

OCEANOGRAPHIC DATA MANAGEMENT WITH PARTICULAR REFERENCE TO INODC - AN OUTLINE

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National Institute of Oceanography (NIO) has been collecting oceanographic data with the aim of making extensive basic research in oceanography. The Indian National Oceanographic Data Centre (INODC) is a unique national facility for oceanographic data services.

The major activities of the Centre are :

1. Acquisition
2. Processing
3. Storage
4. Dissemination
5. Preparation of user oriented data products

Acquisition : To acquire data and information of all disciplines collected during the oceanographic cruises and programmes from the originators.

Processing : Processing involves preliminary checks for quality of data, statistical analysis, computation of parameters like sigma-t, sound velocity etc. from the observed parameters, to apply quality control procedures, if any. Computer software development is a part of data processing, storage and retrieval at INODC. Various software systems are available with the INODC for processing and retrieval of oceanographic data from INODC data bases.

Storage : The disciplinary processed data in INODC will be stored in respective data bases developed by INODC, for easy retrieval whenever required and to exchange data with other organisations in standard formats. For this, disciplinewise and parameterwise data formats have to be developed. Standard formats for the storage of processed data into the respective data bases are developed at INODC. These formats are being provided to all oceanographic data generating agencies in India.

Dissemination : The processed archived data will be retrieved and disseminated as per the user's requests. The dissemination can be on hard copies (Printouts) or magnetic media (Floppies, Magnetic tapes, etc.). Data can also be disseminated in General Format 3 (GF-3) if the users require. GF-3 is the format developed by IOC and is internationally accepted for exchange and supply of data.

Apart from the above major activities, the INODC also brings out the Data Products such as inventories, atlases, charts, data, reports, newsletters, etc.

Preparation of data products :

1. **Inventories :** The oceanographic data inventories that the INODC publishes contain information about the number of parameters observed in each station, the number and locations of stations at which the data has been collected in a

particular oceanographic cruise. It also gives cruise summary information, station summary information, list of participating scientists in each cruise, the area and date of operation in a systematic way.

2. Atlases : The horizontal distribution of various parameters, seasonwise at different depths are given in the oceanographic atlas.

3. Charts : Charts contain seasonwise parameter data at different depths in the Indian EEZ. These charts are available for all maritime states of India.

4. Data reports : These reports contain the actual value of a parameter at each station of a particular cruise. Data reports are published disciplinewise.

Besides this, the centre organises Workshops/Seminars to have the awareness of the oceanographic data services to all data generating agencies and to improve the data services through discussions among data generating agencies.