



IMOS sustained ocean observing infrastructure



Animal Tagging



Deep Water Mooring



Argo Floats



Satellite Calibration



Ships of Opportunity

Satellite Remote Sensing products



Sea Level Anomaly



Ocean Colour



Sea Surface Temperature

IMOS data streams contribute to

- Regional Ocean Models
- Weather Forecasting
- Climatologies
- Operational Ocean Forecasts
- Environmental Assessments & Outlooks

Australia's Integrated Marine Observing System (IMOS) operates a variety of observing equipment across Australia's coastal and open oceans. IMOS is designed to be a fully integrated, national system, collecting data at ocean-basin and regional scales, measuring physical, chemical and biological variables.

All data collected by IMOS is openly and freely available through the IMOS Australian Ocean Data Network (AODN) portal, to support scientists, industries, government and First Nations communities.

The Bluewater and Climate Node community brings together the Australian science research community, industry and government partners addressing issues of national importance, including climate change and its impacts, such as ocean carbon uptake and acidification, sea-level rise and changes in the global water cycle, seasonal to interannual climate variability and extreme weather events, biodiversity and ecosystems, and the sustainable management of marine resources.

Closely integrated with national and international research efforts, the open ocean observations collected by IMOS are a primary data source for Australia's climate and ocean research communities to support the management of the blue economy and contribute to global climate science.

IMOS' sustained ocean observing infrastructure



Animal Tagging

Seals are fitted with satellite data loggers that collect valuable oceanographic measurements in regions inaccessible to researchers, that validate oceanographic models and provide information on seal behaviour.



Satellite Calibration

The Lucinda Jetty in Queensland collects optical measurements to support satellite ocean colour calibration. Buoys located in the Bass Strait Tasmania measure sea surface height, providing the only Southern Hemisphere calibration site.



Ships of Opportunity

Australia benefits from a combination of commercial and research vessels used to collect a wide range of oceanographic measurements including;

- Biogeochemical Sensors
- Sea Surface Temperature
- Expendable Bathythermographs
- Continuous Plankton Recorders
- Air-Sea Fluxes
- Bioacoustics



Argo Floats

IMOS manages Australia's contribution to the global Argo Array. Deploying regular, ice, deep and biogeochemical Argo floats, Argo Australis is the second largest contributor to this international program.



Deep Water Moorings

The IMOS Southern Ocean Time Series Observatory monitors long term trends in weather and climate in the Southern Ocean.

The Bluewater & Climate science community has used observations to produce:

- 1412** Journal Articles
- 153** Reports
- 243** Projects
- 111** Data Products
- 129** Postgraduate Projects

Examples of Bluewater & Climate users of IMOS observations

CSIRO
 University of Tasmania
 Australian Institute of Marine Science
 Bureau of Meteorology
 South Australian Research and Development Institute
 Sydney Institute of Marine Science
 Curtin University
 University of Western Australia
 University of Melbourne
 Australian Antarctic Division
 Department of Climate Change, Energy, the Environment and Water
 Australian Bureau of Statistics
 Intergovernmental Panel on Climate Change
 Australian Fisheries Management Authority

Access data

portal.aodn.org.au

More information

imos.org.au/nodes

