

# THE LAKE SUBMARINE OF 1906

## A brief look at the stubborn idealism of an American inventor

BY

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In late 1906, American inventor and engineer Simon Lake authorized Newport News Shipbuilding in Virginia to build a submarine called *Simon Lake XV* in response to the 1906 naval appropriations bill, which authorized the Secretary of the Navy to acquire up to \$500,000 in submarines, a huge amount in that era. It had enough lucrative potential to prompt Lake into once again trying the U.S. market, having spent the last several years building subs for European navies. Taking a large gamble, he contacted NNS in late 1906 and had them build the *Simon Lake XV* on his own dime, intending to demonstrate it to the Department for approval as soon as it was completed, hoping to sell it and many more copies.

Then on 02 March 1907 the Roosevelt administration increased the amount of funding for submarines to a staggering \$3,000,000 (most likely because of his ride on the USS *Plunger*) and this prompted Secretary of the Navy Victor Metcalf to initiate a competition to determine the best type of boat to build. This is exactly what Lake had been arguing for since 1897. Lake was convinced that his new boat was going to win and he submitted it to the trials board after rushing back from Europe. In April and May 1907 Lake was enthusiastic about his chances at the huge pile of money, and his boat, now renamed simply *Lake*, went head-to-head with Electric Boat's *Octopus*.

There was only one problem. *Lake* lost the competition.

The *Lake* was judged inferior to the *Octopus* in very nearly every category. The *Octopus* was faster both surfaced and submerged, was more stable submerged, and dove faster. *Lake* did make a record dive to 136 feet, but the crew had considerable difficulty controlling her while submerged. The zero-angle diving system with midships diving planes simply did not work the way Lake wanted them to. The crew frequently lost control; the boat accidentally broached the surface 18 times. The workload of the crew was not efficiently distributed with the captain handling the helm, the diving planes, and the ballast, all while trying to safely conn the boat. He simply couldn't multitask at that level. The Navy chose the *Octopus* for series production with four more boats built that later became the C-class.

Unlike the past, Simon Lake let the defeat go unchallenged as the data was unequivocal. However, he took an entirely different opinion of the exclusive award of an additional submarine construction contract solely to EB. Engaging the help of two congressmen, Lake and his father brought charges of malfeasance and corruption against both Electric Boat and Victor Metcalf. A congressional committee appointed to investigate the unsubstantiated charges eventually found absolutely no evidence of any wrongdoing by either EB or Metcalf. In fact, Lake, his father, and their two congressional friends narrowly avoided charges being leveled against *them*; such was the dubious and somewhat nefarious nature of their actions.

Despite his legal tactics having backfired badly, Simon Lake refused to give up on the boat. *Lake* was brought to Lake's Bridgeport, CT. yard in 1907 and rebuilt in an attempt to correct its deficiencies. It received a sharply raked and pointed bow along with other alterations. He renamed it *Defender*. What was

done with the boat at this point is not entirely clear, but it remained under Lake ownership and was never commissioned into the Navy. The Navy wanted nothing to do with the boat.

In late 1928 the boat was returned to the Bridgeport yard where it was refitted as a salvage vessel. It was an attempt to revive Lake's pet concept of diver operations from a submerged submarine, for mine clearance and salvage work. The Navy was anemic at best to the concept, so *Defender* was offered to Sir Hubert Wilkins for his Arctic expedition. Wilkins determined that the boat was too small for his purposes and chose the former Navy boat *O-12* instead.

In June of 1929 *Defender* participated in a salvage demonstration for the Navy off Block Island. The Navy was once again not impressed, and nothing came of it. Desperately trying to drum up publicity Lake got the famous aviatrix Amelia Earhart to visit the boat (along with numerous newspaper reporters). She made a short voyage on the boat which included a dive. In a rather daring move she locked out through the diving chamber and swam to the surface. Once again, despite some decent newspaper articles the inability to generate interest was quite disheartening to the proud and driven Simon Lake .

Lake later had plans to use *Defender* in a scheme to salvage gold from a sunken British frigate, but in true Lake fashion that scheme fell through too. She lingered at a dock in New London, sinking alongside several times, until finally abandoned on a mud flat near Old Saybrook. *Defender* was finally pulled from the mudflat by the Army Corps of Engineers in 1946 and scuttled out in Long Island Sound. She lay forgotten there until 2023 when her wreck was rediscovered and surveyed by a team from Shoreline Diving Services of Noank and New London, CT.

Simon Lake was a brilliant engineer who actually contributed quite a bit to the body of knowledge concerning submarine technology. But his unyielding stubbornness in giving up his Jules Verne inspired ideals of how a submarine should be operated put him at odds with a United States Navy who only wanted a lethal weapon of war. His persistence with the 1906 submarine that became *Defender* is indicative of his adherence to his Vernian ideals, an adherence that ultimately relegated him to a minor chapter of American submarine history.