



Special Initiatives Continued . . .

Environmental Geochemistry and Biogeochemistry (EGB)

enhances fundamental, interdisciplinary research on chemical processes that determine the behavior and distribution of inorganic and organic materials in environments near the Earth's surface.

Arctic System Science (ARCSS) supports paleoenvironmental multidisciplinary studies to address the physical, chemical, biological, and social process of the Arctic system.

Life in Extreme Environments (LEn) explores the relationships between organisms and the environments within which they exist, with a strong emphasis upon those life-supporting environments that exist near the extremes of planetary conditions.

Climate Variability and Predictability (CLIVAR) strives to describe and understand the physical processes responsible for climate variability and predictability on seasonal, interannual, decadal and centennial time scales, through the collection and analysis of observations and the development and application of models of the climate system.

U.S. Joint Global Ocean Flux Study (JGOFS) investigates the role of marine organisms and chemistry in modulating global climate change.

Long-Term Ecological Research (LTER) in Land/Ocean Margin Ecosystems (LOME) focuses on ecological systems at the interfaces of land masses and coastal oceans such as estuaries, coastal wetlands, and coastal reefs.



For more detailed information on programs, initiatives, and target dates, visit our homepage at: <http://www.geo.nsf.gov/oce/>.

The Foundation provides awards for research and education in the sciences and engineering. The awardee is wholly responsible for the conduct of such research and preparation of the results for publication. The Foundation, therefore, does not assume responsibility for the research findings or their interpretation.

The Foundation welcomes proposals from all qualified scientists and engineers and strongly encourages women, minorities, and persons with disabilities to compete fully in any of the research and education related programs described here. In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving financial assistance from the National Science Foundation.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF projects. See the program announcement or contact the program coordinator at (703) 306-1636.

The National Science Foundation has TDD (Telephonic Device for the Deaf) capability, which enables individuals with hearing impairment to communicate with the Foundation about NSF programs, employment, or general information. To access NSF TDD dial (703) 306-0090; for FIRS, 1-800-877-8339.



NSF 97-134



National Science Foundation

Division of Ocean SCIENCES

The Ocean Sciences Division of the U.S. National Science Foundation supports basic research in the nation's universities and research institutions to further understanding of all aspects of the global oceans and their interactions with the earth and the atmosphere. Support is provided via a highly competitive proposal review process to individual scientists, small groups of cooperating scientists, and some large coordinated projects. The development, acquisition, and operation of the instruments and facilities needed to carry out these programs is also supported.



The Ocean Sciences Division (OCE) consists of two sections: the Oceanographic Centers and Facilities Section (OCFS) and the Ocean Sciences Research Section (OSRS). The total budget for the Division was approximately \$200 million in fiscal year 1997.

Oceanographic Centers and Facilities Section

OCFS supports operation, acquisition, construction, and conversion of major shared-use oceanographic facilities needed to carry out oceanographic-related research programs. Within OCFS is the Ocean Drilling Program (ODP), which provides for the operation and maintenance of the ocean drilling ship JOIDES RESOLUTION, and provides funds to conduct research related to drilling programs. The Ship Operations Program funds operation and maintenance of research vessels and submersibles used by NSF-funded scientists.

OCFS Programs and Facilities

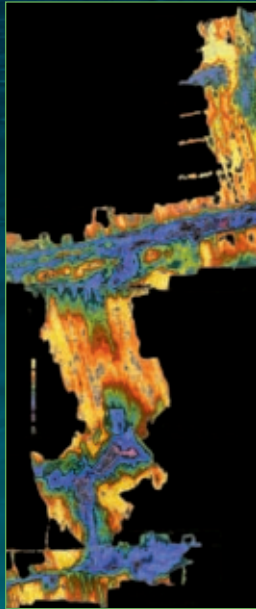
The Ocean Drilling Program (ODP) collects and analyzes deep-sea cores and borehole logs to examine the structure and history of the ocean basins and the evolution of the global environment and climate.

The Academic Research Fleet is operated by state and private institutions under the auspices of the University-National Oceanographic Laboratory System (UNOLS). UNOLS is a partnership of 54 academic institutions and five federal agencies (NSF, ONR, NOAA, USGS, USCG) that operate and use the national academic research fleet. Within UNOLS there are 19 ship operating institutions. The fleet consists of 28 vessels ranging in size from 66 to 279 feet. UNOLS schedules the use of these facilities as well as expeditionary programs. Proposals for field programs that require the use of UNOLS ships in the following calendar year must be submitted early in the preceding year to enable efficient ship schedules.



Ocean Sciences Research Section

OSRS programs fund projects dealing with disciplinary and multi-disciplinary studies of biological, geological, physical, and chemical processes in the ocean and ocean technology. In addition, there are frequent announcements of opportunity to participate in global change research programs and other initiatives.



The OSRS Core Programs

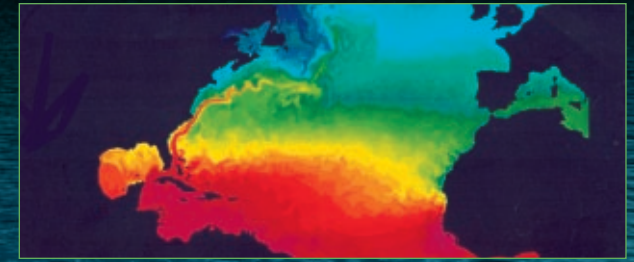
Marine Geology and Geophysics supports research on all aspects of geology and geophysics of the ocean basins and margins, as well as the Great Lakes.

Chemical Oceanography supports research on the composition and chemical properties of seawater and the chemical processes related to the biology and geology of the marine environment.

Ocean Technology and Interdisciplinary Coordination supports a wide range of

multidisciplinary activities that broadly seek to develop, transfer, or apply instrumentation and technologies that will benefit research programs supported by NSF and enhance the conduct of basic ocean sciences research.

Biological Oceanography supports studies of relationships among marine organisms as well as interactions of these organisms with their geochemical and physical environment.



Physical Oceanography supports research to better understand physical oceanographic phenomena and their interactions on scales from global to molecular.

The Special Initiatives

Ridge Interdisciplinary Global Experiments (RIDGE) integrates exploration, experimentation, and theoretical modeling to understand the geophysical, geochemical, and geobiological causes and consequences of the energy transfer within the global rift system through time.

World Ocean Circulation Experiment (WOCE) conducts research on the surface and subsurface circulation of the global ocean.

Coastal Ocean Processes (CoOP) studies the complex relationships between transport processes, geochemistry and ecology in regions of the U.S. west coast and Great Lakes.

Earth System History (ESH) focuses on research themes including ocean geochemical and climate change and climate sensitivity and variability of the Earth system through records preserved in geo-biologic archives to understand environmental change with annual to millennial resolution.



Global Ocean Ecosystems Dynamics (GLOBEC) elucidates how changing climate alters the physical environment of the ocean and how this, in turn, affects marine animals, especially zooplankton and fish.