

Volume 3

Number 182

The Sinking of USS *Thresher* - II

Lead: In April 1963, USS *Thresher*, a nuclear attack submarine engaged in trials after an extensive overhaul, sank in the Atlantic off Cape Cod with the loss of 129 lives.

Intro.: *A Moment in Time* with Dan Roberts.

Content: *Thresher* was a new class of sub designed to hunt and destroy Soviet nuclear submarines. Therefore, it was able to go deeper and faster than any of its predecessors and carry 23 torpedoes at 28 knots per hour down to a test or maximum depth of

1300 feet below the surface. It was a deadly package but this vessel had catastrophic defects.

On the final morning of its life, accompanied by USS *Skylark*, a submarine rescue ship, *Thresher*, commanded by 36-year-old Lt. Commander John W. Harvey, a Naval Academy graduate, began its descent to its test depth 220 miles off the Massachusetts coast. By 9:00 AM the vessel was approaching 1000 feet in depth as it had many times before. Shortly thereafter, a pipe burst in the engine room and icy sea water poured in creating a confusing cloud of mist. Harvey ordered the ballast tanks blown and headed for the surface. Ninety-seconds later the rushing air

stopped. At that depth the air had frozen in the pipes blocking the escape valves. At this point water violated the electrical system and the main reactor shut down. Harvey then tried the battery-powered back-up motor and another attempt at blowing the ballast tanks. They froze again. Within minutes the auxiliary power was exhausted and *Thresher* began to drift backward and downward. The ship's last garbled message was “exceeding test depth...nine hundred north.”

Investigation laid part of the blame to construction techniques which relied too heavily on silver-brazing rather than full welding. In addition designers had over-looked the fact that gas cools when it expands rapidly and

at that depth air rushing into ballast tanks would freeze blocking the pipes.

Investigation into the sinking of *Thresher* led to substantial improvements in safety and in naval construction procedures. As a result there has only been one other sinking of a U.S. submarine since 1963.

At the University of Richmond, this is Dan Roberts.

Resources

Bentley, John. *The Thresher Disaster: The Most Tragic Dive in Submarine History*. Garden City, New York: Doubleday Publishing Company, 1974.

Golembeski, Dean J. "What Sank the *Thresher*," *American Heritage of Invention and Technology* (Summer 1997): 25-31.

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