

# Presentations by Agencies With Interests in Engaging in the Tropical Pacific Observing System for 2020 (TPOS-2020)

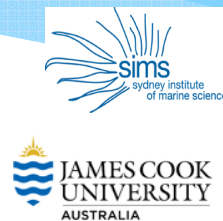
Agency Name: Integrated Marine Observing System  
(IMOS)

Nation: Australia

Presenter: Tim Moltmann (University of Tasmania)

Position: Director

Other Relevant National Institutions: (see below)



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## Part I: Agency/National Overview

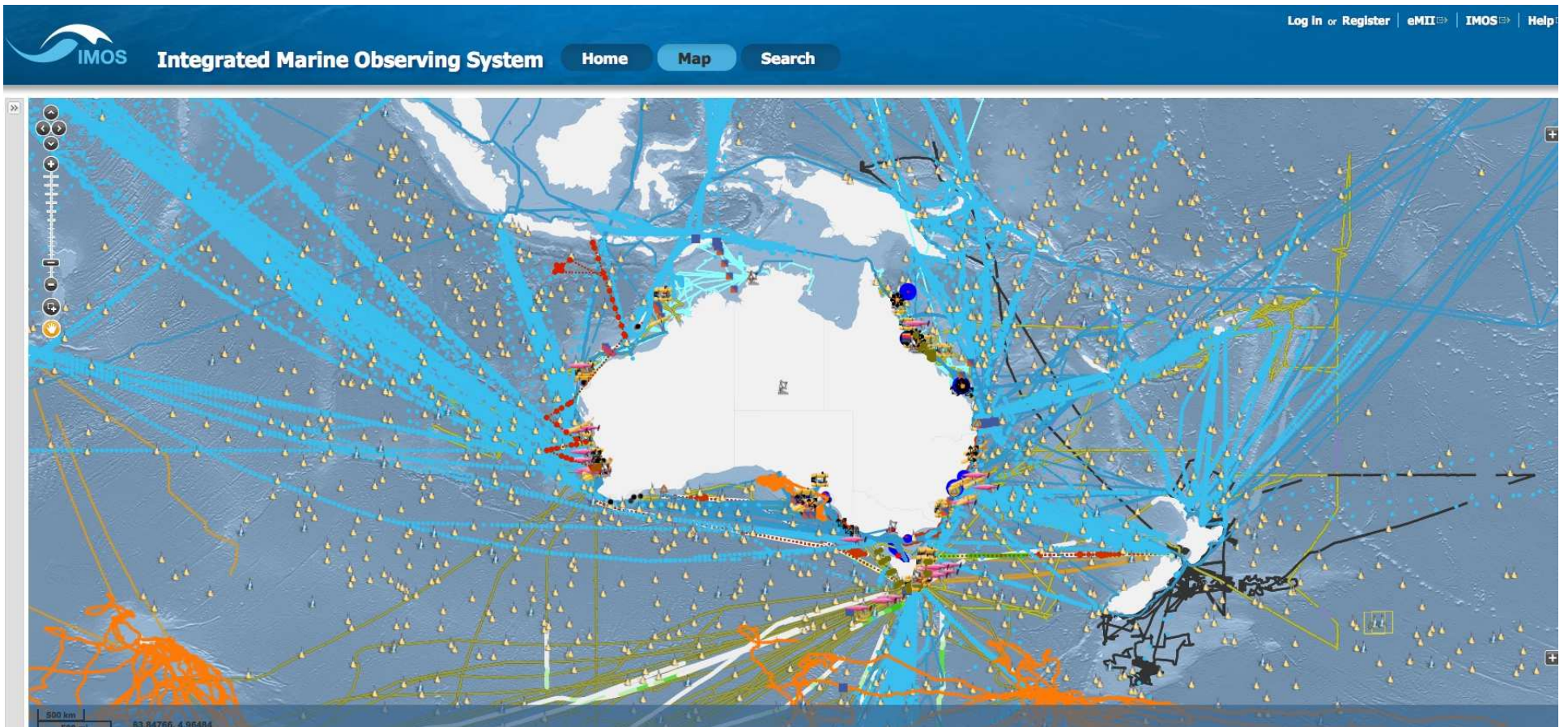
- Relevant Agency/National Mandate(s)
  - ‘AGENCY’ – IMOS is a national collaborative research infrastructure. It deploys a wide range of ocean observing equipment in the oceans around Australia, making all of the data available for science, research and other uses
- National Importance of the TPOS for Research, Operations and the Delivery of Social-Economic Information/Services.
  - Tropical Pacific is important for seasonal forecasting and climate research in Australia, done by Bureau of Meteorology and CSIRO (CAWCR) and Universities (Climate System Science Centre of Excellence) etc

