"San Diego's First Submarines"

Within the next twenty days San Diego harbor will assume a warlike appearance, for twenty vessels of the navy, including the two submarines Grampus and Pike . . . will be in the waters of the inner bay. --San Diego Union, June 24, 1910

For nearly a century San Diego has been a principle home base for U.S. Navy submarines. The city's first submarines--the USS *Grampus* and the USS *Pike*--were the first built on the West Coast. They came to San Diego in the summer of 1910, exciting the city and beginning a long relationship with the "silent service."

The two boats were built by San Francisco's famed shipbuilders, the Union Iron Works. Commissioned in 1903 at the Mare Island Navy Yard, the twin submarines were first commanded by Lt. Arthur MacArthur III, the elder brother of the future general, Douglas MacArthur.

The *Grampus* and *Pike* were tiny vessels, 63 feet long and 11 feet in the beam. Powered by a 160-horse power gasoline engine, the boats could move at only 8 knots (less than ten miles per hour) on the surface. Underwater a small electric motor propelled the craft at 7 knots. Armament consisted of a single torpedo tube in the bow and up to five torpedoes.

Called the "demon divers" by admiring San Diego newspapers, the submarines could submerge to about 60 feet. To dive the commander set a horizontal rudder in the stern to give the proper pitch, several water compartments would be flooded, and the boat would slowly descend. To rise water would be pumped out of the compartments. With a tank of compressed air for "long" dives, the submarines could stay under for over an hour.



The USS Grampus in San Diego Bay.

But diving below periscope depth was rare and risky for these early subs. With no diving planes to control movement, stability control was difficult. If a single crewmen moved forward in the boat the change in weight balance could plunge the sub on quick, one-way trip to the ocean floor.

The Navy understood the hazardous nature of submarine patrols. The hand-picked, seven man crews earned an extra \$5 per day for their jobs and a \$1 bonus each time the boats submerged.

They were also required to file wills and sign papers releasing the Navy from responsibility from the hazards of duty.

Grampus and *Pike* spent their first years in the San Francisco bay area, training and experimenting in the shallow waters of San Pablo Bay. In 1910 they were designated the 1st Submarine Division of the Pacific Torpedo Flotilla, and assigned duty in California coastal waters.

The two submarines headed south in June for "battle practice" in San Diego. Closely accompanied by the Navy tugboat *Fortune* and the collier *Justin*, the "midget flotilla" moved slowly, and took refuge in coastal harbors whenever bad weather threatened. A storm off San Luis Obispo put the boats in port for four days.

They arrived off Coronado on June 28. The eleven-day trip had crossed 550 miles, "the longest sea voyage ever made a submarine," noted a reporter for the *San Diego Union*.

Lieutenant K. B. Crittenden of the *Pike* promised a public viewing of the submarines in about two weeks after the boats were put into "apple-pie" order. "We want a little rest and a chance to clean ship," he explained. "You know there are no sleeping quarters aboard a submarine . . . We traveled all night last night and we are pretty tired this morning."

In mid-July the submarines began torpedo practice on the Coronado side of San Diego Bay. Submerged nets were the first targets. The submariners were embarrassed their first day out when they lost one torpedo. Valued at \$2000 each, the torpedoes were usually recovered after firing by a hard hat diver who "fastened gear to it" for winching to the surface. On this occasion the gear slipped while hoisting and the torpedo sank. Sailors spent the next several days dragging the muddy bottom of the bay but never found the valuable weapon.

A torpedo firing combined with a diving exercise came next. On July 21 the Coronado shoreline was crowded with spectators, eager to see "the "Navy whales" submerge and launch their weapons. Other viewed the spectacle from small boats or yachts. Newspaper reporters were allowed on the tug *Fortune* to watch the action.

"Something akin to 'Forty Leagues Under the Sea' was the performance of the submarines *Pike* and *Grampus*," reported the *Union*. First, the *Pike* maneuvered, "hindered by craft carrying spectators." The boat dived then fired a torpedo. Speeding at 24 knots per hour, the torpedo "could be traced by a long string of disturbed water which was left in its wake."

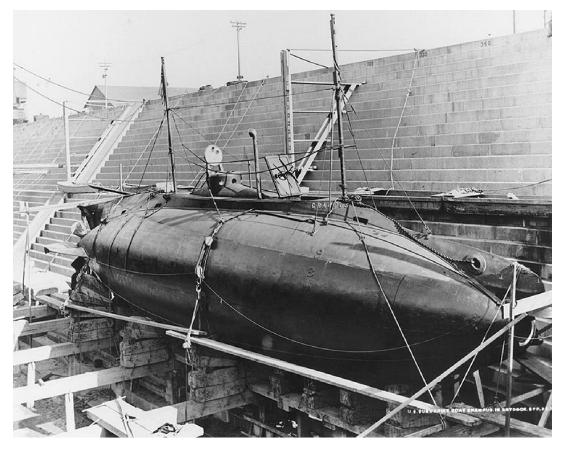
The *Grampus* came next. But a local photographer in a launch "persisted in running his launch so close to the vessel that his life and those of members of the crew of the Grampus were in danger." Dodging the photographer, the boat sank to periscope depth and fired a hallow-shell torpedo aimed at a Navy ship. "The weapon traveled at tremendous speed for about 800 yards and then sheared off to the left, finally coming to a halt after its velocity had been spent."

The two submarines continued their exercises into late fall. The *Grampus* performed another feat by traveling eight miles underwater, from Coronado through the bay to the ocean beyond

Point Loma. "Not a ripple appeared on the surface of the bay as the Grampus passed by torpedo boats and the big cruiser Pennsylvania, which it could have blown to pieces and continued with ease a voyage of destruction and carnage," the *Union* said.

Grampus and *Pike* would end their San Diego assignment the next year. Placed in reserve, the boats languished for a time in the Puget Sound Navy Yard. In February 1915 they were carried to the Philippines on the deck the collier USS *Hector*. For the remainder of World War I the twin submarines patrolled the waters off Manila.

The submarines were decommissioned in 1921. The next year *Grampus* and *Pike* performed one last military service as targets for the Asiatic fleet and were sunk near Corregidor in Manila Bay.



USS Grampus in dry dock at the Mare Island Navy Yard, September 23, 1906.

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