

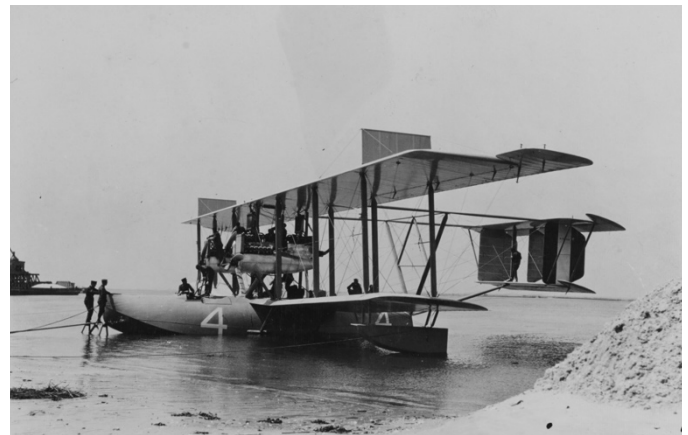


H-Gram 030: USS England, U-505 Capture, and NC-4's Transatlantic Crossing

21 May 2019

This H-gram covers:

- 75th Anniversary of World War II: *USS England* Sinks Six Japanese Submarines, May 1944
- 75th Anniversary of World War II: *U-505* Captured by *USS Guadalcanal* (CVE-60) Hunter-Killer Task Force, 9 June 1944
- Naval Aviation Milestone: First Transatlantic Crossing by an Aircraft, May 1919



Curtiss-produced U.S. Navy flying boat NC-4, circa 1919 (NH 112437).

*This H-gram will cover the unprecedented (and never duplicated) sinking of six Japanese submarines in 12 days by the destroyer escort *USS England* (DE-635) in May 1944; the capture of the German submarine *U-505* by the *USS Guadalcanal* (CVE-60) hunter-killer task group on 9 June 1944; and the harrowing first transatlantic crossing by an aircraft, U.S. Navy flying boat *NC-4* in May 1919.*

As always, further dissemination is welcome and encouraged for crews to gain a greater appreciation of the history of our Navy and the valor and sacrifice of those who served before. In addition, "back issue" H-grams can be found here [<https://www.history.navy.mil/about-us/leadership/director/directors-corner/h-grams.html>]-in addition to a lot of other great history at Naval History and Heritage Command's website.

75th Anniversary of World War II

USS England Sinks Six Japanese Submarines, May 1944

*Over the course of 12 days in late May 1944, the destroyer escort *USS England* (DE-635), commanded by Lieutenant Commander Walton B. Pendleton, sank six Japanese submarines in an area between the Admiralty Islands (north of New Guinea) and Truk. This included five Japanese submarines of a line of seven that had been stationed in an attempt provide reporting on U.S. fast carrier task forces, which the Japanese were anticipating would pass through the area. This unprecedented action was possible because U.S. Navy radio intelligence provided accurate warning and*

locating information on the Japanese submarines, and due to the capabilities of the new Mark 10 "Hedgehog" anti-submarine weapon system, which was entering service in the Pacific. Although England received credit for the kills, in almost all cases the submarines were first detected by other ships in the ASW hunter-killer group of which England was a part (which knew where to look due to the intelligence), so teamwork was essential to the outcome.

The Japanese submarines that were sunk had been previously responsible for sinking the U.S. destroyer Henley (DD-391), LST-342, several Allied and neutral merchant ships, as well as badly damaging the British battleship HMS Ramillies (with a midget submarine), and launching one of the midget submarines that attempted to enter Pearl Harbor on 7 December 1941. All 378 Japanese crewmen aboard the six submarines were lost, with no casualties to any of the U.S. ships engaged (although over 150 Allied personnel had been killed in ships previously sunk by those submarines).

England would continue combat operations in the Western Pacific until she was hit by a kamikaze off Okinawa in 1945, a strike that killed 37 men and wounded 25. Although the ship survived, her damage was too extensive to be considered worth repairing and she was sold for scrap in 1946. England was awarded a Presidential Unit Citation and Lieutenant Commander Pendleton the Navy Cross. CNO Ernest J. King pronounced that "there'll always be an England in the United States Navy," although this hasn't been true since 1994.

For more on the USS England and the war records of the Japanese submarines that were sunk, please see attachment H-030-1.

U-505 Captured by USS Guadalcanal (CVE-60) Hunter-Killer Task Force, 9 June 1944

I was planning to do an item on the capture of German submarine U-505 on 9 June 1944 by a boarding party from destroyer escort USS Pillsbury (DE-133), for which the boarding team leader, Lieutenant (Junior Grade) Albert David, would be awarded the Medal of Honor, the only one awarded for action in the Atlantic Theater in World War II (he would also earn two Navy Crosses in other actions). However, to place the action in proper context is going to take me more time and research. I

will produce a more comprehensive Battle of the Atlantic update in a few months.

Although May 1943 is generally accepted as the point at which the tide of the Battle of the Atlantic turned, the Germans were an extremely resourceful and determined foe, who weren't about to quit. By June 1944 the U-boats were more the hunted than the hunter, but it took an extraordinary combination of Intelligence, code-breaking, operations analysis, new weapons and sensor technology, and just plain increased number of escort ships (especially the use of escort carriers in a hunter-killer role) in order to defeat them, not to mention the courage of the crews of U.S. Navy ships. The Germans had tricks up their sleeve, too, particularly the new acoustic homing torpedoes, which claimed a number of U.S. and Allied warships. The capture of two G7es Zaunkönig T-5 acoustic homing torpedoes aboard U-505 was an even bigger intelligence bonanza than the Enigma machines and codebooks—which were only good for a month—and enabled improvements to the Foxer acoustic countermeasure and aided development of U.S. acoustic torpedoes used against the Japanese at the very end of the war. The Germans referred to the T-5 as the "destroyer-cracker," as it was generally employed against convoy escorts rather than transports and merchant ships.

