 38, NARA.

almost cut the smaller vessel in half. The *Hatsukaze* was left behind as Omori's force continued the fight. *Myoko* and *Haguro* launched torpedoes and kept lobbing shells at the American ships. Unfortunately for the Japanese, Osugi's squadron did not appear to contribute much to the fight but tried to follow Omori's vessels. After trading shots with the American cruisers for awhile, Omori lost sight of his enemy in the smokescreen ordered by Merrill. Unable to see the Americans, Omori believed that he had sunk several of the cruisers. Omori's force was now scattered and he had lost *Sendai* and the use of three destroyers. Believing that he faced a far more superior force coupled with the threat of Allied air attacks at dawn, Omori ordered his ships to withdraw to Rabaul at 0337.<sup>104</sup>

Merrill ordered his cruisers to cease fire at 0349. After cruising around the area looking for more targets for a few minutes, he began to recollect his force. As mentioned earlier, Austin's destroyers were chasing the remnants of Ijuin's force, but *Converse* and *Thatcher* finally broke off the chase and returned to the battle area. As for *Spence*, the damaged destroyer found itself the target of gunfire from Desdiv 45! Burke's division had just reassembled and returned to the combat area when the cruisers ceased fire. Searching the area, the ships of Desdiv 45 found the battlered *Sendai* and sent torpedoes into her that finally sank her. Next, Burke's ships started firing at what appeared to be another enemy vessel. This ship turned out to be the *Spence* who quickly indentified herself. Fortunately for the Americans, Burke's salvos caused no damage. As *Spence* headed to rendezvous with Merrill's cruisers, she detected the damaged *Hatsukaze*. Spence opened fire but did not have enough ammunition to finish the job.

<sup>&</sup>lt;sup>104</sup> Omori Sentaro Interrogation.

Austin radioed Burke who was only too happy to sink the Japanese ship. Desdiv 45 opened fire on the *Hatsukaze* which rolled over and sank as dawn was breaking over the battle area.<sup>105</sup>

Merrill reassembled his ships and ordered the torpedoed *Foote* to be taken under tow by the *Claxton*. The battle won, Task Force 39 continued its mission. Despite the damage to the Foote and other vessels, Task Force 39 had lost no ships and had repelled a Japanese surface force. Omori, on the other hand, had failed in his mission to sink the transports and had lost one cruiser and one destroyer in addition to sustaining damage to several of his other vessels. The American plan, although imperfectly implemented, produced good results overall, especially when compared to the debacles that had occurred in previous actions. Although the American gunfire and torpedo attacks lacked accuracy, they had managed to avoid the devastating gunfire and torpedo attacks of the Japanese. Finally, the Americans had realized the potential of the Japanese torpedo and had taken steps such as radical course and speed changes in addition to maintaining a healthy range in order to alleviate the danger. As for tactics, the American plan of launching independent destroyer action confused the Japanese even though the torpedoes did not do much damage. In addition, the Americans had trouble keeping track of ships and realized that a better system of radar/radio recognition known as Identification, Friend or Foe (IFF) was needed. Nonetheless, Merrill's and Burke's tactics had borne fruit this time albeit imperfectly. It remained to be seen whether the victory could be repeated.<sup>106</sup>

Less than a month later, Burke led his destroyers in the Battle of Cape St. George and proved that the tactical doctrine could indeed be repeated with success. Like the victory at Vella

<sup>&</sup>lt;sup>105</sup> AA Report, Comdesron 23, November 4, 1943; Bernard Austin Oral History.

<sup>&</sup>lt;sup>106</sup> Marsh, "Tactics Rule"; Hara, Japanese Destroyer Captain, 235; Battle of Empress Augusta Bay Staff Presentation, May 24, 1944, Naval War College; United States Navy Battle Experience, #14, Chapter 66: Empress Augusta Bay, Box 261, Battle Experiences, NHHCC.

Gulf in August 1943, this action was fought entirely by destroyers and it was an overwhelming American victory. Like many of these night action, it stemmed from a Japanese attempt to reinforce one of their island garrisons. After the Allies landed on Bougainville, the Japanese believed that Buka Island might be next. They had an airfield on the island, but Allied air attacks hit the base so often in November that it became inoperable. Wanting to hold the island, the Japanese made a decision to evacuate about 700 air personnel who were now useless without an operational airfield and reinforce the garrison with 920 army troops to resist the expected Allied invasion. Captain Kagawa Kiyoto was assigned to accomplish this task with five destroyers. Three of them would carry troops (*Amagiri, Yugiri*, and *Uzuki*) while two operated as the screen (*Onami* and *Makinami*).<sup>107</sup>