## Part II. Current Agency/National Observations in the Tropical Pacific Ocean (Where?, Parameters?)

(See following slides)

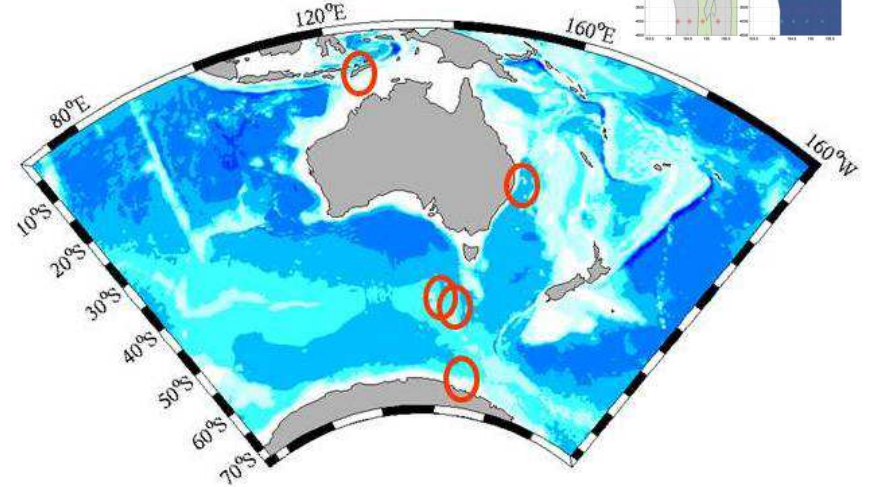
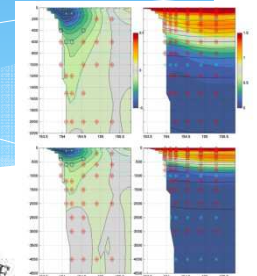
- Moorings – ITF and EAC (+ Southern Ocean +shelf/coast)
- Argo – 380 float array in Australian region (some in TP)
- XBT – ‘Tasman Box’
- Gliders – 20 glider fleet, 1 in Coral Sea (i.e. mostly elsewhere)
- Satellites – cal val for SST, Altimetry, Ocean Colour
- Drifters – Contributed by BOM (operational)
- Others – other SOOP (pCO<sub>2</sub>, fluxes, SST, CPR, Bioacoustics)

# Overview of IMOS



# IMOS Deepwater Moorings

- \* Transport arrays
  - \* ITF
  - \* EAC
- \* Southern Ocean
  - \* Carbon cycling
  - \* Air-sea flux
  - \* Antarctic bottom water



Part III. Adequacy of the Existing TPOS  
to Deliver Your Agency/National Requirements for  
Critical Variables

Part IV: Agency/National Future TPOS Requirements

Part V: Expected Agency/National TPOS  
Five-Year Plan Resource

Part VI: Potential Opportunities for  
TPOS-2020 Resource-Sharing Partnerships

## General response from IMOS

- TPOS part of the global system
- Through IMOS and other activities, Australia is trying to make a stronger contribution to the global system in our region
- Significant work in the Southern Ocean, Indian Ocean, Arafura/Timor Seas, Tasman Sea, as well as shelf and coast...
- Contributions in TP coming through Argo, XBT, ITF moorings, EAC (WBC) moorings and various regional collaborations
- Very limited vessel capacity (next slide), no satellite capacity

# One ocean going RV, not yet in commission

RV Southern Surveyor



**Length:** 66 metres  
**Days at sea:** Up to 180  
**Scientific berths:** 15  
**Endurance:** 26 days  
**Cruising speed:** 11 knots  
**Range:** ~6,000 nm  
**Extent of operating area:** 50 degrees south

RV Investigator (vessel under construction)



**Length:** 94 metres  
**Days at sea:** Up to 300  
**Scientific berths:** 40  
**Endurance:** 60 days  
**Cruising speed:** 12 knots  
**Range:** ~10,000 nm  
**Extent of operating area:** Ice edge

In full  
commission  
by end of  
2015?





# **Thank You For Your Attention**

**Name:**

**Email Address:**