On 29 May 1944, the escort carrier USS Block Island (CVE-21) was hit and sunk by two of three torpedoes from U-549 before the submarine then badly damaged destroyer escort USS Barr (DE-576) with a T-5 acoustic torpedo, killing 16 men on the ship. Block Island's escorts then sank U-549 (with all 57 hands lost) and rescued 951 crewmen of the escort carrier. Amazingly, only six of Block Island's crew were lost, although the pilots of four of the six Wildcat fighters aloft at the time were also lost while trying unsuccessfully to reach land. Block Island was the only U.S. aircraft carrier lost in the Atlantic. From 1943 and into 1944 there were several epic close-quarters duels between U.S. ships and German U-boats (involving ramming, small-arms fire, and throwing hand-grenades, hatchets, knives, and even coffee mugs—even the use of fists), in each case demonstrating unbelievable courage on the part of both U.S. and German crews. These actions include USS Borie (DD-215) versus U-405 in November 1943; USS Buckley (DE-51) versus U-66 (one of the all-time most effective U-boats) on 6 May 1944; and the U.S. Coast Guard cutter USS (in wartime)

Campbell versus U-606 in February 1943. I will cover these extraordinary acts of valor in a future H-gram.

Naval Aviation Milestone

NC-4: First Transatlantic Crossing by an Aircraft, May 1919

On 14-15 June, 1919 British aviators John Alcock and Arthur Brown flew a modified Vickers Vimy bomber from Newfoundland to a crash landing in Ireland, completing (technically) the first non-stop transatlantic crossing by an aircraft. This feat knocked off the front pages the Atlantic crossing by the U.S. Navy flying boat NC-4, commanded by Lieutenant Commander Albert Cushing Read, which had landed at Lisbon, Portugal, on 27 May 1919. Although the first plane to fly across the Atlantic, NC-4 had taken 23 days and multiple stops to do so, overcoming numerous technical problems and hazards along the way. Two other Navy flying boats (NC-1 and NC-3) didn't make it as far as the Azores Islands (in the air), although all crewmen were safely recovered. Among the aviators involved in the flight were Commander John H. Towers (Naval Aviator No. 3 and overall commander of the mission, in NC-3) and Lieutenant Commander Marc "Pete" Mitscher (in NC-1), both of whom would go on to distinguished naval aviation leadership roles in the interwar years and during World War II. In addition, U.S. Coast Guard Aviator No. 1, Lieutenant Elmer Fowler Stone, was one of the pilots of NC-4. Although NC-4's flight quickly sank into relative obscurity, it nevertheless represented a great milestone in aviation history. The Navy donated the original aircraft to the Smithsonian, which couldn't find a place to display it (supposedly due to its large size,) but the Smithsonian loaned it back to the Navy and it is on display at the National Naval Aviation Museum in Pensacola, Florida. Please see attachment H-030-2 for more on NC-4's epic flight.



USS England (DE-635) off of San Francisco, 9 February 1944 (19-N-60939).

H-030-1: USS *England* Sinks Six Japanese Submarines, May 1944

H-Gram 030, Attachment 1

Samuel J. Cox, Director NHHC

May 2019

On 13 May 1944, Fleet Radio Unit Pacific (FRUPAC), Hawaii (successor to Commander Joe Rochefort's Station Hypo), intercepted and decoded a transmission from Japanese submarine *I-16* to Japanese Commander Submarine Division 7 that gave its estimated time of arrival off Buin, Bougainville, Solomon Islands as 2200 22 May. This intelligence was passed via Third Fleet to Commander Hamilton Hains, commander of Escort

Division 39 at Tulagi, who ordered a three-ship hunter-killer task group get underway to intercept *I-16*. The group consisted of destroyer escort *USS George* (DE-697—Lieutenant Commander Fred W. Just commanding), and destroyer escort *USS Raby* (DE-698—Lieutenant Commander James Scott commanding), joined by destroyer escort *USS England* (DE-635—Lieutenant Commander Walton B. Pendleton commanding), from Escort Division 40 at Purvis Bay, Florida Island. All three ships departed Purvis Bay on 18 May 1944, with Commander Hains embarked in *George* as officer in tactical command (OTC).

That same day, additional radio intelligence was received that the Japanese were establishing a line of seven submarines between the Admiralty Islands (north of New Guinea) and Truk (in the central Pacific Caroline Islands) designated "NA," through which U.S. carriers were expected to pass. The Japanese were anticipating additional Allied landings, but were uncertain about whether the Marianas, the

western Caroline Islands, or the western end of New Guinea was the target, although the Japanese planners thought western New Guinea was most likely due to recent U.S. carrier strikes in support of General MacArthur's westward advance along New Guinea's north coast. The commander in chief of the Japanese Combined Fleet issued orders for Operation A-GO, which was intended to be a decisive battle in defense of the Marianas-Western Carolines-Western New Guinea perimeter. (The execution of this plan would lead to the Marianas "Turkey Shoot," the Battle of the Philippine Sea, and the loss of three Japanese carriers and hundreds of aircraft in June 1944.)

