

OCEANCURRENT.IMOS.ORG.AU – AN OUTREACH ACTIVITY OF THE AUSTRALIAN INTEGRATED MARINE OBSERVING SYSTEM (IMOS)

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ABSTRACT

The Australian Integrated Marine Observing System (IMOS) is a research infrastructure initiative of the Australian Federal Government. IMOS has been responsible for a major increase in the number and range of ocean data being collected in the Australian region. It has also been instrumental in bringing all the major research organisations together because they jointly implement and benefit from the system. IMOS has a focus on rapid delivery, to all users, of the data collected. To span the wide range of user needs, IMOS has a comprehensive web presence, including areas focussing on information and newsletters about the program, user-driven exploration of the data base, and a section known as *OceanCurrent* that hosts a wide range of pre-prepared still and animated graphics products that reveal the ever-changing nature of Australia's ocean environment.

1. INTRODUCTION

Australia's Integrated Marine Observing System (IMOS) is funded by the Australian Government through the National Collaborative Research Infrastructure Strategy and the Super Science Initiative. Its principal mandate is to serve the needs of the research community. Nevertheless, the information gathered is also of enormous value outside the research sector, in fields as diverse as resource management, marine safety, tertiary education, recreational yachting, fishing as well as general public education, especially during instances of extreme ocean conditions such as high sea level, or warm or cold coastal temperatures.

2. The IMOS web site

The entry point to the IMOS web site has links to all sections, for

- individual instrument-centered Facilities for Argo, gliders, remote sensing, moorings, HF radars, ships-of-opportunity, acoustic tracking
- region-based nodes of investigators, who jointly decide instrument deployment priorities
- program newsletters and announcements
- interactive data discovery and download
- *OceanCurrent*, described below.



Figure 1. The front page of www.imos.org.au

3. OceanCurrent

This section of the website is designed to be educational and informative for a wide range of users, from oceanographers to any member of the public seeking oceanographic information and interpretation in fairly succinct, simple language. Succinctness is achieved by use of hyperlinks to explanations and a glossary.

The name is suggestive of the focus on the present state of the ocean conditions. For most of Australia, this information is derived from gridded multi-mission altimetry (see Griffin *et al.*, this issue), sea surface temperature and ocean colour imagery. Where IMOS data are available, these are overlain on the maps of satellite data. Most of the graphics images on the site are updated at least once per day.

Headlines of News Items appear on the front page (see Fig. 2). These focus on events that have happened in the last week or so and are sometimes picked up by the mass media. They are also used by university lecturers as case studies of ocean dynamics.

Below the News Items are a series of clickable panels taking users to the latest maps showing various quantities at various local (Fig. 3, 4), regional (Fig. 5) and Australia-wide scales. Clickable calendars are also provided.

The next series of links allow users to show the imagery

in Google Earth. Beneath that (not shown in Fig. 2) is a map of Australia with clickable symbols showing the latest locations of Argo profilers in the Australasian region. Plots of the profile data are reached from there.

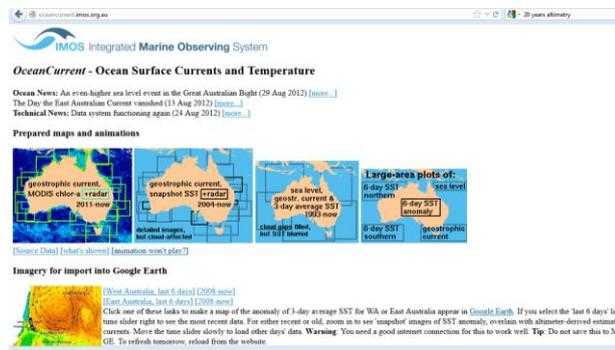


Figure 2. The front page of oceancurrent.imos.org.au.

