The First Transatlantic Flight

by CAPT Frank A. Erickson (Ret.), '31

Few people know that a U.S. Navy seaplane, piloted by the Coast Guard's first aviator, flew across the Atlantic nine years before Lindberg's flight. Here's the story.

Toward the end of World War I the U.S. Navy, working with pioneer aircraft manufacturer Glenn Curtis, succeeded in developing a multi-engined long range seaplane for use in anti-submarine warfare. Designated the NC seaplane (N for Navy, C for Curtis), it was a boxy looking biplane flying boat with outriggers supporting large tail surfaces. Its spruce hull was 45'-9" in length with a beam of 10 feet. Overall length was 68'-3". Its fabric-covered wings had a span of 126'. It was powered by four 400 HP Liberty engines—one on each side of the wing in tractor mode, two in tandem tractor-pusher mode on the centerline.

This was by far the most impressive seaplane developed up to that time. It was supposed to be capable of flying to Europe and taking on submarines upon arrival. If forced down it was supposedly able to survive in any weather.

Hostilities came to an end on 11 November 1918 with the signing of the Armistice; hence there was no longer an immediate need to fly anti-submarine flying boats across the Atlantic. But a race was on to be the first to fly the Atlantic and collect the $50,000 prize that had been offered by the *London Mail*. Several civilian contestants on both sides of the ocean were working at top speed to be the first. But Commander John Towers, Naval Aviator No. 3, had other ideas. Although he would not be eligible to win the prize, he wanted the prestige for the U.S. Navy. Anticipating that the war would soon be over, he had already sent a proposal to the Chief of Naval Operations urging that the four NC flying boats then being assembled at Rockaway, N.Y., be formed into a division and flown across the Atlantic as soon as possible.

Soon after the Armistice, Secretary of the Navy Josephus Daniels approved this proposal and put Towers in charge of the operation. Officers for the mission were to be picked from those who had held important assignments at home during the war which prevented them from serving overseas. Towers would command both the Division and one of the four planes. The other three NC flying boats were to be commanded by LCDR's Patrick N. L. Bellinger, Marc A. Mitscher and Albert C. Read. Other key officers were CDR Holden C. Richardson and LT David McCulloch, who were already at NAS, Rockaway Beach; LCDR Robert A. Lavender, a pioneer in the development of aircraft radio; LT James L. Breese, an expert on Liberty engines; and 1ST LT Elmer F. Stone, a Coast Guard officer on loan to the Navy who was serving as Chief Test Pilot for Seaplanes in the Navy's Aviation Division.

NC-4 taxiing in to moorings at Ponta Delgada in the Azores on 20 May 1919.

As the officers and men of the new Division began to assemble, the venture suffered a severe set-back. NC-1 had been moored in Jamaica Bay during the month of March because the entire hangar space at Rockaway was taken up with assembly of the other planes. During a sudden storm on 27 March NC-1 dragged anchor and smashed into the marine railway, severely damaging its upper and lower port wing panels. Since the jigs for building these panels had already been dismantled, it appeared that NC-1 would be out of the Transatlantic race. It was decided, however, that NC-2, which had been built to a slightly different and less successful configuration, should be the one sacrificed. Accordingly NC-2 was eliminated and its wing panels were transferred to NC-1.

By the 3rd of May, work had progressed to the point where the three remaining NCs could be rolled out on the ramp. The crews were assembled and CDR Tower read his orders placing Seaplane Division I in commission. He selected CDR Richardson as first pilot of the NC-3 and LT McCulloch as copilot. LCDR Marc Mitscher had been slated to take command of the NC-2, but when the aircraft was eliminated, he became the first pilot of the NC-1, which was commanded by LCDR Bellinger. His copilot was LT Louis T. Barin. LCDR Albert C. Read, commander of the NC-4 chose 1ST LT Elmer F. Stone, USCG as his first pilot and LTJG Walter Hinton as copilot. The rest of the NC-4 crew were ENS Herbert C. Rodd, radio officer; LT James L. Breese, Engineer; and Chief Machinist's Mate Eugene S. Rhoads.