In support of Operation A-GO, Vice Admiral Takagi Takao, commander of the Japanese Sixth Fleet (the Japanese submarine force) based on Saipan, directed that submarines from the 7th Submarine Squadron establish scouting line "NA." Seven Japanese submarines were assigned to specific positions along the line (rather than being assigned operating areas as the U.S. subs were), which would prove to be a fatal weakness. The chain of dominos that doomed these submarines began when the Japanese intercepted a contact report from a U.S. aircraft on submarine *RO-104*. Sixth Fleet then promptly radioed orders to the entire "NA" line to move 60 nautical miles to the southeast, and the message included specific positions. This message was intercepted by the FRUPAC and shared with the Joint Intelligence Center Pacific Ocean Area (JICPOA) Estimates Section. With some difficulty, the coordinates were broken out. Although a process had been developed to "sanitize" code-breaking intelligence to share with U.S. submarines (which, along with fixes to defective torpedoes, was making the U.S. submarines far more effective), this would be the first time a similar process was employed for U.S. anti-submarine forces in the Pacific. A newly assigned "ASW officer" at JICPOA passed the sanitized intelligence to the U.S. Third Fleet and thence to the escort squadron commander, who would be OTC of the hunter-killer group. In each case, the Japanese submarines were located within 50 miles (often less) of where the intelligence said they would be.

The three ships of the task group, *George*, *Raby*, and *England* were all relatively new *Buckley*-class

destroyer escorts, which were being produced in large numbers (154 were ordered and 148 were completed, some serving in the British Royal Navy).

George was named after Seaman 2nd Class Eugene F. George, who'd been awarded a posthumous Navy Cross as an anti-aircraft gunner aboard the heavy cruiser USS *San Francisco* (CA-38) on 12 November 1942 off Guadalcanal for refusing to abandon his gun while continuing to fire on a crippled Japanese G4M Betty bomber. The bomber was hit by *San Francisco's* guns while attempting to torpedo the cruiser. The torpedo missed. Knowing his flaming plane would crash anyway, the pilot deliberately aimed for *San Francisco's* 20-mm gun battery deck. Seaman George, and other gunners, stood their ground, firing on the Japanese bomber until the bitter end. A number of the other *San Francisco* gunners were also awarded the Navy Cross and had ships named after them.

Raby was named after Rear Admiral James Joseph Raby, who was killed in a car wreck in 1934 while he was commandant of the Charleston (6th) Naval District and who had been awarded the Navy Cross during World War I while in command of transatlantic convoys, including the very first one under U.S. escort.

England was named after Ensign John C. England, who was killed aboard battleship USS *Oklahoma* (BB-37) during the attack on Pearl Harbor. England, stationed in the radio room, survived the initial torpedo hits and re-entered the ship three times to bring out three other sailors from the radio room, but never returned from his fourth attempt. (England's remains, which had been buried with the unknown crewmen of *Oklahoma* at the Punchbowl National Cemetery, were identified in 2016 and reburied in Colorado Springs next to his parents.) Although England received only a Purple Heart for his heroism, two ships would be named in his honor, DE-635 and guided missile destroyer leader/cruiser DLG-22/CG-22, in commission from 1962 to 1994.

The *Buckley* class was armed with three 3-inch guns, but was principally designed for anti-submarine warfare and convoy escort. As such they were armed with one triple bank of 21-inch torpedoes, two stern depth-charge racks, eight side-throwing K-gun

depth charge projectors, and one Mark 10 Hedgehog anti-submarine mortar. The Hedgehog had been designed by the British in 1941 and was first used in 1942, but didn't become widely available (or recognized for its effectiveness) until late 1943.

The Hedgehog was designed to fire an elliptical (for the Mark 10) spread of 24 ASW projectiles up to 200-300 yards ahead of the ship. The projectiles would fire in a sequence so that they would all impact the water at the same time. Unlike standard depth charges, which had hydrostatic fuzes (which had to be set to the estimated depth of the submarine), each Hedgehog projectile had a contact fuze that detonated on impact with the submarine—which had several advantages. For one, it was obvious whether the attack was successful or not. If one of the projectiles hit a submarine, there would be an explosion; if not, there would be nothing (there was no need to wait 20 minutes or more to see if any debris came to the surface to determine if the submarine had been hit, and even that was subject to deception).

The Hedgehog could be reloaded in about three minutes for a repeat attack. The lack of explosions would facilitate the re-attack, because, unlike with standard depth charges, sonar contact could be more readily maintained (the sound of the detonation of standard depth charges would “blind”—or, more accurately, deafen—the attacking ship's sonar, and if the submarine survived the first attack, many were able to get away during the period of sonar deafness).

An additional advantage of the Hedgehog was that the submarine could not detect that the weapon was being employed until it was too late (the projectiles would take about seven seconds to sink to 200 feet, which gave the submarine no time to evade them). With standard stern-dropped depth charges, experienced submarine skippers could calculate when they went into the attacking ship's minimum sonar detection distance (“instantaneous echo”) and evade to either the side of the attacking ship and avoid the depth charges being rolled off the stern (the side-throwing K-guns were a partial countermeasure to this tactic).

Although the explosive charge of the Hedgehog projectile (about 30-35 pounds of TNT or Torpex) was smaller than that of a standard depth charge, a contact explosion of only one would usually be sufficient to breach the submarine's hull and sink it, whereas it usually took the cumulative impact of multiple near-misses by standard depth charges to sink a submarine. British figures from World War II showed that, on average, one submarine would be sunk for every 60 standard depth charge attacks; for the Hedgehog, the ratio was closer to one submarine sunk for every six attacks. About the only disadvantage of the Hedgehog was psychological; it lacked the adverse impact on the morale of the submarine crew resulting from numerous depth charge explosions, which left them wondering which one would be close enough to sink the sub. Conversely, depth charge explosions had a significant morale-boosting effect on the crew of the ship dropping them, which the Hedgehog lacked.