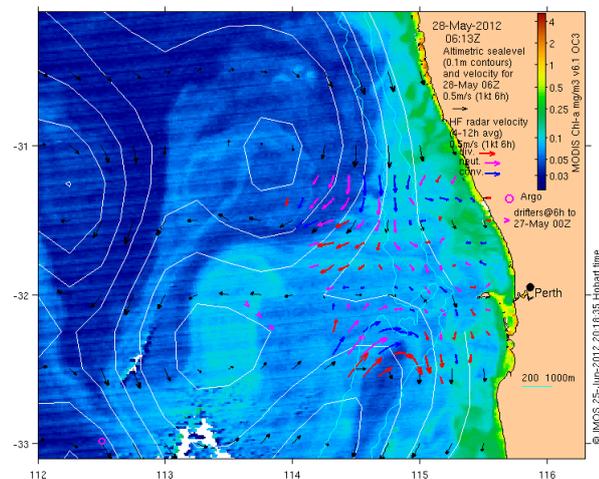


Figure 3. An example NASA MODIS chlorophyll-*a* image, with both altimetric and HF radar surface currents overlain.

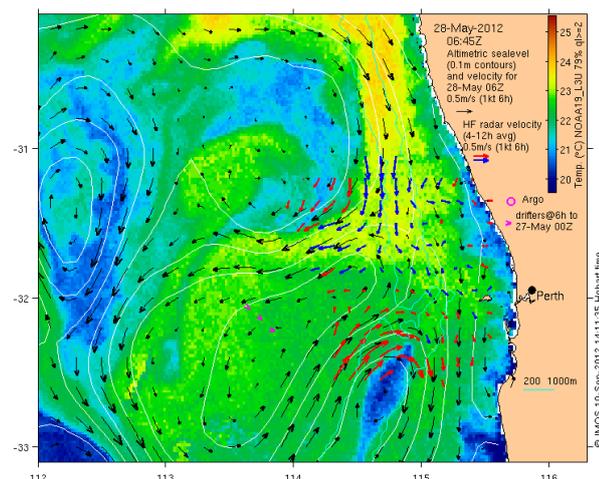


Figure 4. The companion to Fig. 3, but showing NOAA AVHRR SST instead of MODIS chlorophyll-*a*.

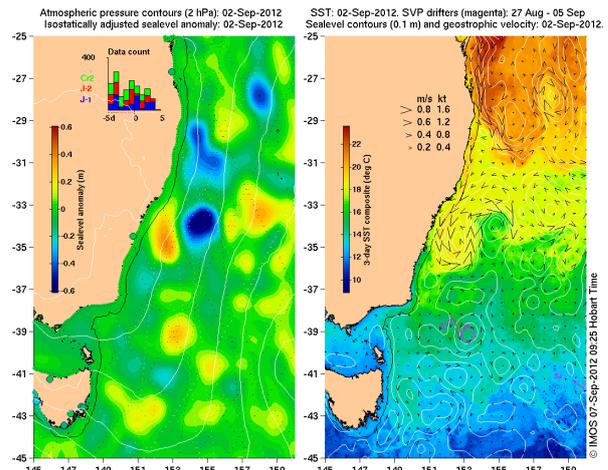


Figure 5. Example regional maps of height anomaly and geostrophic current overlain on SST.

The Source Data and Glossary are also important parts of the website. The former shows lower-level plots of the data, while the latter provides explanations of various oceanographic concepts and techniques. For example, the entry for ‘altimetry’ includes an instructive animation of an altimetry satellite sampling the earth with its characteristic criss-cross pattern.

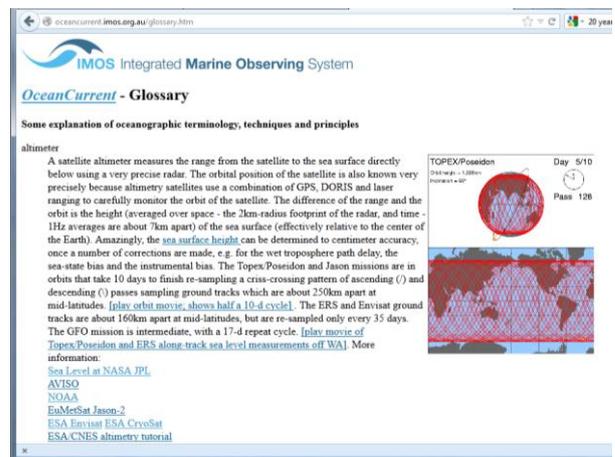


Figure 6. The glossary entry for ‘Altimetry’ showing the link image to an animation of the Topex/Poseidon orbit.

4. ACKNOWLEDGEMENTS

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