The Allies had intelligence the Japanese would try to reinforce their troops on Buka. On 24 November 1943, Captain Burke and five ships of his Desron 23 received orders to patrol the Rabaul-Buka line and intercept any Japanese forces they found. The two nights previous to this one, Burke and his destroyers had operated to the west of Bougainville covering supply missions to the troops at Empress Augusta Bay. Low on fuel, the ships were refueling at the barge near Kula Gulf when they received their orders to intercept the Japanese force. For this mission, Burke had three ships of his Desdiv 45 (*Charles Ausburne, Claxton,* and *Dyson*) in addition to two ships of Commander Austin's Desdiv 46 (*Spence* and *Converse*). *Spence* suffered from engine problems and could only make 30-31 knots instead of the normal 35 knots, so Burke would have to plan on operating at reduced speeds. He based his plan on the doctrine used at

<sup>&</sup>lt;sup>107</sup> General information about the battle found in Morison, Bismarcks Barrier, 352-359; Comdesron 23, After Action Report, November 26, 1943, Box 30, RG 313, NARA; Comdesdiv 46, After Action Report, November 25, 1943, Box 26, RG 313, NARA; Unpublished ONI, Combat Narrative, Solomon Islands Campaign XIII: Bougainville Operations including the Battle of Cape St. George, ONI Combat Narratives, Box 119, NHHCC. In addition to Morison, Japanese perspective found in Dull, Imperial Japanese Navy, 294-295.

Vella Gulf and Empress Augusta Bay. One division would attack with torpedoes while the other division would cover the first. Once the first division had veered out of the way, the second division would then attack from another flank. This time, Burke wanted to keep both divisions on the same side of the enemy force. He did not want a repeat of Empress Augusta Bay where his and Austin's divisions became separated and could not operate together.<sup>108</sup>

During the evening of 24 November, Kagawa's ships reached Buka and the three destroyer-transports under Captain Yamashiro Katsumori unloaded the army troops and evacuated the air personnel. As Yamashiro was finishing his operations, Kagawa led *Onami* and *Makinami* on the route to Rabaul to screen for enemy ships. Kagawa intended for Yamashiro's force to catch up to his west of Buka and then they would proceed back to Rabaul. As Kagawa left Buka, he tangled with some American PT boats that reported his presence to their headquarters. When Burke heard the contact report, he knew that Japanese ships were definitely operating in the area that night.

Burke planned to intercept the Rabaul-Buka line about 55 miles to the west of Buka around 0145 on the morning of 25 November. The three ships of Desdiv 45 steamed in column heading due north with Austin's two destroyers in a separate column to the southwest. At 0141, *Spence, Claxton,* and *Dyson* detected enemy ships to the east of their position. Burke thought that they had detected three ships, but in fact this contact was the *Onami* and *Makinami* under Kagawa. At 0145, the three ships of Desdiv 45 peeled off from the American formation and made a torpedo run at the Japanese ships. Once they were within range, the three destroyers launched fifteen torpedoes into the water and made an immediate turn to the right to avoid any possible enemy torpedoes. For four and a half long minutes, Burke's men waited to see if their

<sup>&</sup>lt;sup>108</sup> Arleigh Burke Interview.

torpedoes would find their mark. They were rewarded with three explosions. This time, their torpedoes had hit the targets.<sup>109</sup>

Kagawa remained unaware of the Americans' presence until right before the torpedoes hit. He tried to go into evasive maneuvers, but it was too late. *Onami* disintegrated in a spectacular explosion while *Makinami* split into two pieces but stayed afloat. Right after the torpedoes exploded, Burke's ships detected the three ships of Yamashiro's transport unit arriving in the area. He set off to attack these ships and ordered Austin to finish off the survivors of the first torpedo attack. *Spence* and *Converse* approached *Makinami* and started pummeling her with guns and torpedoes. One section slid beneath the waves, but the remaining section did not want to sink. For nearly an hour, the American destroyers kept up the attack. Finishing off a damaged ship was not a safe task because the Japanese managed to fire some torpedoes at the two American vessels. One hit the *Converse* in her engine room but turned out to be a dud. Luck seemed to be on the side of the Americans this day. Finally, the remaining part of the *Makinami* sank at 0253.<sup>110</sup>

Meanwhile, Burke tried to get into position to launch torpedoes on Yamashiro's destroyers. The Japanese commander, however, had seen the explosions among Kagawa's screen so he knew American ships were in the area. Loaded with evacuated troops, Yamashiro decided to make a run for Rabaul. The withdrawal of the Japanese vessels spoiled Burke's torpedo attack so he led his ships in a chase of the Japanese force. The opposing forces exchanged gunfire as they raced toward Rabaul. For some unknown reason, Burke led his ships

<sup>&</sup>lt;sup>109</sup> Claxton, After Action Report, November 25, 1943, Box 913, RG 38, NARA; Dyson, After Action Report, November 28, 1943, Box 956, RG 38, NARA.