19 May 1944: I-16 Sunk

On 14 May 1944, Japanese submarine *I-16*, a veteran of nine war patrols and multiple re-supply missions, departed Truk under the command of Lieutenant Commander Takeuchi Yoshitaka, carrying a cargo of rice in 75-pound rubber bags for the bypassed Japanese garrison at Buin, Bougainville, in the northern Solomon Islands. *I-16* was a large submarine (Type C-1) equipped to carry piggy-back a two-man/two-torpedo Type A midget submarine. *I-16* had launched the first midget submarine (under the command of Lieutenant Junior Grade Masaji Yokoyama) of a total of five that attempted to enter Pearl Harbor several hours before the air attack on 7 December 1941. The fate of Yokoyama's midget is unknown, but it wasn't the one known for certain to have entered Pearl Harbor, or the one that ran aground and was captured on the east coast of Oahu. The *I-16* received a radio transmission from what was believed by *I-16* to be Yokoyama's midget on the afternoon of 7 December reporting a successful air attack, and another on 8 December (about 0100) that reported it could not navigate. None of the five midgets or their crews were recovered by the Japanese (one officer was captured by the Americans, the first Japanese POW of the war).

On 30 May 1942, *I-16* launched a midget submarine (under the command of Ensign Katsusuke Iwase) that penetrated the British anchorage at Diego Suarez, Madagascar (which had been forcibly taken from the Vichy French). The midget hit the British battleship HMS *Ramillies* with one torpedo, which caused severe damage. *Ramillies* survived thanks to excellent damage control and would go on to bombard German defenses during the D-Day landings in Normandy on 6 June 1944. Iwase then torpedoed and sank the tanker *British Loyalty*, but his midget did not return to *I-16*. *I-16* then sank four Allied and neutral merchant ships in the western Indian Ocean.

During the Guadalcanal campaign, *I-16* conducted several midget submarine and resupply operations. On 11 November 1942, *I-16* launched midget *HA-30* in an attempt to attack U.S. ships off Guadalcanal, but *HA-30* was sighted by U.S. destroyers and scuttled, with the two crewmen able to reach Japanese positions ashore on Guadalcanal. On 28 November 1942, *I-16* launched midget *HA-10*, which hit the ammunition- and fuel-carrying cargo ship USS *Alchiba* (AK-23) with a torpedo, forcing *Alchiba* to beach herself. *Alchiba* would be hit shortly after by yet another torpedo from a different midget and would be the only cargo ship to be awarded a Presidential Unit Citation due to the extraordinary and successful efforts of her crew to save the ship. Both midgets and their crews were lost. On 3 December 1942, *I-16* conducted yet another midget mission to Guadalcanal. Midget *HA-22* fired torpedoes at a U.S. destroyer but missed. The midget submarine was subsequently scuttled and her crew made it ashore. One of the midgets lost off Guadalcanal was subsequently raised during the war and is the one on display at the NHHC Naval Submarine Force Museum and Library in Groton, Connecticut. (Note: The "HA" numbering system is a post-war accounting method and was not used by the Japanese.) *I-16* subsequently covered the Japanese evacuation of Guadalcanal in January/February 1943, made supply runs to New Guinea, and was lightly damaged in an air attack in December 1943.

I-16's radio transmission just before departing Truk on 14 May 1944 would be her doom (and her cargo

of rice would never reach the Japanese troops at Buin). The intelligence was accurate, and the *England*, *Raby*, and *George* were waiting. On 19 May 1944, an Allied aircraft sighted *I-16* on the surface north of Bougainville. The three destroyer escorts conducted a line-abreast sonar sweep and, at 1335, *England* gained sonar contact on *I-16*. The boat commenced standard Japanese submarine tactics of radical evasive maneuvering. *England*'s first and second Hedgehog attacks missed. One projectile hit during the third attack, but the big submarine survived and continued evasive maneuvers. The fourth attack by *England* missed, but the fifth achieved solid hits, followed by a massive underwater explosion at 1435 that lifted *England*'s fantail out of the water, with debris reaching the surface 20 minutes later. *I-16* was lost with all 107 hands.

Meanwhile, on and around 17 May 1944, the seven Japanese submarines departed Saipan to take station along "NA." All seven submarines were Type Ko's, relatively small and originally intended for coastal defense, and were much less capable than the larger Type I boats, which by then had been increasingly pressed into service as underwater transports to supply food to starving bypassed Japanese garrisons. They Type Ko's were armed with four 21-inch bow torpedo tubes (eight torpedoes total) and a 76-mm deck gun. Most were equipped with radar detectors, but lacked radar themselves, which made them not all that well suited for the reconnaissance and reporting mission they were assigned on line "NA." (Of 18 Type Ko submarines produced, none survived the war.)

22 May 1944: RO-106 Sunk

Japanese submarine *RO-106*, under the command of Lieutenant Keitai Uda, was on her 11th war patrol. During a previous patrol on 18 July 1943, *RO-106* hit *LST-342* with a torpedo in the Blanche Channel near New Georgia in the central Solomon Islands. The torpedo blew *LST-342* in two. The stern sank immediately, while the forward section remained afloat and was towed to shore in Purvis Bay, beached and equipment aboard salvaged. Among the 121 men killed on *LST-342* (158 survived) was the entire five-man mess division of African-American stewards and cooks, as well as the famed

artist Lieutenant Commander McClelland Barclay. Barclay had been a highly successful pre-war artist who joined the Naval Reserve and was brought on active duty in 1940, creating aircraft camouflage schemes as well as many of the most famous recruiting posters of the era before serving as a combat artist in both the Atlantic and Pacific theaters. NHHC's Art Collection contains much of Barclay's Navy work.

In October 1943, *RO-106* sustained serious damage from air and surface dropped depth charges, but was repaired and returned to service. During the U.S. landings at Eniwetok Atoll in February 1944, *RO-106* conducted a reconnaissance mission, locating several U.S. cruisers and destroyers and a repair ship, and attempted to vector in a strike of G4M Betty bombers, a rare case of a Japanese submarine trying to guide an airstrike.

