



TPOS 2020

Monthly Status Report

February 2015

Monthly Status Report (MSR) Release Date:
March 6, 2015

Summary:

The second TPOS 2020 Steering Committee (SC) meeting has been scheduled, and will be held in Hobart, Australia on October 14- 17, 2015. Each of the Task Teams (TT) created during the SC-1 meeting at KIOST in Ansan, Korea on October 6-9 have agreed Terms of Reference (ToR) and identified Co-chairs. Three of these TT have conducted an inaugural videoconference among SC Co-chairs, TT Co-chairs, and Distributed Project Office (DPO) members. The inaugural meeting of the TPOS 2020 Resource Forum (TRF) was conducted via teleconference on October 10, 2014. The TRF-1 report is presently under project review and will be released for TRF member comment in March, 2015.

Highlights:

This MSR will contain highlighted activities from the time of the SC-1 and TRF -1, to date: October 2014 through February 2015.

Steering Committee/Co-chairs:

- Billy Kessler presented TPOS 2020 Update to CLIVAR Interagency Group (Feb 2015)
- Billy Kessler presented TPOS 2020 Update to NOAA's National Weather Service (Feb 2015)
- Neville Smith presented TPOS 2020 Update to Integrated Marine Observing System Planning Conference (Feb 2015)
- Coordinated Task Team (TT) Terms of Reference finalization and publication on the website
- Conducted initial discussions with potential DPO node sponsors in China and Australia
- Arranged second Steering Committee meeting to be held in Hobart, Australia, October 14-17, 2015
- Released Project Prospectus
- Released SC- Report

Backbone Observing System TT:

- Agreed to Terms of Reference (ToR) and co-Chair arrangements
- Conducted videoconference among SC and TT Co-chairs

Planetary Boundary Layer TT:

- Agreed to ToR and co-Chair arrangements.
- Conducted videoconference among SC and TT Co-chairs

Biogeochemistry TT:

- Finalized Terms of Reference and co-Chair arrangements
- Conducted videoconference among SC and TT co-Chairs

Distributed Project Office:

- Drafted TPOS 2020 Project Execution Plan
- Andrea McCurdy presented briefing to NOAA sponsors on DPO Project Management Plans and Execution
- Secured staffing and resourcing of the US nodes of the DPO

(Monthly Status Reports can be found at: www.tpos2020.org/monthly-status-report)

Additional Information:

Please visit the website at: www.tpos2020.org
Send comments and questions to: info@tpos2020.org
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Monthly Status Report (MSR)

Release Date: March 6, 2015

The TPOS 2020 Project will evaluate, and where necessary advocate change in all elements that contribute to the Tropical Pacific Observing System (TPOS), based on a current understanding and technical capability. The project aims for enhanced effectiveness for all TPOS stakeholders, and informed by the development and on-going requirements of the operational prediction models that are primary users of TPOS data. TPOS 2020 embraces the integration of diverse sampling technologies, with a deliberate focus on robustness and sustainability, and will deliver a legacy of improved governance, coordination and supporting arrangements.

The Project will work within the Framework for Ocean Observing developed by the Global Ocean Observing System (GOOS) and use GOOS as a reporting mechanism to other relevant intergovernmental coordination mechanisms. A sustainable TPOS will be the principle outcome and legacy for GOOS. As such, TPOS 2020 will operate primarily as an independent Project and work through its sponsors to ensure all dependencies and links are appropriately managed. Four primary elements are included in the governance of the Project:

- A TPOS 2020 Steering Committee responsible for oversight, coordination, and guidance to the Task Teams, Sub-projects and Working Groups.
- A Resources Forum drawn from sponsors and responsible for coordinating resources.
- An Executive populated from the leadership of the above and responsible for reporting.
- A Distributed Project Office focused on coordination activities, supported and resourced by the sponsors.

It is through its partnerships and governance structure that TPOS 2020 will design a modern, sustained tropical Pacific observing system that meets both science and societal needs.