<sup>&</sup>lt;sup>110</sup> Spence, After Action Report, November 27, 1943, Box 1443, RG 38, NARA; Converse After Action Report, November 27, 1943, Box 926, RG 38, NARA.

in a sudden turn at 0245. Right after this course change several Japanese torpedoes exploded in the ships' wakes. The Americans had luckily avoided a deadly Japanese torpedo salvo. Finally, Yamashiro ordered his three ships to flee in different directions. Instead of dispersing his own force, Burke concentrated on what he perceived the largest Japanese ship to be and showered it with shell fire. This ship, the luckless *Yugiri*, stopped dead in the water and sank about 0328.

Once the ships in Kagawa's screen had been sunk, Austin joined in the chase with Burke. The American forces tried to catch up with the remaining Japanese destroyers but to no avail. By 0400, the American force had approached dangerously close to the Rabaul airbase. Reluctantly, Burke called off the hunt and ordered his destroyers to head for their base. They knew that a Japanese airstrike at dawn was certain so they called for help from Allied planes and wearily watched the skies come dawn. Fortunately for the sailors, the only planes they saw were American P-38 Lightning fighters.<sup>111</sup>

The Americans had sunk three Japanese destroyers while suffering only minimal damage. It was a lopsided victory on the order of Vella Gulf and the Americans hailed it as one of the Navy's great moments. Above all other factors, radar gave the Americans an immense advantage but other contributors should not be overlooked. The Americans had aggressive and talented commanders who implanted a good tactical plan. On the other hand, the Japanese showed a lack of innovation and could not cope with the American edge in radar. Harder to quantify but necessary to discuss was the element of luck. Burke himself admitted that only fortune enabled the Americans to arrive on scene exactly as Kagawa approached. In addition, the Americans had great luck when *Converse* got hit by a dud torpedo and Burke made a maneuver that avoided an enemy torpedo strike. The outcome of the battle could have been

<sup>&</sup>lt;sup>111</sup> Arleigh Burke Oral History.

quite different. Yet, the end result was what mattered and the Americans could brag about another success in nocturnal surface combat.<sup>112</sup>

The experiences of the American destroyers in these two battles illustrate how they adapted tactics, technologies, and resources to improve their performance in the night surface battles. The tactical plan worked out by Burke and others achieved success during the Bougainville phase. Although the Americans implemented the plans imperfectly and also had to rely on the whims of fortune to win the battles, the plans displayed a high degree of competence and innovation in the naval officers. By this phase, a large portion of commanders who were unsuited to combat command had been sifted out of combat commands. The ones who remained such as Burke, Austin, and Merrill displayed effective combat leadership skills and tactical competence. The Japanese, however, fought ferociously but displayed little tactical innovation. In addition, commanders such as Omori at Empress Augusta Bay did not handle their forces well in combat. They were either too reckless or too cautious and failed to devise strategies that could overcome American advantages such as radar.

By this phase, American had vastly improved their mastery of radar. At night, American planes equipped with radar constantly searched the seas and provided critical information on Japanese ship movements to commanders such as Merrill and Burke. American ships now possessed an IFF device on their air search radars that enabled them to determine friendly planes from enemy bogies and also identified themselves to the planes. Unfortunately, an IFF device for the SG surface search radar had not been developed so ships had no such way to determine ally from enemy. Despite this limitation, the use of radar and related items such as the CIC gave

<sup>&</sup>lt;sup>112</sup> United States Navy Battle Experience # 16, Chapter 68: Battle off Cape St. George, Battle Experiences, Box 261, NHHCC; Eugene Wolfe, "Derailing the Last Tokyo Express," Naval History 10, no. 2 (March/April 1996): 34-39.

the Americans a huge advantage in night fighting. In both of these battles, the use of radar gave the Americans the element of surprise that enabled them to attain a favorable position prior to the onset of battle. Overall, the benefits of radar cannot be overemphasized.

Another technological factor was the torpedoes. Not only had Americans solved their own torpedo problems, but by this stage, they had finally realized the threat of the Japanese torpedo. Merrill used this knowledge to great affect at Empress Augusta Bay when he maintained his range and used radical course and speed changes to negate enemy torpedo solutions. Burke also understood the threat of the enemy torpedo, but he and Austin were lucky that they did not lose ships to torpedo attack at Cape St. George. Although Americans understood the weapon better, it still had the capability to be lethal in combat.

Finally, Americans were able to use their resources better by this phase by keeping more ships together as a unit. Burke's Desdiv 45 had the time to train together with Merrill's cruisers before the Battle of Empress Augusta Bay and the entire Desron 23 operated together for several weeks before the Cape St. George battle. This familiarity enabled them to formulate and adhere to a specific doctrine which brought about good results in night battles. In contrast, Austin's Desdiv 46 did not have time to train together and experienced troubles at Empress Augusta Bay. The mayhem resulting in the separation of *Foote* and the collision of the *Spence* and *Thatcher* illustrated the confusion generated when ships unfamiliar with each other operated together at night. The demands of war still pulled ship organizations apart, but unit coherence had improved greatly since the Guadalcanal phase. The Japanese situation in this regard worsened. By Bougainville, the losses in ships and men had placed a strain on the Japanese Navy. They pulled ships from everywhere and often did not have time to train together to train together as a unit. Omori's force had not

operated together and experienced great confusion at Empress Augusta Bay. He later listed this as one of the great reasons for the Japanese defeat.<sup>113</sup>

Overall, the Americans had learned from their mistakes and had welded technology, tactics, and resource use into a very effective weapon. They had not discovered a cure-all for naval night combat but had developed a workable doctrine for use in the Solomon waters. The battles fought during the Bougainville phase demonstrated American competence in nocturnal surface warfare that helped alleviate the earlier humiliations at Guadalcanal and New Georgia.

<sup>&</sup>lt;sup>113</sup> Omori Sentaro Interrogation.

### CHAPTER 5

### CONCLUSION

From the desperate weeks of the Guadalcanal campaign to the victorious days of the Bougainville battles, the United States Navy greatly improved its performance in the nocturnal surface battles. The little destroyers played a key role in this evolution and proved themselves to be just as crucial to the war effort as the big battleships and aircraft carriers. By studying the performance of the destroyers in these actions, three key factors emerge that contributed to the eventual success of the American fleet: tactical innovation, use of resources, and adaption of technology.

At the onset of the fighting, the Americans realized that their prewar plans based upon a decisive naval battle in the open ocean were unsuited to the conditions in the Solomon Islands. In addition, they realized that they faced a skilled and aggressive foe that could inflict heavy losses upon its enemy. In a series of successes and setbacks through the Guadalcanal and New Georgia campaigns at battles such as Cape Esperance, Tassafaronga, Vella Gulf, and Vella Lavella, the United States Navy finally formulated a tactical formula that could achieve victory. Although larger ships continued to play an important role, the destroyers emerged as a key combatant. The final formula allowed destroyers to launch independent torpedo attacks on the enemy. Instead of one ship formation, it called for multiple groups of ships to attack from different flanks in order to keep the Japanese off balance and evade the deadly torpedo attacks. The doctrine along with capable commanders and well-trained crews allowed the Americans to win impressive victories during the Bougainville phase at Empress Augusta Bay and Cape St. George.

Along with tactics, Americans also improved their use of resources. They learned that ships that trained together and operated as a unit performed better in combat than ships assembled piecemeal from all directions. The Americans had a tendency, dictated by operational needs, to constantly rotate ships in and out of task forces. Able to perform numerous tasks and being in short supply, destroyers had a particularly hard time staying together as a unit because commanders scattered them among various assignments. As more ships became available, this problem lessened as the war progressed although it did not totally cease. An example of this concept was Arleigh Burke's Desron 23. Desron 23 operated together for a relatively lengthy time throughout the Bougainville campaign. They became familiar with each others' quirks and standardized tactical and communication protocols. At Cape St. George, the ships fought very well together and won a smashing victory as a result.

Finally, the Americans adapted technology to help them win these surface battles. The critical technologies became torpedoes and radar. As the battles progressed, the United States Navy overcame the problems with its own torpedoes such as faulty depth settings and defective contact exploders and learned to be wary of the Japanese Long Lance torpedo. It took the Americans a long time to realize the true potential of the Japanese torpedo. They suffered heavy losses at battles such as Tassafaronga, Kolombangara, and Vella Lavella because of torpedo attacks. Part of this problem was due to faulty intelligence and part to racist attitudes. Many American naval experts refused to believe an oriental race could develop a better weapon than the United States. Without question, the Japanese torpedo far outclassed its American counterpart in range. Furthermore, the reload system developed by the Japanese Navy meant that it could send large numbers of this lethal weapon against American ships. As a result, the American Navy suffered more losses from this supposedly inferior race than against other foes.

