

WALDO K. LYON (1914 – 1998)

Waldo Kampmeier Lyon, father of the United States Navy's highly successful Arctic submarine program, died unexpectedly of a heart attack in San Diego on 5 May 1998. He was Chief Scientist for Arctic Submarine Technology at the Naval Undersea Warfare Center from 1963 until his retirement from government service in 1996. At the time of his death, he was working very hard to prevent the United States' hard-won Arctic submarine capability and programs from becoming a casualty of the Cold War's conclusion.

Dr. Lyon was born on 19 May 1914 in Los Angeles, California. He attended the University of California, Los Angeles from 1932 until 1941, the year in which he was awarded a Ph.D. in physics. He then joined the Navy Electronics Laboratory in San Diego as a physicist for the submarine warfare program. In 1946 he was the senior scientist in the wave measurement group at the Bikini Atom Bomb Test. After serving as scientist on board the submarine *Sennet* during the Byrd Expedition to Antarctica in 1946, he founded the Submarine Research Facility, later to become the Arctic Submarine Laboratory, which developed the under-ice capability for submarines to explore the Arctic Ocean and the adjoining ice-covered seas. He was senior scientist on board the *Boarfish* during the first successful operation under the ice of the Chukchi Sea in 1947. This assignment was followed by similar voyages aboard the *Carp* (1948), *Baya* (1949), and *Redfish* (1952 and 1953). Between 1950 and 1955, Dr. Lyon also served as senior scientist on board the icebreakers *Burton Island*, *Northwind*, and *Staten Island* in the joint American-Canadian oceanographic survey of the Chukchi and Beaufort Seas and the Canadian Arctic Archipelago.

With the advent of nuclear-powered submarines, Dr. Lyon served as senior scientist on board the first submarines to reach the North Pole and explore the Arctic Ocean; the *Nautilus*, during its historic transpolar voyage (1957–58); the *Skate*, during its second Arctic cruise and first-ever surfacing at the North Pole (1959); the *Sargo*, during the first dead-of-winter Arctic expedition and survey of the ice-covered shallow Bering, Chukchi, and Beaufort Seas (1960); and the *Seadragon*, during its survey of the Northwest Passage and transfer from the Atlantic to the Pacific via the North Pole (1960). Subsequent voyages were made in the same capacity on board the *Skate* (1962), *Queenfish* (1967), *Whale* (1969), *Hammerhead* (1970), *Bluefish* (1975), *Gurnard* (1976), *Flyingfish* (1977), *Pintado* (1978), *Archerfish* (1979), and *Silversides* (1981) during their highly productive Arctic expeditions.

Dr. Lyon, a true scientist-patriot, was well recognized for his almost single-handed efforts over several decades to provide the United States with the world's first true "Arctic Submarine." He was a three-time recipient of the Distinguished Civilian Service Award (in 1955, 1956, and 1958) and received the Distinguished Federal Service Award from U.S. President John F. Kennedy in 1962.



Dr. Waldo K. Lyon.

Other awards included the 1959 American Society of Naval Engineers Gold Medal; the Silver Medal of the Société de Géographie, Paris; the 1985 Royal Institute of Navigation's Bronze Medal; and the Silver Busnell Award from the American Defense Preparedness Association in 1993. In November of 1997, the internationally known Explorers Club honoured Dr. Lyon as an Arctic submarine pioneer, with the Lowell Thomas Award.

Dr. Lyon is survived by his wife, Virginia; a daughter, Lorraine Walls of El Cajon, California; a son, Russell, of Days Creek, Oregon; and three grandchildren. His ashes were scattered at the North Pole from the *Hawkbill*, one of the last true Arctic submarines remaining in commission in the United States.

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