

# India

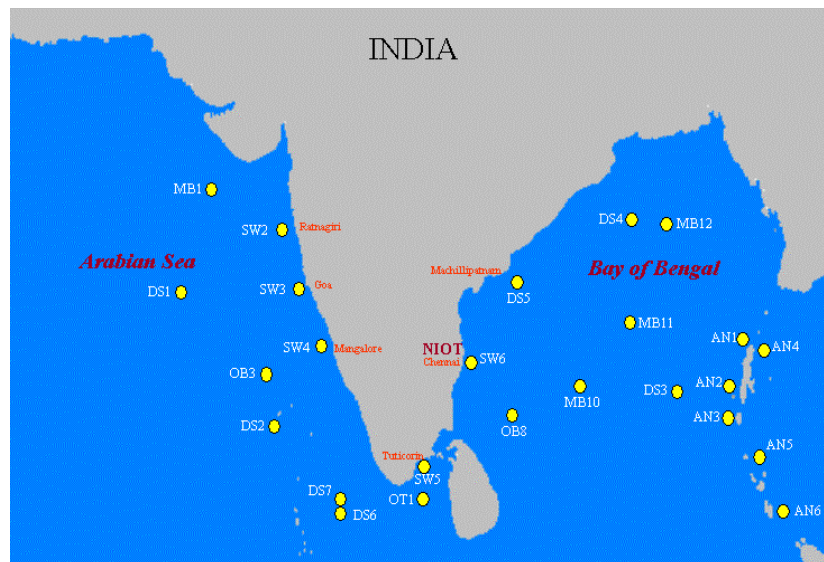
January 2012

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## Summary of Operational and Planned Oceanographic Observation Programs

### Moorings

Indian Coastal and Deep sea moorings providing Waves, AP, SST, SSS, Surface Currents. AP, SST, AT, wind, waves in real-time via GTS. To see present Buoy status go to <http://www.niot.res.in>



See also moorings at: <http://osmc.noaa.gov/Monitor/OSMC/OSMC.html> 7 indicated as operational 17 January 2012. Equatorial current meter moorings: deployed at 93E, 83E and 76/77E. RCMs at 100, 300, 500, 1000, 2000 and 4000m.

[http://www.pmel.noaa.gov/tao/oceansites/images/map\\_lg.gif](http://www.pmel.noaa.gov/tao/oceansites/images/map_lg.gif)

Indian Ocean Monsoon Analysis and Prediction (RAMA) moorings  
[http://www.pmel.noaa.gov/tao/rama/images/rama\\_map\\_lg.gif](http://www.pmel.noaa.gov/tao/rama/images/rama_map_lg.gif)

OceanSITES <http://www.oceansites.org/network/index.html>

### ARGO

96 active 25 January 2012. To see latest status of floats go to:  
<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/default>  
and select Monitoring and Countries.

[http://www.incois.gov.in/Incois/argo/argo\\_National\\_Centre.jsp#](http://www.incois.gov.in/Incois/argo/argo_National_Centre.jsp#)

[http://www.incois.gov.in/Incois/argo/argo\\_webGIS\\_intro.jsp](http://www.incois.gov.in/Incois/argo/argo_webGIS_intro.jsp)

## **XCTD/XBT/TSG**

Three lines: Chennai-Port Blair-Calcutta; Chennai-Singapore and Mumbai-Mauritius Bi-monthly.

## **Sea Level**

28 Stations listed at PSMSL, 6 of which are GLOSS MSL. Latest data listed 2007

<http://www.psmsl.org/data/obtaining/>

See also <http://www.ioc-sealevelmonitoring.org/index.php> for near RT data information.

SELMAM Project:

10 “modern” (8 new) sites have been established. One GLOSS site included in the 10 – Visakhapatnam. 7 GPS positioned stations

<http://www.sonel.org/spip.php?page=cgps>

## **Surface Drifters**

11 active 15 January 2012 <http://osmc.noaa.gov/Monitor/OSMC/OSMC.html>

## **Bio/Chem**

Chlorophyll, radioactivity, turbidity, hydrocarbons, nutrients. Dissolved oxygen measured on some moorings above. see coastal below

## **Carbon**

GOA time series, 2003-2012, 15N-72E, monthly. East Indian Coast Time Series, 2007-2012, 15-20N, 80-85E Seasonal. Bay of Bengal, 2008-2013(proposed) 20N, 90E, seasonal

## **Status of current and Future Satellites**

<http://www.wmo.int/pages/prog/sat/satellitestatus.php>

## **Sea Ice**

Annual Antarctic cruises since 1980

## **VOS**

4 VOS, one of which is also a VOSclim ship, active 17 January 2012. Potential of VOSclim ships is 22 <http://osmc.noaa.gov/Monitor/OSMC/OSMC.html>

<http://www.ncdc.noaa.gov/oa/climate/vosclim/vosclim.html>

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## **Coastal**

*COMAPS (monitoring health of coastal waters) – 80 sites, 25 biological and chemical parameters. ICMAM – Integrated Coastal Marine Area Management program has monitored coral (Andaman) and shoreline changes at Ennore, Gahirmatha and along the coast of Kerala. SeagrassNet project at Andaman Is.*