



January 2017 Monthly Status Report

Monthly Status Report (MSR) Release Date: March 2, 2017

The Project had another quiet month among the Task Teams and its members allowing for scheduling and time commitments to rebound from the efforts put into the release of the TPOS 2020 First Report. However, this month did mark progress in the establishment of a relationship between TPOS 2020 and the WMO Integrated Global Observing System (WIGOS) Coordination Group, and the JCOMM Management Committee (JCOMM MAN). Beyond this engagement, plans for the TRF-2 meeting also took on significant momentum as TPOS 2020 stakeholders and sponsors continued their plans for- and participation in the sessions to be conducted in Honolulu during May 2017.

WIGOS Coordination Group: Neville Smith and Katy Hill joined the WIGOS Inter-sessional Coordination Group meeting in Geneva. The primary focus during the discussion was to facilitate improved engagement with national meteorological services across the tropical Pacific regions. During the session participants were asked to assess the degree to which TPOS 2020 can be highlighted as a useful pilot for WIGOS during its current phase of evolution. Cross-Regional Association projects were discussed along with the importance of raising the visibility of the Executive Council given its role in sponsoring these types of efforts.

JCOMM MAN: Neville and Katy also attended the JCOMM MAN sessions in Geneva. The proposition of having the newly formed TPOS 2020 Transition and Implementation Group sponsored by JCOMM was agreed to. JCOMM MAN members will support the creation of a crosscutting TPOS 2020 Transition and Implementation (T&I) Task Team. The group was also asked to review and consider proposed T&I TT Terms of Reference, and associated reference and governance arrangements.

The draft T&I TT ToR will now require JCOMM MAN Co-chair sign-off. The proposed TPOS 2020/JCOMM T&I Task Team will act as an open-ended group, which exists and operates as a sub-project of the TPOS 2020 Project, supported by the Distributed Project Office of TPOS 2020 with JCOMM MAN as the primary external sponsor. The Task Team will provide advice and recommendations on implementation, and transition arrangements for governance to its sponsors and partners. Initially the TPOS 2020 SC will be a key partner but, over time, as action and responsibility becomes focused in intergovernmental and other standing processes, this role will diminish and sponsors like JCOMM (and its Observations Coordination Group) will take greater responsibility.

Additional consideration was given on how TPOS 2020 and its Task Teams might address data management needs, to take a role in ENSO forecasting, and enhanced satellite agency engagement.

TPOS 2020 Resource Forum Second Meeting (TRF-2): Plans for the TRF-2 meeting which is scheduled to occur on 16-17 May 2017 at the Hawaii Imin International Conference Center, East-West Center, Honolulu, Hawaii USA continued in earnest this month. Under the leadership of by Chairman, Craig Mclean, Assistant Administrator of the Office of Oceanic and Atmospheric Research, within NOAA, a team of experts are highly engaged in the formation of a meeting agenda and supporting materials designed to ensure a robust exchange of TPOS related goals and activities, and guidance for TPOS 2020 fostering its continued evolution.

TPOS 2020 Project leadership is also highly engaged in laying the groundwork for Project-wide activities that will highlight the role of the TPOS 2020 First Report and lead discussions focused on the implementation of the Recommendations and Actions articulated and supported within the content of the Report.

KEY ACCOMPLISHMENTS AND NEAR-TERM PROJECT MILESTONES

Steering Committee

- Co-Chairs: Dr. Neville Smith, Retired / Dr. William “Billy” Kessler, NOAA PMEL

Current Month Activities:

- Represented TPOS 2020 during the WIGOS Coordination Group inter-sessional meeting (see page 1)
- Represented TPOS 2020 Transition and Implementation Group plans and ToRs during a JCOMM MAN session (see page 1)
- Prepared plans for activities leading to the generation of the Roadmap supporting the First Report Recommendations and Actions and further development of TT proposed process studies and projects.

Upcoming Activities:

- Continue to work with TRF and SC members to take optimal advantage of the upcoming TRF-2
- Conduct engagement and planning activities leading to enhanced dialog during the TRF-2
- Work with the SC to draft a Roadmap document in support of the First Report and its 22 Recommendations and 17 Actions.

Last Month's Activities:

- Provided ongoing content development and editing of the First Report.
- Conducted the second session of the T&IG.
- Provided guidance in support of TRF-2 with regard to planning and engagement.

Published/Posted Materials:

- December 2016: TPOS 2020 First Report
- December 2016: TPOS 2020 SC-3 Report
- November 2015: TPOS 2020 SC-2 Report
- October 2015: CLIVAR Exchanges Article: *TPOS 2020 Project: The Role of Research and Innovation*
http://www.clivar.org/sites/default/files/documents/Exchanges_OceanObs_No67_0.pdf
- June 2015: The Mercator-Ocean Scientific Newsletter: “TPOS2020: TROPICAL PACIFIC OBSERVING SYSTEM FOR 2020” By S. Cravatte, A. Ganachaud, B. Dewitte, F. Hernandez, Newsletter #52 (<http://goo.gl/rKbvH6>)
- Mar. 2015: Published article in WMO Bulletin: “Progress in Observing and Predicting ENSO”, (Vol 64 (1) – 2015)
- 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-> mccurdy@ucar.edu

Resources Forum

- Chair: Craig McLean, NOAA Oceanic and Atmospheric Research

Current Month Activities:

- Created internal planning documents in support of the upcoming TRF-2 and extended invitations to TRF members and lead program managers.
- Responded to TRF member questions related to the TRF-2.
- Make TRF members aware of the translated versions of the Executive Summary.

Upcoming Activities:

- Confirm attendance at the TRF-2 (a requested RSVP date of 31 January 2017).
- Confirm logistical needs of the meeting and distribute results to members planning to attend.

Last Month's Activities:

- Created internal planning documents in support of the upcoming TRF-2 and extended invitations to TRF members and lead program managers.
- Responded to TRF member questions related to the TRF-2.

Published/Posted Materials:

- July 2015: TRF-1 Report (available on the TPOS 2020 website)
- 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, modeling, 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-> mccurdy@ucar.edu

Backbone Task Team

- Co-Chairs: Susan Wijffels, CSIRO / Sophie Cravatte (SC Member), Centre IRD

This Month's Activities:

- Began deliberations on an optimal structure and path forward as the Project moves into the transition and implementation phase.

Upcoming Activities:

- Work with TT membership to generate a timeline and milestones for the upcoming 12 to 18 months.

Last Month's Activities:

- Provided content and leadership toward the completion of the First Report.

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website, see: Groups and Outcomes)

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, Ana Lara-Lopez-> Ana.Lara@utas.edu.au

Planetary Boundary Layer Task Team

- Co-Chairs: Meghan Cronin, NOAA PMEL / Tom Farrar (SC Member), WHOI

This Month's Activities:

- Continued active engagement with key stakeholders in support of the First Report content

Upcoming Activities:

- Work with TT membership to generate a timeline and milestones for the upcoming 12 to 18 months.

Last Month's Activities:

- Provided content toward the completion of the First Report.

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website, see: Groups and Outcomes)

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

- Co-Chairs: Arun Kumar, NOAA / Eric Guilyardi, IRD

This Month's Activities:

- Supported activities promoting the needs articulated in the First Report

Upcoming Activities:

- Work with TT membership to generate a timeline and milestones for the upcoming 12 to 18 months.

Last Month's Activities:

- Co-chair Eric Guilyardi was one of 7 invited speakers at the AGU, ENSO Union session.
- Provided content toward the completion of the First Report.

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website, see: Groups and Outcomes)

Published/Posted Materials:

- Dec. 2014: Terms of Reference and Members (available on the TPOS 2020 website, see: Task Teams)

Purpose in Project:

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 parameterizations 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, Lucia Upchurch, interim-> lucia.upchurch@noaa.gov

Biogeochemistry Task Team

- Co-Chairs: Adrienne Sutton, NOAA PMEL / Pete Strutton (SC Member), Univ. of Tasmania

This Month's Activities:

- Continue to support the activities required to promote the BGC TPOS 2020 needs

Upcoming Activities:

- Present TPOS 2020 BGC requirements to the IOCCP Steering Committee during their annual session

Last Month's Activities:

- Co-chairs were co-conveners of a special session at the AGU Fall Meeting titled 'Biogeochemistry and Ecosystems of Tropical Pacific and Upwelling Systems'.
- Provided content toward the completion of the First Report.

Published/Posted Materials:

- Dec. 2014: Terms of Reference (available on the TPOS 2020 website, see: Groups and Outcomes)

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, Ana Lara-Lopez-> Ana.Lara@utas.edu.au

Eastern Boundary Task Team

- Co-Chairs: Yolande Serra, University of Washington / Ken Takahashi (SC Member), Instituto Geofísico del Perú

This Month's Activities:

- Supported activities which promote TPOS 2020 needs as articulated in the First Report

Upcoming Activities:

- Work with TT membership to generate a timeline and milestones for the upcoming 12 to 18 months.