On Sunday, 4 May, last minute details were being completed in preparation for take-off for Newfoundland the next day. Chief Machinist's Mate Rasmus Christensen, the Engineer of NC-1, was up at 0200 the next morning fueling his plane in the hangar for the scheduled take-off. Suddenly the electric motor pumping fuel from drums into the plane caught fire. The hose was pulled from the plane, spilling gasolene on the hangar floor. It caught fire and in turn set fire to the NC-1's wing panel and the NC-4's tail.

Fortunately LT Stone had been working late on the NC-4. He, together with Christensen and others working in the hangar, put out the fire. But both planes had been damaged. Take-off of the flight was delayed three days while other portions of the defunct NC-2 were cannibalized to replace the burned parts of NC-1 and 4.

The three planes took off in formation from the Naval Air Station, Rockaway, N.Y. at 1402 8 May, 1919. The route chosen for the flight was from Rockaway, N.Y. to Trepassey, Newfoundland, to Ponta Delegada, Azores, then to Lisbon, Portugal. As the formation neared Cape Cod, NC-4 lost oil pressure in the aft engine, which had to be shut down. This reduced its speed and it dropped behind the other aircraft. A half hour later, the center forward engine threw a connecting rod and the plane began losing altitude. Radio Officer Rodd tried to get a message to the flag ship reporting that they were being forced down. But his windmill generator—located in the wash of the forward propeller—could not now generate sufficient power. Stone made a surprisingly easy landing with no damage to the aircraft at a point approximately 80 miles seaward of the Naval Air Station at Chatham, Massachusetts. The seas were fairly calm so NC-4 commenced taxiing on toward Chatham. By evening they were able to increase speed to about ten knots. They arrived off the Air Station by daybreak.

The only Liberty engine available at Chatham was a model that delivered only 300 horsepower. It would have to do until the NC-4 reached Trepassey where a 400 horsepower engine was available. The forward engine was quickly replaced with this 300 HP model and oil pressure was restored to the after engine. However bad weather delayed take-off until afternoon of the 14th and Read elected to land at Halifax rather than risk a night landing at Trepassey after dark. When airborne on the final leg next day NC-4 received a discouraging radio message. NC-1 and NC-3 were departing Trepassey for the Azores. Weather for the transatlantic flight was now optimal and CDR Tower did not feel it wise to delay further. It appeared that NC-4 would be left behind.

When NC-4 set down in Trepassey Bay that evening, however, its crew was overjoyed to find the other planes still there. Both had failed to get off the water despite repeated attempts—and their crews couldn't figure out why. LT Breese, NC-4's engineer, provided the answer. He had independently observed that NC planes, when waterborne, rode slightly "down by the head." When fueling afloat their gas gauges registered low. Each plane had thus taken on several hundred pounds of excess fuel—more weight than it could handle. Upon learning this, Tower ordered fuel off-loaded from each plane and deferred take-off to the next day. This would allow the Division to approach the Azores during daylight hours and give the NC-4 crew plenty of time to again change their forward engine, take on fuel, and get ready to depart with the others.

All three aircraft were ready to go on the evening of the 16th. At approximately 1930, they taxied into position for a formation take off. On the take off run, NC-4 was having difficulty in lifting off so Breese threw two large cans of lubricating oil overboard. NC-4 then lifted off but the others did not. While the NC-4 circled, the other aircraft taxied back to their moorings to get rid of excess weight. This was a blow for LT Rhodes, the engineer on the NC-3, because he was part of the weight left behind. NC-4 landed until the others were ready to try again. On the next attempt, they all got into the air.

The route between Trepassey and Ponta Delgada, Azores was marked by a string of 25 destroyers at intervals of approximately fifty miles. Each destroyer was to make smoke and fire a rocket as the planes passed. The planes remained in sight of each other

About the Author

CAPT Erickson already had served as a Navy enlisted man, a short term midshipman at the Naval Academy, and a Coast Guard enlisted man before being sworn in as a cadet at Ft. Trumbull in 1928. Aviation was his dream ever since 1925 when he had boarded the first carrier, the USS LANGLEY, in San Diego. He graduated from the Academy in 1931, pulled his required three year sea duty tour, then got himself assigned to flight training.

