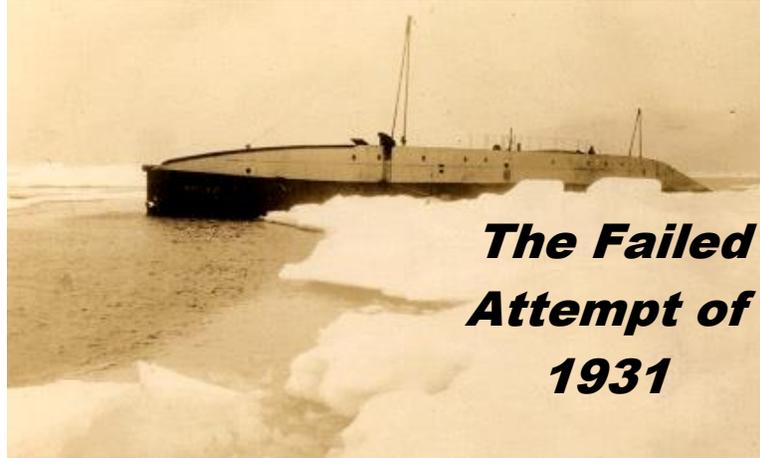


## ***UNDER THE NORTH POLE...ALMOST***



**Background:** Eighty-seven years ago, arctic explorer Sir Herbert Wilkins lead an expedition whose ultimate goal was to subnavigate the North Pole.

Utilizing a former US Navy submarine that had been extensively modified for this purpose and renamed NAUTILUS, they got as far north as the 82nd parallel north [480 miles from the North Pole] before they were forced to turn back.

It was not until 1958, when the first submarine passed under the North Pole. Her name was also NAUTILUS.

**Because Its There:** Since the 17th century, man has been fascinated with the idea of reaching the North Pole. European and American explorers made numerous, albeit failed attempts to reach that desolate, bitter cold and ice-choked geographical point at the top of the world.

The first person generally credited with actually reaching the North Pole was US Navy Admiral Robert E. Peary. Traveling by ship and dogsled, he arrived at that fabled location on April 6, 1909. In 1926, Admiral Richard E. Byrd, USN became the first person to fly over the North Pole. His aerial feat was quickly followed by the crew of the Italian airship NORGE.



Somewhat in parallel, Australian-born explorer Sir Hubert Wilkins [left] was engaged in Arctic and Antarctic explorations of his own. In 1930, Wilkins announced that he planned to lead an expedition to the North Pole via submarine.

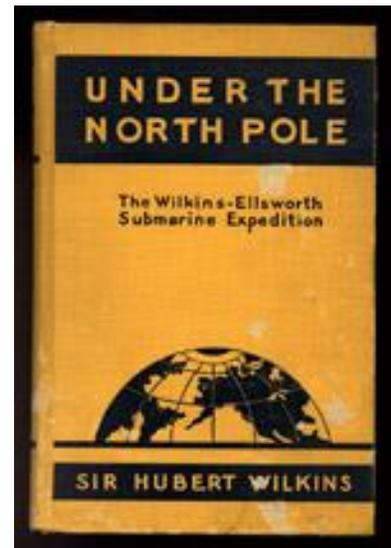
He said he wished to do so not just because it had never been done before, but also for research purposes. Wilkins then proceeded to seek funding to augment his own small investment in the plan...and a suitable vessel.

Wilkins' plan included making extensive modifications to an existing submarine, requiring more than \$200,000 [equal to roughly \$2.8 million today]. Wilkins could personally provide only ten percent of the total amount estimated that would be needed.

A significant amount was provided by fellow Arctic explorer and close friend Lincoln Ellsworth, who also participated in the planning of the project. Wilkins also solicited and received financial support from several scientific-minded organizations, including the Carnegie Institution, Woods Hole Oceanographic Institution, the American Geographical Society and the Cleveland Museum of Natural History.

***Investment...at a Price:*** In spite of the support provided by Ellsworth and several prestigious organizations, a skeptical American general public largely regarded the planned adventure as little more than a publicity stunt. This perception was due, in part, to newspaper tycoon William Randolph Hearst's willingness to donate \$61,000 to Wilkins' project...provided that exclusive daily news reports during the planned expedition would be provided to Hearst Enterprises, Inc. Later on, the failure of the expedition to complete most of the scientific experiments planned only confirmed the public's perception.

