

H-Gram 046: "Chrysanthemums from Hell"

7 May 2020

Contents

- USS *Aaron Ward* (DM-34): "The Ship That Couldn't Be Licked"
- "Chrysanthemums from Hell": *Kikusui* No. 5
- The Epic Fight of USS *Hugh W. Hadley* (DD-774)



USS *Aaron Ward* (DM-34), 1944/45 (NH 83213).

*This H-gram covers the Naval Battle of Okinawa at the crescendo of Japanese kamikaze attacks Kikusui No. 5 and No. 6 in early May 1945. It includes the epic story of USS *Aaron Ward*, coverage of the desperate day on Radar Picket Station 1 north of Okinawa on 4 May, and of USS *Hugh W. Hadley's* 11 May 1945 record for the most aircraft shot down by a surface ship in a single engagement. (For more on the background for the invasion of Okinawa, please see H-Gram 044.)*

75th Anniversary of World War II

Any time I give a talk about the war in the Pacific, I usually make a statement that the overriding lesson of that terrible war is that never again

should the United States and Japan face each other on opposite sides of a field of battle. It is vastly better to be on the same side. If you don't believe me, then here is an example: Among the hodgepodge of 125 kamikaze aircraft that the Japanese army and navy threw at U.S. naval forces in Kikusui No. 5 on 4 May 1945 were 15 Kawanishi E7K aircraft, code-named "Alf." The Alf was a three-seat reconnaissance biplane seaplane of early 1930s vintage made out of wood and canvas. Its maximum speed was 170 miles per hour. Despite U.S. naval intelligence's knowledge that Kikusui No. 5 was coming and U.S. ships being ready, despite being intercepted by overwhelming numbers of technologically superior radar-directed fighter aircraft, despite the densest concentration of radar-directed anti-aircraft weapons ever put to sea, some of the Alfs made it

through (in fact, high-technology proximity-fuzed shells didn't work on wooden airplanes). In a mind-boggling example of raw courage and determination, the Alfs kept coming and some hit their targets. One Alf out-foxed U.S. fighter pilots and then, in an act of supreme self-sacrifice, inflicted the fatal blow on the destroyer Morrison (DD-560).

The first two weeks of May were the peak of Japanese kamikaze attacks off Okinawa, although there would still be many more attacks through the end of June, some of them devastating for the ships that were struck. The Kikusui No. 5 attacks on 3 and 4 May cost almost 600 American lives aboard ship, with three destroyers sunk, three LSM(R) "rocket ships" sunk, and numerous other ships damaged, including an escort carrier, light cruiser, and three destroyers so badly damaged they were knocked out of the war. In the following week, a destroyer and another LSM(R) would be sunk, and another destroyer and two destroyer escorts would be crippled. As painful as these losses were, they represented only a small fraction of the U.S. Navy force protecting the Army and Marine ground campaign on Okinawa, which was making slow progress against intense Japanese resistance. The issue at sea was never in doubt, but the cost in lives weighed heavily on senior U.S. commanders, which was exactly the Japanese intent.

Whether the ship was saved or lost, the actions of some of the ships involved in this period represent some of the most epic stories of courage, will power, and sacrifice in the entire history in the U.S. Navy, often against overwhelming odds in the face of an enemy determined to sacrifice their own lives in defense of their homeland. In particular, the actions of the crews of destroyer-minesweeper Aaron Ward and destroyer Hugh W. Hadley deserve to be immortalized. If ever there were examples of the "Don't Give Up the Ship" ethos, these would be right at the top of the list.

USS Aaron Ward (DM-34): "The Ship That Couldn't Be Licked"

As the sun was going down on 3 May 1945, Aaron Ward and destroyer Little (DD-803) were subject to a particularly intense kamikaze attack by Japanese army aircraft in what had previously been a relatively quiet sector. Despite intense anti-aircraft fire, Little was hit by four kamikaze in less than four minutes, with damage so severe no amount of valor or will power could counter it. She went down in 12 minutes. Aaron Ward was attacked by 11 aircraft and shot down the first two before the third hit. In a matter of minutes, the ship had shot down four planes, but was hit by six kamikaze or bombs, leaving her in sinking condition—actually in worse shape than Laffey (DD-724) had been on 16 April. Nevertheless, Aaron Ward's crew rallied and in an hours' long overnight ordeal saved their ship. For more on Aaron Ward, "the ship that couldn't be licked," please see attachment H-046-1.

"Chrysanthemums from Hell": Kikusui No. 5

The mass kamikaze attack Kikusui No. 5 on 4 May was a particularly bloody affair. Once again, the destroyers on Radar Picket Station No. 1 (RP1) north of Okinawa bore the brunt of the attack as brave but inexperienced Japanese pilots went after the first ship they saw. Destroyers Ingraham (DD-694) and Morrison put up a valiant fight against overwhelming odds. Ingraham survived her damage, but Morrison went down guns blazing and with heavy loss of life (159 men). The irony was that the fatal blow was delivered by a wooden biplane.

Meanwhile at RP12, west-northwest of Okinawa, destroyer Luce (DD-522) put up a valiant fight, but was overwhelmed and went down quickly, also with heavy loss of life (149 men). Also at RP12, destroyer-minelayer Shea (DM-30) was hit by an Ohka rocket-assisted manned suicide bomb that luckily passed clear through the ship before exploding, but still inflicted severe damage. At the Hagushi anchorage, Rear Admiral Morton Deyo's

flagship, the unlucky light cruiser Birmingham (CL-62), was hit and badly damaged by a lone kamikaze that effectively used the terrain masking of Okinawa's land mass to evade detection until it was too late. That evening, escort carrier Sangamon (CVE-26) was hit by a lone kamikaze as she came out of Kerama Retto. She survived the worst fire of any escort carrier during the war. For more on Kikusui No. 5 please see attachment H-046-2.

On 9 May, a hit by a kamikaze nearly broke the destroyer escort Oberrender (DE-344) in two, but her crew saved her. In the same attack, destroyer escort England (DE-635), which had previously sunk six Japanese submarines in 12 days in May 1944, was damaged beyond repair by a kamikaze hit.

The Epic Fight of USS Hugh W. Hadley (DD-774)

On 11 May 1945, Kikusui No. 6 resulted in another horrific day, which included the truly epic fight by destroyers Hugh W. Hadley and Evans (DD-552) at RP15 northwest of Okinawa. Evans shot down 14 or 15 aircraft before she was put out of action by four kamikaze hits in quick succession. Hugh W. Hadley shot down 19 or 20 aircraft, before she was also gravely damaged by a large bomb and three kamikaze hits. In both cases, the crews fought on and saved their ships, even when it seemed all hope was lost. Hugh W. Hadley's tally was the most aircraft shot down by a U.S. surface ship in a single engagement.

In all these engagements, the small amphibious craft that supported the destroyers on the radar picket stations (and known as "pallbearers") put up gallant fights in defense of the destroyers and themselves, shooting down numerous Japanese aircraft. However, three of the scarce LSM(R) "rocket ships" were lost on 3 and 4 May. For more on Kikusui No. 6 and the epic fight of Hugh W. Hadley, please see attachment H-046-3.

As always, you are welcome and encouraged to spread these stories of U.S. Navy valor and sacrifice widely. "Back issue" H-grams, enhanced with lots of photos, may be found here [<https://www.history.navy.mil/about-us/leadership/director/directors-corner/h-grams.html>].



USS Aaron Ward (DM-34) in the Kerama Retto anchorage, 5 May 1945, showing damage received when she was hit by several kamikaze off Okinawa on 3 May (NH 62572).

H-046-1: USS *Aaron Ward* (DM-34)—"The Ship That Couldn't Be Licked," 3 May 1945

H-Gram 046, *Attachment 1*
Samuel J. Cox, Director NHHC
May 2020

Naval Historian Rear Admiral Samuel Eliot Morison stated in his *History of United States Naval Operations in World War II* that probably no ship survived an attack of greater intensity than the destroyer USS *Laffey* (DD-724) did on 16 April

1945 (see H-Gram 045). The crew of the destroyer-minesweeper *Aaron Ward* (DM-34) might dispute that, as their ship suffered more damage and higher casualties than *Laffey* and, although the total number of kamikaze and bombing attacks was less, they came in even more rapid succession. Nevertheless, the crew of *Aaron Ward* saved their ship in an epic of damage control following an intense suicide attack at the beginning of the massed *kamikaze* attack *Kikusui* ("Floating Chrysanthemums") No. 5 on 3 May 1945.

Aaron Ward (DM-34) was a *Robert H. Smith*-class destroyer-minelayer, commissioned on 28

October 1944, under the command of Commander William H. Sanders, USN. The *Robert H. Smith* class essentially comprised *Allen M. Sumner*-class destroyers with the ten torpedo tubes (two banks of five) and two of six K-gun depth-charge throwers removed and replaced with the capability to carry and lay up to 80 mines. Otherwise their armament was the same as that of the regular destroyers, with two twin 5-inch/38-caliber dual-purpose turrets forward (mounts 51 and 52), one twin 5-inch/38-caliber aft (mount 53), two twin Bofors 40-mm anti-aircraft guns on each side of the forward stack (mounts 41 and 42) and two quad 40-mm mounts atop the after deckhouse (mounts 43 and 44), situated so that both mounts could fire astern or to either side. Like the *Allen M. Sumners*, the *Robert H. Smiths* had 8 to 11 (depending on the ship) Oerlikon 20-mm anti-aircraft guns, plus four side-throwing K-gun depth-charge launchers along with two depth-charge rolling racks on the stern. In terms of tons (2,200), length (376 feet), speed (34 knots), and crew size (363), the two classes were virtually the same.

The *Robert H. Smith*-class destroyer-minelayers were designed in anticipation of a mission to establish a blockade of Japan, in which the ships would dash in and mine the entrances to Japanese ports. None of them were ever used in this manner and none ever laid mines operationally. Initially used to protect minesweeper forces, they were regularly employed interchangeably with other destroyers.

The first *Aaron Ward* (DD-132) was a destroyer built during World War 1 and named after Rear Admiral Aaron Ward, who had been commended for gallantry in command of the armed yacht *Wasp* during the Battle of Santiago in the Spanish-American War of 1898. At the time of his mandatory age retirement in 1913, he was second-in-command of the Atlantic Fleet. During World War I, he was the captain of the Red Cross ship *Red Cross*, which provided medical aid to wounded and sick soldiers of all nationalities. As a

result, *Aaron Ward* may be to only U.S. flag officer to be given a medal by an enemy nation, the Austro-Hungarian Empire's Medal of Merit, awarded by Emperor Franz Joseph.

DD-132 served in the U.S. Navy (mostly in reserve) from 1919 to September 1940, when she was leased to the United Kingdom along with 49 other equally aging destroyers in exchange for U.S. basing rights in British territories in the Western Hemisphere (this was prior to U.S. entry into the war against Nazi Germany). As HMS *Castleton*, the former DD-132 escorted Atlantic convoys during World War II and rescued survivors from sunken cargo ships. In November 1941, she was damaged in an explosion, then repaired and returned to service. On 20 August 1942, *Castleton* and HMS *Newark* captured 51 survivors of German submarine *U-464* who had been picked up by an Icelandic trawler. Considered obsolete, she was placed in reserve in March 1945 and scrapped after the war without returning to U.S. service.



USS *Aaron Ward* (DD-132) shown during the early 1920s, probably off the U.S. West Coast. USS *Buchanan* (DD-131) is at left (NH 69308).

The second *Aaron Ward* (DD-483) was a *Gleaves*-class destroyer (4 single 5-inch guns) commissioned in March 1942 under the command of Commander Orville F. Gregor, USN; the executive officer was Lieutenant Commander Frederick Becton. *Aaron Ward* conducted several shore bombardments in October and November of 1942 in support of U.S. Marines fighting the Japanese ashore on Guadalcanal. On the night of

12-13 November 1942, *Aaron Ward* fought valiantly in the brutal night action with two Japanese battleships and numerous destroyers and barely survived, suffering 15 killed and 57 wounded. (The first *Laffey* [DD-459] was among the U.S. ships lost in this battle.) The commander of the South Pacific Ocean Area, Admiral William F. Halsey, Jr., commended *Aaron Ward* in an after-action report, "The AARON WARD gave another fine example of the fighting spirit of the men of our destroyer force. Though hit nine times by both major and medium caliber shells which caused extensive damage, she nevertheless avoided total destruction by the apparently superhuman efforts of all hands. The superb performance of the engineer's force in effecting temporary repairs so the ship could move away from under the guns of the enemy battleship largely contributed to saving the ship." Commander Gregor was awarded a Navy Cross and would eventually retire as a rear admiral.

After repairs, *Aaron Ward* rejoined the fleet in February 1943, now under the command of her former executive officer, Lieutenant Commander Becton. On 7 April 1943, *Aaron Ward* was escorting *LST-449* (which had future U.S. President John F. Kennedy, a junior grade lieutenant, embarked), when one of the last significant Japanese air raids off Guadalcanal rolled in. *Aaron Ward* was hit by three Japanese navy Val dive-bombers in an especially well-executed attack out of the sun, in which one bomb was a direct hit and two were devastating near misses, with an underwater mining effect. As she went dead in the water, and despite an intense anti-aircraft barrage from her gunners, three more Vals scored two more damaging near misses on the immobile destroyer. Her crew fought for over seven hours to save her, but the damage was just too great and she sank only 600 yards from being beached on Guadalcanal. *Aaron Ward* suffered 27 killed or missing and 59 wounded. Becton would later be given command of the second *Laffey* (DD-724).

