

## IMOS Bulletin

Issue #66 June 2017

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 IMOS Communications, [communication@imos.org.au](mailto:communication@imos.org.au).

### From the IMOS Office

Below is a brief roundup of activity and engagement done through the IMOS Office over the last month.

- Met with the Directors of ANDS, NeCTAR and RDS in Melbourne to discuss marine domain priorities for 2017-18.
- IMOS Director in Brisbane on 14 June to meet with Queensland Government (DISITI and DEHP) to discuss ongoing collaboration potential.
- IMOS Board teleconference on 16 June to authorise execution of the Deed of Variation for 2017-19 funding (\$29.56M) and approve the outline of the 2017-18 Business Plan. The Business Plan was submitted on 21 June and the Deed was signed on 22 June. This very important work was completed ahead of schedule thanks to the efforts of Jo Neilson and Emma Sommerville in the IMOS Office, and administrative staff at the University of Tasmania. Subcontracting with Operating Institutions is the next priority.
- IMOS Office annual planning day was held on 19 June. It looks like another busy year coming up!
- Hosted a visit from NCI (Ben Evans, Pablo Larraondo and Adam Steer) to discuss opportunities for enhanced collaboration around big data (satellite, imagery etc) and model output.
- Convened a discussion with between the investors in Argo Australia (IMOS, CSIRO, ACE CRC, Defence and BOM) to review current status and forward plans for the array in the Australian region.
- Met with Tasmanian Shellfish Quality Assurance Program (TSQAP) staff to discuss enhanced access to data in support of harmful algal bloom (HAB) research.
- Met with Dr Wenju Cai, Director of the CSIRO/China Centre for Southern Hemisphere Oceans Research (CSHOR), to discuss collaboration with IMOS. It was agreed that the IMOS Director will visit Qingdao National Laboratory for Marine Science and Technology ([QNLN](#)) in early November, coinciding with an invited keynote talk at the [Oceanology International China](#) 2017 conference.
- Participated in an initial teleconference of the National Marine Science Committee working group on national baselines and long term monitoring. Ana Lara-Lopez will represent the IMOS Office on this working group.
- Participated in a teleconference with US colleagues (from University of Southern Florida and NOAA) to discuss developments in their Marine Biodiversity Observation Network (MBON) and potential for collaboration with IMOS and OBIS.
- Met with Mark Hemer (CSIRO) to discuss our new investment in wave observations (from satellite), in collaboration with University of Melbourne.
- Held a teleconference with colleagues from NASA who are establishing a new project called 'COVERAGE' under the Committee on Earth Observation Satellites (CEOS). The project will focus on increasing integration of multiple ocean

satellite constellations and in situ ocean observations to better enable end-to-end ocean information services and interdisciplinary climate science. It was agreed that IMOS will become a partner in the project.

- Convened a Forum for Operational Oceanography (FOO) Steering Committee meeting to finalise preparations for the upcoming FOO 2017 conference. Register [here](#) if you'd like to attend. The program has come together really well.

## Welcome Indi

This month the IMOS office welcomes Indi Hodgson-Johnston to the team. Indi joins IMOS as Project Officer – External Relations, and will be working to facilitate increased engagement with IMOS data in priority areas.

The newly created role involves research, analysis and provision of advice on key government, industry and social drivers as relevant to IMOS observations and data, both current and potential. She will also contribute to a review of the processes by which we measure uptake and impact and the design and implementation of improved processes and systems.

Indi completed her undergraduate and honours degrees at the University of Tasmania. Her honours thesis focused on fish DNA, technology, and traceability in the global supply chain. Her PhD at the Institute for Marine and Antarctic Studies and the Antarctic Climate and Ecosystems CRC examines international law and Australia's presence in Antarctica.

Indi has previously worked in maritime and security roles, as a master and officer on commercial sailing vessels, and as a legal advisor in the area of international fisheries. She has worked for the Antarctic Treaty and Commission for the Conservation of Antarctic Marine Living Resources Secretariats as a rapporteur.

Indi looks forward to working with IMOS and the broader marine science community.