On 22 May 1944, at 0351, *George* gained radar contact on *RO-106* on the surface. *George* and *Raby* were ordered to attack, with *England* ordered to stand off and keep the submarine from escaping. *RO-106*'s E27 radar detector failed to work, and the submarine was surprised while still on the surface when *George* lit her up with a searchlight. Nevertheless, *RO-106* was able to crash-dive and commence evasive maneuvers and *George*'s Hedgehog attack missed. At 0425, *England* gained sonar contact as *RO-106* tried to escape. *England*'s first Hedgehog attack missed, but the submarine reversed course bow-on to *England*, possibly in attempt to torpedo the ship, and probably not understanding the Hedgehog system. *England*'s second Hedgehog attack scored at least three hits. *RO-106* was lost with all 49 hands.

23 May 1944: RO-104 Sunk

RO-104, under the command of Lieutenant Hisashi Izubuchi, was in her assigned station on 23 May 1944. *RO-104*'s previous patrols had mostly been in the north Pacific and in the vicinity of the Aleutian Islands, where she was attacked by an unknown submarine (which missed) while she was pursuing what turned out to be a Soviet merchant ship. (Although the Japanese were allied with Nazi Germany, the Japanese had no desire to get into a war with the Soviet Union, much to Hitler's

annoyance, so Soviet ships were off-limits to Japanese attacks. In fact, much U.S. war materiel was shipped to the Soviet Union on neutral ships via the North Pacific throughout the war, all unmolested by the Japanese except for a few accidental sinkings.) In late 1943, *RO-104* commenced operations in the Solomon Islands area. On 3 November 1943, the submarine rescued 75 survivors of the Japanese light cruiser *Sendai*, sunk in action with U.S. cruisers the night before in the Battle of Empress Augusta Bay off Bougainville. The survivors included Rear Admiral Baron Matsuji Ijuin, commander of Japanese Destroyer Squadron 3.

On 23 May 1944, *RO-104* was sighted by Allied aircraft on the surface about 250 nautical miles north northwest of Kavieng, New Ireland. At 0604, *Raby* gained radar contact. This time, the radar detector worked and *RO-104* quickly submerged. *Raby* conducted four Hedgehog attacks on *RO-104*; all missed. In addition to radical maneuvers, *RO-104* attempted to jam *Raby*'s sonar with bursts of tuned sound impulses, possibly with some success. *George* then made five Hedgehog attacks on the evasive submarine, all of which missed. Commencing at 0819, *England* commenced two Hedgehog attacks, hitting with 10-12 projectiles on the second attack, which was followed by a huge underwater explosion. *England* then dropped 13 depth charges for good measure, but it wasn't until 1045 that debris finally reached the surface. *RO-104* was lost with all 58 hands.

24 May 1944: RO-116 Sunk

RO-116 was relatively new and didn't have much of a war record, and was on only her second war patrol under the command of Lieutenant Commander Takeshi Okabe. At 0120, *George* gained radar contact on the submarine at a range of 17,000 yards about 225 nautical miles north northwest of Kavieng, New Ireland, causing *RO-116* to dive. At 0150, *George* gained sonar contact at a range of 750 yards. *RO-116* employed the same violent maneuvers, rudder shifts, and sonar jamming techniques as *RO-104*, foiling attack at least for a while. *England* made two aborted Hedgehog attack runs before getting a good solution on the third, hitting *RO-116* with at least three projectiles. The submarine was lost with all 56 hands.

26 May 1944: RO-108 Sunk

RO-108, under the command of Lieutenant Kanichi Obari, was on her fifth war patrol. During a previous patrol on 3 October 1943, *RO-108* fired a spread of four torpedoes at three U.S. destroyers that presented an overlapping target in the Huon Gulf at the eastern end of New Guinea. USS *Smith* (DD-378) sighted three torpedo wakes and successfully (barely) turned to comb the wakes and avoid being hit. USS *Henley* (DD-391) was able to avoid two torpedoes, but was hit port side amidships in the No. 1 fireroom, knocking out the boilers and power, and breaking the ship's keel. The "abandon ship" order was given before *Henley* broke in two and sank, suffering 15 killed (one officer and 14 enlisted) and 52 wounded. *Smith* and USS *Reid* (DD-369) counter-attacked, but were unsuccessful. On 17 December 1943, *RO-108* was attacked on the surface while recharging batteries by a VP-52 PBV Catalina flying boat, suffering serious damage and going down by the stern. Although reported as sunk, *RO-108* managed to survive.

On 26 May 1944, at 2303, *Raby* gained radar contact on *RO-108* at range of 15,000 yards about 110 nautical miles northeast of Seeadler Harbor, Manus Island. *England* also gained radar contact before *RO-108* dove and commenced evasive action. *England* then gained sonar contact at 1,650 yards. *Raby* was vectored in for the kill, but missed with a Hedgehog attack. At 2323, *England* commenced a Hedgehog attack and hit with 4-6 projectiles. *RO-108* went down with all 53 hands.

30 May 1944: RO-105 Sunk

RO-105 had sortied from Saipan on 14 May 1944 under the command of Lieutenant Junichi Inoue with the commander of Japanese Submarine Division 51, Captain Ryonosuke Kato, embarked. On a previous patrol on 12 August 1943, *RO-105* had narrowly avoided two torpedoes fired in a stern shot from USS *Tarpon* (SS-175) by radical evasive action. In September 1943, *RO-105* fired torpedoes at the light cruiser USS *Columbia* (CL-56), but missed. *RO-105* also had rescued several downed Japanese aviators at various times.

On 27 May 1944, Japanese Sixth Fleet intelligence intercepted and decoded U.S. Navy communications indicating several submarines had been sunk in the area north of the Admiralty Islands and issued a warning. These U.S. reports were described by the Japanese as increasingly "jubilant." *RO-112* received the warning and moved out of the area (she would be sunk by USS *Batfish*—SS-310—off Luzon on 11 February 1945 with all 61 hands). *RO-109* also received the warning and cleared the area (she would be sunk by destroyer-transport USS *Horace A. Bass*—APD-124—off Okinawa on 7 May 1945 with the loss of all hands). For whatever reason, *RO-105* didn't get the warning or chose not to leave. (Although Japanese radio intelligence never achieved the success that the U.S. Navy's did, it wasn't for lack of trying.)