The first commander of the third *Aaron Ward* (DM-34), Commander William H. Sanders, had joined the U.S. Navy as an apprentice seaman in 1925 before subsequently attending and then graduating from the U.S. Naval Academy in 1930. After her commissioning on 28 October 1944, *Aaron Ward* conducted work-ups and proceeded to the Western Pacific to participate in her first combat operation, the invasion of Okinawa, during which she provided escort protection to the Mine Flotilla.



USS Aaron Ward (DD-483) approaching USS Wasp (CV-7) on 17 August 1942 during operations in the Solomon Islands area. Note that her port anchor is missing, probably removed as a weight-saving measure (80-G-12263).

Aaron Ward arrived in the Okinawa area on 22 March and supported the minesweeping operations around Kerama Retto, during which she shot down three Japanese aircraft. On 1 April, she assumed duty screening the battleships and cruisers conducting gunfire support to the main U.S. Army and Marine landings on Okinawa. She then escorted empty transports to the Marianas before returning to Okinawa on 27 April, shooting down one Japanese plane on that day. On 28 April, *Aaron Ward* was operating near Kerama Retto and shot down one Japanese plane. She claimed another as a probable. Then, she rescued 12 crewmen who had been blown into the water when the evacuation transport *Pinkney* (APH-2) was hit and badly damaged by a *kamikaze*.

On 30 April, the ship assumed duty at Radar Picket Station No. 10 (RP10), located to the west-southwest of Okinawa and Kerama Retto, a station that was comparatively quiet compared to those to the north of Okinawa. RP10 was on the axis of attack from Formosa, but the British carrier force (Task Force 57) had handled and borne the brunt of attacks from that direction. On the evening of 30 April, *Aaron Ward* fired on several air raids, but the Japanese did not press the attacks. Poor weather prevented further air attacks over the next few days until the afternoon of 3 May, when the skies began to clear. Visibility was excellent at the surface, but some low clouds provided an advantage to any attacking aircraft.

On station with *Aaron Ward* on 3 May was the destroyer *Little* (DD-803) and four smaller amphibious support craft, *LSM(R)-195*, *LCS(L)-25*, *LCS(L)-14*, and *LCS(L)-83*. *Little* was the penultimate of 175 *Fletcher*-class destroyers commissioned during the war and had previously seen action on the gun line at Iwo Jima that February 1945. Her skipper was combat veteran Commander Madison Hall (USNA '31), with a Silver Star awarded for his command of destroyer *Jenkins* (DD-447) at the Battle of Kolombangara on 13 July 1943. *Little* had initially operated with the Okinawa demonstration (decoy) group and had previous experience on radar picket stations—her crew knew what to expect.

At 1820, about 45 minutes before sunset on 3 May, about 18–24 Japanese aircraft approached the ships on Radar Picket Station No. 10. For whatever reason, by the approach of dusk, a significant distance had opened between the support craft and the two destroyers, so that the two groups were not mutually supporting at the onset. Of note, the after-action reports (and most every account is based on them) describe these aircraft as Japanese navy Val dive-bombers and Zeke fighters, but Japanese records do not corroborate that many Vals and Zekes airborne at the time. This attack was most likely conducted by

Japanese army aircraft flying from Formosa, and the aircraft identified as Vals are most likely older Japanese army Nate fighters (which, like Vals, had fixed landing gear) and other Japanese army fighters (Ki-43 Oscars and Ki-84 Franks) that were frequently misidentified as navy Zekes during the war. This would have been even more likely given the fading light.

Radar on *Aaron Ward* and *Little* detected the incoming raid at 27 miles out and, at 1822, *Aaron Ward's* crew was called to general quarters. At about 1840 (reporting of times in this action is inconsistent between ships), two Japanese planes broke from formation and headed for *Aaron Ward* while several others went for *Little*. *Aaron Ward* opened fire on the first aircraft (number one) coming in from the starboard quarter at 7,000 yards and the second *kamikaze* (number two) at 8,000 yards on the port beam. Despite being hit repeatedly, both aircraft kept coming, with the first commencing its dive at 4,000 yards before the pilot was killed or lost control. The plane crashed 100 yards short, although the its engine, propeller, and a wing part bounced off the water and crashed into the after deckhouse, which fortunately did not cause great damage. (In photos of *Aaron Ward*, the three-bladed prop can be seen stuck in the deckhouse bulkhead just forward of mount 53.) The second plane finally crashed 1,200 yards from the ship.

As *Aaron Ward* was fighting off the first two attackers, *Little* was fighting several more *kamikaze* that made effective use of the low clouds to cover their approach, giving *Little* little time to defend herself. Despite repeated hits by *Little's* anti-aircraft fire, four *kamikaze* crashed her in less than four minutes. The first *kamikaze* hit the port side, destroying the aft low-pressure turbine and condenser. A second *kamikaze* was shot down, but another one hit moments later in almost the same location as the first, causing additional severe engine room damage. *Little* took a third hit from another *kamikaze* portside amidships damaging the No. 3 boiler. Less than a

minute later a fifth *kamikaze* (and the fourth to hit) crashed into the after torpedo mount in a near vertical dive, detonating the torpedo air flasks as the plane's engine penetrated deep in the ship, bursting the No. 3 and No. 4 boilers, and causing a large explosion that probably broke *Little's* keel. As *Little* went dead in the water with no power or internal communications, and settling rapidly, her crew tried to control the damage, but the last hit had been fatal. By 1850, the main deck was almost awash, and several minutes later Commander Hall ordered abandon ship. *Little* went under 12 minutes after the first hit, suffering six dead, 42 missing (most declared dead), and 79 wounded (31 total were killed). Hall would be awarded his second Silver Star for his valiant attempt to fight the *kamikaze* and save the ship in the few minutes he had.

As *Little* was in her death throes, a Japanese plane (number three) (identified as a "Zeke" in most accounts) dove from the clouds from astern *Aaron Ward*. Despite being hit repeatedly, the aircraft kept coming, dropping a bomb just before it crashed into *Aaron Ward's* after deckhouse. The bomb penetrated the hull below the waterline and detonated in the after engine room, quickly resulting in flooding that space and the after fireroom (bomb hit number one). Fuel tanks burst, resulting in a severe oil fire that cut steering control to the bridge, with the rudder jammed hard to port and the ship slowing to 20 knots. Meanwhile, the gasoline fire from the crashed plane (*kamikaze* hit number one) burned the after deckhouse, severing power and communications to mount 53, which from that point fought in manual local control. With two engineering spaces flooded, rudder jammed, losing speed, and fires raging, *Aaron Ward* was already in extremis and in worse shape than *Laffey* had been.

As the support ships rushed to come to the aid of *Little* and *Aaron Ward*, they were also attacked by *kamikaze* aircraft. Large support landing craft *LCS(L)-25* was damaged by debris from a downed

kamikaze that crashed close aboard, suffering three killed and three wounded. She proceeded to rescue many of the survivors from *Little* before limping into Kerama Retto (by then known by the black humor nickname, "Busted Ship Bay"). *LCS(L)-83* was also nearly hit twice by *kamikaze*, before she shot down two more.

Less lucky was the rocket-armed medium landing ship *LSM(R)-195*, commanded by Lieutenant W. E. Woodson, attacked almost simultaneously by two Japanese aircraft, one on an effective strafing run and the other in a suicide attack. *LSM(R)-195* was hit by a twin-engine *kamikaze* identified (probably correctly) as a Ki-45 "Nick," a Japanese army aircraft. The explosion of the plane and bomb inflicted fatal damage, knocking out the fire main and auxiliary pumps, and causing secondary explosions among the ship's own rocket launchers (75 quadruple rail Mk. 36 rocket launchers). The rockets shot off in all directions, so there was no hope that the crew could save her. Woodson smartly ordered abandon ship, and shortly thereafter *LSM(R)-195* suffered a massive explosion and went to the bottom, with a loss of nine crewmen and 16 wounded of her 81-man crew. Most of her survivors were picked up by destroyer *Bache* (DD-470), which was rushing from Radar Picket Station No. 9 to assist, having just been narrowly missed by a *kamikaze* that overshot the her (*Bache* would get hit on 13 May).

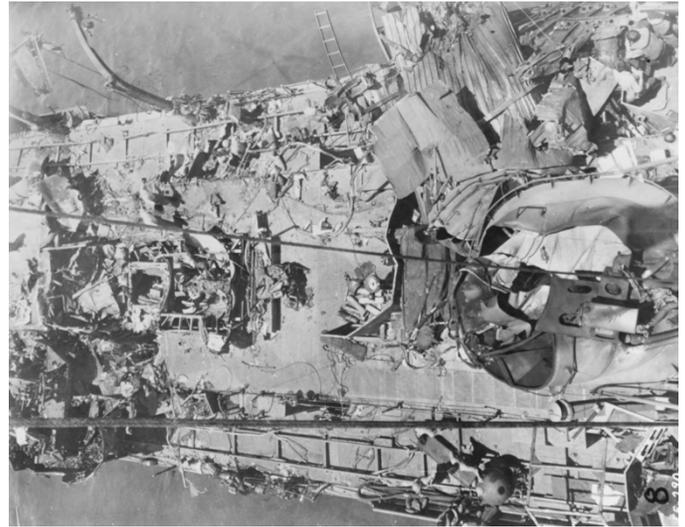
Bache and destroyer-minesweeper *Macomb* (DMS-23), operating with three large support landing craft, *LCS(L)-89*, -111 and -117, on Radar Picket Station No 9 (just to the east of *Aaron Ward*), had come under *kamikaze* attack about the same time as *Aaron Ward* and *Little*. Two Japanese army Ki-61 Tony fighters attacked. Although *Macomb* had control of some combat air patrol fighters, the fighters missed the intercept in the clouds. In the melee, a U.S. Navy FM-2 Wildcat of VC-96 was shot down by "friendly" fire and the pilot rescued by *LCS(L)(3)-111*. Meanwhile, the two Tonys bored in at high speed. At 1829, one Tony went for *Bache*, was hit

multiple times, missed the ship, and crashed off her port quarter.

Less than a minute later, the second Tony aimed for *Macomb's* bridge and was deflected only at the last second and hit the No. 3 5-inch gun aft, blowing off the after part of the gun's blast shield and killing most of the gunners. A large gasoline fire ignited, but, fortunately, the Tony's 500-pound bomb passed clear through the after deckhouse and exploded in the water off the port quarter. *Macomb's* damage control parties had the fire out in about three minutes and damage was relatively modest, although the ship suffered seven killed and 14 wounded. *Macomb* then remained on the radar station alone for another three hours as *Bache* was ordered to assist *Aaron Ward*.

Macomb's skipper, Lieutenant Commander Alton Louis Clifford "Red" Waldron, was awarded a Silver Star and *Macomb*, which had previously sunk German submarine *U-616* in the Atlantic, was awarded a Naval Unit Commendation for her role in shooting down numerous Japanese aircraft around Okinawa. *Macomb's* damage would be repaired in time for her to be present in Tokyo Bay for the Japanese surrender. Ironically, the ship would end up serving in the Japanese Maritime Self Defense Force (JMSDF) as *Hatakaze* (D-182) from 1954 to 1969, before then being transferred to the Republic of China (Taiwan) Navy.

As *Little* was sinking, and after the *kamikaze* and bomb hit on *Aaron Ward*, circling Japanese aircraft did not press home further attacks for about 20 minutes, turning away each time they were fired on by the burning *Aaron Ward*. Steering control was shifted to after steering, which brought her out of her circle, but steering was still erratic. Finally, as it appeared *Aaron Ward* was not going to quickly sink, just after 1900 another Japanese aircraft (number four) commenced an attack run. *Aaron Ward* opened fire at 8,000 yards and downed the plane at 2,000



USS Aaron Ward (DM-34): Damage amidships received during kamikaze attacks off Okinawa on 3 May 1945. View looks down and aft from Aaron Ward's foremast, with her greatly distorted forward smokestack in the lower center. Photographed while the ship was in the Kerama Retto on 5 May 1945. A mine is visible at left, on the ship's starboard mine rails (80-G-330107).

yards (third aircraft shot down). At about the same time, another aircraft (number five) attacked, but exploded and disintegrated after a direct hit by *Aaron Ward's* gunners (fourth aircraft shot down).

Minutes after the third and fourth *kamikaze* were shot down, two more Vals (numbers six and seven) attacked from the port bow while being chased by American fighters. One was shot down by either the fighters or anti-aircraft fire (fifth plane shot down), but the other made it through the gauntlet despite being hit. Making a steep dive directly at *Aaron Ward's* bridge, the plane was hit or buffeted enough by the heavy anti-aircraft fire that it veered at the last second. It missed the bridge, crossing above the signal bridge, carrying away antennas and halyards, before it smashed into the top of the forward stack and then bouncing overboard just to starboard (*kamikaze* hit number two). Fortunately, this hit also did relatively little damage.

At 1913, shortly after the glancing blow by the seventh *kamikaze*, another aircraft (number eight) attacked from forward of the port beam. The plane was hit at 2,000 yards and caught fire, but kept on coming and dropped a bomb just before

it crashed into the main deck amidships. The bomb hit the water and exploded a few feet beyond the ship on the starboard side. It sprayed the topsides with fragments and blew a large hole in the hull plating near the forward fireroom, flooding the forward fireroom and causing *Aaron Ward* to lose all power and headway (*kamikaze* hit number three, first damaging bomb near miss). *Aaron Ward* was now a sitting duck and only her remaining gunners operating in manual local control could buy enough time for her repair parties to stem the flooding and put out the fires.