The project prospectus can be located online at: www.tpos2020.org/prospectus

KEY ACCOMPLISHMENTS AND NEAR-TERM PROJECT MILESTONES

Steering Committee

February Activities:

- Arranged for second Steering Committee meeting in Hobart, Australia, October 14-17, 2015
- Billy Kessler presented TPOS 2020 Update to CLIVAR Interagency Group
- Billy Kessler presented TPOS 2020 Update to NOAA's National Weather Service
- Coordinated Task Team (TT) Terms of Reference finalization and publication on the website
- Coordinated initial Planetary Boundary Layer (PBL) and Biogeochemistry (BGC) TT videoconferences
- Continued negotiations with potential DPO node sponsors in China and Australia
- Provided feedback to Ken Ando on the western Pacific audit of activities
- Provided feedback to Ken Takahashi on scope of Eastern Pacific TT
- Interaction with OceanSites on Time Series/Climate Record activity
- Interaction with WCRP Modelling Council Co-Chair

Upcoming Activities:

- Finalise the Modelling and Data Assimilation TT to address questions and concerns and formalize chairmanship and scope
- Work with Sub-groups and Working groups to establish leadership and scope (eg Eastern Pacific TT; proposed upwelling project)
- Support DPO node formation, through the articulation of SC member and DPO needs, as well as meeting sponsor requirements
- Support formation of TT, Sub-groups, and Working Group membership formation and approval
- Work with TRF leadership, SC and TRF members to articulate a strategy and initial plans for engagement
- Provide a TPOS 2020 update to OOPC, OCG
- Report to the GOOS SC (May)

Last Reported Activities:

- Jan. 2014: Letters of invitation and negotiation with DPO node sponsors initiated
- Dec. 2014: TT Co-chairs identified and contacted
- Dec. 2014: Formal letters of invitation provided to TT Co-chairs
- Dec. 2014: Neville Smith presented and (with Katy Hill) participated in the GODAE OceanView (GOV)/CLIVAR Global Synthesis and Observational Panel GSOP OSEVal Workshop
- Nov. 2014: Supported the development of the Ken Takahashi presentation given at the 3rd Annual ENSO Conference
- Nov. 2014: Katy Hill supported a TPOS 2020 Update to AtlanTOS
- Oct. 2014: Katy Hill presented a TPOS 2020 Update to GCOS

Published/Posted Materials:

- Feb. 2015: US CLIVAR Variations: "ENSO observing system: Past, present, and future"
- Dec. 2014: TPOS 2020 Project Prospectus
- Dec. 2014 TPOS 2020 SC-1 Report
- Mar. 2014: Terms of Reference for TTs

Project Function:

The SC will provide scientific and technical oversight for the planning, system design, and implementation of the TPOS. This group will assess the evolving set of requirements through dialogue with relevant users and stakeholders, and coordinate a set of (pilot) projects designed to test and evaluate options. The SC will assess potential technology options for delivering a more effective

and efficient TPOS including relevant scientific/expert panels and bodies. Together with the Resources Forum, the SC will manage communication and reporting.

Point of Contact:

Sr. Project Manager, Andrea McCurdy-> amccurdy@oceanleadership.org

Resources Forum

February Activities:

- TRF-1 Report Consultative Draft prepared for member distribution and review

Upcoming Activities:

- TRF-1 Report distributed for Member and Participant comment
- Formal Membership confirmed
- 2015 Milestones reviewed by members

Last Reported Activities:

- Oct. 2014: Inaugural TRF-1 teleconference conducted
- Dec. 2014: TRF-1 Report drafted

Published/Posted Materials:

- Mar. 2014: Terms of Reference (available on the TPOS 2020 website)

Project Function:

The TPOS 2020 TRF will facilitate and coordinate the provision of resources by member institutions required to advance TPOS 2020 activities based on recommendations from, and in consultation with, the TPOS SC. It will promote and encourage contributions from institutions, Official Development Assistance agencies, participating and non-participating countries, and expand membership of the TRF as necessary; including the exploration of bilateral and multi-lateral partnerships. The TRF will coordinate resources that may be applied to the TPOS, including necessary observing research, technology development/testing, modelling, scientific analysis, infrastructure (e.g., ship resources and/or deployment of observing assets), along with Project Management and travel support.

Point of Contact:

Sr. Project Manager, Andrea McCurdy-> amccurdy@oceanleadership.org

Executive

February Activities:

- No reported outcomes this month

Upcoming Activities:

- Formal responsibilities and ToR to be drafted in March and April

Published/Posted Materials:

- There are no published materials at this time.

Project Function:

Under development by the SC Co-chairs and TRF Chair.

