



IMOS Bulletin

Issue #37 October 2014

Welcome to the IMOS Bulletin. Please feel free to distribute this email bulletin to others. The Bulletin is also available for download from the website at <http://imos.org.au/bulletin.html>.

If you have any comments or questions regarding the IMOS Bulletin please contact the IMOS Communications Manager, Marian Wiltshire (Marian.Wiltshire@utas.edu.au).

Do you ever wonder about what types of data you can download from the IMOS Portal?

Better, easier and simpler! We're very excited to show you the new "faceted search" function of the IMOS Ocean Portal. Grouping similar types of measurements together means that finding and downloading data is now easier than ever.

We're proud to announce a significant and exciting enhancement to the IMOS 1-2-3 Portal.

You can now navigate your way through available IMOS datasets using comprehensive menus of parameters, organisations and collection platforms to narrow your search. We've used faceted menus to group our free, online data collections into related, intuitive classifications that make it easy for you to pinpoint the data you are looking for, and to quickly see other related datasets that might interest you.

Give it a go, and let us know what you think.

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Step 1: Select a Data Collection

Measured parameter

- Physical-Water (68)
 - Temperature (48)
 - Salinity (30)
 - Current (17)
 - Water pressure (17)
 - Optical properties (11)
 - Turbidity (9)
 - Air-Sea Fluxes (6)
 - Acoustics (3)
 - Sea surface height (2)
 - Wave (2)
 - Density (1)
- Biological (29)
- Physical-Atmosphere (12)
- Chemical (11)

Organisation

Platform

- Ship (24)
- Mooring (20)
- Satellite (13)

IMOS - Argo Australia Profiles

Organisation - Integrated Marine Observing System (IMOS), CS
Platform - drifting subsurface profiling float
Date range - 1999 - 2014
Parameters - Temperature of the water body | Practical salinity
Argo Australia aims to undertake real time monitoring of the broa

IMOS - AATAMS Facility Satellite Relay Tagging Program - Near real-time data

Organisation - Integrated Marine Observing System (IMOS), Ma
Platform - land-sea mammals
Date range - 2009 - 2014
Parameters - Temperature of the water body | Practical salinity
The Australian Animal Tagging And Monitoring System (AATAMS,

IMOS - SOOP-Sea Surface Temperature (SST) Sub-facility - Near real-time data

Organisation - Integrated Marine Observing System (IMOS), Au
Platform - vessel of opportunity
Date range - 2008 - 2014
Parameters - Temperature of the water body | Speed (over gro
Wind speed in the atmosphere | Pressure (measured variable) exer
The Sea Surface Temperature (SST) sub-facility aims to enable i

Visit <http://imos.aodn.org.au/> for free and open online access to Australian marine data.

IMOS Data Reports

The IMOS data holdings are detailed in a suite of reports generated by the eMII Office on a monthly basis. The summary reports for September 2014 can be downloaded directly via the IMOS website <http://imos.org.au/imosdatareports.html>.

Data from all the IMOS Ocean radar sites have been reprocessed, with all the historical hourly averaged products for both non QC and QC'd data updated. New hourly averaged products now include QC flags incorporating Geometric Dilution of Precisions (GDOP) information on the radar beams intersection angle. In addition, standard error and number of observation per grid point over the hourly average are provided as additional diagnostic information.

Ocean Radar: ACORN real time data migration from JCU to eMII

In anticipation of the move of the [Australian Coastal Ocean Radar Network](#) (ACORN) facility from James Cook University (JCU) to University of Western Australia (UWA), and in order to minimise interruption to data delivery, the eMarine Information Infrastructure (eMII) have taken responsibility for parts of the data processing. This year has seen an eMII-led project to:

- Migrate real time data services from JCU to VM servers hosted by eMII
- Rebuild ACORN data workflow to run on different operating systems and with different software
- Test the migrated services against different radar stations and different radar technologies (Seasonde and WERA)
- Improve the hourly average data product by including QC flags incorporating Geometric Dilution of Precisions (GDOP) information on the radar beams intersection angle

Since September 2014 the ACORN real time data products in the IMOS ocean portal have been delivered through these migrated services. Delayed mode radar data products will be produced by staff of the relocated ACORN facility at UWA, who will also oversee management of the facility, logistics, technical servicing of the instruments and hardware. Delayed mode products will improve on real time data collections by applying corrections to the data following calibration.

eMII wish to acknowledge the ACORN facility members for their expertise, their work on the migration and for their assistance in keeping these real time data services running during the changeover.

IMOS Activity Planning

Future activity planning for the IMOS Facilities is now provided via the IMOS website (<http://imos.org.au/imosactivityplanning.html>). The plans contain details for all the planned deployment/recovery/servicing/sampling etc. activities for the NCRIS 2013 funding period.

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The IMOS Autonomous Underwater Vehicle will be deployed in November off the coast of New South Wales, collecting benthic imagery as it surveys one of the national reference sites around the country.

Did you know?

A new section that will feature various ways in which you can discover, access and use IMOS data.

Most IMOS datasets are stored as NetCDF files. This format was chosen because it allows data files to be self-describing (the file includes 'metadata', or information about the data it contains), machine-independent, and suited to the sharing of array-oriented scientific data. The IMOS THREDDS catalog describes the inventory of available netCDF datasets.

IMOS netCDF datasets can be viewed or manipulated in various environments. They can be imported into environments such as MATLAB, Python and R, and viewed using various software packages designed for netCDF viewing. (For more information visit the IMOS Ocean Portal User Guide <http://help.aodn.org.au/help/?q=node/18>)

The data team at IMOS have begun compiling a user code library (<https://github.com/aodn/imos-user-code-library>), aimed at helping new users get started, and offering examples of IMOS data use within some popular environments (to date, MATLAB, R and Python). It provides ready to go code solutions for importing the data and some visualisation tasks, and shows how to access useful metadata information.

Regardless of storage format, many IMOS datasets are available as csv files through the IMOS Ocean Portal.

Recent & Upcoming Events

For a full list of upcoming conferences please visit the Calendar page at <http://imos.org.au/calendar.html>. If you would like an event or conference featured on our website calendar please contact Marian Wiltshire via email Marian.Wiltshire@utas.edu.au

10 November 2014 Closing date for Expressions of Interest for the AIMS National Sea Simulator (SeaSim). The Australian Institute of Marine Science (AIMS) would like to invite individuals and groups from industry and the marine research community to submit expressions of interest in working with us in SeaSim. For application forms and guidelines: <http://www.aims.gov.au/national-sea-simulator/application-information>. For more detail on SeaSim capabilities and how to access them, contact, SeaSim Operations Manager, Craig Humphrey (c.humphrey@aims.gov.au).

10-12 November 2014 8th Annual Centre for Australian Weather and Climate Research (CAWCR) Workshop "Coasts and Extremes", Melbourne, Victoria. Further details can be found on the workshop website, <http://cawcr.gov.au/events/AWS8/>. Please contact CAWCRWORKSHOP@bom.gov.au, if you have any questions. Registration for the workshop is through the above website, there is no cost for registration.

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2-13 February 2015 Centre for Marine Bio-Innovation Summer Course on Marine Microbial Ecology, at the Sydney Institute of Marine Science, Sydney, Australia. For expressions of interest and further information regarding registration fees and process please contact Suhelen Egan: s.egan@unsw.edu.au

22 June – 2 July 2015 26th International Union of Geodesy and Geophysics (IUGG) General Assembly 2015, Prague, Czech Republic. For more information and to register, visit <http://www.iugg2015prague.com>. Abstract deadline is **January 31, 2015**.

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