The gunners wouldn't have much of a chance as only four seconds later, a Zeke (number nine) made an unobserved approach through the clouds and smoke of *Aaron Ward's* fires. It crashed into the deckhouse near the aft starboard 40-mm mount (mount 43), igniting an even bigger gasoline fire that killed many of the crew who were fighting the fires as well as gunners (*kamikaze* hit number four). Fortunately, this plane did not appear to be carrying a bomb. *Aaron Ward* went dead in the water with the only power being supplied by the forward emergency diesel generator.

At 1921, two more *kamikaze* (numbers 10 and 11) attacked in quick succession. One *kamikaze* came in on a steep dive from the port quarter. Because of the loss of power, none of the 5-inch guns were able to engage, and the few remaining 40-mm and 20-mm guns didn't have the stopping power and the plane crashed into the port superstructure. It started still more gasoline fires and caused 40-mm ammunition to cook off, which resulted in extensive casualties (*kamikaze* hit number five). The other *kamikaze* (number 11) came in from forward, despite being hit by 40-mm fire, with a final high-speed low-altitude run from the port side. The *kamikaze* struck amidships at the base of the after stack and the plane's bomb exploded, obliterating the stack and blowing a searchlight and two 20-mm guns high into the air. Most of the debris landed back aboard the ship, causing even more casualties (*kamikaze*/bomb hit

number six). This proved to be the last attack of 52 minutes of hell.

By this time, *Aaron Ward's* topsides aft of the forward stack were burned and mangled, the ship was settling with an eight-degree list and only five inches of freeboard at the main deck. Were it not for the forward emergency diesel generator, which enabled some fire main pressure, the ship probably would have been lost at this point. However, even as darkness fell, and into the night, her skipper and crew refused to give up the ship. Despite imminent danger of sinking, damage control parties went deep into the ship to wet down ammunition magazines to keep them from exploding. By 1935, *LCS(L)-14* and *LCS(L)-83* were alongside helping to fight the fires and assisted with over 50 badly wounded men and 20 lesser injuries. By 2045, the fires were out.

At 2106, destroyer-minelayer *Shannon* (DM-25) was able to take *Aaron Ward* in tow as the seas were relatively calm and take her slowly to Kerama Retto, arriving on the morning 4 May 1945. *Aaron Ward* received a message from Fleet Admiral Chester Nimitz, Commander-in-Chief, Pacific Ocean Areas, which stated, "We all admire a ship that can't be licked. Congratulations on your magnificent performance." The cost for this accolade was very high. *Aaron Ward* suffered 19 crewmen killed outright. Six died of their wounds. Sixteen men and one officer were missing, for a total of 42 lost. Somewhat astonishingly, only one officer was lost, Lieutenant (j.g.) Robert N. McKay, USNR, Supply Corps. Fifty Sailors and four officers were seriously wounded and many more had minor injured.

Due to the number of damaged ships at Kerama Retto, temporary repairs to *Aaron Ward* were not completed until 11 June, when she got underway for the United States via Ulithi, Guam, Eniwetok, Pearl Harbor, and the Panama Canal, finally arriving at the New York Navy Yard in mid-August. With the war ending and the damage so great, she was decommissioned on 28 September 1945

and sold for scrap in 1946 without repairs being completed. Her 4,000-pound anchor ended up in a park in Elgin, Illinois (where it is today), at the request of the father of one of the Sailors lost aboard. *Aaron Ward* only earned one Battle Star for her World War II service, but she was awarded a Presidential Unit Citation.

The commanding officer of *Aaron Ward*, Commander William H. Sanders, was awarded the Navy Cross, and numerous other crewmen were recognized for their valor in saving the ship. One Sailor that went unrecognized, due to the systemic racism of the time, was Steward First Class Carl E. Clark, an African American crewman who put out a fire in an ammunition locker, quite possibly saving the ship, and carried many wounded shipmates to safety from the fires and flooding. In 2012, Secretary of the Navy Ray Mabus presented a Navy Commendation Medal with Combat V to Carl Clark (who passed away in 2017).

The Presidential Unit Citation for *Aaron Ward* reads as follows:

For extraordinary heroism in action as a Picket Ship on Radar Picket Station during a coordinated attack by approximately 25 Japanese aircraft near Okinawa on 3 May 1945. Shooting down two kamikazes which approached in determined suicide dives, the USS AARON WARD was struck by a bomb from a third plane as she fought to destroy this attacker before it crashed into the superstructure and sprayed the entire area with flaming gasoline. Instantly flooded in her after engine room and fireroom, she battled against flames and exploding ammunition on deck, and, maneuvering in tight circles because of damage to her steering gear, countered another suicide attack and destroyed three kamikazes in rapid succession. Still smoking heavily and maneuvering radically, she lost all power when her

forward fireroom flooded after a seventh suicide plane which dropped a bomb close aboard and dived in flames into the main deck. Unable to recover from this blow before an eighth bomber crashed into her superstructure bulkhead only seconds later, she attempted to shoot down a ninth kamikaze diving toward her at high speed and, despite the destruction of nearly all her gun mounts aft when this plane struck her, took under fire the tenth bomb-laden plane, which penetrated the dense smoke to crash on board with a devastating explosion. With fires raging uncontrolled, ammunition exploding and all engine spaces except the forward engine room flooded as she settled in the water and listed to port, she began a night-long battle to remain afloat and, with the assistance of a towing vessel, finally reached port the following day. By her superb fighting spirit and the courage and determination of her entire company, the AARON WARD upheld the finest traditions of the United States Naval Service.

For the President,
James Forrestal
Secretary of the Navy

The Navy Cross citation for Commander Sanders reads:

The President of the United States of America takes pleasure in presenting the Navy Cross to Commander William Henry Sanders, Jr., United States Navy, for extraordinary heroism and distinguished service in the line of his profession as Commanding Officer of the Destroyer USS AARON WARD (DM-34), in action against enemy aircraft on 3 May 1945, while deployed off Okinawa in the Ryukyu Islands. With his radar picket station the target for a coordinated attack by

approximately twenty-five Japanese suicide planes, Captain Sanders gallantly fought his ship against the attackers and, although several bomb-laden planes crashed on board, skillfully directed his vessel in destroying five kamikazes, heavily damaging four others and routing the remainder. Determined to save his ship despite severe damage and the complete loss of power during this action, he then rallied his men and renewed the fight against raging fires, exploding ammunition, and the flooding of all engineering spaces until, after a night-long battle to keep the ship afloat, he succeeded in bringing her into port. By his inspiring leadership and courage in the face of overwhelming odds, Captain Sanders upheld the highest traditions of the United States Naval Service.

Captain Sanders continued to serve after the war, including as commanding officer of the destroyer tender *Dixie* (AD-14) operating off Korea during the Korean War, before he retired in 1959 as a rear admiral.

No U.S. Navy ships since World War II have been named for *Aaron Ward* or William Sander.

Sources include: *Brave Ship, Brave Men*, by Arnold S. Lott (Indianapolis, IN: Bobbs-Merrill Company, 1964); "History of USS *Aaron Ward* (DM-34)" at destroyers.org; *Kamikaze Attacks of World War II: A Complete History of Japanese Suicide Strikes on American Ships by Aircraft and Other Means*, by Robin L. Rielly (Jefferson, NC: McFarland and Co., Inc., 2010); *Desperate Sunset: Japan's Kamikazes Against Allied Ships*, by Mike Yeo (London: Bloomsbury Press, 2019); NHHHC Dictionary of American Fighting Ships (DANFS); and *History of United States Naval Operations in World War II, Vol. XIV: Victory in the Pacific*, by Samuel Eliot Morison (Boston: Little, Brown and Company, 1961).



USS Sangamon (CVE-26) is attacked by a Japanese Kawasaki Ki-61 "Tony" kamikaze off Okinawa, 4 May 1945. This aircraft missed the ship by 25 feet or less (80-G-334505).

H-046-2: *Kikusui* No. 5— "Chrysanthemums from Hell," 4 May 1945

H-Gram 046, *Attachment 2*

Samuel J. Cox, Director NHHC

May 2020

Suicide Boat Attack, 3 May 1945

After sunset on 3 May, a Japanese army suicide boat of the "27th Suicide Boat Battalion" entered the fray in the waters off Okinawa. Although

spotted by a minesweeper and illuminated by a searchlight, the one-man boat successfully rammed the attack cargo ship *Carina* (AK-74) and detonated the onboard explosives. Luckily, a landing craft moored alongside *Carina* absorbed much of the large explosion that flooded one hold and knocked out a boiler. The ship remained afloat with no crewmen killed and only six wounded. Inspection the next morning revealed significant cracks in the deck and the hull that the commanding officer assessed would cause the ship to break up in a moderate sea. Effective damage control not only saved the ship, but also the cargo, which could be offloaded before *Carina* received temporary repairs at Kerama

Retto. She then sailed to the States, where she still was when the war ended.

Kikusui No. 5, 4 May

Sunrise on 4 May was clear with great visibility over Japanese airfields on Kyushu. This meant it was going to be a really bad day near Okinawa. *Kikusui* ("Floating Chrysanthemums") No. 5 mass *kamikaze* attack included only about 125 aircraft (50 from the army and 75 from the navy). In terms of types of aircraft, the Japanese threw in everything but the kitchen sink. The army aircraft included Nates, Oscars, Tonys, Franks, and Nicks, the first four all single-engine fighters of various types. The navy's contribution to *Kikusui* No. 5 included a large number of obsolete aircraft: older models of Zeke fighters and Val dive-bombers. There were also seven Betty twin-engine bombers, each carrying an *Ohka* rocket-assisted manned suicide flying bomb. The air attack also included float planes for the first time, including three Aichi E13A1 Jakes (the Japanese Navy's standard battleship/cruiser-catapulted long-range reconnaissance aircraft) plus 15 early-1930s vintage Kawanishi E7K2 Alf wooden biplane seaplanes (obsolete and retired to second-line duty even before the start of the war).

Kikusui No. 5 began launching from airfields on Kyushu at 0500, led by a fighter sweep of 48 navy Zekes and 25 army Ki-84 Franks. Most of the Japanese fighters would be shot down by U.S. fighters, but they created enough of a distraction that enough of the *kamikaze* aircraft would get through to make 4 May 1945 the single most painful day for the U.S. Navy off Okinawa (although still more to come in the next weeks were almost as bad). *Kikusui* No. 5 would for the first time shake U.S. Navy resolve to continue to stand and fight in range of land-based air, losing the advantage that ship mobility provided. The "mass" *kamikaze* raid is a bit of a misnomer in that the Japanese had learned to stagger the attacks in terms of time, altitude, speed, and course/direction. Some aircraft made solo flights.

Most attacked in groups of 6-7 aircraft, as the Japanese learned that was the optimal size for at least a couple to get through the U.S. fighter combat air patrols (CAP). Although the *kamikaze* pilots were uniformly brave, many of them were barely trained, and their flying skills were generally much less than those of the suicide pilots in the Philippines campaign (particularly those at Lingayen Gulf). However, there were a lot more of them and they were now directly defending their homeland. Their recognition skills were also poor (recognition was a problem for even good pilots on both sides throughout the war). There was a strong tendency for the Japanese pilots to go after the first ships they saw, which was usually the destroyers on Radar Picket Station No 1 to the north of Okinawa, although RP2, 3, 14, and 15 were *kamikaze* bait as well.

There were 16 radar picket stations providing 360-degree coverage around Okinawa, from RP1 about 50 nautical miles almost due north, clockwise around the island at staggered distances to RP 14 and 15 to the north-northwest, with RP14 the farthest out at 75 nautical miles. Most of the RPs were stationed to optimize coverage from the sectors from west to northeast (the direction of attack from Japanese airfields on Kyushu). RP16 didn't fit the numbering pattern and was about 50 nautical miles to the northwest between RP11 and RP12. RP8, about 100 nautical miles to the southwest, provided the farthest-out coverage of the axis of attack from Formosa.

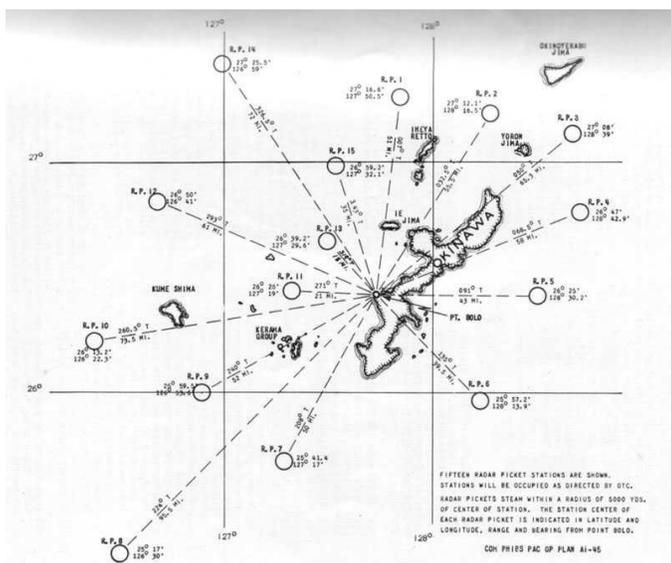


Chart showing radar picket positions off Okinawa, May 1945. Radar pickets steamed within a radius of 5,000 yards of the center of their station. The station center of each radar picket is indicated in latitude and longitude, and range and bearing from point "Bolo" (Naha, Okinawa). Excerpted from "Battle Experience: Radar Pickets and Methods of Combating Suicide Attacks Off Okinawa, March–May 1945," COMINCH Headquarters, Washington, DC, 20 July 1945.

the vicious night Battle of Vella LaVella on 6 October 1943 (see H-Gram 022). *Morrison* was a *Fletcher*-class destroyer (five single 5-inch/38-caliber guns) and, on 31 March, had sunk the infamous Japanese submarine *I-8* after depth-charging her to the surface and putting her under in an exchange of gunfire off Okinawa (see H-Gram 045). *Morrison* had also previously rescued 400 survivors of the light carrier *Princeton* (CVL-23) on 24 October 1944 and had suffered damage when her mast and forward stack had gotten caught in *Princeton*'s uptakes.