Point of Contact:

Sr. Project Manager, Andrea McCurdy-> amccurdy@oceanleadership.org

Backbone Task Team

February Activities:

- Co-Chairs: Susan Wijffels, CSIRO / Sophie Cravatte (SC Member), Centre IRD de Noumea
- Terms of Reference agreed (posted on TPOS 2020 website, see: Groups and Outcomes)

Upcoming Activities:

- Membership agreed and formed
- High-level schedule agreed to

Last Reported Activities:

- Dec. 2014: Finalized and posted initial Terms of Reference
- Dec. 2014: Conducted Initial videoconference among SC Co-chairs and TT Co-chairs

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website)

Project Function:

Through an integrated approach the Backbone TPOS will achieve its objectives through a combination of in situ and remote sensing approaches, augmented as appropriate with advice from models and data assimilation. Sampling for the Backbone has as its goal to:

- (a) Observe and quantify the state of the ocean, on time scales from weekly to interannual/decadal;
- (b) Provide data in support of, and to validate and improve, forecasting systems;
- (c) Support calibration and validation of satellite measurements;
- (d) Advance understanding of the climate system in the tropical Pacific, including through the provision of observing system infrastructure for process studies; and
- (e) Maintenance and, as appropriate, extension of the tropical Pacific climate record.

Point of Contact:

Associate Project Manager, TBD-> info@tpos2020.org

Planetary Boundary Layers Task Team

February Activities:

- Conducted initial videoconference among SC Co-chairs and TT Co-chairs

Upcoming Activities:

- Co-Chairs: Meghan Cronin, NOAA PMEL / Tom Farrar (SC Member), WHOI
- Membership formed
- High-level schedule agreed to

Last Reported Activities:

- Dec. 2014: Terms of Reference finalized and published on the website (TPOS 2020 website, see: Groups and Outcomes)
- Dec. 2014: Co-chairs identified and agreed

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website)

Project Function:

The observational needs regarding improved monitoring and modelling of ocean surface and near-surface processes are likely to have two components: sustained detailed observations and process studies. It is the role of this Task Team to identify which requirements are best met via a sustained observing effort (> 5 years-11), and which can be addressed with specific short-term process campaigns.

Point of Contact:

Deputy Project Manager, Lucia Upchurch-> lucia.upchurch@noaa.gov

Modelling and Data Assimilation Task Team

February Activities:

- No reported outcomes this month

Upcoming Activities:

- Co-chairs formally announced
- High-level schedule agreed to

Last Reported Activities:

- Dec. 2014: Terms of Reference drafted and approved (TPOS 2020 website, see: Groups and Outcomes)
- Dec. 2014: Co-chairs identified and invited
- Dec. 2014: Neville Smith presented TPOS 2020 Update to OSEval Workshop

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website)

Introduction:

A significant fraction of the observational effort will need to be directed towards improved understanding of processes and mechanisms, which in turn should be coordinated with a program of improved model parameterisations and reduced systematic error; an additional benefit is that such data/model studies also contribute to improved design and reduced inefficiencies of the observing system.

Point of Contact:

Associate Project Manager, Hannah Dean-> hdean@oceanleadership.org

Biogeochemistry Task Team

February Activities:

- Co-Chairs: Adrienne Stutton, NOAA PMEL / Pete Strutton (SC Member), Univ. of Tasmania
- Finalized Terms of Reference (TPOS 2020 website, see: Groups and Outcomes)
- Conducted initial videoconference among SC co-Chairs and TT co-Chairs

Upcoming Activities:

- Membership formed
- High-level schedule agreed to

Last Reported Activities:

- Dec. 2014: Terms of Reference agreed to
- Dec. 2014: co-Chairs identified and invited

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website)

Project Function:

The role of the Biogeochemistry Task Team (BGCTT) is to evaluate and recommend the most promising focii, and to provide advice on possible solutions. The Biogeochemistry Task Team will begin with carbon biogeochemistry as its core scientific concern. Here will be the consideration of the term biogeochemistry to include primary productivity (noting that the Backbone Observing System likely includes ocean color satellites) but not higher trophic levels (zooplankton to fish).

Point of Contact:

Associate Project Manager, TBD-> info@tpos2020.org

Eastern Boundary Task Team

February Activities:

- No reported outcomes this month

Upcoming Activities:

- Lead formally announced
- Continue negotiations leading to a draft ToR
- High-level schedule agreed to

Last Reported Activities:

- Dec. 2014: Lead Determined

Published/Posted Materials:

- No publications to date

Project Function:

Task Team to focus on the eastern Tropical Pacific boundary region; giving priority to engaging regional experts and institutions. In addition to defining needed observations, goals of the TT could include: (a) Capacity building for improved sustained observing capability; and (b) Facilitation of the development of a regional research project, which may contribute guidance toward a sustained observing system.