**Indi Hodgson-Johnston joined the IMOS office this month**

## The latest news from the Australian Ocean Data Network (AODN)

### Increase in IMAS data collections in the AODN Portal

AODN recently reported that users are now able to download data in the form of shapefiles - see [IMOS news item 24 May](#). The Institute for Marine and Antarctic Studies (IMAS) at the University of Tasmania (one of the first adopters of the AODN portal stack) has taken advantage of this new feature and have configured many of their metadata records to accommodate this new feature. This has had a flow on effect, with a dramatic increase in the number of data collections being suitable for harvest into the AODN - in January AODN had 9 collections coming from IMAS, and this has now increased to over 40.

See the [AODN News item](#) for more information.

The screenshot displays three data collection entries in the AODN Portal, each with a map thumbnail, metadata, and a 'Select >>' button. The entries are:

- Mangrove mapping of Darwin Harbour**: Metadata includes Ocean Biota, Department of Environment and Natural Resources, Northern Territory Government, and dates 1995 - 1996.
- Mangroves of the Northern Territory, 1:100,000**: Metadata includes Ocean Biota, Department of Environment and Natural Resources, Northern Territory Government, and dates 1996 - 1996.
- Gold Coast Broadwater Seagrass mapping 2005/08**: Metadata includes Ocean Biota, Griffith School of Environment, Griffith University, Global Change Institute (GCI), The University of Queensland (UQ), and dates 2004 - 2008.

An example of some of the new IMAS data collections coming into the AODN Portal

The IMOS data holdings are detailed in a suite of reports generated by the AODN on a monthly basis. The summary reports for April 2017 can be downloaded directly via the IMOS website <http://imos.org.au/datareports.html>.

## IMOS Activity Planning

### Deployment and maintenance activities next month include:

- Animal tracking - Acoustic Telemetry: Receiver mooring service scheduled for Maria Island, TAS and Orpheus Island, QLD.
- Ocean Glider: Two Rocks Slocum glider deployment

Future activity planning for the IMOS Facilities is provided via the IMOS website (<http://imos.org.au/imosactivityplanning.html>). The activity plans contain details for all the planned deployment/recovery/servicing/sampling etc. activities for the 2016-17 period.

## Did you know?

This section features news from the marine science community and highlights various ways in which you can discover, access and use IMOS data.

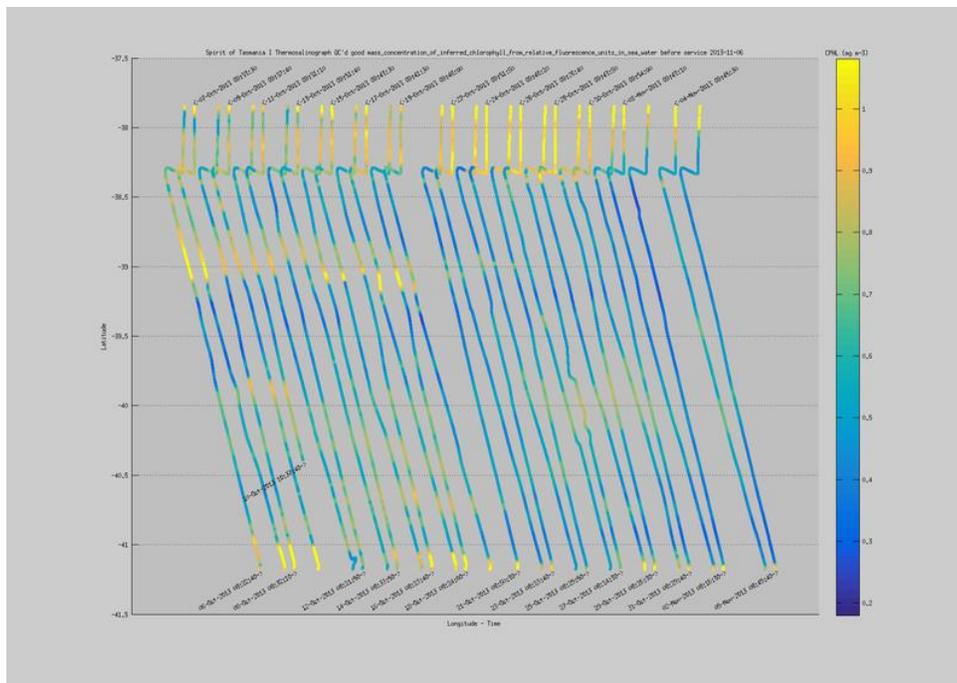
### IMOS toolbox processes Spirit of Tasmania data

Four (4) sets of transects, approximately 233 files, collected between 06 October 2013 and 22 April 2014, have been recently processed by the toolbox.