Ingraham was a relatively new *Allen M. Sumner*-class destroyer (three twin 5-inch/38-caliber guns) commissioned in March 1944, and was the third destroyer named after Captain Duncan Ingraham, who had served as chief of the Confederate ordnance bureau in the Civil War. The second *Ingraham* (DD-444) had been lost in a tragic collision in the fog off Nova Scotia on 22 August 1942, when she was accidentally rammed and sunk by the oiler *Chemung* (AO-30) while *Ingraham* was going to the aid of destroyer *Buck* (DD-420), which had collided with a merchant ship. *Ingraham*'s depth charges went off as she was sinking. Only 11 of her crew survived and 218 were lost, one of the worst non-combat losses in the Navy's history. The third *Ingraham*'s skipper, Commander John Frank Harper, Jr., had been awarded a Silver Star for his actions in command of the destroyer at the Battle of Lingayen Gulf in January 1945. Also embarked on *Ingraham* was Commander John Crawford Zahm, the commander of Destroyer Division 120, who was the officer in tactical command at RP1 on 4 May. He already had three Silver Stars from the D-Day landings at Normandy, and from the landings at Ormoc Bay and Lingayen Gulf in the Philippines.

LSM(R)-194 was under the command of Lieutenant (j.g.) Allen M. Hirshberg, USNR. The vessel was one of a class of 12 LSMs that had been extensively modified to deliver a massive rocket barrage in support of amphibious landings. In April, the commander of LSM forces (Flotilla 9)

Loss of *Morrison* (DD-560) and LSM(R)-194 on Radar Picket Station No. 1

Due to intelligence reports and the weather forecasts, all U.S. ships around Okinawa were expecting a major *kamikaze* attack on the morning of 4 May. The Japanese would not disappoint and, as usual, Radar Picket Station No. 1 would be a really bad place to be. The destroyers *Morrison* (DD-560) and *Ingraham* (DD-694) had drawn the figurative short straw and were at RP1, supported by *LSM(R)-194* and three large support landing craft, *LCS(L)-21*, *LCS(L)-23*, and *LCS(L)-31*. In the black humor typical of Sailors, the assisting amphibious craft had become known as "pallbearers."

Morrison (DD-560) was commanded by Commander James R. Hansen, and had been on RP1 since 1 April. She had a fighter-direction team embarked to control combat air patrol (CAP) fighters. Hansen was combat experienced and already had a Silver Star from a tour as combat information center (CIC) evaluator aboard destroyer *Chevalier* (DD-451) when she was lost in

had recommended against using the LSM(R) on radar picket duty, as the ships were ill-suited for anti-aircraft defense (no radar), because of their comparative scarcity and specialized nature (only 12 of them), and, with the large number of rockets on board, had a vulnerability similar to ammunition ships. In an example of failure to quickly adapt, his recommendations were not implemented, and three of the vessels—*LSM(R)-195*, *194*, and *190*—would be lost in quick succession on 3 and 4 May 1945 before it was recognized that using them in this role was a bad idea.

Radars on *Morrison* and *Ingraham* began picking up large inbound raids at about 0715. The fighter-direction team on *Morrison* vectored shore-based Marine F4U Corsair fighters of VMF-224 and 12 Hellcats of VF-9 off *Yorktown* (CV-10) under its control to intercept. Other aircraft from *Yorktown* engaged as well (about 32 U.S. aircraft were in the area of RP1). Reports from numerous ships described a massive air battle seen on radar north of Okinawa as numerous U.S. fighters engaged the Japanese. Many Japanese aircraft were shot down, but the enemy's fighter sweep and dispersed tactics enabled a significant number to get through. *Morrison's* fighters handled the first three raids (about 25 aircraft) heading for RP1, but a Val dive-bomber finally broke through. Although pursued by four Corsairs and hit repeatedly by fire from the fighters and *Morrison's* gunners, the Val kept boring in from the bow and grazed the top of *Morrison's* No. 2 5-inch gun mount and the bridge before crashing ten yards astern in the ship's wake.

A few minutes later, another Val dive-bomber made it through the fighter gauntlet and, with Corsairs on its tail, was shot down 2,500 yards short of *Morrison*. Although additional combat air patrol fighters arrived in the area (now up to about 48), a Japanese Zeke fighter, also pursued by Corsairs, got close enough to drop a bomb that hit 50 yards from *Morrison's* port beam while the Zeke impacted the water 50 yards on the

starboard beam, neither causing significant damage. Then, another Val with fighters on its tail aimed for *Morrison's* bridge, disintegrating at the last moment, with most of the plane impacting the water 25 yards away. However, parts of the plane's wing and landing gear hit the bridge. At 0825, a fifth Japanese plane grazed the aft stack before crashing in the water. At this point, *Morrison's* luck had run out.

Two Zeke fighters made near-vertical dives in quick succession (although these are described as navy Zekes in almost every account, Japanese records indicate these are probably Japanese army Ki-84 Frank fighters). The first Zeke clipped the after stack before penetrating into the ship at the foot of the forward stack, the bomb detonating in the forward fire room and causing the No. 1 boiler to explode. This crash caused heavy casualties on the bridge, in the radio and plotting rooms, and in the forward fireroom, as well as knocking out most of the electrical power equipment. The second Zeke hit close to the No. 3 5-inch gun mount, crashed through the main deck, and penetrated into the after engine room. It blew a large hole in the ship's hull plating and opened the aft engine room to a massive influx of water. *Morrison* was in big trouble, but her crew still had a decent chance to save her. Then, the Alfs attacked.

Accounts described the bi-wing floatplane Alfs coming in like a flight of pelicans in two groups of seven, low and slow, with the assessment that the leader of each group was a skilled pilot, but the rest barely knew how to fly. Fighters swarmed the Alfs, which proved surprisingly hard to bring down despite the fact that almost none of them maneuvered at all to avoid attack. Nevertheless, almost all of the Alfs went down, but the survivors kept coming. It turned out the 5-inch variable-time (VT) radar-proximity fuze shells didn't work against the wooden Alfs.

One of the Alfs approached from *Morrison's* stern and was hit repeatedly by 20-mm fire that passed

clean through. The Alf shed bits of fabric on the aft 20-mm gunners before it crashed into the 40-mm mount on the aft deckhouse and the No. 3 5-inch gun just forward of that. Powder in the upper handling room ignited, blowing the 5-inch gun off its foundation and causing additional damage to an already gravely weakened part of the ship. Although old and slow, the Alfs were each carrying a big 1,000-pound bomb.

Accounts differ as to whether *Morrison* was hit by two or three Alfs, but no one who saw it could forget the last one. Approaching *Morrison* from astern with Corsairs closing in for the kill, the Alf pilot set his floatplane down in the water, causing the fighters to overshoot. Taxiing in the wake of *Morrison*, under fire, the Alf took off again and then crashed into *Morrison*'s No. 4 5-inch gun turret, setting off a massive powder explosion that doomed the ship. Uncontrollable flooding in the aft part of the ship and rapidly increasing starboard list caused Commander Hansen to give the abandon ship order immediately, but most of the ship's internal communications had been knocked out and most of the men below decks didn't get the order or couldn't get out in time. At 0840, the ship sank by the stern, bow pointing skyward, in less than ten minutes from the last hit, with very heavy casualties. *Morrison* suffered 153 men killed or missing, and 108 of her 179 survivors were wounded—six of them subsequently died. (There are major discrepancies in various accounts regarding the order of hits and types of aircraft, and in such cases I tend to hew toward Morrison).

Ingraham came under concentrated *kamikaze* attack at the same time as *Morrison*. *Ingraham*'s after-action report was particularly detailed regarding the Japanese tactics, noting that the first attacks were by very fast modern aircraft in singles or small groups from widely separated sectors, building up in numbers until the CAP fighters were overloaded. This was followed by the Alf biplanes, which were almost all shot down, and then by older land-based aircraft. The

Japanese planes approached in loose formation (probably because many had been shot down by fighters) and split up, attempting to conduct an ad hoc simultaneous attack from widely different directions with varying attack profiles.

Ingraham was credited with shooting down six Japanese aircraft and assisting in downing three others. The destroyer shot down the first four (or five) *kamikaze* that attacked her (two were near misses) before a fifth (or sixth) crashed her just above the waterline on the port side near No. 2 5-inch gun mount. The Zeke's bomb exploded in the generator room and the combined effect led to flooding in the forward fireroom and knocked out electrical power to almost all the ship's guns. Down 14 feet at the bow and vulnerable, she was spared from further attack, but suffered 15 dead and 37 wounded.

While maneuvering to aid the damaged *Ingraham* and survivors of *Morrison*, *LSM(R)-194*, which has put up a gallant fight to that point, was hit in the stern at 0850 by a damaged Tony fighter that had been hit by fire from *LCS(L)-21* (Japanese records indicate no Ki-61 Tonys participated). As predicted, the combination of the *kamikaze* and the vessel's own rockets was deadly. *LSM(R)-194* sank quickly with 13 crewmen missing (later declared dead) and 23 wounded. A large explosion occurred just as the vessel went down, damaging *LCS(L)-21* which was coming to *LSM(R)-194*'s aid.

Despite her damage, *LCS(L)-21* picked up 187 survivors of *Morrison* and *Ingraham* (who had been blown overboard) and another 49 survivors of *LSM(R)-194*, with *LCS(L)-31* picking up the rest. Counting her own crew, *LCS(L)-21* had over 300 men aboard. In addition, the vessel had shot down three planes (four, counting the one that hit *LSM(R)-194* instead of the water). *LCS(L)-23* shot down four Japanese planes. *LCS(L)-31* was nearly hit by two *kamikaze*: one carried away the ensign before crashing in the water and the wings of the second hit the conning tower and

forward gun tub as the fuselage passed between them and out the other side. A third *kamikaze* hit the main deck aft, but even though badly damaged, *LCS(L)-31* shot down two more Japanese aircraft, suffering eight dead and 11 wounded. Most of these aircraft were identified as Val dive-bombers, but were most likely older Japanese army Nate fighters with fixed landing gear, which would explain why so many of them were expending themselves against such relatively small targets. In a number of cases, Japanese planes also strafed survivors in the water, and others crippled by U.S. fighters attempted to crash into clumps of floating survivors. Nevertheless, most of the survivors were rescued within three hours.



USS Morrison (DD-560) underway, in a photo taken from USS Gambier Bay (CVE-73), 24 July 1944. Another aircraft carrier may be seen in the distance (USN 243852).

Morrison, *Ingraham*, and *LSM(R)-194* were each awarded a Navy Unit Commendation, with that for *Morrison* noting her "firing resolutely until she went down." Captain (and future Vice Admiral) Frederick Moosbrugger, overall commander of the radar picket destroyers, lamented in his report that the loss of *Morrison* was "all the more regretted in view of the gallant fight to the finish." Fleet Admiral Nimitz readily concurred with that assessment. What may be even more lamentable is that in 1957, the U.S. Navy donated the wreck

of *Morrison* (and 26 other ships) to the Government of the Ryukyu Islands for scrap, so the last resting place of the Sailors who so valiantly served on her is gone. *Ingraham* returned to the United States for repairs, which were not completed before the war ended. She, at least, went on to distinguished service in the Korean War, Cold War, Vietnam, and in the Greek navy before being sunk as a target in 2001.

Commander John C. Zahm, Commander James R. Hansen, Commander John F. Harper, Jr., and Lieutenant (j.g.) Allen M. Hirshberg, were each awarded the Navy Cross with the following citations:

The President of the United States takes pleasure in presenting the Navy Cross to Captain (then Commander) John Crawford Zahm, United States Navy, for extraordinary heroism while serving as Officer in Tactical Command of a Radar Picket Station Unit in the vicinity of Okinawa on 4 May 1945. During an overwhelming and savage Japanese suicide attack he fought his unit with such skill and vigilance that more than forty-two enemy planes were destroyed by ship's gunfire and the combat air patrol. His inspiring leadership and devotion to duty in the face of savage enemy attack were in keeping with the highest traditions of the United States Naval Service.

The President of the United States takes pleasure in presenting the Navy Cross to Commander James Richard Hansen, United States Navy, for extraordinary heroism and distinguished service in the line of his profession as Commanding Officer of Destroyer USS MORRISON (DD-560), in action against enemy Japanese forces in the vicinity of Okinawa on 4 May 1945. While on radar picket duty in advance of the main body of our fleet, accompanied by another destroyer and

four smaller vessels, Commander Hansen gallantly fought his ship during a two-hour battle with more than forty enemy planes. Under the violent bombing, strafing and suicide attacks of the hostile aircraft, he carried out radical defensive maneuvers and directed his gun batteries in maintaining a tremendous volume of anti-aircraft fire. After the ship was hit by four suicide planes and fatally damaged, Commander Hansen inspired his officers and men to continue the fight and make every effort to save their sinking ship. His indomitable fighting spirit and unwavering devotion to duty were in keeping with the highest traditions of the United States Naval Service.