After sinking *RO-108*, *George*, *Raby*, and *England* had gone into Seeadler Harbor to replenish their severely depleted stock of Hedgehog projectiles. When they got underway, they re-joined a larger hunter-killer task group centered on the escort carrier USS *Hoggatt Bay* (CVE-75) and including destroyers USS *Hazelwood* (DD-531) and USS *McCord* (DD-534), and destroyer escort USS *Spangler* (DE-534), which had arrived in the area on 25 May. *Spangler* and *England* formed up as a group with Commander Thorwall embarked on *England* as OTC.

On the night of 30-31 May, *Hazelwood* gained radar contact on *RO-105*, which caused the submarine to dive and commence evasive maneuvers. During the course of the night and into the next morning *RO-105* used every trick in the book in an attempt to escape, including discharging debris and deceptive oil slicks. *Hazelwood* gained sonar contact and dropped depth charges to no apparent effect. *George* made several Hedgehog attacks and may have hit with three projectiles, yet still the submarine kept maneuvering and fighting for survival. At dawn, *Spangler* and *England* joined the attack. *Spangler* attacked with Hedgehogs and missed, at which point the OTC for *George* and *Raby*, Commander Hains, radioed, "Oh hell, go ahead *England*." *England's* attack resulted in a massive underwater blast, and *RO-105* was lost with all 55 hands.

England wasn't the only ship sinking enemy submarines. During the period of May-June 1944, of about 25 deployed Japanese submarines, about 17 were sunk. In the Atlantic, the British 2nd Escort Group (a flotilla of six sloops) centered on HMS *Starling*, sank six German U-boats in 19 days in February 1944, and *Starling* herself was credited with sinking 14 U-boats during the course of the war, making her the most successful ASW ship of all time. Nevertheless, six submarines sunk in 12 days by a single ship (*England*) remains an unequalled record. Upon learning of the feat, Chief of Naval Operations Ernest J. King sent a message "There'll always be an *England* in the United States Navy." (King was wrong.) *England* was awarded a Presidential Unit Citation, and Lieutenant Commander Pendleton would receive one Navy Cross for the six submarines sunk.

The loss of the Japanese submarines on the "NA" line initially convinced the Japanese that a large U.S. force had gone through the area en route the western Carolines or Western New Guinea, rather than to the actual U.S. target, which was the Marianas Islands. As a result, the Japanese execution of Operation A-GO was confused, delayed (wasting much precious fuel), and ultimately turned into a disaster (which I will cover in a future H-gram). Although the U.S. Navy kept a tight lid on *ENGLAND's* success to protect the source of intelligence, Japanese intelligence correctly deduced that the loss of the submarines was due to U.S. radio intelligence—yet the Japanese still persisted in believing that their codes were secure.

England went on to earn 10 battle stars for action in the Pacific until she was attacked by three kamikaze aircraft off Okinawa and hit by one of them on 9 May 1945. Then under the command of Lieutenant Commander John A. Williamson (previously the executive officer during the submarine sinkings), *England* hit the first kamikaze with anti-aircraft fire, but the burning aircraft still crashed into the ship just below the bridge. Its bomb detonated moments later, inflicting many casualties and forcing the abandonment of the bridge. Fighters shot down the other two kamikazes. Despite the damage, *England's* crew was able to bring the fires under control, losing 37 killed or missing and 25 wounded. *England* was towed into Kerama Retto (near

Okinawa), received temporary repairs, and then proceeded on her own power to the States. Given the severity of her damage and the by-then plethora of destroyer escorts (with the end of the war with Germany), it was deemed not cost-effective to repair her. The ship was sold for scrap in 1946. (I can't find any record if Williamson received any award for bringing his ship through the ordeal. In a number of accounts, Williamson as executive officer is credited with being the driving force behind *England's* tactical ASW proficiency.)

Raby would later participate in the sinking of Japanese submarine *I-48* in January 1945 near Ulithi. *George* would later rescue three crewmen from a ditched US Army Air Force B-29 bomber off Iwo Jima in April 1945 and would deliver the surrender terms to the Japanese garrison on Truk at the end of the war. Commander Hamilton Hains was awarded a Legion of Merit for his actions as escort division commander; he suffered a brain hemorrhage as a result of a water-skiing accident in 1946 that forced his retirement as a Rear Admiral (he lived until his eighties). Japanese submarine fleet commander Vice Admiral Takeo Takagi (who'd also been senior Japanese commander in the Battle of the Coral Sea) never made it off Saipan when the Americans invaded; he essentially went down with his island.

The *Leahy*-class guided missile destroyer leader USS *England* (DLG-22) was commissioned in December 1963 and re-designated as a guided missile cruiser (CG-22) in 1975. *England* served in Vietnam and during Operation Desert Storm. She was decommissioned in January 1994 and scrapped in 2004. Since then, Fleet Admiral King's promise remains unkept.

Sources include: NHC Dictionary of American Fighting Ships (DANFS) for U.S. vessels, and combinedfleet.com for Japanese vessels. In addition, Rear Admiral Samuel Eliot Morison's History of United States Naval Operations in World War II—Vol. VII—New Guinea and the Marianas serves as a baseline. An excellent account is "Seek..Attack...Destroy" by Patrick J. Chaisson at warfarehistorynetwork.com. Combined Fleet Decoded: The Secret History of American Intelligence and the Japanese Navy in World War

It by John Prados (Random House, 1995) is the best source on the intelligence aspects. It should be noted that sources conflict regarding how many Hedgehogs hit during which attack and some other details; I took my best assessment. Also of note, Japanese naval officers killed in action would be posthumously promoted one rank; I use their rank at the time of the event.



