



NSW IMOS May Update SAC Meeting Tuesday 28th July 2009

1. NSW IMOS

- a. The IMOS data portal was launched in Hobart on June 30th. IMOS Data can now be accessed through
<http://imos.aodn.org.au/webportal/>
- b. NSW IMOS was well represented at AMSA with almost an entire session devoted to NSW IMOS science.
- c. A meeting regarding the formation of a SE Qld node of IMOS (led by Anthony Richardson) was held in Brisbane on June 17th. It was attended by I. Suthers and M. Roughan.
- d. A meeting regarding the formation of a National Coastal Observing Network (led by Ian Turner and Ian Goodwin) was held at WRL on July 23rd. M. Roughan gave a seminar introducing IMOS which was then followed by a 3 hr workshop to determine the strategic goals for a coastal observatory.

NSW IMOS Abstracts Presented at AMSA 2009

- Roughan, M., I. Suthers, R. Harcourt, S. Williams, T. Pritchard Highlights from NSW IMOS AMSA Adelaide 2009 Marine Connectivity
- Wood, J., M. Roughan P. Tate Upwelling off the Coast of Sydney: Observations from the NSW IMOS Array AMSA Adelaide 2009 Marine Connectivity
- Morris, B. M. Roughan, I. Suthers and T. Pritchard Cross-shelf Processes off the Coast of NSW; Preliminary Results from the NSW IMOS Array AMSA Adelaide 2009 Marine Connectivity
- Coman, Frank, Claire Davies*, Jocelyn Delacruz, David McLeod, Tim Pritchard, Anita Slotwinski, Anthony J. Richardson Seasonal, inter-annual, and potential decadal changes in the zooplankton community off Port Hacking, NSW
- Pritchard, Tim, Martin Krogh, Jos dela Cruz, Peter Davies, Tim Ingleton. The legacy of Sydney's long term monitoring stations and prospects for integrated monitoring of coastal waters
- Doblin, Martina, Peter Thompson, Christel Hassler, Mark Baird, Iain Suthers and Peter Ralph IMOS: The bridge between bio-optical data and modelled primary production
- Baird, Mark, David Griffin, Ben Hollings, Jason Everett, Chari Pattiaratchi and Iain Suthers A Slocum Glider deployment in a Warm Core Eddy off NSW

A community meeting is being planned for mid September when we know the terms of reference for the new EIF funds.



2. NSW Moorings

- a. MHL experienced delays in obtaining equipment, but now are gearing up for the deployment the first week of August.
- b. An ADCP has been lost at the SYD 140 mooring. It appears the line was cut. OFS have spent 2 days grappling for the instrument but have not been able to get it. Presently there is no instrument at SYD 140.
- c. We have now collected 12 months of mooring data at the SYD100 and SYD 140 sites and are very pleased with the data sets.
- d. The dummy mooring at Port Hacking has survived to some extent the past few months, so we are taking actions to stage a deployment at PH. Instruments have been ordered.
- e. Instruments have also been ordered for the final south coast mooring.
- f. MHL has been approached to undertake scoping for the South coast mooring.

3. AATAMS Facility

- a. AATAMS has received a further \$1.2m in funding from the extended IMOS funds, \$1m of which will go towards instrumentation of Southern Ocean marine creatures and seals in the Great Australian Bight with tracking and oceanographic sensors utilising satellite communications for data recovery.
- b. 200k will be used to enhance the current AATAMS network by extending the reach of acoustic receiver curtains into Queensland allowing species to be tracked along a significant length of Australia's east coast. The deployment location has been selected in the GBR at Heron Island.
- c. Andrew has completed the midyear service of the Ningaloo receiver transects.
- d. The Sydney Transect has been completed with receivers extending out to the shelf.

4. AUV Facility

- a. The AUV facility will hold a workshop to help determine the future of the IMOS AUV Facility at SIMS on August 24th 2009. All scientific end users as well as a selection of people who have experience working with AUVs have been invited to SIMS to discuss the needs of the marine science community and how these might be met using AUVs. Further information is attached.

IMOS EIF Funding

The Marine and Climate Super Science initiative was announced in the Federal Budget in May 2009. IMOS was awarded an additional \$52M for the period July 2009 to June 2013 to enhance and extend the observing system, with emphasis on the Southern Ocean and northern Australian waters. The funding was provided with a requirement to develop an interim plan by 30 June 2009 to invest the first \$8M (during 2009/10), and to develop a final plan covering the full \$52M plus co-investment by 28 February 2010.