Recent improvements to the IMOS toolbox permitted a set of 1Hz data files, sampling real time temperature, salinity, fluorescence and turbidity, collected by the Spirit of Tasmania between Devonport and Melbourne, to be read, pre-processed, quality controlled and converted to NetCDF.

Newly QC data files are now accessible through the [AODN portal](#) and the [IMOS THREDDS catalogue](#).

See the [AODN News item](#) for more information.



**Spirit of Tasmania data – work to add quality control (QC) to the data**

## Paper of the month

This month we'd like to highlight the following paper that references IMOS data:

The increasing rate of global mean sea-level rise during 1993–2014, *Nature Climate Change* (2017), 26 June

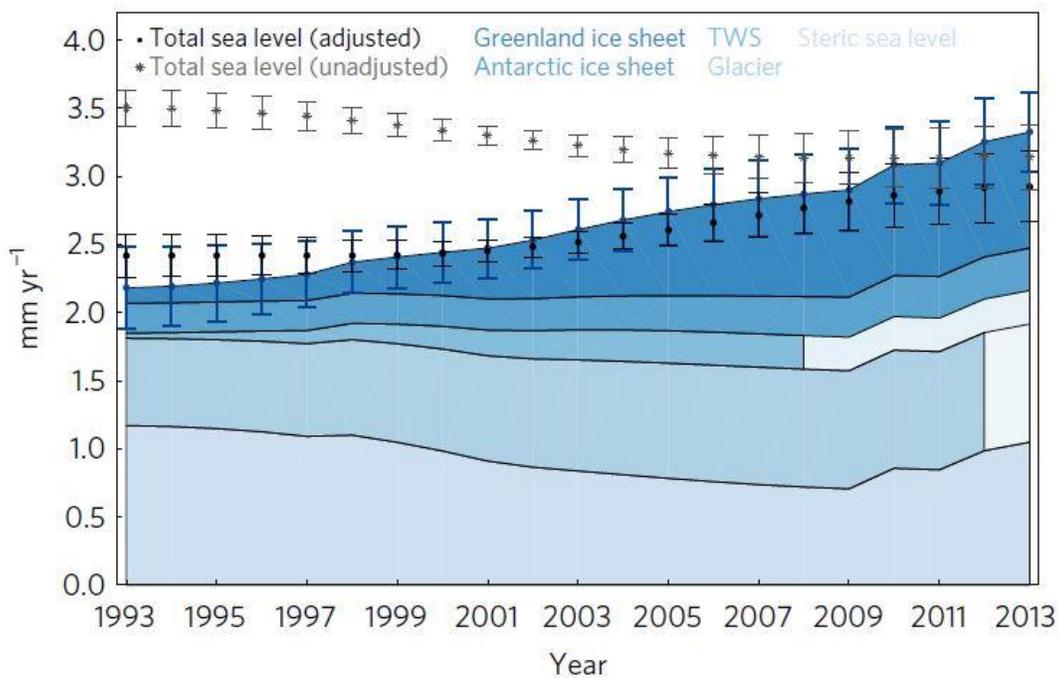
Xianyao Chen, Xuebin Zhang, John A. Church, Christopher S. Watson, Matt A. King, Didier Monselesan, Benoit Legresy and Christopher Harig

The IMOS satellite altimeter time series was used in this paper published in *Nature Climate Change* this week.

The study shows that contributions to sea-level rise have increased by half since 1993, largely because of Greenland's ice. The sum of contributions increased from 2.2mm per year to 3.3mm per year. This is consistent with, although a little larger than, the observed increase in the rate of rise estimated from satellite observations.

See the complete paper online: <http://dx.doi.org/10.1038/nclimate3325>

IMOS News item: [Contributions to sea-level rise have increased by half since 1993, largely because of Greenland's ice](#)



Instantaneous closure of the global mean sea-level budget.

## Forum for Operational Oceanography (FOO) – Register NOW



The second Australian Forum for Operational Oceanography conference (FOO 2017) is fast approaching. Just go to the [Registration](#) page on the conference website, create a user account, and follow the easy steps.