The President of the United States takes pleasure in presenting the Navy Cross to Commander John Frank Harper, Jr., United States Navy, for extraordinary heroism and distinguished service in the line of his profession as Commanding Officer of the Destroyer USS INGRAHAM (DD-694), in action against enemy Japanese forces during an air-sea battle off Okinawa on 4 May 1945. With the ships of his formation subject to continuous bombing, strafing and suicide attacks by more than forty enemy planes, Commander Harper gallantly met the savage assaults and fought his ship brilliantly, maintaining devastating anti-aircraft fire to shoot down five of the hostile aircraft. When a sixth plane crashed on board and caused serious flooding during a coordinated attack, he personally surveyed the damage and directed the control and, by his unfaltering leadership, aided materially in saving his ship and in keeping her guns firing until the last of the attackers had been destroyed. His courage and determination throughout were in keeping with the highest traditions of the United States Naval Service.

The President of the United States takes pleasure in presenting the Navy Cross to Lieutenant Allen Myers Hirshberg, United States Naval Reserve, for extraordinary heroism and distinguished service in the line of his profession as Commanding Officer of the USS LANDING SHIP MEDIUM (Rocket) ONE HUNDRED NINETY-FOUR (LSM(R)-194), a close-in fire support ship, in action against enemy Japanese forces during the assault on Okinawa, Ryukyu Islands, on 4 May 1945. After a bomb-laden suicide plane crashed into his ship, Lieutenant Hirshberg directed from the conn the entire damage control and, displaying exceptional courage when it became necessary to abandon ship, remained to supervise the continuous fire of his anti-aircraft batteries against further enemy air attacks. His outstanding courage and his inspiring leadership of officers and men under his command reflect the highest credit upon Lieutenant Hirshberg and the United States Naval Service.



USS Luce (DD-522) photographed in 1944 while wearing camouflage Measure 32, Design 18D (NH 51451).

Loss of Luce (DD-522) and LSM(R)-190 on Radar Picket Station No. 12

As the battle at Radar Picket Station No. 1 was raging, other Japanese aircraft were approaching

RP12 from the west-northwest, patrolled by destroyer *Luce* (DD-522). Known as the "Lucky Luce" by her crew, this would not be her lucky day. *Luce* was commanded by Commander Jacob Waterhouse. As RP12 had not seen near as many *kamikaze* attacks as the stations to the north, *Luce* was on station accompanied only by four smaller amphibious vessels, *LSM(R)-190*, commanded by Lieutenant Richard H. Saunders, as well as *LCS(L)-81, 84* and *118*.

At 0740, combat air patrol fighters intercepted Japanese aircraft approaching *Luce's* stations and shot down a number of them. At 0808, two *kamikaze* broke through the fighter gauntlet and attacked the destroyer, splitting up to make runs from opposite directions. *Luce* opened fire on the aircraft at 8,000 yards. Despite taking repeated hits, both aircraft refused to go down. The first *kamikaze* nearly hit the bridge and crashed a few feet to starboard, but the bomb explosion caused a brief power failure throughout the ship, knocking out all the radars. Guns trained manually on the second *kamikaze* coming in from the port quarter, but only a few had a brief opportunity to fire before the plane crashed into the port side below the No. 3 5-inch gun mount. It inflicted severe damage to the after engine room, flooding that space and others aft, and jamming the rudder hard over.

Luce quickly took on a heavy list and was going down by the stern with uncontrollable flooding. At 0814, Commander Waterhouse gave the abandon ship order, which was followed a minute later by a massive explosion as the ship went under. Almost no one below decks made it out, and additional men were killed when *Luce's* depth charges went off under water; 149 crewmen were lost with the ship and another 94 were wounded, including the badly injured Waterhouse. This was an example in which whether a ship survived or sank had a lot to do with where the *kamikaze* hit, and sometimes no amount of valor or skill could save the ship. Waterhouse would be awarded a

Silver Star for his actions in the few minutes he had to fight and try to save his ship.

At the same time *Luce* was coming under attack, an aircraft identified as a "Dinah" overflew *LSM(R)-190* and dropped a bomb that missed. (The Ki-46 Dina was a high-speed twin-engine army reconnaissance aircraft that was so fast few were ever shot down. There were a small number configured for ground attack.) When the Dinah was hit by anti-aircraft fire, it flipped over and commenced a dive on *LSM(R)-190*, crashing into the 5-inch gun mount, setting it on fire, and severely wounding Lieutenant Saunders, the commanding officer, who was in and out of consciousness for the rest of the fight, and killing the gunnery officer. A radioman took over the conn until relieved by the vessel's communications officer, Ensign Lyle Tennis, who continued the fight.

Tennis ordered that the sprinkler system in the rocket magazine and aft rocket assembly room be turned on, but water pressure was minimal due to ruptured fire mains, and the fire from the 5-inch gun spread to the upper handling room. Nevertheless, the ship kept shooting as a second *kamikaze* came in low on the port beam and crashed into the upper level of the engine room, which soon had to be abandoned due to choking smoke. Even with the engine room turned into a blast furnace, *LSM(R)-190* continued at flank speed with radical maneuvers that caused another pass at masthead height by a high-speed twin-engine Japanese fighter (probably a Nick) to miss with its bomb. However, with every gun out of action except the aft 20-mm, a fourth aircraft attacked the ship and hit the Mk. 51 gun director with a bomb. A fifth aircraft identified as a Val dive-bomber dove on the ship from high altitude (with an F4U Corsair fighter on its tail), but caused no additional damage.

By 0830, the fires on *LSM(R)-190* were out of control with grave risk that the rockets would explode. The order to abandon ship was given,

and the wounded commanding officer and the dead gunnery officer were lowered into life rafts. At 0850, as the ship went under, there was a massive explosion. *LSM(R)-190* suffered 14 dead and 18 wounded, and was the third “rocket ship” to go down in just over 12 hours, which would finally result in them being taken off radar picket duty as they would be needed for the eventual invasion of Japan. *LSM(R)-190* was subsequently awarded a Navy Unit Commendation. Lieutenant Saunders was awarded a Silver Star and Ensign Tennis received a Navy Cross. His citation follows:

The President of the United States of America takes pleasure in presenting the Navy Cross to Ensign Lyle S. Tennis, United States Naval Reserve, for extraordinary heroism and distinguished service in the line of his profession while serving as Communications Officer aboard USS LANDING SHIP MEDIUM (Rocket) ONE HUNDRED NINETY (LSM(R)-190), a close-in fire support ship, in action against the enemy on 4 May 1945 off Okinawa in the Ryukyu Islands. After three enemy suicide planes crashed into his ship, wounding the Commanding Officer, he, although suffering from shrapnel wounds himself, assumed direction of the ship and calmly and efficiently maneuvered the ship and directed the firing of the anti-aircraft batteries. When it became necessary to abandon ship, he aided in evacuating his wounded Commanding Officer and was the last to leave the sinking vessel. By his outstanding initiative and inspiring leadership, he contributed materially to minimizing the number of casualties. His conduct throughout was in keeping with the highest traditions of the United States Naval Service.



USS Birmingham (CL-62): Damage caused by a kamikaze that struck the ship's deck just aft of her No. 2 gun turret, during operations off Okinawa on 4 May 1945 (NH-98129).

Rear Admiral Deyo's Flagship Birmingham (CL-62) Hit

Beginning around 0800, radars on U.S. ships in the Hagushi anchorage area, off the main Okinawa landing beaches, began to detect a massive air battle taking place off northern Okinawa, followed by signs that some Japanese aircraft were getting through. One of these ships riding at anchor was the light cruiser *Birmingham* (CL-62), flagship of Rear Admiral Morton Deyo, commander of Task Force 54, the Gunfire and Covering Force. *Birmingham* had just concluded her 41st gunfire support mission since 1 May, much of it directed at the Japanese airfield at Naha, Okinawa (still in Japanese hands at the time) to keep the Japanese from using it.

Birmingham already had a reputation as an unlucky ship. On 8 November 1943, she'd been hit by two Japanese bombs and an aerial torpedo near Bougainville in the Solomon Islands. Although casualties were relatively light at two killed and 34 wounded, the damage kept her out of the U.S. victory at the Battle of Empress Augusta Bay that evening (see H-Gram 024). Worse, on 24 October 1944, during the Battle of Leyte Gulf, *Birmingham* had boldly gone alongside the crippled light

carrier *Princeton* (CVL-23) to help fight fires, when a massive explosion on on the carrier had decimated the topsides of *Birmingham*, killing 243 of her crew and wounding over 400 more in a scene of unbelievable carnage (see H-Gram 038). Now under the command of Captain Harry Douglas Power (who had been awarded a Silver Star in command of attack cargo ship *Betelguese* [AK-28] dodging multiple bombs and torpedoes off Guadalcanal in August 1942), the repaired *Birmingham* had rejoined the fleet in time to support the capture of Iwo Jima in March 1945.

Around 0830, radio reports indicated about 14 Japanese aircraft were being intercepted by combat air patrol about 60 nautical miles from Hagushi, but about ten or 12 made it through coming from the west. Most of these aircraft were shot down by various ships off Hagushi. At 0840, a Japanese army Oscar fighter penetrated into the anchorage and approached *Birmingham*, but was shot down and crashed just ahead of light cruiser *St. Louis* (CL-49).

At 0841, with U.S. attention focused on attacks coming from the west, a single Oscar fighter came over (or from) Okinawa undetected by radar and out of the sun. The plane was not seen by lookouts until it was less than one mile away from *Birmingham*, when it popped up to 4,000 feet. In a manner of seconds, the Oscar commenced a near-vertical dive from directly overhead where none of *Birmingham's* 5-inch or 40-mm guns could elevate. Several 20-mm guns engaged, but lacked the stopping power to prevent the high-speed impact of the plane. It hit *Birmingham's* main deck just aft and starboard of the No. 2 6-inch gun turret ahead of the bridge. The plane and its 500-pound bomb penetrated through several decks deep into the ship, wiping out the sick bay and most of the ship's medical staff (along with many Sailors at sick call), blowing out shell plating on three decks, and holing the hull below the waterline. This flooded three ammunition magazines, the armory, and four living compartments. Despite the damage, repair

parties had all fires out by 0914 and, within an hour, the most seriously wounded had already been transferred via landing craft to the hospital ship *Mercy* (AH-8). *Birmingham* suffered 52 dead and 82 wounded. She was able to get underway on 5 May to Pearl Harbor Shipyard for repairs, returning to Okinawa in late August as the war ended.

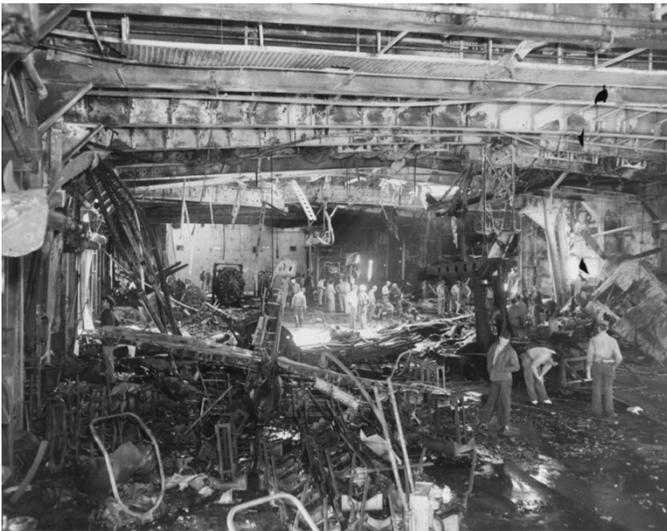
USS Shea (DM-30) Hit by Ohka Suicide Bomb

The destroyer-minelayer *Shea* (DM-30) had arrived at Radar Picket Station 14 about 72 nautical miles northwest of Hagushi at 0600 on 4 May, having engaged two Japanese aircraft and possibly shot one down while en route. *Shea* joined destroyer *Hugh H. Hadley* (DD-774), *LSM(R)-189*, and three LCS(L)s on station. She was commanded by Commander Charles Cochran "Chili" Kirkpatrick, who had already been awarded three Navy Crosses and an Army Distinguished Service Cross in command of submarine *Triton* for three successful war patrols in 1942 and early 1943. (Following *Triton*, he became aide and flag lieutenant to Chief of Naval Operations, Admiral Ernest J. King. Kirkpatrick would go on to be Superintendent of the U.S. Naval Academy in 1961-64).

Visibility was poor at RP14, limited to 5,000 yards due to smoke drifting from the smoke generators that covered the Hagushi anchorage. *Shea* had gone to general quarters at the first report of a large inbound raid, which appeared to bypass RP14 and go for *Luce* at RP12 and the Hagushi anchorage. At 0854, *Shea* spotted a solitary G4M Betty twin-engine bomber at the edge of the haze about six miles way. She vectored a CAP fighter to intercept, which shot the Betty down four minutes later. At 0859, a lookout on *Shea* sighted a very high-speed aircraft inbound from the starboard beam. The Betty had dropped its MXY-7 *Ohka* rocket-assisted manned suicide bomb before it had been shot down. The Betty was apparently one of two (of the seven) *Ohka*-carrying planes to reach a target that day. (Another *Ohka* barely missed the minesweeper *Gayety* [AM-239].)

The *Ohka* closed the distance so fast that only one .50-caliber machine gun, one 20-mm, and one twin 40-mm had a chance to open fire, which did no good. At over 450 knots, the *Ohka* crashed into *Shea's* superstructure, its momentum carrying it through the sonar room and chart house, and clear out the other side of the ship before its 2,600-pound warhead exploded, thus sparing *Shea* from catastrophic damage. The damage was bad enough, however, as fires broke out in the combat information center, chart house, division commander's stateroom, the mess deck, and worst, in the No. 2 upper handling room. All communications were lost, the two forward twin 5-inch gun mounts were inoperative, the main gun director was jammed, the gyro and computer were out of action, a 20-mm gun on the port side was damaged, and the ship developed a five-degree list.