Last Month's Activities:

- Provided content toward the completion of the First Report.

Published/Posted Materials:

- Jul. 2015: Terms of Reference (available on the TPOS 2020 website, see: Groups and Outcomes).

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:

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

Western Pacific Task Team

- Co-Chairs: Janet Sprintall, Scripps / Kentaro Ando, (SC Member) JAMSTEC

This Month's Activities:

- Provided content toward the completion of the First Report.

Upcoming Activities:

- Work with TT membership to generate a timeline and milestones for the upcoming 12 to 18 months.

Last Month's Activities:

- Provided content toward the completion of the First Report.

Published/Posted Materials:

- Feb. 2016: Terms of Reference (available on the TPOS 2020 website, see: Task Teams).

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: Guang Yang-> gyang@fio.org.cn

Distributed Project Office

This Month's Activities:

- Supported TRF Secretariat requirements for the invitation and confirmation of TRF-2 attendees and associated member needs.

Upcoming Activities:

- Support the generation of key messages of TPOS 2020 post-SC-3 and a slide deck reflecting the content of the First Report and associated Recommendations and Actions
- Support TT Co-chair activities related to the drafting of TT 12-18 month milestones and plans.
- Ongoing planning and member-related activities in support of the TRF-2.
- Coordinate and launch engagement activities related to the TRF-2 and SC-3 Tracked Actions.

Last Month's Activities:

- Supported the final edits, formatting, release, and posting of the First Report.
- Coordinated the finalization, formatting, and translation of the First Report Executive Summary.
- Worked with SC Co-chairs and leadership to complete and post the SC-3 Report.
- Supported TRF Secretariat requirements for the invitation and confirmation of TRF-2 attendees and associated member needs.

Published/Posted Materials:

- Released: Engagement Plan V2
- Released: Project Management Plan V1
- Released: 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.

Point of Contact:

Senior Project Manager -> Andrea McCurdy, mccurdy@ucar.edu

CROSS-PROJECT DEPENDENCIES AND OPPORTUNITIES

The Roadmap responding to the Recommendations and Actions articulated in the TPOS 2020 First Report will be drafted and reviewed in March 2017 in preparation for the TRF-2 meeting in May.

PROJECT SCHEDULE

- The TPOS 2020 First Report was released in December 2016. It is posted online at: tpos2020.org
- The Task Teams are now creating 12-18 month timelines and deliverables.
- The TRF-2 meeting scheduled to be conducted in Honolulu, Hawaii on 16-17 May 2017.
- The SC-4 meeting planned to be conducted in Seattle, Washington in October 2017.

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:

- **January 2017: Several SC members and their supporting agencies contributed to the translation of the TPOS 2020 First Report Executive summary, among them were SOA, KIOST, JAMSTEC, IGP, IRD, and the GOOS Program Office office within the IOC.**
- October 2016: Dirección de Hidrografía y Navegación and Instituto Geofísico del Perú hosting of SC-3 in Lima, Peru
- June 2016: NOAA announced \$4.5M in funding for new observing technologies for ENSO research and predictions: <http://cpo.noaa.gov/AboutCPO/AllNews/TabId/315/ArtMID/668/ArticleID/537981/NOAA-announces-45M-in-funding-for-new-observing-technologies-for-ENSO-research-and-predictions.aspx>
- February 2016: The project welcomed Dr. Guang Yang as Associated Project Manager sponsored by the First Institute of Oceanography and hosted by the International CLIVAR office in Qingdao, China.
- October 2015: SC-2, CSIRO as host, IMOS and IMAS providing event support in Hobart, Tasmania, Australia
- October 2015: SC-2 and Backbone TT participant travel assistance provided by NOAA, NASA, and IOC
- August 2015: PACE-NET PLUS is supporting expert speaker and participant travel, and local costs at the Backbone Task Team face to face meeting at IRD in Noumea, New Caledonia.
- August 2015: NOAA COD and NASA providing travel support for Backbone Task Team member travel and DPO support of the face to face meeting in New Caledonia.
- April 2015: Launched DPO Node negotiations with the First Institute of Oceanography (FIO) of China, for possible initiation in late 2015
- Mar. 2015: Integrated Marine Observing System (IMOS), DPO Node (Associate Project Manager and SC-2 Support)
- 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)