CAPT Erickson reports that his fifteen months at Pensacola and years of operational seaplane flying during the balance of the Thirties, while stimulating, convinced him that some new type of aircraft which could carry out its mission regardless of surface conditions was needed. He found the answer in the helicopter then being developed by Dr. Igor Sikorsky and got himself assigned to the Navy's Bureau of Aeronautics to help adapt it for Navy and Coast Guard use. This was the start of helicopters in the Coast Guard and the beginning of a distinguished career for Erickson. His name is foremost among Coast Guard helicopter pioneers.

until dark, but when the lights on the NC-3 failed, CDR Towers ordered the formation to open up to reduce the danger of collision. Visibility remained good during the night. NC-4 was right on course, passing close to each destroyer along the route. The other planes were no longer in sight. About 1000 the following morning, it began to rain. The situation was further complicated when the intercom system failed. Read had to communicate with Stone from his station in the bow hatch by hand signals. It was not long before the visibility was nearly down to zero. Read signalled Stone to take her up. They broke clear at about 3200 feet.

As NC-4 approached the position of the next destroyer, Read signalled to go down for a visual contact. As they descended into the clouds, the compass suddenly started spinning crazily. A break in the clouds revealed that the port wing had dropped. Dr. Hunsaker had cautioned in his design memorandum, "These flying boats are notoriously difficult to keep from stalling in rough air or at reduced speed." Whatever the cause, the huge plane had stalled and was spinning crazily out of control.

Read—aware of what was happening—began shouting and waving at Stone. It was a poor time for no intercom. But Stone was already applying his test pilot expertise to the problem. Considering the NC's heavy control forces and dangerous spin characteristics, it would have been quite an accomplishment to bring the big plane out of its spin in clear weather. To do so while falling blindly in fog with only the most rudimentary blind flying instruments was something of a miracle. But it was a miracle Stone accomplished—just as the plane was about to dip in. He stopped the spin, got the plane under control, then climbed up clear of the fog bank. Read then decided to stay on top and rely on his own navigation rather than take the risk of trying to make visual contact with the remaining destroyers. Between Stone's superb flying skill and Read's expert navigation, NC-4 remained on course.

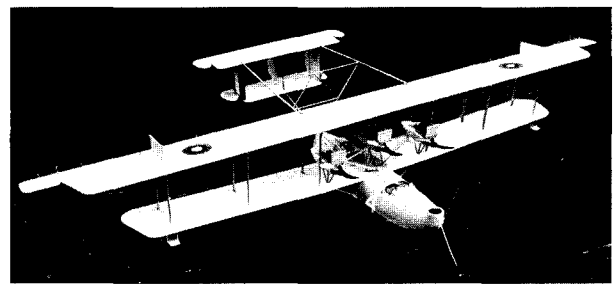
Shortly before noon, Read spotted the shoreline of the Island of Flores through a break in the clouds. He signalled to descend. They broke out at 200 feet with good horizontal visibility and set course for Ponta Delgada, two hundred and fifty miles away. The next destroyer contact was made on schedule but it was not long before fog set in again. Fuel was too low to do any searching if they missed Ponta Delgada so Read decided to turn south toward Horta where the USS COLUMBIA was standing by. Soon the Island of Fayal came into view. Stone made a smooth landing at Horta at 1323 and the NC-4 crew was jubilantly welcomed on board COLUMBIA.

At about the same time both the NC-1 and NC-3 were independently landing in the open ocean. The NC-1 came down about 40 miles northeast of Flores. The aircraft buried itself in a large wave, breaking the wing struts and tail beams. The wing panels filled with water so it was necessary to slash the fabric. The bilge pumps were unable to handle the water that poured into the hull. All hands had to bail to keep afloat. Fortunately a lookout on the Steamer IONIA out of Athens, Greece, sighted the downed aircraft in the distance but fog closed in. The ship began a search and located the plane several hours later just before dark. A boat from the IONIA removed the crew from the sinking plane within a few minutes. In the meantime the destroyer USS GRIDLEY arrived on scene. But NC-1's crew stayed on board the IONIA for transportation to Horta, where they transferred to the USS COLUMBIA.

