

Under the Sea

The Historic Ship Nautilus and Submarine Force Museum in Connecticut is a look at the history and significance of the vessel.

BY PETER SMOLENS

You know it's not real, but while searching for the enemy through the periscope, it's easy to imagine you're aboard a real submarine during World War II. Suddenly you spy the car that cut you off on the highway. You have located your target! You hear the sonar man call out the distances as you lock onto your parking-lot target. Everything lines up perfectly as you press the Fire button. A direct hit!

Another mission has been successfully completed at the Historic Ship Nautilus and Submarine Force Museum. Although the actual submarine base is off-limits to visitors, the U.S. Navy has put together an impressive museum next to the base in Groton, Conn., where visitors can learn about submarine history and tour America's first atomic-powered submarine, the *USS Nautilus*.

Originally set up as The Submarine Library by the Electric Boat Division of General Dynamics Corp. in 1955, the museum is celebrating its 35th anniversary in 2000. It is greatly respected for its archive and research value. In 1964, the library and museum were presented to the Naval Submarine Base in Groton, Conn., and in 1969 the museum's name was changed to Submarine Force Library and Museum. Run by the commander of the Atlantic Submarine Forces within the Department of the Navy, the museum and library have become the official repository of submarine artifacts and information about the U.S. submarine force.

Your tour starts even before you enter the museum. Outside the main building are four small submarines on display. They include the Japanese Type A *Kairyu*, an Italian *Mattia*, a German *Seebund* and an American MK-9 Swimmer Delivery Vehicle used by U.S. Navy Seals. You can also see just how big today's ballistic-missile silos are since the cover of one is also on display. Other outdoor exhibits include the sail of the *USS George Washington*, the nation's first ballistic-missile submarine, and the Nautilus' propellers.

As you enter, you are greeted by a life-size model of Capt. Nemo, Jules Verne's fictional character from the book *20,000 Leagues Under the Sea*. Nemo and his ship were a guiding force in the development of the first atomic submarine.

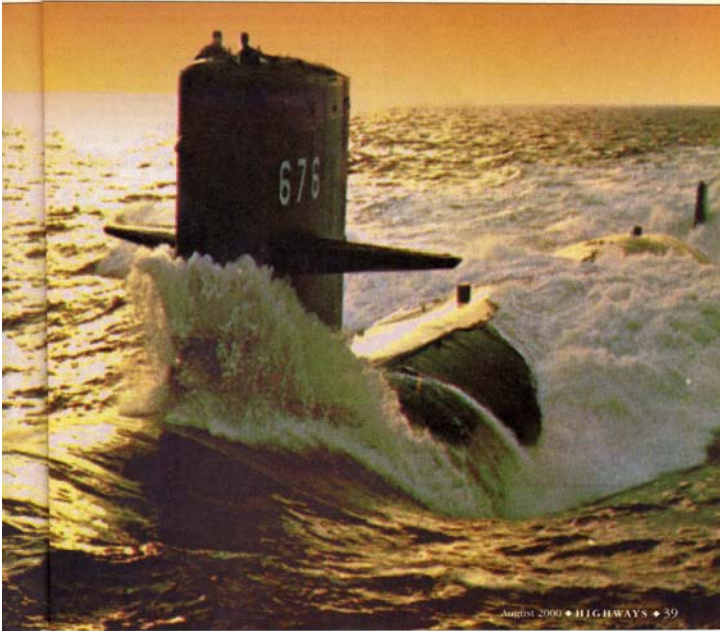
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Left: On display are artifacts used by the crewmen of the USS Nautilus. Below: A submarine prepares to submerge.



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Along the main hall are examples of a submarine's conning tower and the control room, two of the most important parts of the submarine and centers of activity. Here you can look at the grounds surrounding the museum through a real periscope while a recording of a sonar man calls out distance and directional information. Along the walls, equipment found aboard a World War II submarine is displayed.

Across the hall is the main viewing area where you can learn more about the history of the submarine — both fact and fiction. Man has tried many ways to survive under the sea, though Alexander the Great, ruler of Macedonia, was the first person known to have descended into the sea using a glass barrel. Throughout the ages, man has dreamed of designing underwater ships, including the great Leonardo de Vinci and inventor Robert Fulton.

Another exhibit displays a full-size replica of the one-man submarine called *The Turtle*, which was built by David Bushnell in nearby Saybrook, Conn., during America's Revolutionary War. In a letter to Thomas Jefferson, Gen. George Washington endorsed the potential use of the submarine for the war effort.

