

# EUGENE CECIL LaFOND (1909-2002) BIOGRAPHY



Eugene Cecil LaFond was born December 4, 1909 in Bridgeport, Washington. His family moved to California in 1917. He graduated from Sweetwater High School in National City. LaFond received an A.B. from San Diego State College in May 1932. He was awarded an honorary D.Sc from Andhra, India in 1956.

LaFond entered college with plans to become a mechanical engineer, but he developed an interest in science. He arrived at Scripps Institution of Oceanography and worked as a Technical Assistant in 1933. He was accepted as a graduate student in 1936 and took graduate courses both at SIO and Berkeley. During his early years at SIO, LaFond worked for T. Wayland Vaughan, preparing charts and plotting oceanographic station data, conducting oceanographic observations on R/V SCRIPPS, taking photographs and doing a study of beach erosion. LaFond's talent for photography was useful when the SIO staff decided to compile a photo album as a retirement present for T. Wayland Vaughan. LaFond took pictures of campus and every member of the staff in 1935 and eventually donated his original negatives to the Scripps Archives. LaFond took a course in dynamic oceanography at Scripps from Harald Sverdrup (Oc 202) in 1937 and continued his graduate work at UCLA. LaFond prepared many of the charts and illustrations for Sverdrup, Johnson and Fleming's *The Oceans*, the first modern textbook in oceanography.

LaFond was promoted to the rank of oceanographer at Scripps in 1940. He was given a leave of absence from SIO in August 1, 1941 to undertake war work at Point Loma in a laboratory later named the University of California Division of War Research (UCDWR). While at UCDWR he studied sedimentary properties and underwater acoustics of fundamental application to naval warfare, and advanced to a position as Associate Oceanographer. LaFond returned to SIO at the end of the war in 1945, but moved to the Naval Electronics Laboratory in 1947 and headed the Marine Environment Division. LaFond took a number of leaves of absence from NEL over the years to take advantage of research opportunities. For instance, LaFond was one of many scientific consultants who participated in Operation Crossroads, the Bikini atomic test. Between the two atomic tests, Gene and John Lyman lowered water samplers to various depths. The wire angle of the cast revealed a strong westerly current. They recorded the observation. The massive water flow was later described and named the "Cromwell Current." From 1947 to 1951 he directed scientific operations aboard submarines and icebreakers during five cruises to the northern Aleutian platform and Beaufort Sea. He was a leader of NAGA Expedition to Thailand and Vietnam in 1960.

While attending San Diego State College, Eugene met chemistry student Katherine Gehring. Shortly afterwards, Katherine was hired at Scripps Institution of Oceanography as a chemistry laboratory assistant in 1933 by its second Director, T. Wayland Vaughan. The Institution decided they needed to hire another technical assistant, and Katherine alerted Gene to the opportunity. Gene was hired that same year, and married her in 1935. They initially kept their marriage a secret because University of California nepotism rules specifically forbade the employment of two married persons in the same laboratory. Katherine Gehring LaFond resigned from Scripps on August 1, 1936 in order to accompany her husband to Berkeley, and they finally made their marriage public. The LaFonds had two sons.

LaFond initiated the design and installation of the derrick-like structure offshore of Crystal Pier, Mission Beach, known alternately as the "NEL Tower," the "Mission Beach Tower," "NOSC Tower," or the "LaFond Tower." The unmanned oceanographic platform stood in 60 feet of water and housed complex recording instruments from 1959 until it was toppled by El Nino waves in 1988. It is a popular sport diver destination today.

LaFond is particularly distinguished for his work on the Indian Ocean which began in the 1950's as part of the International Indian Ocean Expedition (IIOE). The IIOE was an international effort to explore the Indian Ocean with funding from many sources including the UNESCO. The IIOE is credited with strengthening science at a number of Indian universities and interesting Indian scientists and graduate students in oceanography. LaFond worked during three extended visits to India under a U.S Fulbright Grant during 1952-53, and again in 1955-56, by express invitation of the Indian government. LaFond served as Professor of Oceanography at Andhra University in India from 1952-52 and 1955-56. At Andhra University, he lectured on modern concepts and equipment to students and faculty, gave public lectures, assembled and improvised sampling gear, and made short research and teaching cruises in the Bay of Bengal (19 trips in 1952-53, 10 in 1955-56). In 1963 Gene and Katherine joined biological-oceanographic teams on the NSF-sponsored International Indian Ocean Expedition's R/V Anton Bruun (formerly the U.S. presidential yacht Williamsburg) for research in the Bay of

Bengal, the Andaman Sea, and off western India. India established an internationally recognized medal of ocean science bearing LaFond's name, and an endowed academic chair commemorating his contributions.

From 1956-57, LaFond served as specialist in oceanography for the U.S. Department of State. The following year he undertook a North Polar expedition on an atomic submarine USS SKATE. He returned to Scripps as a marine biologist in 1960-61, but served as chief scientist on the U.S. Program in Biology for the IIOE at Woods Hole, 1962-1963, followed by a year at UNESCO in Paris as deputy director of the Office of Oceanography. He returned to the Navy Electronics Laboratory (later renamed the Naval Undersea Research and Development Center) in 1964 and remained there at Senior Scientist and Consulting Oceanographer until his retirement.

At NEL in the early 1960's Gene helped pioneer the use of submersibles to study the ocean floor environment. He dove in the bathyscaphe Trieste, and the smaller Soucoupe Marine (rented from Jacques Cousteau) and the Westinghouse Deepstar 4000. This method studying the near-bottom zone provided information with greater accuracy and detail than was possible from a surface ship. This work was not without risk; on one Deepstar 4000 dive he narrowly escaped tragedy when the ascent system and its backup failed. Finally, mercury ballast used for trim was hand pumped onto the ocean floor and the craft could rise.

In 1992, LaFond and his wife wrote their memoirs which were privately printed under the title, *Bill and Bob: Where did you come from: LaFond, Gehring, Imes and Greenfield Histories*. The memoirs discuss their family and early life experiences, although they do include some information on the LaFond's careers.

Eugene LaFond was a member of many scientific organizations including AAAS, American Society of Limnology and Oceanography, AGU, Sigma Xi, International Association of Physical Sciences of the Ocean, Marine Technology Society. He played a pivotal role as secretary-general of the International Association for the Physical Sciences of the Ocean (IAPSO). During his tenure, Gene and Katherine became recognized for their unfaltering dedication to international collaboration among scientists, coordinating meetings, and providing travel assistance to scientists from developing countries.

LaFond died in San Diego, California December 1, 2002, just short of his 93rd birthday. His wife Katherine Gehring LaFond (1910-2005) survived him.