FOO 2017 will be held on 25-27 July 2017, at the Esplanade Hotel in Fremantle, Western Australia and offers an excellent [Program](#) with speakers from all 'four pillars' of the Forum community:

1. **Marine Industries** - Woodside Energy Ltd, Shell Australia Ltd, Austral Fisheries, National Energy Resources Australia (NERA), Pilbara Ports Authority
2. **Service Providers** – RPS MetOcean, OMC International, Fugro
3. **Government Agencies** - Bureau of Meteorology, Australian Maritime Safety Authority, Department of Defence, Queensland Government
4. **R&D Providers** – CSIRO, Australian Institute of Marine Science (AIMS), University of Melbourne, University of Western Australia, University of New South Wales, South Australian Research & Development Institute (SARDI), Integrated Marine Observing System (IMOS)

## AMOS-ICSHMO 2018 to honour Gary Meyers

The joint 25th AMOS National Conference and 12th International Conference for Southern Hemisphere Meteorology and Oceanography, AMOS-ICSHMO 2018, will this year host a special session 'Variability and change in the Indo-Pacific and Australian regional seas' in honour of the founding director of IMOS, Gary Meyers.

This session invites contributions based on observations, modelling, and theory that address Indo-Pacific variability and change across a range of timescales. In particular, we welcome submissions on Indo-Pacific exchange, the Indonesian Throughflow, regional oceanography around Australia, and contributions focused on sustained observing systems, such as the IMOS or RAMA systems. The session is convened by Caroline Ummenhofer, Woods Hole Oceanographic Institution, Helen Phillips, University of Tasmania, and Tim Moltmann, IMOS.

[Dr Meyers](#) was an eminent oceanographer at CSIRO in Hobart for many years before taking up the role of Director of IMOS in 2007. His contributions have been instrumental in advancing research on a wide variety of topics, such as understanding the circulations in the Indian and Pacific Oceans, the Indonesian Throughflow, and the role of the Indian Ocean in regional climate variability and change.

Abstract submission close: August 31. See: <https://www.amos-icshmo2018.com.au/>



## Upcoming Events

- **2 – 6 July 2017** AMSA Australian Marine Science Conference 2017, Darwin, Australia.  
<http://events.amsaconference.net/home.html>
- **16 – 18 July 2017** Australian Coral Reef Society Conference , Townsville, Queensland.  
<http://www.australiancoralreefsociety.org/conference>
- **22 – 24 July** Australian Society for Fish Biology Conference, Albany, Western Australia  
<http://asfbconference.org/>
- **25 – 27 July 2017** The Australian Forum for Operational Oceanography (FOO), Fremantle, Australia.  
<http://www.foo.org.au/forum/>
- **21 – 25 August 2017** Online training for Using the Copernicus Marine Data Stream for Ocean Applications. The classroom phase of the course will be **4-8 September** in Oostende, Belgium. The deadline for application is Wednesday, 7 June 2017 via <http://training.eumetsat.int/course/view.php?id=158>

- **27 August – 1 September 2017** Joint IAPSO-IAMAS-IAGA Assembly in Cape Town, South Africa.  
<http://www.iapso-iamas-iaga2017.com/index.php>
- **5 – 7 September 2017** Eighth GOOS Regional Forum Meeting, Singapore.  
[http://goosocean.org/index.php?option=com\\_oe&task=viewEventRecord&eventID=1973](http://goosocean.org/index.php?option=com_oe&task=viewEventRecord&eventID=1973)
- **2 – 13 October 2017** GODAE OceanView International School, New Frontiers in Operational Oceanography, Mallorca, Spain.  
<https://www.godae-oceanview.org/outreach/education-training/gov-summer-school-2017/>
- **3 – 5 October 2017** EuroGOOS International Conference: Operational Oceanography serving sustainable marine development, Bergen, Norway.  
<http://eurogoos.eu/events/eurogoos-international-conference/>
- **5 – 6 October 2017** Our Ocean, Malta.  
<http://ourocean2017.org/>
- **1-3 November 2017** Oceanology International, Qingdao, China  
<http://www.oichina.com.cn/en/Conference-Activities/OI-China-2017-Conference-Forum/>

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 [communication@imos.org.au](mailto:communication@imos.org.au).