Traditionally, submarines were named after fish and other marine creatures. The exception to this rule was America's first submarine, the *USS Holland*, which was named after American inventor John Phillip Holland. The vessel was the first undersea craft to be commissioned by the U.S. Navy. Accepted on April 11, 1900, the government's price for the sub was a paltry \$150,000. Today, atomic submarines cost more than \$2 billion and are now named for famous American patriots, cities and states.

The submarine came into its own in World War II when U.S. subs destroyed a total of 1,314 Japanese and German ships, including one battleship, eight aircraft carriers, 15 cruisers, 42 destroyers and 23 other submarines. The museum displays a map showing the location of every submarine strike during the war. Although submarines made up less than 2% of the Navy, they sank 55% of all enemy ships.

Long considered a versatile and deadly instrument of war, the submarine broadened its capabilities with the adoption of nuclear power. Today, the submarine serves as a ballistic-missile platform, an early warning station, coastal radar, an advance scout, a "killer" of surface and underwater vessels, troop transport, supply ship and underwater mine layer.

In the museum's minitheaters, visitors can view a documentary of man's quest to master underwater navigation. For those who might be claustrophobic in the narrow corridors of a submarine, there is a video tour of the interior of the *USS Nautilus*.

On the second floor, the museum has faithfully documented daily life onboard a submarine. Here the museum reveals through photos and artifacts the answer to the question most asked of submarine sailors, "What does one do to pass the time?"

Moored at the dock just outside is America's first atomic-powered submarine, the *USS Nautilus*. The submarine that you will see is not the first submarine named *Nautilus*, however. According to U.S. Navy records, five other vessels, including two other submarines, have been named *USS Nautilus*.

The legacy of the *USS Nautilus* began with a 12-gun schooner. Under the command of Lt. Richard Somers, it was with Commodore Preble's squadron in the Mediterranean during the campaign against the Tripolitan pirates. The second ship named *Nautilus* was also a schooner that played an important role in the war with Mexico in 1847.

The first submarine named *USS Nautilus* made its appearance in 1911. Built in San Francisco, the submarine saw service with the Navy until 1922 and was later renamed H-2. During World War I, the now-traditional name of *Nautilus* was carried by a motor-patrol boat. In 1930, one of the largest submarines ever built carried the *Nautilus* name proudly. It finished off the crippled Japanese aircraft carrier *Soryu* during World War II.

On Dec. 12, 1951, the U.S. Navy announced plans to build the first atomic-powered submarine. The name selected was *USS Nautilus*. Commissioned by the Congress, construction was made possible by the successful development of a nuclear-power plant. With the help of the Atomic Energy Commission under the

Just as the crew of the vessel did, a visitor peers through the periscope that was once aboard the submarine.



leadership of Capt. Hyman G. Rickover, the Navy had finally fulfilled the dream made popular by Verne's book almost 100 years before. What Verne wrote was the following: *On the NAUTILUS men's hearts never fail them. No defects to be afraid of, for the double shell is as firm as iron; no rigging to attend to, no sails for the wind to carry away; no boilers to burst; no fires to fear. For the vessel is made of iron, not of wood; no collision to fear. For it swims in the deep water; no tempest to brave. For when it dives below the water, it reaches absolute tranquility. That is perfection of vessels.*

It took about a year and half for the Electric Boat Division of General Dynamics Corp. to build America's first atomic-powered submarine. With the traditional bottle of champagne, Mrs. Dwight D. Eisenhower launched the vessel on Jan. 21, 1954.

That was only the beginning. It took almost a year to thoroughly test the many different onboard systems. On Jan. 17, 1955, under Commanding Officer Cmdr. Eugene P. Wilkinson, the *USS Nautilus* cast off all lines, and signaled this historic message: UNDERWAY ON NUCLEAR POWER. During its maiden voyage, the *Nautilus* traveled more than 1,300 miles in less than 100 hours. Since that shake-down voyage, it has set many speed and distance records for submarines, some of which still stand.

In the summer of 1958, under Cmdr. William R. Anderson, the *USS Nautilus* went on a secret mission called Operation Sunshine. Leaving out of Pearl Harbor, Hawaii, on July 23, the submarine headed north, passing

This submarine model (below) is one of many on display inside the museum, whose impressive entrance (bottom) is patterned after a view through a periscope.