At noon on the 17th, CDR Towers in NC-3 was sure that they were well south of their intended track so he

MUSEUM ACQUIRES NC-4 MODEL

The 31" wingspan model of the NC-4 pictured here was recently placed on exhibit in the Coast Guard Museum in Waesche Hall. The model is precisely accurate in every detail and was built and donated by a renowned model builder, Mr. Charles S. Fox, of Plainville, Conn. Mr. Fox has built models for Smithsonian and other prominent museums. In the past few years, he has rehabilitated many of our Coast Guard Museum models and in 1975 donated a fine model of the buoy-tender HORNBEAN, which he constructed. Mr. Fox's model of the NC-4 is appraised at $4,000 and certainly represents a major acquisition. The glass case in which the model rests has been donated by the class of 1966.



turned east. During the next hour, he was unsuccessful in attempts to get a radio fix. Dangerously low in fuel he decided to risk an open sea landing to try to fix position. When the plane dropped into the heavy seas, the engine struts buckled, the flying wires sagged and the hull leaked. All attempts to communicate were futile. The aircraft drifted with its nose into the wind, which set it on a heading toward Ponta Delgada. After two days and nights, without making contact with anyone, the plane drifted within sight of the Delgada breakwater. About that time the right wing tip float let go and had to be cut loose. Tower stationed men on both wings to balance the aircraft by moving in and out, then cautiously restarted the two outboard engines. They vibrated badly but provided enough power to allow the plane to taxi safely into the harbor.

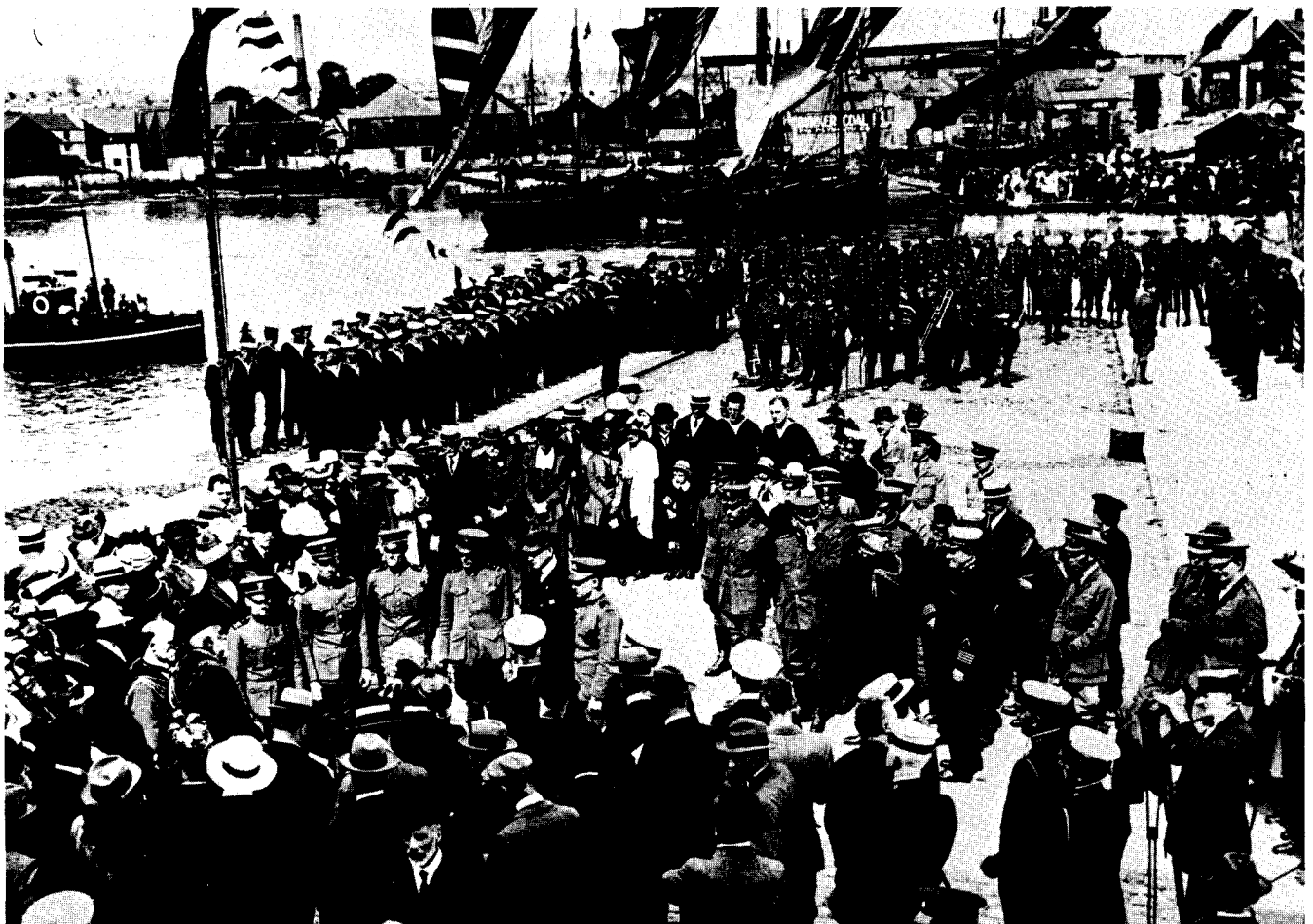
Poor visibility delayed the departure of the NC-4 from Horta until the afternoon of 20 May. Then in less than two hours, she landed at Ponta Delgada. LCDR Read and his crew were met by the Governor, the Mayor and practically the whole population of the city. During their stay, word was received that two Britishers who were attempting a crossing from Newfoundland to Ireland had been picked up at sea by a steamer 1100 miles from Newfoundland. However, the race was not over because two other contestants were standing by to take off as soon as the weather cleared. Thus it was essential that the NC-4 complete the crossing as soon as possible.

