

ITCOcean



**Training Course for the Trainers on
Ocean State Forecast (OSF) Services
on
November 26, 2014**

&

**Training Course for the Operators on
Ocean State Forecast (OSF) Services
on
November 27, 2014**

**Organized
by**

**International Training Centre for
Operational Oceanography (ITCOcean)
ESSO-INCOIS, Hyderabad, India**

Background:

Indian National Centre for Ocean Information Services (INCOIS) is located at Hyderabad and is under the Earth System Science Organization (ESSO), New Delhi. It is a dedicated institution for operational oceanography and the only institution of its kind in the Indian Ocean region, that has been providing operational ocean information and advisory services over the past 10 years. It has established leadership particularly in ocean observations, ocean modeling, ocean information and advisory services in the Indian Ocean region. For more details regarding the activities of ESSO-INCOIS, kindly visit www.incois.gov.in

ESSO-INCOIS and UNESCO's Intergovernmental Oceanographic Commission (IOC-UNESCO) signed a Memorandum of Agreement on 4 July 2013 during the 27th session of the IOC Assembly in Paris, for cooperation in conducting training courses at the International Training Centre for Operational Oceanography (ITCOcean) set up by ESSO-INCOIS in Hyderabad, India. The centre will operate as a contribution to IOC's training and capacity development activities mainly for the Indian Ocean rim countries. It will cooperate with International Oceanographic Data and Information Exchange (IODE) programme of IOC and focus on establishing a regional training centre as part of the new Ocean Teacher Global Academy, (www.iode.org). The Centre aims at promoting the development and optimization of scientific base, technology and information system for operational oceanography at national, regional and global levels. The Centre has conducted four training courses during 2013-14 in various themes in operational oceanography.

(For more details kindly visit <http://www.incois.gov.in/portal/ITCOcean.jsp>)

The importance of Ocean State Forecast:

Among the Indian Ocean rim countries, India is endowed with a very long coastline of over 7500 km (including Andaman, Nicobar and Lakshadweep Islands). A wide range of marine activities dominate the maritime zone of India. Prior information on the state of the seas surrounding the Indian subcontinent is vital for the smooth operational activities of not only for those who are venturing out into the sea but also for those at the sea shore. The users can take appropriate informed decisions based on the forecast sea state conditions, saving life and property. Marine activities in the seas around India is diverse, ranging from conventional fishing to high-tech oil-natural gas-mineral explorations. The activities that require accurate sea state forecast information include marine transportation of a wide range of merchandise and defence activities. Further, this information is important during contingencies like search and rescue operations in the sea and oil spills. During cyclones and other extreme situations, based on the forecast information, alerts are issued to the general public as well as the administrators of the coastal stretch under risk so that that the population under threat is relocated to safer places. The support of NGO officials, who routinely interact with the sea going fishermen, providing them with sea state forecasts is also very helpful during such contingencies.

Forecasting of oceanographic parameters (both surface and subsurface) at different time scales is thus extremely important for a wide spectrum of users ranging from fishermen to offshore industries. Keeping this in mind, Earth System Science Organisation - Indian National Centre for Ocean Information Services (ESSO-INCOIS) established the integrated INDIan Ocean FOrecasting System (INDOFOS), capable of predicting the surface and subsurface features of the Indian Ocean reasonably well in advance (5 to 7 days presently).

At present, INCOIS provides forecasts of

1. Height, direction and period (of both wind waves and swell waves).
2. Sea surface currents.
3. Sea surface temperature.
4. Mixed Layer Depth (the well mixed upper layer of the sea).
5. Depth of the 20 degree C isotherm (a measure of the depth of the thermocline).
6. Astronomical tides.
7. Wind speed and direction.
8. Oil-spill trajectory

INCOIS provides the following services in operational mode

- ✍ High Wave Alerts
- ✍ Location specific forecast
- ✍ Forecasts for Andaman, Nicobar and Lakshadweep islands
- ✍ Coastal forecast (all coastal states of India)
- ✍ Regional forecast (basin scale e.g. Arabian Sea, Bay of Bengal)

- ✎ Customized forecast products for
 - ✎ Ports & Harbours
 - ✎ Forecast along ship routes
 - ✎ Web Map Services (forecast for any grid in the Indian Ocean region)
- ✎ Tide Predictions
- ✎ Inland Vessel Limits for ports/Maritime Boards
- ✎ Experimental forecasts (Oil Spill Advisory, Wave Steepness, Global wave forecast)

ESSO-INCOIS provides the ocean state information not only to all the sea faring communities like the fishermen, Indian Navy, Indian Coast Guard, merchant and passenger shipping agencies, offshore oil & gas exploration industries, research organisations but also to other coastal communities. The forecast is available separately for the following regions: Arabian Sea, Bay of Bengal, Northern Indian Ocean, Southern Indian Ocean, Red Sea, Persian Gulf and South China Sea. Further, it provides more detailed forecast information for specific locations like fish landing centres, small fishing harbours, commercial ports, etc. as well as for the coastal waters of the maritime states, union territories and island regions of India. Please visit <http://www.incois.gov.in/portal/osf/osf.jsp>, for understanding in detail, the Ocean State Forecast services of INCOIS.

About the Course:

The training program will focus on basics of waves, winds, currents, tides and other general oceanographic information and its applications from the forecast perspective to prospective users such as Content Managers of NGOs, Fishery Officials, Marine Police and Disaster Managers. This will be held on November 26, 2014 under the title "Training Course for the Trainers on Ocean State Forecast (OSF) Services"

A more detailed course meant mainly for the Operators from the Indian Navy, Indian Coast Guard, Shipping and Offshore exploration industries, Ports & Harbours as well as Maritime Boards will be held on November 27, 2014 under the title "Training Course for the Operators on Ocean State Forecast (OSF) Services".