To help raise funds before the expedition got started, Wilkins published a promotional book, with the somewhat misleading title *Under the North Pole* [right]. In addition to including extensive reasoning for the scientific purposes of the planned adventure, Wilkins also dramatically indicated that the book was intended to document the expedition's goals in case no one should return.



This book, elaborately illustrated, goes into lengthy detail about the history of Arctic exploration, prior attempts to reach the North Pole and what Wilkins hoped to achieve. It also details the extensive reconstruction of a decommissioned US Navy submarine selected for the planned trip.

***USS O-12 (SS-73):*** Completed in 1918, less than a month before World War I ended, this submarine had a very short and largely undistinguished career before being laid up in 1924. Not given a name, just a class number, the O-12 also was anointed with the somewhat confusing additional US Navy designation SS-73.

She was designed by submarine pioneer Simon Lake and constructed at the Lake Torpedo Boat Company in Bridgeport, Connecticut. The O-12 spent much of her career as a unit of the US Navy's Submarine Division 1, based in the Panama Canal Zone. After only five and a half years of service, she was retired.

The O-12 was 175 feet long and displaced 560 tons, submerged. Her design depth for operating underwater was 200 feet. While operating on the surface, she was propelled by twin diesel engines at a top speed of 14 knots. Underwater, two electric motors, powered by storage batteries were connected to the O-12's single propeller shaft.



Her crew numbered 29. Their weaponry consisted of four torpedo tubes, and one 3-inch deck gun.

Laid up at the Philadelphia Navy Yard, and scheduled for ultimate disposal, the O-12 was turned over to the US Shipping Board, which made her available for lease, after her weapons were removed. The lease was for a period of five years, at a cost of one dollar, annually. At the end of that time, she either had to be returned, or sunk at a location acceptable to the Shipping Board.

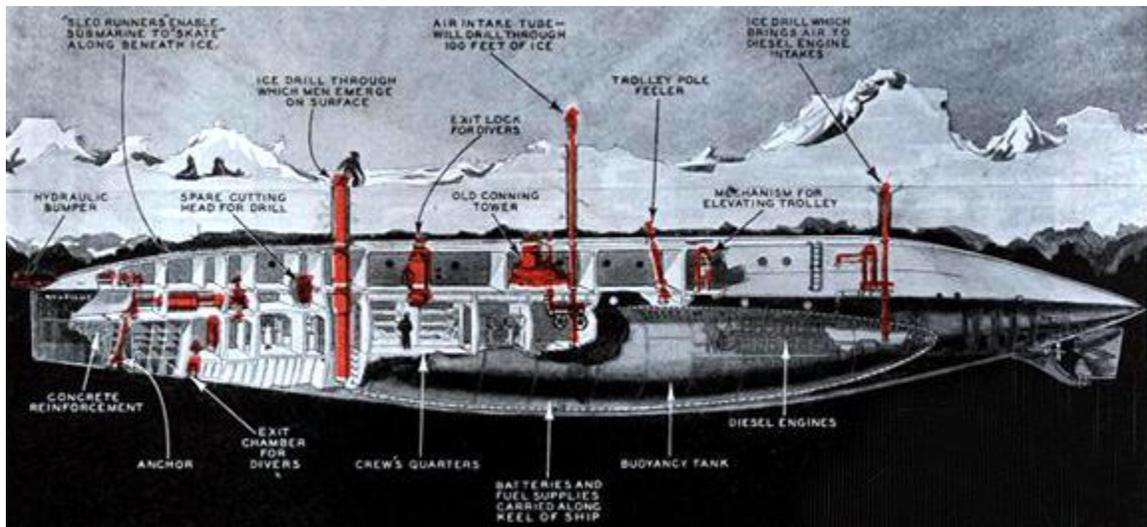
However, since Wilkins was not a US citizen, he was not permitted to lease the boat. So he arranged for an American firm, led by Simon Lake to obtain her for his use, as well as to modify the O-12 and make her suitable for underwater travel in the Arctic.

