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)
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 (pCO2, 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**

In full commission by end of 2015?

**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
Thank You For Your Attention

Name:
Email Address: