

## FEDERAL ACTIVITY IN MARINE GEOLOGY IN THE GULF OF MEXICO

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### ABSTRACT

Seven agencies of the Federal government are involved either directly or indirectly in marine geologic research in the Gulf of Mexico. These are: Naval Oceanographic Office, Office of Naval Research, and Army Corps of Engineers, Department of Defense; Environmental Sciences Services Administration, Department of Commerce; and Water Pollution Control Administration, Bureau of Commercial Fisheries, and Geological Survey, Department of Interior.

Activities by NOO and ONR are related to national defense and the development of undersea technology and include regional studies of sediments on the sea floor and the strata beneath by coring and by acoustical profiling. Corps of Engineers studies are concerned with the mass movement of sediments and erosional patterns along the coastline as they relate to marine processes.

ESSA is concerned primarily with charting and mapping the coastal and deep-ocean waters. Programs of ESSA are providing detailed bathymetry of the sea floor and regional surveys of bottom conditions.

Agencies of Interior are engaged in research that bears on both the stewardship of resources on public lands and exploration and development of both renewable and non-renewable resources of the marine environment. WPCC, through the Office of Estuarine Studies, is establishing a program for the investigation of pollution and sedimentation in the inshore waters of lagoons and estuaries. BCF is studying intensively the environmental factors controlling the proliferation and movement of edible sea life, including the effect of sediments on bottom dwellers. USGS, through its Water Resources, Conservation and Geologic Divisions is the federal agency most heavily engaged in marine geologic research in the Gulf. The Water Resources Division is studying the effect of flooding in coastal bays and will have a leading role in estuarine studies. The Conservation Division acts in a managerial capacity in evaluating, on geologic grounds, prospective lease property on the continental shelf. The Geologic Division, through the Office of Marine Geology, is engaged in a broad research program that includes study of sedimentation and diagenesis processes in the nearshore and shelf environments, heavy metals content of sediments, geochemistry of sediments, and crustal structure of the Gulf basin. The Survey's overall program in the Gulf is following the pattern established for other marine provinces—the extension of geologic knowledge from peripheral land areas seaward as the public needs require.