Point of Contact:

TBD-> info@tpos2020.org

Sub-projects and Working Groups

Western Boundary

February Activities:

- No reported outcomes this month

Upcoming Activities:

- Lead announced
- Draft of regional activities
- Next steps determined

Last Reported Activities:

- Dec. 2014: Lead identified

Published/Posted Materials:

- No publications to date

Project Function:

This group will take advice on a project to be conducted in the Western Pacific. Once underway they will advise on mechanism for the project's development and oversight.

Point of Contact:

TBD-> info@tpos2020.org

Time Series/Climate Record

February Activities:

- Revision of the ToR/tasking statement
- Discussion with BB TT about how an audit of exiting sites should be accomplished

Upcoming Activities:

- Lead formally announced
- Scope finalised

Last Reported Activities:

- Dec 2014: Draft of ToR circulated among SC
- Dec 2014: OceanSites provided feedback on ToR

Published/Posted Materials:

- No publications to date

Project Function:

This small group consisting SC member and non-member experts will determine criteria for evaluating fixed-point time series, to elaborate on the purpose and utility of time series within TPOS and to identify the highest ranking sites and perhaps any further locations that should be investigated.

Point of Contact:

TBD-> info@tpos2020.org

Distributed Project Office

February Activities:

- Presented briefing to NOAA sponsors on DPO Project Management Plans and Execution
- Researched and executed several additions to the project website

Upcoming Activities:

- Support coordination of DPO node establishment

- Draft Engagement Action Plan
- Support release of TRF-1 Report

Last Reported Activities:

- Jan. 2015: Andrea McCurdy presented TPOS 2020 Update to Interagency Ocean Observing Committee
- Jan. 2014: Released the Project Management Plan
- Jan. 2014: Draft of Project Execution Plan
- Dec. 2014: Supported release of the SC-1 Report
- Dec. 2014: Supported release of the Prospectus
- Oct. 2014: Supported the SC-1 Conference
- Sep. 2014: Developed and released initial TPOS 2020 Website

Published/Posted Materials:

- Released: Project Management Plan V1
- Consultative Draft: Project Execution Plan V1

Project Function:

The DPO will develop communications, and coordination tools that will facilitate integrated decision making, and provide access to relevant deployment and observing asset decision making tools. The DPO will support the suite of tools and activities required to track the commitments to all aspects of TPOS 2020 and to facilitate integrated decision making across networks, groups, agencies, and nations; during the project and throughout the lifecycle of the observing system beyond TPOS 2020.

CROSS-PROJECT DEPENDENCIES AND STATUS

This section of the MSR is currently under construction. During the next three to six months as TT, Sub-project, and Working group plans and schedules are drafted this section will list arenas and events where project dependencies and opportunities for coordination will be focused. Examples may include:

- Ship Availability and Status
- TPOS 2020 Related Funding and Grants
- Technology Development and Deployment Updates
- Integration and Testing
- Risk Mitigation and Change Control
 - Risk Table and Status

PROJECT SCHEDULE

This section of the MSR will provide select glimpses of the Integrated Master Schedule once it is produced. This tool will be brought together in the next several months as Project Management resources are put in place and the TTs, sub-projects, and working groups formulate their plans and deliverables.

Very briefly, during the next three months the project will be focused on the confirmation of TT, sub-project, and working group membership and plans. Along with development of concerted plans to work with the TRF members to understand and provide support for their activities and needs. As we reach the end of this three month period the plans and agenda for the SC-2 will begin in earnest.

SPONSOR CONTRIBUTIONS

In addition to the in-kind self-support agreed to during the January TPOS Workshop, the following explicit sponsorships have been recorded thus far:

- Dec. 2014: NOAA Climate Office, DPO Support (0.5 FTE DPO Project Manager)
- October 2014: KIOST, SC-1 Hosting
- October 2014: GOOS support for SC-1; GCOS for WMO and IOC briefings
- Aug. 2014: NOAA PMEL – Project Management Support (0.2FTE DPO Deputy Project Manager)
- Aug. 2014: NASA - Interim Project Management Support (0.30 FTE in 2014)
- Jul. 2013: OOPC Project Management and Coordination (Secretariat)