
NATIONAL CENTRE FOR ANTARCTIC AND OCEAN RESEARCH
(MINISTRY OF EARTH SCIENCES)
HEADLAND SADA, VASCO DA GAMA
GOA - 403 804, INDIA

Advt. No. NCAOR/83/13

**EXPRESSION OF INTEREST FOR DEVELOPMENT OF MARINE GEOSCIENTIFIC DATABASE
AT NCAOR**

The National Centre for Antarctic and Ocean Research (NCAOR), an autonomous Centre of the Ministry of Earth Sciences, Govt. of India, proposes to establish a state-of-the-art data centre for archiving the marine geoscientific data gathered by NCAOR/ MoES under various marine geoscientific programmes, presently available in various media such as CD's, DVD's, external Hard Disks etc. on a suitably structured RDBMS.

To undertake this task on a turn key basis, NCAOR would like to invite reputed IT firms / total solution providers who have undertaken similar work to indicate their interest in providing the requisite services to the Centre.

As envisaged by us, the solution would comprise a suitably designed RDBMS, migrating the entire data to the database, developing a customized GIS based interface for easy retrieval of data, facilities for a web-based input-output interface for queries and for adding more data. A brief overview of the envisaged solution and the details of the various forms and formats of data, presently available at NCAOR, are provided in our website.

Interested IT firms/ total solution providers are invited to submit their proposals along with (i) Company profile; (ii) details of similar projects undertaken by the firm in the past five years; (iii) Details of qualified personnel in the firm, who would be involved in the work; (iv) Infrastructure available, and any other details as deemed fit.

Expression of interest must be delivered on or before 30th December 2013 upto 1700 hrs. at the following address (through Speed Post/ Courier/ email):

The Director
National Centre for Antarctic and Ocean Research
(Ministry of Earth Sciences)
Headland Sada, Vasco da Gama, Goa - 403 804
Tel.: 0091-832-2525501, 2520876
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Development of 'Marine Geoscientific database' at NCAOR

1. Scope of work:

The scope of work for development of database includes migration of data from the present media to a network storage, database designing, database generation and integration, creation of metadata, application software development, commissioning and management. The database should describe the content, format and access methodology and will also be intimately linked to abundant metadata describing the primary details in terms of when and how the data was collected, geographic details of the data, technical details of data acquisition, processing history and all other necessary supporting information. The database format should be flexible enough to allow for both vertical and lateral growth, hence permitting addition of new geoscientific data in future. The application software should have modules which permit data exchange, execution of user requests, data search, data products, service of visitors, publication of data sets etc. It should also have ability to integrate data in newer formats and visualize the data using advanced GIS tools. The application should have functions to integrate data in varied formats and visualize the datasets using advanced GIS and standard image processing tools. The developed architecture at NCAOR should also figure specific software's dedicated for the advanced processing and interpretation of the various geoscientific data and hence the application software has flexibility to retrieve requisite data as per user's requirement and transfer the data to this software platform. The scope of work also includes supply, installation, integration and maintenance of all hardware, software, network components, peripherals, etc required for the application deployment for a minimum period three years from the commissioning of the project.

(please note: The above mentioned scope of work is only a brief overview of the envisaged work/ solution. During the course of subsequent stages, the aforementioned scope shall be modified and fine-tuned)

2. Forms and formats of various datasets presently available

Data type	Raw data Format	Processed data format
Multibeam Echosounder bathymetric data (MBES)	.xse, Raw (adt,ang,cdt,evt,lev, fsw, lot,mot, nav) , Surf(*.sda, six) , .pds, .all	.ned, .asc, Surf Edited (*.sda, six) further converted– ASC II .pds, ASCII, .DB, .QPD, .PROC Output map format: .geotiff, .img, .HDF, .netCDF, .esriascii, .jpeg, .tiff, .png

Singlebeam Echosounder bathymetric data (SBES)	ASCII	ASCII
Sub Bottom Profiler(SBP)	.segy,.jsf,.ps3,.ses,.asd., pds	.segy,.pds,.ASCII
CTD & SVP	.hex, .sva, .ssv,	.txt, .cnv, .xls
Gravity & Magnetic	ASCII,.grv,.prt,.dat	.txt
Navigation	.nav	ASCII (UKOOA format)
Side Scan Sonar (SSS)	xtf (pds2000)	.jpeg, .png, .tiff
Geological datasets	.txt, .xls, .ascii	.txt, .xls, .ascii
Oceanographic and meteorological datasets (Thermosalinograph, AWS, ADCP etc.)	.txt, .xls, .ascii, .enr,.enx,.ens,.csv	.txt, .xls, .ascii
Reference Docs/ reports/Scripts. etc	Pdf/Doc/Docx	Pdf/Doc/Docx

(Formats specified may vary at any level subjected to the user requirement and change of output format by application software used for data processing. Addition of new data sets also anticipated)