The training will include lecture sessions by specialists as well as visits to the various labs of the centre during the afternoon. ESSO-INCOIS is privileged to have real time access to the remotely sensed oceanographic data of many satellites. The Indian Tsunami Early Warning Centre is also located in the same premises.

Course Contents :

The Lectures will tentatively cover the following topics :

26-11-2014: General physical oceanography with emphasis on waves, winds, currents, tides with a forecast perspective.

27-11-2014: Ocean State Forecast products generated by ESSO-INCOIS and how to access them from the website.

At the end of course, the Trainers will have exposure to handle the Ocean State Forecast data generated by ESSO-INCOIS and the Operators will be able to handle the web based services of ESSO-INCOIS. Subsequently, the centre will seek to provide the information desired by the participants on an operational basis using the latest ICT based multi-mode dissemination systems, in place for that purpose.

Faculty:

The faculty for the course will consist of scientists/experts in different fields drawn from the host institute (ESSO-INCOIS) and also from other organizations. These experts have long and varied experience in the field of Oceanography with exposure to Modeling, Instrumentation and Applications.

Venue:

The training course will be held at Earth System Science Organisation-Indian National Centre for Ocean Information Services (ESSO-INCOIS), Hyderabad, India. Weather in Hyderabad during November is pleasant with temperature ranging from 15-28 Deg. C.

Who can apply?

The training program is open to the Trainers and Operators from different organisations.

The "Training Course for the Trainers on Ocean State Forecast (OSF) Services" is intended for middle users such as Content Managers of NGOs, Fishery Officials, Marine Police and Disaster Managers. This will be held on November 26, 2014

The "Training Course for the Operators on Ocean State Forecast (OSF) Services", which will be more detailed as compared to the one imparted for Trainers, is intended mainly for the Operators from the Indian Navy, Indian Coast Guard, Shipping and Offshore exploration industries, Ports & Harbours and Maritime Boards, who are already familiar with the Ocean State Forecast products of ESSO-INCOIS.

Please note that a candidate CANNOT apply for both the courses, such applications will be rejected.

The selected candidates (esp. Trainers) are expected to explore some basic knowledge of Physical Oceanography, at least from the applications perspective, before attending the course. It is also presumed that they have the basic computer skills. Since the Operators are already aware of the importance of these Forecast Products, they will be mainly guided on how to use the new products for their operational requirements.

Course Fee and Financial Support:

There is no course fee charged for the training course. The participants are expected to make their own arrangements for all expenses, including to and fro travel. However, ESSO-INCOIS can provide local transportation and lodging on twin sharing basis for the selected participants. The hotel may provide complimentary breakfast and the centre will provide working lunch and snacks/tea on the day of training. However, the participants will have to make their own arrangements for dinner.

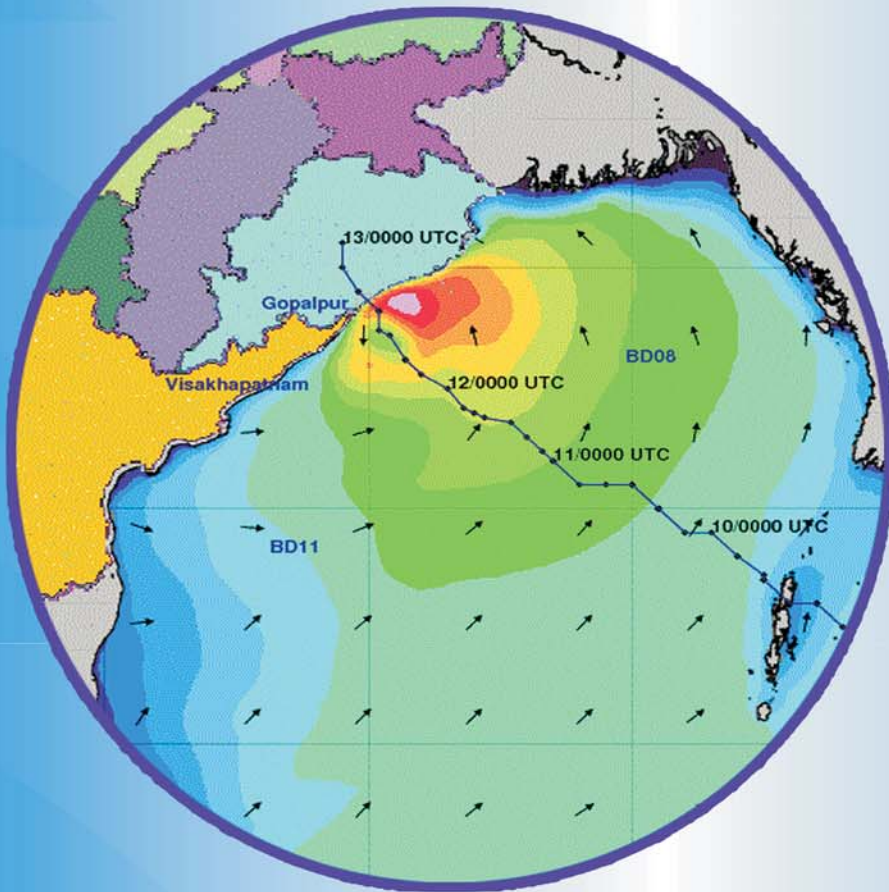
Application:

The interested candidates should download and fill in the application form and have the same forwarded by the Head of the Institute. The completed and signed application form should be sent to the ITCOcean Coordinator at the below mentioned address by Speed Post only so as to reach this office on or before October 31, 2014 (1730 Hrs). Advance scanned copy of the application by email will be accepted. It may be sent to itcoocean@incois.gov.in with the relevant subject.

The selected candidates will be intimated by email only.

Contact Address:

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