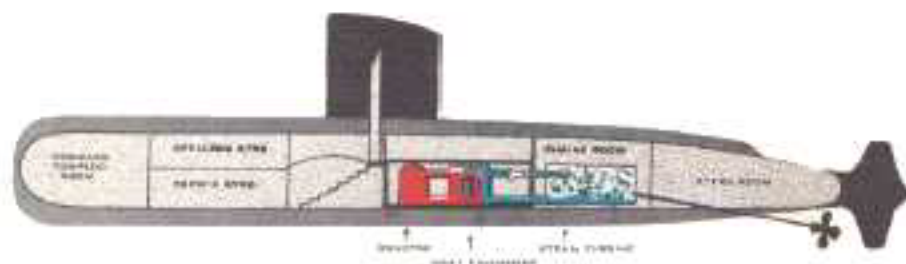


UNDERSEA
PROGRESS
WITH
NUCLEAR POWER



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The nuclear propulsion plant used on the SARGO consists of two separate systems - a primary water system and a secondary steam system.

The primary water system contains a reactor vessel and two closed loops. In each loop there is a heat exchanger, circulating pumps and various additional connections for adding water, sampling, testing, etc.

Water, in the primary system, is heated in the reactor vessel by the controlled nuclear reaction of the uranium fuel, which is located within the reactor vessel. The heated water then passes out one of the loops through a heat exchanger, where it gives up its heat to the secondary system, and then is pumped back into the reactor.

The primary system is located in the lower reactor compartment, which is constructed with lead lined walls, deck and overhead, to protect the crew from exposure to radiation.

Water, from the secondary system, enters the reactor compartment and passes through one of the heat exchangers, where it is converted into steam. It returns from the reactor compartment, through a steam line, and is used to operate a conventional steam engine to produce the energy needed to operate the submarine.

Since the sinking of the Federal Corvette "Housatonic", by the Confederate Submarine "Hunley", in Charleston Bay on February 17, 1864, submarines have become progressively more important in defense of the nation.

At the outbreak of World War II, Germany had 57 U-boats. Of these, only 22 were ocean-going submarines. Yet, before the war was over, the German submarine fleet killed 40,000 and sank over 14,000,000 tons of allied shipping. It took four years before the German submarine menace could be controlled.

The Soviet Navy is the second largest in the world. The Russian submarine fleet is ten times as large as was the German submarine force at the start of World War II and five times as large as our submarine force at the present time.

The task of containing the Soviet submarine menace in the event of war would be formidable. The heart of the problem would be to destroy the enemy's submarine, in or close to their home bases, and to seek out and destroy his submarines in the open seas.

The nuclear powered submarine is best suited to cope with this threat. The U.S.S. SARGO is a member of this nuclear powered submarine force.



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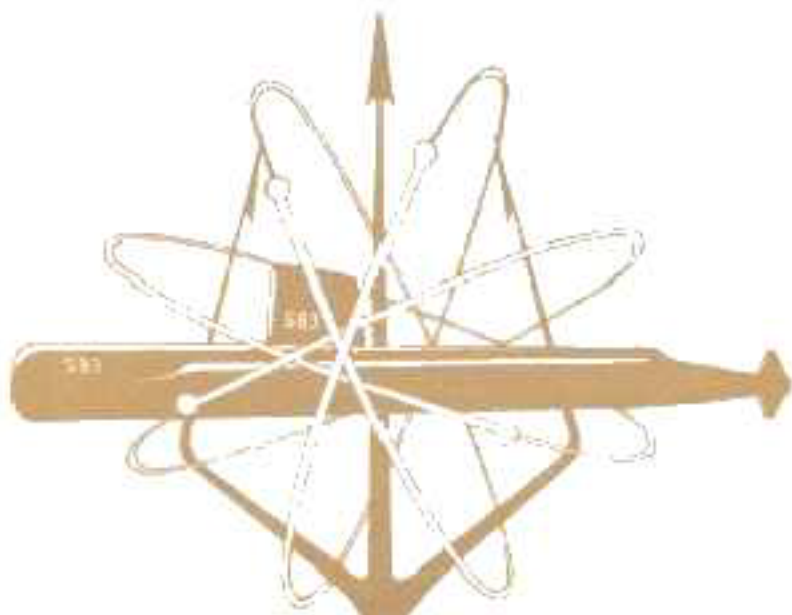
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The U.S.S. SARGO (SSN 583) is the first nuclear powered submarine to be built on the West Coast and the second to bear that name. The first SARGO was commissioned in 1939. She made 12 war patrols during World War II, sinking 41,500 tons of enemy shipping and damaging an additional 41,300 tons. She was 310 feet long, displaced 2350 tons and was capable of 8.75 knots submerged speed. She carried a crew of 55 officers and men. In July 1956 she was decommissioned.

The present SARGO is 267 feet long, displaced 2350 tons and is capable of better than 20 knots submerged speed. She carries a crew of 85 officers and men.