

The 1960's: Technology Pushes Ocean Research

Dr. Fred Noel Spiess

Professor MPL/SIO/UCSD

fspiess@ucsd.edu 858-5334-1621

Abstract: In the 1950's oceanography stabilized and expanded largely by absorbing and adapting the facilities and technology developed during WW II. At the end of that decade the community organized its views of the future in workshops reports and related Navy plans. Based on these plans and spurred by the desire to investigate the ocean in new ways, the 60's decade was a golden age for the expansion and fertilization of our science with a wide range of new facilities.

The Scripps share of this is indicative of what was going on in other research institutions across the western world. On shore we built new conventional facilities: Sverdrup Hall, IGPP Building, Sumner Auditorium and a new wing on Ritter Hall, as well as the more specialized Physiological Research Laboratory, the Hydraulic Laboratory and our Nimitz Marine facility on San Diego Bay. Seagoing work was expanded with the addition of the 8 craft that made up the entire Scripps fleet by 1970. Of the 8, 5 were built from the keel up as oceanographic facilities, including the highly maneuverable Melville, the specially designed mobile laboratory ship, Alpha Helix, and the revolutionary manned spar buoy laboratory, FLIP.

The research leaders who conceived these facilities were driven by a wide range of research goals and had the inventiveness to devise new kinds of equipment to enhance these basic seagoing and shoreside capabilities. This paper will examine several examples of technological developments and their interaction with the scientific enterprise, emphasizing things that were radically new in their time and have remained scientifically fruitful to this day.