Timetable for IMOS EIF Planning (as at 9 July 2009)

Date	Description
12 May 2009	Marine and Climate Super Science initiative announced in the Federal Budget. IMOS awarded an additional \$52M for the period July 2009 to June 2013 to enhance and extend the observing system, with emphasis on the Southern Ocean and northern Australian waters. Funding provided with a requirement to develop an interim plan by 30 June 2009 to invest the first \$8M (during 2009/10), and to develop a final plan covering the full \$52M plus co-investment by 28 February 2010.
26 May 2009	IMOS Advisory Board Meeting called to discuss the Budget outcome, and advise on priorities for the first \$8M to be invested in 2009/10.
24 June 2009	UTAS contract with DIISR executed, including Interim IMOS EIF Project Plan for \$8M in 2009/10, and agreement to submit Final IMOS EIF Project Plan by 28 Feb 2010
29 June 2009	IMOS Ocean Portal launched in Hobart, and IMOS EIF information session held.
Early July 2009	IMOS Office to develop subcontracts with Operators implementing the first \$8M of EIF funding.
End of July 2009	IMOS Office to develop a Draft IMOS Five Year Strategy, out to June 2013.

August 2009	National consultation by the IMOS Office on the Draft IMOS Five Year Strategy, with Nodes, Facilities and key stakeholders (including DIISR).
10 Sept 2009	IMOS Advisory Board meeting, including finalisation of the IMOS Five Year Strategy and confirmation of the decision making process to develop the Final IMOS EIF Project Plan.
18 Sept 2009	Call for Proposals to enhance and extend IMOS under EIF funding, in line with the agreed IMOS Five Year Strategy. Proposals to include both Node Science Proposals (existing and new) and Facility Investment Proposals (existing and new).
30 Oct 2009	Close of Call for Proposals
Late Nov 2009 (date TBA)	National meeting of representatives of parties who have submitted Proposals, to reach consensus on items best responding to the IMOS Five Year Strategy and best addressing IMOS EIF funding requirements.
Mid Dec 2009	IMOS Office to develop a Draft Final IMOS EIF Project Plan.
Late-Dec 2009 (date TBA)	IMOS Advisory Board teleconference to consider the Draft Final IMOS EIF Project Plan.
15-17 Feb 2010	4 th IMOS Annual Planning Meeting, to include update on the Final IMOS EIF Project Plan, and outline of 2010/11 NCRIS and EIF Annual Business Plans
Late Feb 2010 (date TBA)	IMOS Advisory Board teleconference to approve the Final IMOS EIF Project Plan.
28 Feb 2010	Final IMOS EIF Project Plan submitted to DIISR.
31 March 2010	Acceptance of Final IMOS EIF Project Plan by DIISR



AATAMS SDRL CTD tags on Seals

(Satellite Relay Data Logger; Conductivity/Temperature/ Depth) are small computers with sensors which allow them to make measurements of key environmental parameters. They have memory in which they store data, a transmitter, a clock, and batteries, all moulded into a resin block (see Figure 5). Tags are fixed harmlessly to seals' fur, typically for periods of several months. The tags are not buoyant, and are lost if they drop off at sea. However, they are normally shed when the seal moults, and so are retrievable at moulting sites.

The tags:

1. Take measurements of key environmental parameters, including time of measurement, status (wet or dry), water conductivity, water temperature, depth.
2. Analyse measurements to create profiles of seal behaviour, and ocean temperature and salinity changes with depth. These profiles are used to decide what information to store in the tag's journal.
3. Store journal data until transmission opportunities occur.
4. Transmit stored data to the Argos satellite.
5. Monitor and manage the tag's own limited resources of power and memory.

There will be two regions of deployment: Antarctica, and Southern Australia. In Antarctica, deployment would be on elephant seals from Casey Station. These animals would traverse the Southern Indian and Western Pacific Oceans. In Southern Australia, deployments will be on sea lions and fur seals. These animals would traverse the continental shelf off southern Australia in South Australia and Victoria. In both regions, the oceanographic measurements taken will help to understand the complex ocean currents experienced as well as provide insight into animal behaviours.