***Creating the NAUTILUS:*** Initial modifications were made to the O-12 at the Philadelphia Navy Yard. Then she was moved across the river to a small shipyard in Camden, New Jersey for more extensive changes and a number of unique additions. There, thirty-two major features were added; all of which were designed by the sub's original designer and builder, Simon Lake.



These included a cushioning bowsprit 12 feet long to act as a bumper, an ice drill to provide access to the surface in case the submarine was unable to break through the ice, a telescoping escape trunk, an emergency air intake system, and a diving chamber. Her conning tower and periscope were modified to be retractable. The most obvious change was the addition of a large wooden superstructure placed atop the sub's hull.

This structure was fitted with iron 'sledge runners' on its top side. Lake felt this feature would protect the vessel's pressure hull and allow it to glide or bump along under the ice.



When all the modifications to the submarine had been completed, and a crew of twenty adventurers signed on, the former submarine O-12 headed for New York. Her departure was delayed by a snow storm; not a very auspicious start for a vessel headed for the Arctic.

On March 24, 1931, Wilkins' wife christened the vessel NAUTILUS. Since Prohibition made the use of champagne unacceptable, a bottle of ice water was utilized. Joining Wilkins and his wife at the ceremony was Jean Jules Verne [right], grandson of the author of *20,000 Leagues Under the Sea*, which was the source of the O-12's new name.



Shortly thereafter, the newly-named submarine was tested off the New England coast before setting off on the planned Arctic expedition. While off Block Island, the vessel's crew successfully performed a 90-foot dive.

The operating crew of NAUTILUS was largely composed of civilians. Most of them were former submariners. The vessel's captain, Sloan Danenhower had previously commanded submarines for the US Navy. The vessel's chief electrician was still a member of the US Navy. He had been given a year's leave of absence to participate in the adventure. Legally, Wilkins was just a passenger, but since the trip was partly funded and led by him, the captain did whatever Wilkins wanted done...unless safety needs dictated otherwise.

**A Troubled Crossing:** While crossing the Atlantic on the surface in June of 1931, the NAUTILUS ran into a severe storm which damaged her starboard diesel engine. After running for an extended period of time on the port engine, that piece of machinery failed, as well. To save money, they had not been overhauled prior to departure as Simon Lake had strongly recommended.

Adrift, Wilkins broadcast an SOS. Fortunately, the battleship WYOMING was nearby, conducting a training cruise for Naval Academy midshipmen. She took the submarine under tow and proceeded to Queenstown, Ireland.

The image on the right shows Wilkes onboard the NAUTILUS waving to those on shore at Queenstown. Apparently, he found time to dress appropriately for the arrival there. It is not known if others in this photograph are some of his associates or members of a local welcoming committee.



The latter seems more likely. The photo, below left, taken inside the sub, is more indicative of what living conditions were like for the submariners and scientists of NAUTILUS during their days at sea.



After a short stay in Ireland, the NAUTILUS was towed to Davenport, England for repair of her engines. Delay followed delay as spare parts had to be sent from the United States. But eventually, in early August of 1931, the sub reached Bergen, Norway, where several scientists were waiting to join the crew. On August 5th, they headed north.

**More Troubles:** Additional mechanical and electrical issues slowed their progress. In addition, they encountered a storm which caused the submarine to nearly capsize; rolling as much as 57 degrees. Finally, on August 19, 1931, they first came into contact with ice.

That encounter was deemed a suitable occasion for some of the crew to pose for the photograph on the right. For the next few days, the submarine navigated along the edge of an ice pack as her crew sought a suitable place to risk going under the ice.



By that long-awaited event was further delayed when the sub's skipper noticed that the stern diving planes appeared to be missing. A diver went underwater to confirm that the stern diving planes were, indeed, no longer in place.

Sabotage by one or more disgruntled crew members was suspected by Wilkins, but contact with pack ice was considered a more likely cause by the former US Navy submariners, who made up most of the vessel's crew.



**Plan B:** Unable to proceed as originally planned, Wilkins elected to move as far north as possible on the surface. Disappointingly, that proved to be 480 miles from the North Pole. The scientists and crew did go onto the ice several times to conduct some of the planned experiments. Of course, Wilkins was not satisfied with those efforts.