U.S. Navy aviators involved in the first aerial transatlantic crossing. First row (left to right): Lieutenant Commander A. C. Read, pilot of NC-4; Josephus Daniels, Secretary of the Navy; Commander John H. Towers (Naval Aviator No. 3) pilot of NC-3; Franklin D. Roosevelt, Assistant Secretary of the Navy; Lieutenant Commander P. Bellinger, pilot of NC-1. Second row, fourth from the left, Commander Richardson.

H-030-2: NC-4's Transatlantic Crossing, May 1919

H-Gram 030, Attachment 2

Samuel J. Cox, Director NHHC

May 2019

The development of larger and faster flying boats, with increased range, endurance, and load-carrying capability, had accelerated dramatically during

World War I. The flying boats were particularly useful in an anti-submarine warfare role. Although few, if any, German U-boats were sunk as a result of air attack, the flying boats were very successful at preventing U-boats from attacking convoys by forcing them to dive. The U-boats' slow submerged speed would facilitate a convoy's escape. By the end of World War I, convoys that were protected by air cover provided by flying boats rarely suffered loss to U-boats.

The Curtiss Aeroplane and Motor Company "NC" (Navy-Curtiss) flying boats were the product of the evolutionary (or even revolutionary) development of the flying boat during World War I. Known at the time as "Nancy Boats," the NC's were built in

response to U.S. Navy requirements for a long-range anti-submarine aircraft capable of crossing the Atlantic without having to be disassembled and put on a ship potentially vulnerable to U-boat attack. (These requirements were devised by a team led by Rear Admiral David W. Taylor, then chief of the Navy Bureau of Construction and Repair.) The NC was the largest U.S.-designed flying boat to that point, equipped with wireless radio and sleeping compartment. Originally powered by three engines, early test flights indicated this was insufficient and young aviator Marc "Pete" Mitscher (Naval Aviator No. 33) recommended the NC be modified with addition of a fourth engine (with the additional engine added on the centerline in a "pusher" configuration). The NC aircraft had a maximum speed of 74 knots, a maximum range of about 1,500 miles, and endurance of about 15 hours. Ultimately ten NC's would be built.

NC-1 made its first test flight on 4 October 1918, just before the end of the war. In an event that would cause today's operational risk management adherents to go white as a sheet, 51 people crammed aboard NC-1 for a test flight on 25 November, which set some sort of world record. NC-2 was damaged during testing and was subsequently cannibalized for parts (some things never change) after a fire damaged NC-1 and NC-4. Actually, the entire transatlantic flight was a highly risky operation. The flight was conceived, planned, and led by Commander John H. Towers, who was designated as Commander of Seaplane Division 1. Towers (Naval Aviator No. 3) was arguably the most vociferous early advocate of naval aviation. The flight had initially been planned during the war, but the war ended before it could be executed. Nevertheless, Towers persisted in gaining approval of the operation as a means to demonstrate capability to skeptical senior leadership of the U.S. Navy. The orders to execute the mission were signed by Assistant Secretary of the Navy Franklin Delano Roosevelt, future U.S. President, and apparently "Acting" Secretary of the Navy at the time. (Towers had barely survived a flight incident over the Chesapeake in 1913 in which Ensign W. D. Billingsley was thrown from the plane and killed, leading Towers to insist on the inclusion of safety belts in naval aircraft—from which the modern seat

belts in autos are derived. Towers would also become the first Naval Aviator to achieve flag rank.)

By May of 1919, the U.S. Navy had three operational NC flying boats, with NC-4 making her first test flight on 30 April 1919 (and her only flight before the transatlantic attempt.) The transatlantic mission was a major affair, with over 50 U.S. Navy ships, mostly destroyers, assigned to take station along the intended flight route to provide beacon services and rescue services if necessary. The minelaying vessel USS *Aroostook* was converted to a seaplane tender to assist the flight (*Aroostook* had laid 3,180 mines as part of the North Sea Mine Barrage in 1918).

On 8 May 1919, three NC flying boats (NC-1, NC-3, and NC-4) launched from Naval Air Station Rockaway, New York, under the overall command of Towers, the squadron commander, flying in NC-3. Lieutenant Commander Mitscher was originally in command of NC-2, but after her cannibalization flew as a pilot in NC-1. The three aircraft first flew to Chatham Naval Air Station, Massachusetts. NC-4 suffered mechanical problems (oil leak in the pusher engine and thrown rod in the center tractor engine) and wound up forced to land in the open ocean 80 nautical miles from Chatham, but was located and towed in, and fortunately remained airworthy.

The three aircraft then launched for Trepassy, Newfoundland, but NC-4 again encountered mechanical problems and had to make an intermediate stop at Halifax, Nova Scotia, for repair, before continuing on to Trepassy. *Aroostook* was waiting at Trepassy and provided fuel, lubrication, maintenance, and repair work. In the meantime, NC-1 and NC-3 had attempted to take off from Trepassy to continue the next leg to the Azores, but were unable to get airborne as they were actually overloaded with too much fuel (the tanks measured differently when ashore at Rockaway than when the planes were sitting in the water at Trepassy, and it was the flight engineer on NC-4 that ultimately diagnosed the problem).

On 16 May 1919, all three NC's attempted to take off from Newfoundland for the Azores, the longest leg of the journey at 1,200 miles, which would take about 15 hours. NC-4 got airborne, but, once again,

NC-1 and NC-3 could not, and NC-4 had to return. After more weight and balance shifting, all three aircraft finally got off after 1800. Twenty-two Navy ships were stationed along the route at about 50-nautical-mile intervals, and were lit up at night, with searchlights pointed up and firing pyrotechnics to assist the NC's during the night portion of the transit. The three planes initially flew in formation, but, as night fell, it was discovered that only NC-4's running lights worked, so Towers ordered the formation to disperse to decrease the risk of collision.

