Convoy Duty

In April 1917, the U.S. naval representative in London, Rear Admiral William S. Sims, learned Britain’s true shipping losses: a staggering 20 percent, high enough to force peace negotiations by autumn. In response, Sims won joint approval of a convoy system from both the Royal Navy and United States Navy.

Upon the U.S. Navy’s arrival, British Vice Admiral Lewis Bayly wanted to know one thing: how fast could these ships be ready for action in combating the submarine menace? Without hesitation the commanding officer of the American destroyer flotilla, Commander Joseph K. Taussig, responded “We are ready now, sir.”

Under Admiral Sims, the U.S. Navy expanded its presence in the British Isles. Although Sims advocated a more offensive posture, Secretary of the Navy Josephus Daniels ordered U.S. Navy warships to provide escorts for the transports and troopships that would soon be steaming in by the hundreds from across the Atlantic.
Beginning in July 1917, the U.S. Navy implemented the convoy system on both sides of the Atlantic. Naval escorts based on America’s eastern seaboard took convoys as far as Iceland before turning back. As convoys neared Ireland, U.S. Navy destroyers and aircraft based in the United Kingdom met them for the final leg.

By concentrating 20 to 30 transports, convoys emptied much of the sea of Allied ships, making them harder for U-boats to find. They provided more lookouts to spot U-boats and ensured a counterattack should a U-boat be sighted. Within months, reported losses fell from 20 percent to less than one percent.

Razzle Dazzle, defensive maneuvering called zigzagging, and smoke screens all increased the survival rate of transports in the convoys. But the convoy’s best protection was its escort group, composed of destroyers and supporting aircraft, that screened the seas ahead and on each flank, discouraging U-boats from closing to torpedo range.

By November 1918, there were 73 U.S. Navy destroyers, 37 smaller escort ships, and numerous subchasers based in Great Britain, Ireland and France. Working around the clock, they safely brought thousands of Allied transports into British and French ports.
Combating the U-boat Menace at Sea

The backbone of the convoy system was its escort of U.S. Navy warships, which screened the convoy through the most dangerous parts of the trans-Atlantic passage.

Originally called “torpedo boat destroyers” because they were designed to protect the battle fleet from torpedo boats, destroyers were fast and seaworthy, and fitted with depth charges they proved to be ideal anti-submarine platforms. To augment its anti-submarine capabilities, the Navy constructed over 260 new destroyers between 1917 and 1920.

A variety of smaller anti-submarine patrol boats, nicknamed “subchasers,” operated in the coastal waters of the United States, Great Britain, and France. They escorted convoys in and out of ports, while others were assigned patrol areas where they hunted in packs, using underwater listening devices to locate U-boats. Under the patronage of Assistant Secretary of the Navy, Franklin D. Roosevelt, 440 wooden-hulled subchasers were built during the war.

The Ford Motor Company in Detroit, Michigan, mass-produced 60 experimental, steel-hulled “Eagle Boats” — so named by an editorial in The Washington Post. They were designed to be larger, longer ranged, and more heavily armed than wooden subchasers. Unfortunately, structural problems prevented their deployment.
Combating the U-boat Menace from the Air

During the war, U.S naval aviation expanded from a small observation corps to a force of 25,000 personnel, operating more than 500 aircraft from dozens of naval air stations on two continents. As the “eyes” of the anti-submarine fleet these pioneers not only made significant contributions in the war against the U-boats, they also secured a place for aviation in the post-war Navy.

Destroyers were too small to launch airplanes, but kite balloons manned by observers allowed escort vessels to deploy their own aerial assets to aid in detecting U-boats.

Interested in a heavier-than-air craft capable of non-stop, trans-Atlantic flight, the U.S. Navy conducted wind tunnel tests on this nine-engine flying boat model in 1918. This marvel, which would have been roughly the size of a Boeing 747, was never built.

The DN-1 dirigible, the Navy’s first airship, entered service in April 1917. Airships were the most effective aerial platform for long-range escort missions. Always airborne, they could spot U-boats and alert the destroyers before the submarines got within firing range of the convoy.
During the 16 months that Naval Overseas Transport Service operated convoys, the U.S. Navy escorted 18,653 troopships and transports, carrying more than 2 million troops and over 6 million tons of material, without losing a single ship to enemy action — a singular achievement.

The Imperial Germany Navy began the war in 1914 with 29 U-boats; by the end of the war in November 1918 it had 134 submarines. During those four years Germany built 317 submarines, but more than half were lost by accident or in action with Allied warships.

The success of the U.S. Navy’s convoy system and anti-submarine warfare is revealed by the decline in Allied shipping losses after April 1917 and the increasing number of U-boats being sunk by Allied warships. By Armistice Day, the U-boats were a hollow threat.

Soon after the United States entered the war, the dire situation facing Great Britain was reversed, as Allied shipping losses fell to sustainable levels and continued to decline throughout the rest of the war.

The M1917 Cutlass, which replaced the 1861 pattern, was the last sword design the Navy accepted as a weapon. Afterwards, the Navy only retained swords in ceremonial and honorary roles.

The destroyers USS Fanning and USS Nicholson engaged U-58 on 17 November 1917 and forced her to surface, where the Germans surrendered and scuttled the submarine. It was the U.S. Navy’s first submarine kill.