Nor was William Randolph Hurst, who sent a message to Wilkins that Hurst Enterprises would not fulfill its financial obligations to the expedition if Wilkins did not continue the quest to reach the North Pole. So Wilkins urged the submarine onward, further north.

On August 31st, he convinced the sub's captain to submerge using a dangerous, improvised technique. By trimming her down by the bow and ramming an ice floe, they managed to dive beneath ice that was three feet thick.

That day, NAUTILUS became the first submarine to operate under the polar ice cap; however briefly. But the maneuver resulted in damage to her superstructure and her radio antennae. Unable to transmit for several days, NAUTILUS was feared lost...until her crew made repairs and was able to communicate again.

But proceeding further north under the ice in this manner was considered too dangerous to attempt...even by Wilkins. Additional failures of equipment further convinced them to turn back. On September 8, 1931 they returned to Norway after barely surviving another terrible storm.

The scientific data they brought back with them was considered invaluable. The survival of the sub and her crew was nothing short of miraculous. But Hearst was not impressed. He declared the expedition a failure and refused to pay for the effort, as previously promised.



**Premature End of the Adventure:** Wilkins hoped to make repairs and improvements to his vessel and try again. But an early winter set in, making that impossible. Plans to return to England were dashed when yet another storm caused damage to the pressure hull of the NAUTILUS. In addition, once again, her always temperamental engines failed.

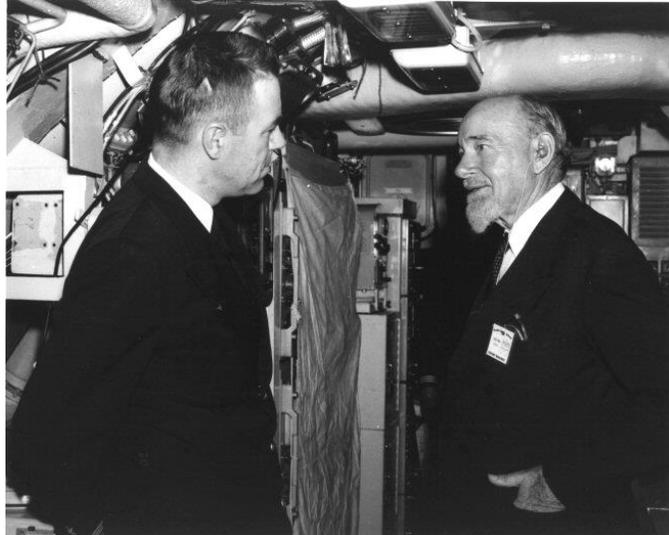


Out of funding, Wilkins was forced to turn the submarine over to local authorities who, in turn, got permission from the US Shipping Board to sink her. In November of 1931, she was towed several miles offshore from Bergen and scuttled in international waters over 1,100 feet deep, where she remains to this day.

Wilkins later tried to mount another submerged expedition to the North Pole in a better submersible, but he never was able to assemble the necessary funding or acquire a vessel for such an attempt. Sir Hubert Wilkins passed away unexpectedly in November of 1958 at the age of 70. Four years prior to his death, a submerged transit of the North Pole was made. Wilkins surely must have been thrilled...and envious...when he learned of that accomplishment.

**NAUTILUS 90 North:** After Wilkins' failed attempt to subnavigate the North Pole, it took over twenty years for technology to advance sufficiently for a submarine to accomplish that feat. In August of 1954, America's first nuclear-powered submarine, the USS NAUTILUS (SSN-571), steamed under the ice from the Bering Straits to and under the North Pole. She then proceeded south to Norway along the same track that Wilkins had hoped to follow northward.

***The Rest of the Story:*** In October of 1958, just one month before he died, a seemingly healthy Wilkins [right] was a guest of Captain James Calvert onboard the USS SKATE (SSN-578). Given the events that followed shortly thereafter, it is unlikely that visit was merely coincidental.



Just a few months later, on March 17, 1959, the SKATE became the first submarine in history to surface at the North Pole.



Her crew carried a precious cargo with them to that barren and unmarked location. In a solemn ceremony that took place on the ice, the crew of the SKATE carried out Sir Hubert Wilkins last wish; to have his ashes scattered there.

*Bill Lee*

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