

Policy for In Situ Ocean Data (October 1999)

Where the Program Officer cited on the face page of the award is in ONR Code 32, Ocean, Atmosphere, and Space Science and Technology Department the recipient agrees to comply with the "Policy for In Situ Ocean Data" cited below.

Purpose - This statement establishes a policy and guidelines to assure timely submission of appropriate real-time and archival quality in situ oceanographic data to national centers, while recognizing needs of principal investigators to protect their intellectual investment and encouraging their continued efforts to collect useful oceanographic data.

Policy - Ocean data collected under Federal sponsorship are to be made available for these secondary purposes in a reasonable time as described below.

Implementation - Data sets likely to be of high utility for other purposes are to be submitted to and archived by designated national centers. These data sets should be accompanied by a brief description of the methods and techniques used for their collection and processing. Data needed for forecasting are to be submitted in real time through the WMO/IOC Integrated Global Ocean Services Systems (IGOSS).

National centers receiving data sets will assure that: inventories of data received are distributed to funding agencies; archived data and related information are accessible and available to other users in a timely and efficient manner, either on the basis of exchange or in accordance with applicable cost recovery policies; and these data are preserved and properly managed to assure their quality.

Funding agencies are responsible for assuring that data and related information likely to be of high utility for secondary use are archived in designated national centers. These agencies, with assistance from NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), will identify such data and related information and will require their principal investigators to submit these data and related information to the designated center.

Funding agencies will also work with their principal investigators to assure that other appropriate data are archived within a reasonable period of time at the principal investigator's or an associated institution in order that these data will be available for secondary use upon request.

NOAA/NESDIS center will work with principal investigators to assure that data submitted to these centers are in mutually agreed-upon formats. Data are to be submitted via computer-compatible digital media, when possible, rather than as printed reports. Principal investigators and ship-operating institutions are responsible for meeting all legal requirements for submission of data and other research results which are imposed on them by a foreign government and which they accept as a condition of that government's granting of a research clearance. It is the responsibility of each principal investigator and institution to determine their legal obligations in this respect, with the assistance of the Department of State and sponsoring Federal agencies, as necessary.

Funding agencies will apply this policy to their internal ocean data collection and research programs and to those of their contractors and grantees and will establish procedures to enforce this policy.

Guidelines - Ocean data which are needed for real-time and/or archival purposes are to be submitted in accordance with the guidelines listed below.

Real-time and Delayed Real-time Data - Surface and mixed-layer temperature and salinity data are to be submitted in real time along with standard surface meteorological observations. These data should be transmitted at regular intervals in accordance with procedures specified by IGOSS. Marine weather observations are requested in the SHIP code within one hour of the observation as prescribed by the WMO, whereas BATHY and TESAC messages may be accumulated up to 48 hours after the time of

observation before transmission to national centers. NOAA will make all relevant instructions and form available to research vessel operators and will provide updates and changes as they are promulgated by the responsible international bodies.

Submission of data through IGOSS does not substitute for later submission of archival-quality data.

Navigational and related information, such as soundings of previously uncharted shoals, are to be reported in accordance with the "Guide to Marine Observing and Reporting, Publication 606 of the Defense Mapping Agency Hydrographic/Topographic Center", a copy of which should be available aboard every research vessel.

Archival Data - The following centers have been designated to receive data for archival: the National Oceanographic Data Center (NODC); the National Climate Data Center (NCDC); the National Geophysical Data Center (NGDC); and the National Snow & Ice Data Center (NSIDC).

All data must specify date, time (GMT preferred to nearest minute) and location (latitude and longitude to nearest second).

Types of data, which are to be archived, are:

Ocean physical data - temperature, salinity, wavelength - specified light transmission or attenuation, solar radiation penetration, currents, waves, pressure, sea level, sound speed (NODC);

Ocean chemistry data - pH, dissolved oxygen concentration, nutrients such as phosphates, nitrates, nitrites and silicates; chemical tracers such as helium, tritium, freon and argon; pollutants such as petroleum hydrocarbons, organochloride and organophosphorus pesticides, polychlorinated biphenyls (PCB's) and heavy metals and particulates. Data may represent chemicals in water samples (NODC), marine sediments (NGDC) or biota (NODC);

Ocean biology data - primary productivity; pigment fluorescence concentrations of pigments in phytoplankton, such as chlorophyll-a; biomass of phytoplankton, zooplankton, benthos and nekton; bioluminescence (NODC);

Surface meteorological data - air temperature, sea-surface temperature, dew-point temperature, pressure, wind speed and direction, weather, short and long wave radiation, visibility, cloud cover and type, and ice accretion (NCDC);

Geophysical and geological data - bathymetry, magnetics, gravity, seismic and other quantitative geophysical data; geological data including station locations, collection/storage locations, and preliminary descriptions of seafloor samples recovered (NGDC); and

Sea ice and other glaciological data - sea ice, icebergs, ice shelves and associated physical oceanographic and meteorological data (NSIDC).

Inventories of all data collected are to be submitted to the designated center within sixty (60) days of the end of the observational period/cruise or periodically for continuing observations if there is a significant change in location, type or frequency of such observations. Inventory forms such as the Report of Observations and Samples Collected on Oceanographic Programs (ROSCOP) and instructions by can be obtained from NOAA/NESDIS.

Principal investigators will assure that data sets identified for submission to national centers are submitted to the designated center within two years of the observational period/cruise. This period may be extended under exceptional circumstances by agreement between the principal investigator and the funding agency. Data produced by long-term (multi-year) projects are to be submitted on a yearly

schedule. Principal investigators working together on coordinated programs may, in consultation with their funding agencies, establish more stringent data submission procedures to meet specialized needs of such programs.

Federal agencies, which engage in and/or fund data collection, will promote quality control of ocean data which they and their contractors and grantees collect.

Each national center will:

- upon archival of a submitted data set, send to the principal investigator a copy of the data set as archived;
- monitor submitted data to assure that they are submitted in accordance with these guidelines and in appropriate formats; and
- report regularly to principal investigators and Federal agencies on the rates of data submission, archiving and usage.

Funding agencies may specify the inclusion of additional special data to be submitted by Principal Investigators and reported by National Data Centers.