The following day, the NC's encountered fog banks that made the flight very dangerous as it became difficult to discern the horizon and maintain level flight. Although the NC's were equipped with the new "bubble" sextant (which provided an artificial horizon and enabled astronomical fixes from aircraft) and the new drift indicator, the NC's were effectively lost due to the fog. As it became too hazardous to fly, NC-1 and NC-3 were both forced to set down in the open ocean, each incurring damage that made further flight impossible. The crew of NC-1 was picked up by the Greek freighter *Ionia*, which tried to take NC-1 in tow, but the lines parted. The destroyer USS *Gridley* (Destroyer No. 92) arrived and took NC-1 in tow, but, after three days, NC-1 broke apart and sank. NC-3 drifted for 200 miles over 52 hours with her wireless inoperative until she came in sight of one of the Azores Islands and then taxied until she finally met up with a destroyer and was taken in tow (some reports say NC-3 taxied the whole way without assistance). NC-3 was, however, no longer air worthy.

NC-4, under the command of Lieutenant Commander Albert Cushing Read, actually went into a spin in the fog that was initially unrecognized, and only a brief glimpse of the sun alerted the crew to impending disaster. Pulling the big plane out of the spin with no spatial reference was considered an exceptional feat of flying skill by the NC-4 pilots, Lieutenant Junior Grade Walter Hinton and U.S. Coast Guard pilot Lieutenant Elmer Fowler Stone (Coast Guard Aviator No. 1 and Naval Aviator No. 38). NC-4 reached the Azores on the afternoon of 17 May, although she set down at an alternate landing site (Horta), where she was tended by the cruiser USS *Columbia* (Cruiser No. 12.)

On 20 May, NC-4 took off for Lisbon, but had to turn back after about 150 nautical miles due to mechanical problems. The efforts of the flight engineers, Lieutenant James L. Breese and Chief Machinist's Mate Eugene S. Rhoads, were critical in getting NC-4 across the Atlantic. (Rhoads had actually been a replacement after the primary lost his hand in a prop accident.) After receiving repairs and spare parts, NC-4 took off again on 27 May, flying over 13 U.S. Navy station ships before landing on the Tagus River at Lisbon at 2001 after a flight of 9 hours and 43 minutes, thus becoming the first aircraft to fly across the Atlantic. Although the flight from Newfoundland to Lisbon took 10 days and 22 hours, actual flight time was 26 hours and 46 minutes. (In the meantime, the first attempt by the British to make a non-stop flight from Newfoundland to Great Britain had crashed a few hundred miles east of Newfoundland, with the two-man crew picked up by a steamer.)

On 31 May, NC-4 flew from Lisbon to Plymouth, England, but again had mechanical problems and had to make two intermediate stops including an overnight at Ferrol, Spain, before finally arriving at Plymouth and becoming the first aircraft to fly from the United States to England. NC-4 was met by a large escort of Royal Air Force aircraft, a 21-gun salute from a British warship, and huge crowds. There was great public and press interest in the flight and the crew, although this would be eclipsed two weeks later when two British aviators (Alcock and Brown) flew non-stop from Newfoundland to Ireland, making the first non-stop transatlantic flight, albeit with a crash landing at the end.

After arriving at Plymouth, the crew of NC-4 met up with the crews of NC-1 and NC-3 for a spectacular royal welcome in London, receiving decorations from the King, and then in Paris, where they met with President Woodrow Wilson, who was negotiating the Versailles Treaty and pushing his League of Nations proposal. NC-4 was dismantled at Plymouth and shipped back to the States on *Aroostook*. The three crews returned to the U.S. aboard the USS *Zeppelin* (a German ocean liner being used as a troop transport by the Allies, repatriating 15,800 U.S. troops after the war in two voyages). Upon return to the United States, the crews embarked on a goodwill tour of the U.S. East and Gulf Coasts.

Lieutenant Commander Read (Naval Aviator No. 24), the flight commander of NC-4, was awarded the Navy Distinguished Service Medal (at that time, the second-highest award, ahead of the Navy Cross) for the flight. NC-4 pilots Hinton and Stone, flight engineers Breese and Rhoads, and radioman Ensign Herbert C. Rodd were awarded the Navy Cross (LCDR Rodd would die in an air crash in 1932). Towers also was awarded the Navy Cross for leading the mission, and Mitscher was also awarded a Navy Cross, having been at the controls of NC-1 when she ditched. In 1929, the U.S. Congress awarded, and President Herbert Hoover presented, Congressional Gold Medals to the six crewmen of NC-4 and to Towers for "conceiving, organizing, and commanding" the mission.

NC-4 was displayed for a time in New York's Central Park before it was donated by the Navy to the Smithsonian in 1920. Only the hull was displayed by the Smithsonian afterward, as the museum had no place big enough to fit the aircraft. The aircraft went through an extensive restoration in time for the 50th anniversary of the flight and was displayed on the National Mall on 8 May 1969. In 1974, the Smithsonian loaned the NC-4 back to the U.S. Navy. It remains on display at the National Naval Aviation Museum in Pensacola, Florida.

Primary source document is out-of-print monograph "The First Flight Across the Atlantic" by Commander Ted Wilber, published by the NC-4 50th Anniversary Committee in 1969, which can be found on the NHHC website [<https://www.history.navy.mil/research/histories/ship-histories/danfs/h/henley-ii.html>]. With the 100th anniversary, there are numerous articles on line, most of which adhere to the Wikipedia account, which is mostly accurate, albeit incomplete. A particularly good and thorough article is USCG Aviation History "1919 NC-4 Transatlantic Flight" found at cgaviationhistory.org, with no specific author I could find.