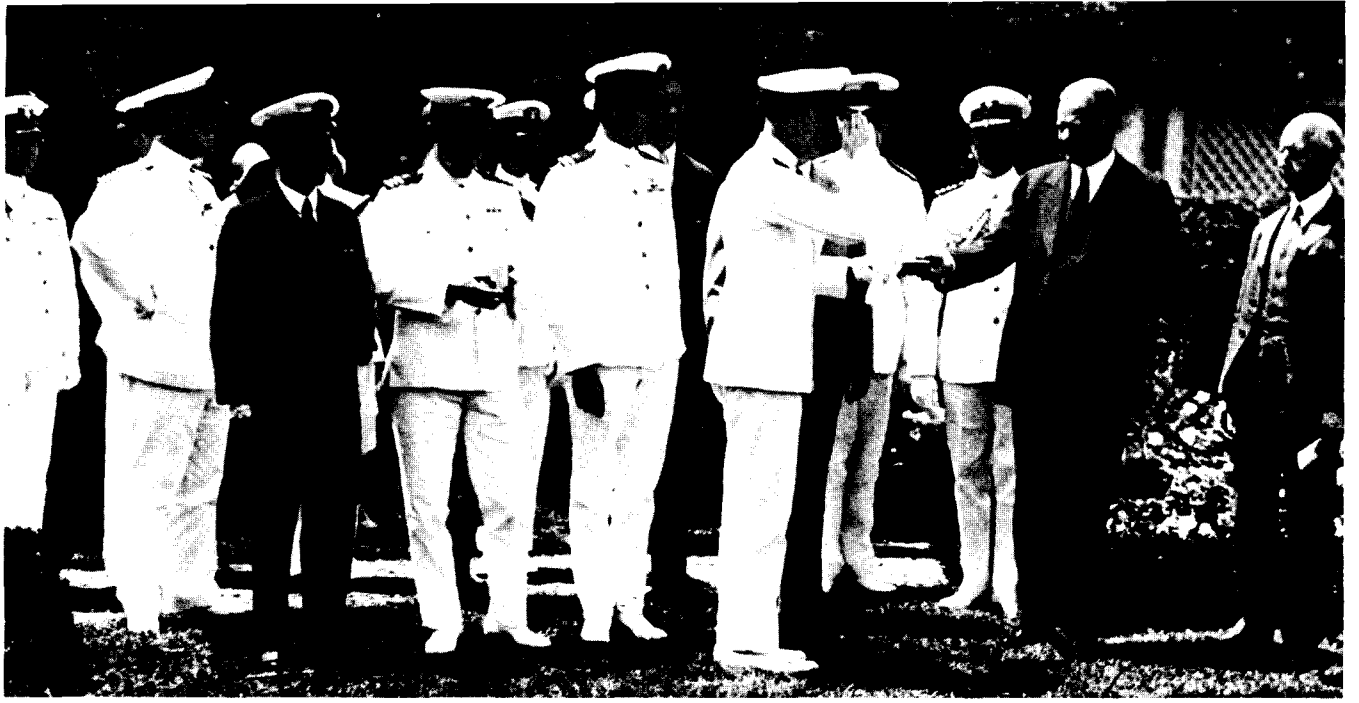
Again, weather and mechanical problems caused delays. But on 27 May the ten hour flight to Lisbon was completed without incident. Upon landing in the Tagus River by the heart of the city, Read and his men received a welcome that outdid anything that had gone before. The first transatlantic flight was completed. NC-4 had flown a total of 3308 miles in 44 hours and 36 minutes, an average speed of 74.6 knots.

