

DEEP SEA DRILLING PROJECT
SCRIPPS INSTITUTION OF OCEANOGRAPHY
UNIVERSITY OF CALIFORNIA, SAN DIEGO

Significant DSDP Dates

The Prime Contract between the National Science Foundation and The Regents, University of California, for Phase I of the Deep Sea Drilling Project was signed on June 24, 1966. Scripps Institution of Oceanography of the University of California at San Diego, was designated operating institution for DSDP.

The subcontract with Global Marine Inc., of Los Angeles, California, to do the actual drilling and coring work aboard D/V Glomar Challenger was signed on November 14, 1967.

D/V Glomar Challenger's keel was laid at the Levingston Shipbuilding Company yards in Orange, Texas, on October 18, 1967; the drilling vessel was christened and launched at Orange on March 23, 1968.

D/V Glomar Challenger sailed out of Orange down the Sabine River to the Gulf of Mexico on June 19, 1968, on builder's trials and returned to her Levingston Shipbuilding Company berth on June 22, 1968.

Acceptance trials in the Gulf of Mexico started on July 20, 1968, and continued until the Challenger was accepted by the Deep Sea Drilling Project on August 11, 1968. Funding for the 18-month—nine leg initial phase was \$12.6 million.

Dr. William D. McElroy, Director, National Science Foundation, (July 1969 - January, 1972), announced on October 28, 1969, that Scripps Institution of Oceanography had been awarded an additional \$22.2 million in the Prime Contract for a 36-month extension (Phase II) of the Project. This amount was later expanded to \$22,690,000—an increase of \$490,000 for a re-entry capability.

Phase II covered 30 months of actual drilling and coring work in the Atlantic, Pacific and Indian Oceans, the Mediterranean and Red Seas, and allowed ten months for completion of scientific and technical reports.

Dr. H. Guyford Stever, Director, National Science Foundation (February, 1972-) announced on March 29, 1972, a three-year extension (Phase III) of the Deep Sea Drilling Project. Funding was \$33,010,000 or a total of \$68.3 million for seven years of drilling and coring work to August of 1975.

Leg 10, first of the 15 Phase II cruises, started on February 13, 1970, when the Challenger left drydock at the Todd Shipbuilding Company yards in Galveston, Texas, to again work in the Gulf of Mexico.

When Phase II of the Deep Sea Drilling Project ended at midnight on August 11, 1972,

with D/V Glomar Challenger having just completed work on the Madagascar Ridge in the Indian Ocean, the drilling vessel had occupied a combined total (Phase I and II) of 249 sites and drilled 373 bore holes; drilled 355,955 feet below the sea floor; cored 129,346 feet of sediment; successfully recovered 74,940 feet of core and stored it at the two repositories. Longest drill string used was 22,192 feet at Site 222 on Leg 23 in the Indian Ocean. Deepest water worked in was 20,483, also at Site 222 and the deepest penetration into the ocean bottom during Phase II was 4,264 feet, again at Site 222.

During Phase II, the Project's drilling vessel will, on a series of 19 legs, probe the ocean floor beneath the Antarctic and Arctic Oceans for the first time in addition to working again in the Pacific, Atlantic and Indian Oceans and the Mediterranean and Caribbean Seas and the Gulf of Mexico.

Leg 26 - Durban, South Africa, to Fremantle, Australia opened Phase III in September of 1972.

The Project has produced the definitive evidence demonstrating continental drift and the continual renewal of the sea floor. It has proved that the ocean basins are relatively young features; for the most part they are less than 200 million years old, as compared to the 3.5 billion years for the oldest rocks on the continent and 4.5 billion years for the presently conceived age of the earth and the oldest rocks from the moon. Thus, the floors of the ocean basins are much younger than the earth.

Economically, the Project found most stimulating evidence concerning the accumulation of oil and gas and the formation of potential ore bodies, as well as developing some of the technology that will be necessary for future exploration and exploitation.

Lowermost Upper Jurassic limestone cores taken at Sites No. 100 (water depth - 17,471 feet) and No. 105 (water depth - 17,229 feet) on Leg 11 in the Atlantic Ocean are the oldest ever taken from any ocean of the world to date - 160 million years old.

A re-entry capability which enables DSDP to replace worn drill bits and penetrate chert layers was achieved on June 14, 1970. A re-entry cone 16 feet in diameter and 14 feet tall was lowered on the drill string to the bottom of the Atlantic Ocean in 10,000 feet of water 180 miles Southeast of New York. The drill string was pulled out of the cone and D/V Glomar Challenger was allowed to move slightly away from the site. Using sonar scanning equipment, the cone was successfully re-entered and the first sediment core - gray mud - recovered with the new capability was brought aboard early in the morning of June 15, 1970.

Operational re-entry was achieved on Christmas Day (December 25) 1970, during Leg 15 in the Caribbean Sea. Drilling in 13,000 feet of water in the Venezuelan Basin at Site No. 146, a dull bit was replaced and the drill string rammed back into the same bore hole. Project officials now say they can re-enter any bore hole deemed necessary to achieve scientific objectives.

On January 15, 1971, Dr. William A. Nierenberg, Director of Scripps Institution of Oceanography, named Dr. Melvin N. A. Peterson, Co-Principal Investigator and Dr. N. Terence Edgar was tapped to be Chief Scientist. Dr. Peterson became Principal Investigator on December 1, 1972.