

JGOFS data management: What has been done? What has been learned?

Bernard Avril (1) and Margarita Conkright (2)

JGOFS International Project Office
University of Bergen, SMR, Post Box 7800, N-5020 Bergen, Norway

NODC, Ocean Climate Laboratory
NOAA, SSMC III, E/OC51315 EW Highw., Silver Spring, MD 20910, USA

E-mail: bernard.avril@jgofs.uib.no

The JGOFS Project has been highly successful in providing new insights into global biogeochemical cycling in the oceans through a multi-national effort. During the JGOFS Project, key biological and chemical variables were sampled by over twenty countries at the regional scale (process studies in the North Atlantic, Arabian Sea, Equatorial Pacific, Southern Ocean and North Pacific), global scale (carbon survey) and from long-term measurements at key ocean sites.

To be readily available and fully usable for current and future studies, the JGOFS datasets need to be organised in a central system under the supervision of the international project, or within a national framework. Because of the complexity of interdisciplinary data and the extent of JGOFS itself, much remains to be done to secure the accessibility of all data collected in the project. The lack of a centralized International Project Data Centre severely hampers the use of JGOFS data for synthesis and model validation, now and in the future. It is only recently that the JGOFS Data Management Task Team (DMTT) began working to compile a single database (so-called, the International JGOFS Master Dataset), in a single format and in a single location (in the WDC system, thanks to an initiative of PANGAEA / WDC-MARE; and on CDs or DVDs) before the end of the project (Dec. 2003). This should be achieved by adapting previously developed tools, especially from the US-JGOFS DMO (for the user query interface) and from ODV/PANGAEA (for the datasets visualization and metadata handling).

In this framework, and as new programs are being designed or implemented, we must learn from the JGOFS data management experience. The major, past and current DMTT activities and achievements will be presented, along with a set of recommendations elaborated for international program managers and funding agencies, regarding the data management in future international projects, which should result in the rapid and full availability of data, and its long-term preservation and accessibility, thanks to a better, integrated data management system.