TPOS 2020 Project
Western Pacific Workshop

9 Next Steps (conclusions)

Qingdao, 4-6 September 2017
Western Pacific Implementation Workshop

• An action from TRF-2
  • See Background with Agenda

• Key Outcomes
  1. Establish a good dialogue on TPOS WP activities
  2. Clarity on the steps for implementation of the WP actions from the 1st Report (sustained part)
  3. Clarity on the next steps for the LLWBC Pilot (scope, purpose, likely activities, etc.)
  4. Improved understanding of the potential to support process studies
Implementation Schedule

17-Oct-17

TPOS 2020 WP Workshop
www.tpos2020.org

• Backbone to JCOMM
• Projects to R&D (?)
• Oversight to ?

Joint Implementation

2020

Steering Committee

2018

Final Design

2016

First Report

Second Report
2 Clarity on WP BB implementation

• Good dialogue on options for western Pacific Backbone of TPOS
  – Create an *ad hoc* WP Backbone Implementation Pilot Project? If yes, it would be part of the TPOS 2020-led Transition and Implementation effort.
    • Duration: now-2020
    • Involve: open
    • Scope: TMA, Argo (and equivalents)
    • Include new technology evaluation?
    • Lessons learned for other regions
2 Clarity on WP BB implementation

• Produced outline of TPOS Tropical Moored Buoy Array
  – Follows 1st Report Chapter 7
  – Includes “big cross” extensions, JAMSTEC 13N, ...
  – Discussed potential contributions to this plan
    • Who; indication of when
  – Identified key technical issues (full flux configuration; possible BGC extensions; sites; data management, ...)
  – Need to develop a standard
    • The TMA equivalent of Argo core; with JCOMM T(M)IP?
  – Underway measurements integrated into plan (?)
2 Clarity on WP BB implementation

• Produced outline of possible 2xArgo plan
  – Floats should have short surface times (min. dispersion)
  – Case for dedicated deployment along equator
  – Tentative indications for around 75% of the required floats over 2018-2020 period
  – Effort may include floats capable of directed rapid shallow cycling
  – Should include a BGC-Argo component

• Noted importance of existing other networks such as GO-SHIP, SOOP, drifters, ...
2b Modelling discussion

1. Build modelling in as an integral part of the “pilot” implementation in the W Pacific
   – Design; Testing effectiveness; testing impact
2. Model sensitivity studies for surface variables
   – Satellite observations
3. Evaluation of sub-seasonal to interannual prediction modelling and DA systems
4. Modelling in support of weather-subseasonal time scales
5. Modelling as an integral part of LLWBC pilot project
   – Guiding design; part of monitoring
2c BGC Backbone in the WP

- WP pCO2 scale analysis
- Extend underway pCO2 coverage (TMA and other cruises)
- WP TMA “super” sites and BGC extensions
- BGC Argo as part of pilot
  - Need investment in data management capability as well
2d Backbone in the WP
Follow-up

• SC-4 will refine the design
  – SOA advice on NW Pacific extensions; SC advice on southern sampling
  – More Argo 10-20N

• Develop a core TMA description
  – Full flux;
  – Include pCO2 consideration;
  – Role of super-sites

• Workshop on TMA data management
  – Develop agenda
  – Workshop ½ day (?) afternoon 16th or morning 20th.
3. Clarity on the next steps for the LLWBC Pilot

• Significant activities now and planned relevant to LLWBC
• Review and assessment of status
  – Refine what are the EOVs for the LLWBC and the requirements on those EOVs (draft)
  – Context within TPOS
  – Assess literature/knowledge as whole
  – Bring in modelling, ENSO, ... expertise and potential implications
• Loosely defined or agreed joined-up international plan
  – Use a while paper (and workshop?) to do above
  – Follow-up with plan
4 Process studies

• Evidence of strong scientific effort with participation across different sectors
• Confirming support for northern and eastern edge warm pool studies (WP TT and CLIVAR PBP in lead)
• Question? Should we be seeking to create a broadly-based experimental framework to support and coordinate these effort?
  – JAMSTEC provided a mini version of what this might look like.
Workshop documentation

- Any key messages missing?
- Will this ppt suffice as a record from the meeting?
  - I could produce a short 2-3 page report that combines the agenda, references to presentations and this ppt.
- New “pilot” follows up on 2; WP TT 3 and 4