Shea's casualties were one officer and 31 enlisted men killed and 91 wounded. Nevertheless, damage control teams got the fires and flooding under control and *Shea* made it to Kerama Retto under her own power. She was underway for Ulithi on 15 May and transited to Philadelphia via Pearl Harbor, San Diego, and the Panama Canal. Her repairs were not completed until after the war ended. Commander Kirkpatrick was awarded a Silver Star for his actions in fighting and saving his ship.



USS Sangamon (CVE-26): Hangar deck damage caused by a kamikaze attack off Okinawa, 5 May 1945 (80-G-334506).

USS Sangamon (CVE-26) Survives Devastating Kamikaze Hit

Although the main Japanese *kamikaze* attacks on 4 May 1945 were over by mid-morning, for the second twilight in a row, Japanese army aircraft from Formosa made an attack. This time, the target was the escort carrier *Sangamon* (CVE-26), a veteran of numerous battles in the Atlantic and Pacific. *Sangamon* had gone into Kerama Retto before dawn to replenish supplies and ammunition. Due to the numerous air raid alerts, the carrier was unable to get underway until 1830, by which time renewed cloud cover and fading light gave an advantage to the *kamikaze* aircraft. A large raid was reported inbound from the southwest. Four planes of this raid were shot down by Marine Corsairs, but the rest kept coming.

At 1902 a Japanese army Tony fighter made a solo attack on *Sangamon*. Despite heavy anti-aircraft fire from the ship and her escorts *Dennis* (DE-405) and *Fullam* (DD-474), and trailing smoke, the Tony circled around astern of *Sangamon* and commenced its suicide dive. It fortunately missed *Sangamon* by 25 feet off the starboard quarter (this resulted in one of the more famous *kamikaze* photos of the war, albeit blurry due to low light).

Sangamon launched two Hellcat night fighters shortly after the sun set at 1903. They were vectored after a radar contact, but found nothing and returned overhead. At 1925, *Fullam* reported another inbound radar contact. The Japanese aircraft was right on the deck and the fighters missed it. The Japanese plane, a twin-engine Nick fighter, dropped out of the clouds about three nautical miles from *Sangamon* and got a bead on the carrier before ducking back into the clouds. Finally, the plane burst out of the clouds from astern with almost no time to react. Still, *Sangamon* gunners hit it and set an engine afire, to no avail.

At 1933, the Nick dropped a bomb that penetrated into the hangar through the flight deck a moment before the plane crashed into and through the flight deck a little farther forward. The carrier shuddered in a massive explosion as both elevators were blown out of the wells and a large gash was ripped in the flight deck. Standard operating procedure on *Sangamon* was for hangar deck personnel to evacuate the hanger when guns were firing, otherwise the personnel loss would have been far worse. A number of men were blown off the ship and others jumped overboard to avoid burning in the inferno that quickly enveloped the hangar deck.

Fires on the flight deck quickly threatened the bridge, and Captain Malstrom ordered everyone off except the helmsman, navigator, his orderly, and himself, while he turned the ship out of the wind. However, communications with the bridge were lost at 1955 and *Sangamon* entered an uncontrolled turn until after steering regained control. At 2025, the heat and smoke were too intense, and Malstrom had to abandon the bridge and set up a control station at the forward edge of the flight deck. The intensity of the fire amidships prevented any communications between the forward and aft parts of the ship, and damage control parties at each end fought independently. The hangar deck water curtains and sprinkler system failed due to damage to water risers and valves. Although the planes in the hangar had been defueled (a hard lesson from the loss of *Bismarck Sea* [CVE-95] at Iwo Jima), a number were still armed and 20-mm and .50-caliber rounds cooked off.

As fires raged in *Sangamon's* hangar bay, others burned on the flight deck, in some cases hampered when one team laid down foam only to have it washed away by another hose team. Aircraft on the flight deck were manually shoved over the side. *LCI-61* came alongside to port to help fight the fires, but *LCI-13* had her upper works smashed attempting to do the same to starboard. Destroyer *Hudson* (DD-475) then came

alongside and also suffered topside damage. She avoided catastrophe when a burning plane fell off the flight deck onto her depth-charge rack, where quick-thinking and very brave Sailors shoved the flaming aircraft overboard before the depth charges detonated.

By 2200, in yet another great U.S. Navy damage control story, all fires were under control. The hangar deck was burned out, the flight deck was unusable as was the island, and only one aircraft survived undamaged. Yet the ship was still afloat, having survived a fire worse than on any other escort carrier during the war. However, 46 men were dead and 116 wounded. One factor was that the four *Sangamon*-class escort carriers were converted from U.S. Navy tankers, unlike later escort carriers that were either converted merchant hulls or designed based on merchant hulls, with far less built-in survivability. Other factors were that all the planes had been defueled, the hangar bay had been cleared of personnel before the hits, and every member of the crew had been well trained in firefighting. Captain Malstrom summed it up, "Again it has been proved that firefighting school is worth all the man-days it requires." Nevertheless, although she survived, *Sangamon* was out of the war and she would never be fully repaired.

Malstrom was awarded a Silver Star for his heroism in saving the ship. I include the section here as an example of how hard it is to discern the level of bravery between a Navy Cross and a Silver Star:

The President of the United States of America takes pleasure in presenting the Silver Star to Captain Alvin Ingersoll Malstrom, United States Navy, for conspicuous gallantry and intrepidity as Commanding Officer of USS SANGAMON (CVE-26) during operations against enemy Japanese forces in the vicinity of Okinawa on 4 May 1945. When his ship was severely damaged by an enemy suicide plane and raging fires broke out on the hangar deck

and among gassed and armed planes on the flight deck, Captain Malstrom directed the fire fighting operations from the bridge until the island structure was enveloped in flames, causing intense heat and suffocating smoke. Beset by darkness, low water pressure caused by broken risers and temporary loss of electrical power, as well as complete absence of communications, he continued to direct overall firefighting operations which resulted in the saving of his ship. By his leadership, courage and devotion to duty, Captain Malstrom upheld the highest traditions of the United States Naval Service.

British Carrier Force (TF 57) Hit by Kamikaze on 4 and 6 May 1945

The British carrier force operating southwest of Okinawa had also come under *kamikaze* attack on 4 May. Under the overall command of Vice Admiral Sir H. Bernard Rawlings, Task Force 57 included the battleships HMS *King George V* and *Howe*, and the five carriers of CTG 57.2 (HMS *Indomitable*, *Victorious*, *Illustrious*, *Indefatigable*, and *Formidable*) under the command of Rear Admiral Sir Philip Vian. On the morning of 4 May, the battleships and some cruisers and destroyers were detached to bombard Japanese airstrips in the Sakishima Islands (between Okinawa and Formosa). While the carrier screen was thus weakened, about 16–20 Japanese aircraft attacked, some of them serving as decoys.

At 1131, a Zeke made it through an intense anti-aircraft barrage and struck *Formidable* near her island, starting a large fire among aircraft on the flight deck. Splinters passed through a small hole in the armored flight deck into the center boiler room, which resulted in a temporary reduction in speed. *Formidable* suffered 18 killed and 47 wounded with 11 aircraft destroyed, but the armored flight deck did its job. It was patched by the afternoon and *Formidable* resumed operations. At about the same

time *Formidable* was hit, another Zeke attacked *Indomitable*, finally being brought down only ten yards from her bow.

At 1654 on 6 May, *Victorious* was hit twice in quick succession by two *kamikaze* before she shot down a third. Shortly afterward, at 1705, *Formidable* was hit again and another seven of her aircraft were destroyed, leaving her with only 15 operational aircraft.

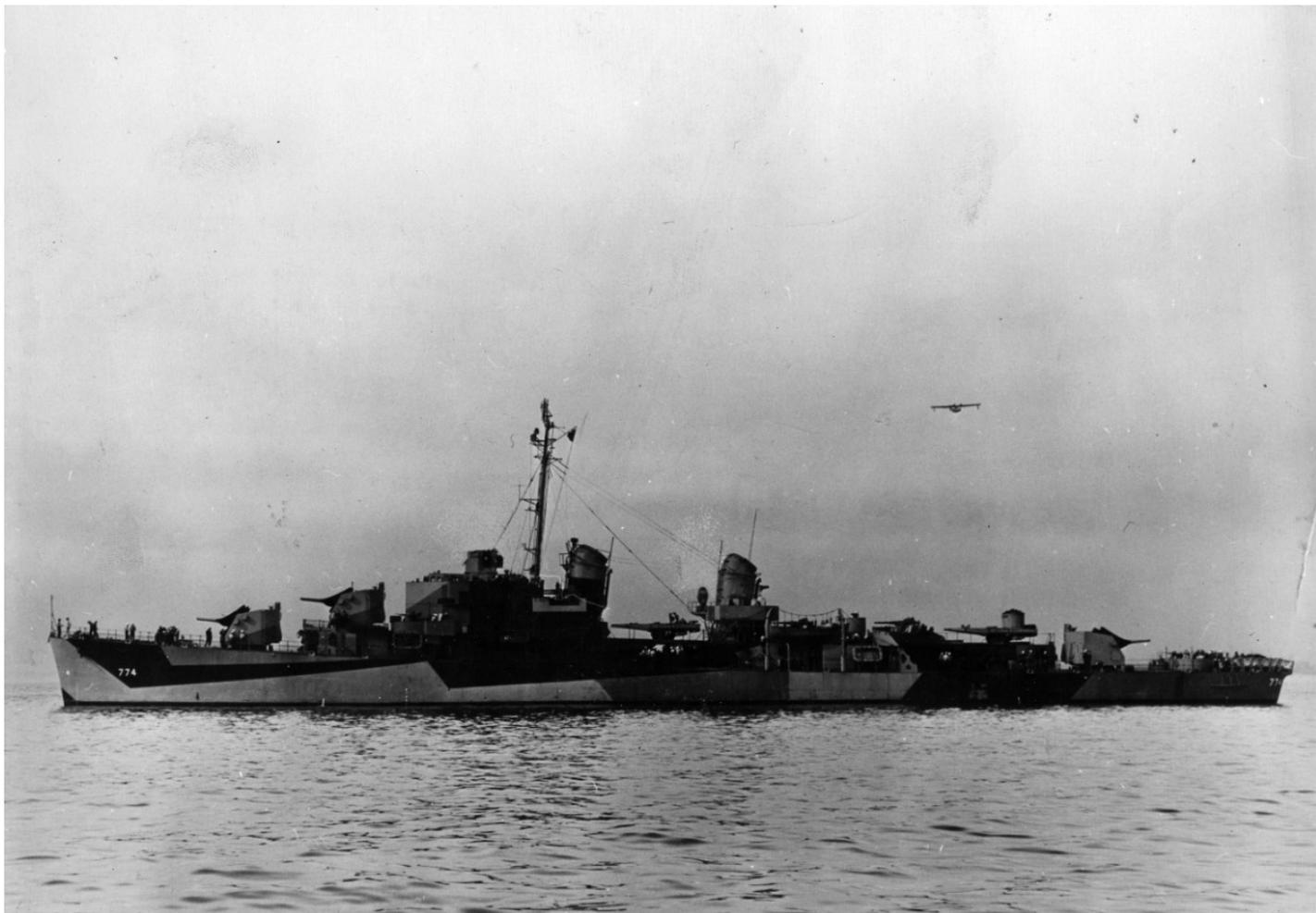
Both *Formidable* and *Victorious* temporarily withdrew for quick repairs. The armored flight decks on the British carriers helped minimize damage. The primary trade-off was that British carriers could only embark about 50 aircraft compared to almost 100 on U.S. *Essex*-class carriers.

Kikusui No. 5 Summary

Over 90 American sailors died during the *kamikaze* attacks on 3 May and about 490 were killed on 4 May, making this the deadliest two-day total of the Okinawa campaign for the U.S. Navy, and there would be more to follow that were almost as bad. The attacks during these two days had cost three destroyers and three LSM(R)s sunk. Other ships, including an escort carrier, light cruiser, and other destroyers were knocked out of the war by heavy damage. Nevertheless, although the LSM(R)s were scarce, destroyers and light cruisers were abundant, and the losses represented a very small percentage of the U.S. Navy forces committed to the fight at Okinawa. The high casualties, however, reverberated to the highest level of U.S. Navy command. Even Fleet Admiral Nimitz and his deputy chief of staff, Rear Admiral Forrest Sherman, had a bout of dismay when informed of the losses. Sherman predicted that high losses would continue. Nimitz nevertheless steeled his resolve by saying, "Anyway, we can produce new destroyers faster than they can build planes." The cost in people, over 580 killed in two days, weighed heavily on Nimitz' mind as he contemplated the casualties

expected in an invasion of Japan, and the several thousand aircraft the Japanese were believed to be holding back for the ultimate defense of the Japanese home islands.

Sources include: *Kamikaze Attacks of World War II: A Complete History of Japanese Suicide Strikes on American Ships by Aircraft and Other Means*, by Robin L. Rielly (Jefferson, NC: McFarland and Co., Inc., 2010); *Desperate Sunset: Japan's Kamikazes Against Allied Ships*, by Mike Yeo (London: Bloomsbury Press, 2019); *The Little Giants: U.S. Escort Carriers Against Japan*, by William T. Y'Blood (Annapolis: Naval Institute Press, 1987); NHHHC Dictionary of American Fighting Ships (DANFS); and *History of United States Naval Operations in World War II, Vol. XIV: Victory in the Pacific*, by Samuel Eliot Morison (Boston: Little, Brown and Company, 1961).



USS Hugh W. Hadley (DD-774), 1944/45 (L45-130-03-01).

