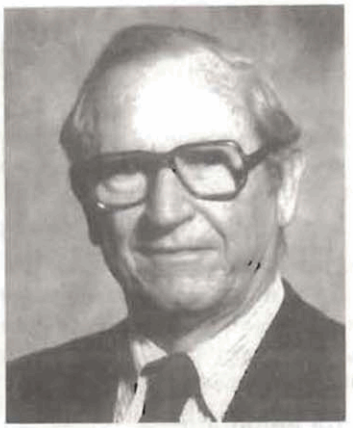
NOON MEETING—JANUARY 28, 1981

H. WILLIAM MENARD—Biographical Sketch



H. William Menard received his B.S. in geology in 1943 and his M.S. in 1974 from the California Institute of Technology. He received his Ph.D. in geology from Harvard University in 1949.

From 1949 to 1955, Dr. Menard was a marine geologist at the Navy Electronics Laboratory, San Diego. He joined the Scripps Institute of Oceanography, San Diego, as a professor of geology, a position held until he became Director, U.S. Geological Survey, in April 1978. From 1949 to 1977, he participated in 20 deep-sea oceanographic expeditions in many areas of the Pacific and across the Atlantic. During 1953-56, he was involved in underwater mapping off the coast of California; he made more than 1,000 aqua-lung dives for geological purposes. His scientific studies resulted in 100 scientific papers, including four books.

In 1965-66, Dr. Menard was a technical advisor in the Office of Science and Technology, Executive Office of the President, responsible for marine and earth sciences. He has served on many committees of the National Academy of Sciences concerned with natural resources and with the development of offshore oil.

Honors include election to the National Academy of Sciences, American Academy of Arts and Sciences, and the California Academy of Sciences; a Guggenheim Fellowship; an Overseas Fellowship from Churchill College, Cambridge University; the Shepard Medal of the Society of Economic Paleontologists and Mineralogists; and the Distinguished Alumnus Medal of the California Institute of Technology. Professional affiliations include GSA, AGU, and AAPG. He is a Registered Geologist, State of California.

THE DEGREE OF ADVANCEMENT OF A NATIONAL PETROLEUM INVENTORY (Abstract)

Does the United States contain vast amounts of undiscovered oil and gas or not? The Nation needs an answer to that question. Hubbert has shown that, in a certain volume of densely drilled sedimentary rock, the quantity of petroleum discovered per search effort has declined exponentially. Thus the prospect for discovering large fields by conventional targeting on structures within that volume of rock is predictably small. However, the analysis does not apply even to giant fields in the frontier regions of the OCS, Alaska, and the overthrust belts. There, if anywhere, geological analogy suggests great promise.

The analysis also does not apply to gas fields underneath the volume of rock analyzed by Hubbert. Moreover, the number of small fields found within the densely drilled volume is actually increasing per search effort. Thus there is no numerical basis for determining the ultimate yield from small oil fields anywhere in the United States.

It is possible that we do not even know how much petroleum lies in giant traps between structures if most drilling has been confined to structures. One outlandish explanation for the fact that industry has done no better than a computer drilling randomly is that there is no advantage in knowing where the structures are.

All this ignorance highlights the necessity for a rapid inventory of the Nation's petroleum resources. Various proposals for making an effective inventory are briefly presented without advocacy.