Fortunately for the American Navy, it finally realized the effectiveness of the Japanese torpedo by the Bougainville phase and compensated for it by maintaining a healthy distance from the enemy ships and conducting radical course and speed changes during battle. These methods along with simple luck enabled them to avoid devastating losses during the final battles at Bougainville.

Above all other factors, the technology of radar gave Americans the edge over the Japanese. Early models of radar proved ineffective and American commanders did not understand how to use it properly. After the introduction of the SG radar, however, the United States Navy found radar to be a vital contribution to the war effort. It not only improved combat operations but standard navigation as well. The use of the PPI scope, which made it easier for operators to interpret the tactical situation, and the use of the CIC to coordinate information made the SG radar a very effective tool in night surface actions. Not only was it used on ships, but in airplanes as well. The efficient uses of this technology enabled the Americans to surprise and defeat the Japanese at Vella Gulf, Empress Augusta Bay, and Cape St. George. The advantage of radar cannot be overemphasized.

The American use of tactics, technology, and resources enabled the Navy to find a workable solution to its problems of night combat in the Solomons. The Japanese, on the other hand, failed to innovate their tactics, lacked the critical technology of radar, and used their own resources poorly. The Japanese fought hard and with great skill, but their failure in the above mentioned areas played a crucial role in their defeat. The Americans had not found some magic cure-all for victory but displayed an ability to adapt and improvise in the rapidly changing conditions of modern combat. During the days when they did not possess a preponderance of power in men or materiel, this ability helped them win a very tough victory in the South Pacific.

It would have been interesting to how the Japanese and Americans applied the lessons learned in the Solomon Islands to later surface actions. By 1944, however, the character of the war changed and it became dominated by the aircraft carrier and amphibious attack ship. The phase of major nocturnal surface battles fought by cruiser-destroyer task forces had passed. During the Leyte campaign, the Allies and Japanese did fight one more night surface action at the Battle of Surigao Strait. A Japanese force of two battleships, one cruiser, and four destroyers undertook a suicide mission to attack an Allied invasion force in Leyte Gulf. An overwhelming American force of battleships, cruisers, destroyers, and even torpedo boats smashed the enemy column as it steamed through Surigao Strait. Only one Japanese destroyer, the indefatigable *Shigure*, survived the battle.<sup>114</sup> The Americans performed well, but they also possessed a huge advantage in numbers. As for the Japanese, they had little hope of reversing the American advance in the Philippines and knew they would probably be annihilated. Overall, the action did not possess the same significance as the battles fought in the Solomons. Yet, the lessons learned during the Solomons phase of the war should not be neglected as useless artifacts from a bygone era. Future conflicts will probably be of a different nature, but the basic concepts of tactical innovation, adaption of technology, and use of resources could still play a vital role in determining the victor. Who knows? Perhaps the versatile and efficient destroyer will again play a key role in the naval battles of the future.

<sup>&</sup>lt;sup>114</sup> Trent Hone, "Triumph of U.S. Navy Night Fighting," Naval History 20, no. 5 (October 2006): 54-59.

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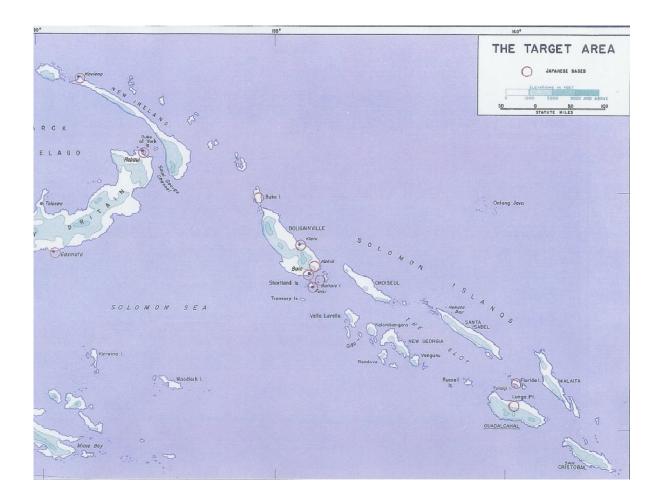
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# APPENDIX

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MAP
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Map A-1. South Pacific Theater (Adapted from United States Army in World War II, War in the Pacific: Atlas).

## VITA

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