H-046-3: *Kikusui* No. 6 and Its Prelude—The Epic Fight of USS *Hugh W. Hadley* (DD-774), 11 May 1945

H-Gram 046, Attachment 3
Samuel J. Cox, Director NHHC
May 2020

On 5 May 1945, the Japanese commenced the third *Kaiten* suicide submarine mission with the departure of the *Shimbu* (“God’s Warriors”) Mission, which consisted of only one submarine, *I-367*, configured to carry five *Kaiten* manned

torpedoes, heading for Okinawa. *I-366* hit a mine on 6 May and could not participate, returning to port for repairs.

***Oberrender* (DE-344) and *England* (DE-635) Knocked Out of the War, 9 May 1945**

Japanese *kamikaze* attacks off Okinawa were not limited to the *Kikusui* mass raids. There was a near-constant threat from smaller groups of aircraft and even solo flights. On 9 May, U.S. ships conducting ASW screening operations north and northwest of Kerama Retto came under attack. The destroyer escort *Oberrender* (DE-344), commanded by Lieutenant Commander Samuel Spencer, USNR, was on the outer ASW screen at dusk on 9 May. *Oberrender* was a veteran of the

Leyte and Lingayen Gulf landings and had survived significant damage when the ammunition ship *Mount Hood* (AE-11) spontaneously exploded at Seeadler Harbor on 10 November 1944.

Oberrender went to general quarters at 1840, when enemy aircraft were reported in the area, subsequently sighting a single in-bound aircraft and commencing fire at 9,000 yards. Spencer maneuvered at flank speed to bring a maximum number of guns to bear, but despite hits, the plane would not go down. A near miss from a 5-inch shell-burst blew off a wing at 250 yards and deflected the aircraft, but not enough. The *kamikaze* crashed through the starboard forward 20-mm gun tub, killing the crew.

The plane's bomb penetrated deep into the ship, exploding in the forward fireroom with such force that it nearly broke the ship in two, with hull plating blown out for nearly a quarter of the ship's length. *Oberrender* lost all power and went dead in the water, suffering eight killed and 53 wounded. Damage control teams did great work and luckily the ship did not break apart. The rescue patrol craft *PCE(R)-855* took off *Oberrender's* casualties and the tug *Tekesta* (ATF-93) towed her into Kerama Retto. The damage was deemed not repairable and she was stripped of all useable gear, decommissioned on site, and sunk as a target just after the war.

Within minutes of *Oberrender* coming under attack, *kamikaze* went after destroyer escort *England* (DE-635) on ASW station B11 northwest of Kerama Retto. *England* was under the command of Lieutenant Commander John A. Williamson, who had been executive officer of the ship when she sank six Japanese submarines in 12 days in May 1944 (many accounts credit Williamson as the driving force in *England's* ASW prowess and, by the way, he invented the "Williamson Turn" used for man-overboard recovery—see H-Gram 030). *England* had also almost been hit by a *kamikaze* on 25 April 1945.

At 1851 on 9 May, three Japanese aircraft (identified as "Vals") made a run on *England* with combat air patrol in hot pursuit. The fighters downed the two trailing aircraft while *England* engaged the lead with guns. Despite being hit and set on fire, the *kamikaze* just kept coming. The plane reportedly had two pilots, with the pilot in front slumped over the controls and the pilot in back apparently flying the plane (some Vals were modified as dual-control trainers late in the war).

The Val crashed into *England's* forward superstructure on the starboard side just below the bridge, and the 250-pound bomb with a delayed-action fuze penetrated into the ship and went off a few seconds later. The after-action report also stated the plane carried two "fire bombs." The explosion and resulting raging fire demolished wardroom country, the captain's cabin, ship's office, and radio room. The flying bridge and signal bridge were enveloped in flames and some crewmen were forced to jump over the side (and took wounded men with them, who wouldn't have survived otherwise). Twenty-millimeter shells also cooked off and added to the casualties. Williamson was able to jump down from the bridge, make his way aft, and conn the ship via after steering.

England's crew kept the fires from spreading further and, at 1919, the minesweeper *Vigilance* (AM-324) came alongside to help put out the fires after picking up some of the overboards. Destroyer-minesweeper *Gherardi* (DMS-30) came alongside and put a doctor and medical team aboard *England*. Although *England* was capable of steaming under her own power, with her entire bridge area burned out and demolished and it being night, Williamson opted to be towed into Kerama Retto, with three officers and 24 enlisted men dead, ten missing, and 27 wounded (final tally of dead was 35 or 37 depending on the account). The bodies of both Japanese pilots were recovered on board and much was made of the fact they were both wearing parachutes.

(However: In fact, *kamikaze* pilots generally flew in full regulation gear, parachute and all, even on one-way missions.)

After temporary repairs, *England* made her way to Philadelphia Shipyard, where she commenced repair and conversion to a fast transport, which was halted when the war ended and never completed. Although Fleet Admiral King had stated after *England's* ASW exploits that "there'll always be an *England* in the U.S. Navy," this has only been true during the service of the cruiser *USS England* (CG-22) from 1963 to 1994.

Kikusui No. 6: The Epic Fight of Hugh W. Hadley (DD-774) and Evans (DD-552), 11 May

Kikusui No. 6 launched the morning of 11 May from Japanese airfields in Kyushu. It consisted of 150 *kamikaze* aircraft, including 70 from the navy and 80 from the army. Like *Kikusui* No. 5, it included a hodgepodge of virtually every type of aircraft in the Japanese inventory (and resulted in wildly inaccurate recognition calls by U.S. ships and aircraft). Radar Picket Position No. 1 lucked out this time. The main Japanese attack came in further west over RP15, located 40 nautical miles northwest of the Transport Area off the southwest coast of Okinawa.

At RP15, was the new *Allen M. Sumner*-class destroyer *Hugh W. Hadley* (DD-774), with a Fighter Direction Team embarked, and commanded by Commander Baron J. Mullaney. Also at RP15 was the *Fletcher*-class destroyer *Evans* (DD-552), named after the first commander of the Great White Fleet, Rear Admiral Robley "Fighting Bob" Evans ("The Fighting Bob" became the ship's nickname). *Evans* was commanded by Commander Robert J. Archer. Four amphibious vessels were on station, including *LMSR(R)*-193 (the lessons of the loss of three *LSM[R]*s on 3 and 4 May having not yet taken hold). Three large support landing craft, *LCS(L)*-83, 83 and 84, were also at RP15.

At dusk on 10 May, the two destroyers had combined to shoot down a Japanese aircraft at 1935. Other single aircraft were detected passing by to Okinawa in the darkness and could not be engaged, but caused the crews being at general quarters for much of the night.

On the morning of 11 May, *Hugh W. Hadley's* fighter direction team had control of 16 F6F Hellcats of VF-85 off the newly arrived new-construction *Essex*-class carrier *Shangri-La* (CV-38). *Hadley* also had control of two Marine F4U Corsairs of VMF-323 flying from airfields on Okinawa captured from the Japanese (Kadena and Yontan). The combat air patrol tactics at the Radar Picket Stations were becoming more standardized: The Navy aircraft from the Fast Carrier Task Force (TF 58) would be vectored to intercept incoming Japanese raids between 25 and 50 nautical miles out, while the Marine fighters would hold close to the ships at the picket station to deal with any leakers from the "outer air battle."

About 0730, radar on *Hugh W. Hadley* and *Evans* began picking up many Japanese aircraft approaching from the north. Commander Mullaney looked at the radar picture in the combat information center (CIC) that the CIC evaluator assessed to show five major groups with an estimated total of 156 aircraft, which wasn't far off. The Navy CAP were vectored to intercept (other TF 58 fighters would join in), resulting in the largest air-to-air action of the Okinawa campaign. Communications between *Hugh W. Hadley* and the CAP became increasingly challenging due to the intensity of the action, but, by 0800, it was estimated that 40-50 Japanese aircraft had been shot down by Navy fighters, but somewhere around 100 were still coming through.

The Marine fighters were vectored to intercept and, before long, they were engaged in dogfights ranging up to 10 to 20 miles from the ship; the numbers of Japanese aircraft were just

overwhelming. The Marines shot down several planes and even after they ran out of ammunition continued to harass Japanese aircraft, forcing at least some of the inexperienced Japanese pilots to crash into the ocean.



USS England (DE-635): Damage from a kamikaze hit received off Okinawa on 9 May 1945. This view, taken at the Philadelphia Navy Yard on 24 July 1945, shows the port side of the forward superstructure, near where the suicide plane struck. Note scoreboard painted on the bridge face, showing England's Presidential Unit Citation pennant and symbols for the six Japanese submarines and three aircraft credited to the ship. Also note fully provisioned life raft at right (80-G-336949).

At 0740, a Japanese E13A Jake float plane (normally launched from battleships or cruisers) approached *Hugh W. Hadley* undetected by radar and pursued by a CAP fighter. The Jake was hit and blew up in a large explosion. *Evans* also reported shooting down a Jake at about the same time (0753); it is likely the same aircraft and uncertain whether *Hugh W. Hadley*, *Evans* or, CAP was responsible for its destruction.

Many more Japanese aircraft then came in view with the lead elements seemingly intent on flying past the destroyers in order to reach the transport area; *Hugh W. Hadley* shot down four. Subsequently, a very large number of Japanese aircraft turned their attention to the ship and to *Evans* and, by 0830, both were in a desperate fight against overwhelming odds, with each being

attacked repeatedly by groups of 4-6 aircraft. In their frantic maneuvering, a gap of as much as two to three miles opened up between *Hugh W. Hadley* and *Evans* and the supporting amphibious ships so that mutual support became less effective. By 0900, *Hugh W. Hadley* had shot down 12 Japanese aircraft, many on kamikaze attack runs and some crashing close aboard in near misses. These included one dive-bomber that crashed 20 feet astern at 0835 and another Val that had its wing shot off and crashed 100 yards away. So far, *Hugh W. Hadley* was not seriously damaged, but urgent calls were going out on the radio for CAP to return overhead to support.

Meanwhile, *Evans* was putting up a terrific fight of her own, but would be less lucky. Planes attacked her from all different directions between 0830 and 0900, and she shot 15 of them down and assisted in downing four more. At 0830, three Kate torpedo bombers were sighted boring in from the port quarter and *Evans* shot down all three of them. Over the next 15 minutes, *Evans'* gunners downed a mix of seven aircraft identified as Kates, Jills, and Zekes (Navy dive and torpedo bombers and fighters), and Tonys (Army fighter). One of the Kates got close enough to drop a torpedo before it went down. Commander Archer ordered a hard left rudder and the torpedo missed ahead of the bow by only 25 yards. Following the torpedo attack, an army Tony was shot down by both *Evans* and *Hugh W. Hadley*, crashing 3,500 yards from the former. Then, a Val dive-bomber on a suicide dive was hit and the pilot lost control, missing *Evans* and crashing 2,000 yards beyond. An army Ki-43 Oscar fighter dropped a bomb that missed and was shot down while attempting to crash into *Evans*. An army Oscar and a navy Jill torpedo bomber made a run in from the port side and both were shot down close aboard. A few minutes later, *Evans* shot down a Tony fighter on an attack run.

Evans' extraordinary run of good luck (and obvious anti-aircraft skill) ran out at 0907, when a

Judy dive-bomber came in from the port bow and crashed into the ship at the waterline, holing the her and causing flooding in the forward crew's berthing compartment. Nevertheless, *Evans'* guns kept firing and another Tony was knocked down at 8,000 yards by a direct hit from a 5-inch shell.

In the smoke of intense anti-aircraft shell bursts, it became increasingly hard to spot incoming aircraft and, at 0911, *Evans* took her second hit by a *kamikaze*, which crashed portside amidships in a bad hit just below the waterline that flooded the aft engine room. Then, two Oscar fighters hit *Evans* in quick succession. The first Oscar released a bomb in a near-vertical dive that exploded deep in the ship in the forward fireroom, destroying both forward boilers, while the crashed plane ignited gasoline fires. The second Oscar hit the ship from the starboard side, starting more fires and inflicting additional severe damage. At 0925, as *Evans* went dead in the water, two Corsairs chased a Japanese aircraft into range of *Evans'* guns, which hit the plane, causing it to miss overhead the bridge and crash close aboard on the other side. At this point, apparently believing *Evans* was done for, Japanese aircraft focused on the other ships. This gave *Evans'* crew a respite to save their ship, including resorting to bucket brigades and portable fire extinguishers, as pumps and fire mains were mostly out of action.