On 30 May, NC-4 departed for Plymouth, England. One hour into the flight, her port engine began overheating and lost power. A landing was made in the Mondgo River to investigate. The radiator had developed a leak. By the time repairs were completed the tide was too low for take off. When they finally got off, it was too late to reach Plymouth before dark so they landed at Ferrol in Northern Spain. The next morning they were in the air on the last leg of their flight. Approaching Plymouth early that afternoon, they were joined by a formation of Royal Air Force seaplanes and escorted into the harbor. A British warship fired a 21 gun salute as the NC-4 circled. Touch down came at 1326, 31 May, 1919.

The Lord Mayor of Plymouth received CDR Read and his crew with great ceremony at the slab which

The Lord Mayor of Plymouth welcomes NC-4 crew at the spot from which the Pilgrims sailed for America 300 years earlier.





Ironically the signal accomplishment of the NC-4 crew was not fully recognized until after Lindberg's flight some 8 years later. Then a special gold medal, authorized by Act of Congress of 9 February 1929, was struck to honor the crew. It is here shown being presented by President Hoover in the White House Garden on 23 May 1930. Stone is third from left, looking at his medal.

commemorated the place from which the Pilgrims had sailed for America 300 years earlier. The crew was then taken to London, where they were decorated by the King. President Wilson, who was attending the Peace Conference at Versailles, sent for them. He congratulated Read and his crew for their outstanding achievement and introduced them to the other Peace Delegates representing the Big Four: Clemenceau of France, Lloyd George of Great Britain and Orlando of Italy. It was a proud day for the United States. The U.S. Navy, of course, was highlighted. But a stubby young Coast Guard pilot who later became the undisputed leader of Coast Guard aviation was very much involved. It was, perhaps, The Skipper's finest hour.

Elmer
Stone

Coast Guard
Aviator #1

1887-1936

A Note From The Author

This article is excerpted from a paper which CAPT Erickson wrote many years ago entitled, "Elmer Fowler Stone, U.S. Coast Guard Aviator No. 1: His Contributions to Naval and Coast Guard Aviation". When I wrote for permission to use it, CAPT Erickson replied as follows:

Dear Bill,

With reference to your letter of 24 April, your plan to reprint my account of the NC-4 flight is OK with me. I wrote that paper, because I don't believe the Coast Guard fully appreciates Elmer Fowler Stone's contributions to the NC-4 flight or his many other contributions toward the development of Seagoing Aviation. Even to this day, he is referred to in Coast Guard press releases as the copilot on the NC-4 flight. Actually he was the first pilot. The copilot was LTJG Walter Hinton, USNRF. The aircraft commander and navigator was LCDR Albert C. Read, USN, who flew in the bow compartment of the NC-4 during this operation.

The first pilots of the other two NC aircraft taking part in this operation were CDR Holden C. Richardson, USN, and LCDR Marc Mitscher, USN, of WW II fame. Their flights were terminated when they came down at sea. The crews of the NC's—particularly the aircraft commanders and first pilots—were especially picked because of their contributions to Naval Aviation during WW I. But it was only the team of Read and Stone that made it across the Atlantic. There is no question that it was Stone's superior flying skill that saved the NC-4 when it dropped into a spin on that leg from Newfoundland to the Azores....

Frank Erickson