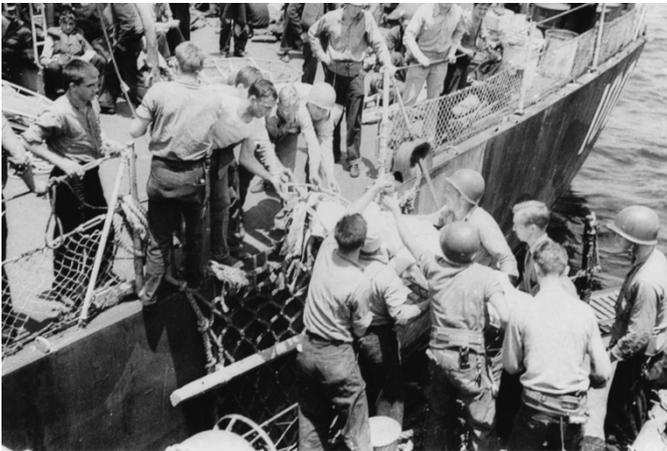
As *Evans* was being hit by four *kamikaze* in quick succession and being effectively knocked out of the battle, *Hugh W. Hadley* was facing a coordinated attack by ten Japanese aircraft. At 0920, four *kamikaze* came in from the starboard bow, four more from the port bow, and two from astern. In one of the most astonishing displays of gunnery prowess, *Hugh W. Hadley's* gunners shot all ten down without taking a hit. Then, her luck ran out and she was hit by a bomb and three *kamikaze* in quick succession. Accounts vary widely as to the type of aircraft and order of hits. I rely primarily on the Navy Bureau of Ships (BUSHIPS) final damage report, which

differs in some significant ways from Commander Mullaney's initial after-action report and even from Morison, particularly in regards to whether the *Hugh W. Hadley* was hit by an *Ohka* rocket-assisted manned flying bomb. According to the initial after-action report, a Betty bomber flying at low altitude (600 feet) astern launched an *Ohka* that hit the ship amidships. The BUSHIPS report discounts this for several reasons: the aircraft engine and bomb tailfin found in impact areas, indications that the impact came from forward of beam, and that the *Ohka* launch profile was usually at 20,000 feet. Moreover, a direct hit amidships by a 2,600-pound warhead probably would have sunk the ship in short order. Nevertheless, a very large explosion (with no smoke, flash, or noise other than a dull thud) occurred well under the keel at the same time as a *kamikaze* plane impacted the ship. The BUSHIPS report cannot conclusively identify the source of this large explosion, postulating that it might have been an "influence" torpedo, or more likely a very large bomb that passed through the ship, out the bottom, and detonated a significant distance below the keel. The damage was severe, hogging the keel by over 50 inches and flooding both engine rooms and the aft fireroom.

According to the BUSHIPS report, at 0920, a *kamikaze* of unconfirmed type passed through *Hugh W. Hadley's* rigging, carrying away wires and antenna, and crashing close aboard to port (this is listed in accounts as a "*kamikaze* hit" although a "near-miss shoot down" may be more accurate). A few minutes later, a *kamikaze* (originally reported as a "Baka Bomb"—an *Ohka*) hit the starboard side at the waterline at the after fireroom. The plane's bomb went through the ship, resulting in "extremely severe flexural vibrations running through the ship for 20 seconds." The three after engineering spaces flooded to the waterline immediately and the ship lost headway, taking on a five-degree list and starting to settle by the stern. Then, a third *kamikaze*, approaching from astern, dropped a small bomb that hit the aft port quad 40-mm gun

(mount 44) and then crashed into the superstructure aft of the No. 2 stack and starting an intense fire in officers' country. (In other accounts, the crew of mount 44 fired on the plane until the bitter end, with the mount's gun captain's last words being, "We'll get the SOB.")

Shock, fragment damage, and smoke rendered the ship's 5-inch and 40-mm batteries entirely inoperable. As flooding spread to shaft alley and the machine shop, and the list increased to seven degrees, the commanding officer, concerned that the ship might capsize, gave a "prepare to abandon ship order." (From the safety of Washington, DC, the BUSHIPS report assessed that the ship might very well have sunk, but there was minimal risk that it would capsize given the nature of the damage.)



Casualties from USS Evans (DD-552) are transferred to rescue patrol craft PCER-855 from USS Ringness (APD-100), after Evans was damaged by kamikaze attacks while on radar picket duty off Okinawa on 11 May 1945. Photographed from PCER-855 (80-G-331077).

Fortunately, at this point the CAP cavalry arrived and shot down many Japanese aircraft while *Hugh W. Hadley* was in an extremely vulnerable state, dead in the water with a fire raging amidships setting off munitions, listing to starboard with the fantail awash, and with the risk looming that the Torpex explosive in the torpedoes might explode. At this point, Commander Mullaney gave orders to hoist all available colors: "If this ship is going down, she's going with all flags flying." Mullaney also ordered

most of the crew and the wounded over the side into life rafts, while 50 officers and men remained on board to make an attempt to save the ship. Torpedoes, depth charges, and unexploded ammunition was jettisoned (there wasn't much ammunition left, *Hugh W. Hadley* had fired 801 rounds of 5-inch, 8,950 rounds of 40-mm, and 5,990 rounds of 20-mm ammunition). Topside weight was also jettisoned from the starboard side to try to correct the list. The forward boilers were secured so that they wouldn't explode.

Initially, the Japanese aircraft focused on the two destroyers and the LSM(R) and three LCS(L)'s that provided what anti-aircraft support they could (the LCS[L]s had radar-directed fire control, but the LSM(R) did not). However, soon the amphibious vessels were fighting for their own lives.

LCS(L)-82 shot down three aircraft and assisted in downing two more. At 0837, LCS(L)-82 fired on and hit a Jill torpedo bomber heading for *Evans*. The Jill's flight profile became erratic before it dropped a torpedo that missed *Evans* just before the plane crashed into the sea (this is probably the same aircraft noted above). At 0845, LCS(L)-82 assisted LCS(L)-84 in shooting down a Tony on the port side. Then, an Oscar came in from the starboard bow and gunners on LCS(L)-82 hit it repeatedly. As the plane passed overhead at 1,000 feet, it broke apart and debris fell toward LCS(L)-82. The skipper, Lieutenant Peter Beierl, adroitly maneuvered the vessel so that wings and engine fell in the wake. At 0940, a Val being pursued by CAP fighters passed astern and LCS(L)-82 gunners hit it, causing it to narrowly miss *Evans*, although some errant "friendly fire" hit *Evans'* forecastle and started a fire. LCS(L)-82 then went alongside *Evans* to assist.

LCS(L)-83 shot down three Zekes and a "Tojo" (army fighter) between 0900 and 0939. LCS(L)-84 saw a Zeke diving on LCS(L)-83 and shot it down.

Despite *LSM(R)-193*'s less-than-optimum anti-aircraft capability, she also gave a good account of herself. At 0845, a Kate torpedo bomber dove on *Evans*, but missed and aimed for *Lsm(R)-193* instead, but was shot down by 5-inch and 40-mm gunfire. At 0859, *LSM(R)-193* shot down another Kate and then at 0912 shot down a Hamp (a Zeke variant). The LSM shot down a fourth plane and then assisted in shooting down yet another that was headed for *Hugh W. Hadley*. *LSM(R)-193* subsequently went alongside her to assist in fighting the fire and tending to wounded.

When the Japanese attacks finally ended, *LCS(L)-82* and *LCS(L)-84* were alongside assisting the crippled *Evans* while *Lsm(R)-193* and *LCS(L)-83* were alongside equally wounded *Hugh W. Hadley*. The combined efforts brought the fires and flooding on both destroyers under control. The destroyer *Wadsworth* (DD-516), fast transport *Barber* (APD-57), and fleet tug *ATR-114* soon arrived to assist with rescue and towing. *Evans* was towed to Kerama Retto for emergency repairs and then towed across the Pacific to San Francisco, where she was decommissioned and later sold for scrap. *Hugh W. Hadley* was also towed to Kerama Retto and spent time in the floating drydock (*ARD-28*) before she was also towed across the Pacific, encountering heavy weather, but arriving at Hunters Point, California, where she, too, was determined to be too damaged to repair.

Evans' casualties included 30 men killed and 29 wounded. *Hugh W. Hadley's* losses were 30 killed and 68 wounded. The amphibious vessels suffered a number of wounded.

Given the volume of fire from all the ships and the chaos of battle, it is difficult to confirm which ship shot down which airplanes, and in many cases the credit would have to be shared. In most accounts, *Evans* is credited with shooting down 14 or 15 Japanese aircraft, and assisting with a number of others. The number usually cited for *Hugh W. Hadley* is 23 Japanese aircraft destroyed,

although that number includes the three that crashed into her. Other accounts give a number of 19 or 20. Regardless, any of those numbers for *Hugh W. Hadley* represent the "all-time" U.S. Navy record for aircraft downed by a ship in a single engagement.

Both *Hugh W. Hadley* and *Evans* were awarded Presidential Unit Citations and their skippers, Commander Baron Mullaney and Commander Robert Archer, were each awarded a Navy Cross. The gunnery officer on *Hugh W. Hadley*, Lieutenant Patrick McGann, was also awarded a Navy Cross. The crew received seven (or eight) Silver Stars and eight Bronze Stars, and several other lesser awards. Crewmen on *Evans* probably received similar awards (but I can't find a record). The four amphibious vessels were awarded Naval Unit Commendations, and the skipper of *LSM(R)-193*, Lieutenant Donald Boynton, was awarded a Silver Star. The skipper of *LCS(L)-82*, Lieutenant Peter Beierl, was awarded a Bronze Star, and so probably were the skippers of the other *LCS(L)*'s whose names I can't find.

As any good skipper would, Commander Mullaney of *Hugh W. Hadley* gave full credit to his crew, writing:

"No Captain of a man of war ever had a crew who fought more valiantly against such overwhelming odds. Who can measure the degree of courage of men who stand up to their guns in the face of diving planes that destroy them? Who can measure the loyalty of a crew who risked death to save the ship from sinking when all seemed lost? I desire to record that the history of the U.S. Navy was enhanced on 11 May 1945. I am proud to record that I know of no record of a Destroyer's crew fighting for one hour and 25 minutes against overwhelming enemy aircraft attacks and destroying 23 planes. My crew accomplished their mission and displayed outstanding fighting abilities."

As the Director of Naval History, I can second Commander Mullaney's motion.

Navy Cross citation for Commander Baron Mullaney, commanding officer of *Hugh W. Hadley* (DD-774):

The President of the United States of America takes pleasure in presenting the Navy Cross to Captain (then Commander) Baron Joseph Mullaney, United States Navy, for extraordinary heroism and distinguished service in the line of his profession as Commanding Officer of Destroyer USS HUGH W. HADLEY (DD-774), Radar Picket Ship, during an attack on that vessel by more than one hundred enemy Japanese planes off Okinawa, Ryukyu Islands on the morning of 11 May 1945. Fighting his ship against waves of hostile suicide and dive-bombing planes attacking from all directions, Captain Mullaney skillfully directed his men in delivering gunfire to shoot down nineteen enemy aircraft and, when a bomb and three kamikazes finally crashed on board and left the ship in flames with three of the engineering spaces flooded, persevered in controlling the damage until HADLEY could be towed sagely to port. Captain Mullaney's leadership and professional skill in maintaining an effective fighting unit under the most hazardous conditions reflect great credit upon himself and the United States Naval Service.

Presidential Unit Citation for USS *Hugh W. Hadley* (DD-774):

The President of the United States takes pleasure in presenting the Presidential Unit Citation to the United States Ship USS HUGH W. HADLEY (DD-774) for service as set forth in the following citation; For extraordinary heroism un action as Fighter Direction Ship on Radar Picket Station

Number 15 during an attack by approximately 100 enemy Japanese planes, forty miles northwest of the Okinawa Transport Area on 11 May 1945. Fighting valiantly against waves of hostile suicide and dive-bombing planes plunging toward her in all directions, the USS HUGH HADLEY sent up relentless barrages of anti-aircraft fire during one of the most furious air-sea battles of the war. Repeatedly finding her targets, she destroyed twenty planes, skillfully directed the Combat Air patrol in shooting down at least 40 others and, by her vigilance and superb battle readiness avoided damage herself until subjected to a coordinated attack by ten Japanese planes. Assisting in the destruction of all ten of these, she was crashed by one bomb and three suicide planes with devastating effect. With all engineering spaces flooded and with a fire raging amidships, the gallant officers and men of the HUGH W. HADLEY fought desperately against insurmountable odds and, by their indomitable determination, fortitude and skill, brought the damage under control, enabling their ship to be towed to port and saved. Her brilliant performance in the action reflects the highest credit upon the HUGH W. HADLEY and the United States Naval Service.

Navy Cross citation for Commander Robert J. Archer, commanding officer of USS *Evans* (DD-522):

The President of the United States of America takes pleasure in presenting the Navy Cross to Captain (then Commander) Robert John Archer, for extraordinary heroism and distinguished service in the line of his profession as Commanding Officer of the Destroyer USS Evans (DD-552) in action against enemy Japanese forces while assigned to Radar Picket duty off Okinawa on 11 May 1945. When his

ship was subjected to attacks by an overwhelming force of enemy aircraft for one and one half hours, Captain Archer directed the gunfire of his batteries in shooting down fifteen enemy planes and assisting in the destruction of four others. Although the EVANS was severely damaged by hits from four suicide planes and in sinking condition, he led his crew in determined efforts to save the ship and bring her safe to port. His professional ability, courage and devotion to duty upheld the highest traditions of the United States Naval Service.

Also on 11 April, Vice Admiral Marc Mitscher's flagship, *Bunker Hill* (CV-17), was hit by kamikaze aircraft in a devastating blow that resulted in the most deaths aboard a ship due to a *kamikaze* attack. I will cover this and the continuing rain of *kamikaze* on U.S. Navy ships in May and June 1945 in a future H-gram.

Sources include: "U.S. Navy Bureau of Ships Final Damage Report on HUGH W. HADLEY" (National Archives—related data available [here](#)); *Kamikaze Attacks of World War II: A Complete History of Japanese Suicide Strikes on American Ships by Aircraft and Other Means*, by Robin L. Rielly (Jefferson, NC: McFarland and Co., Inc., 2010); *Desperate Sunset: Japan's Kamikazes Against Allied Ships*, by Mike Yeo (London: Bloomsbury Press, 2019); *The Little Giants: U.S. Escort Carriers Against Japan*, by William T. Y'Blood (Annapolis: Naval Institute Press, 1987); *NHHC Dictionary of American Fighting Ships (DANFS)*; and *History of United States Naval Operations in World War II, Vol. XIV: Victory in the Pacific*, by Samuel Eliot Morison (Boston: Little, Brown and Company, 1961).