



TPOS 2020

Monthly Status Report

August 2015

Monthly Status Report (MSR)

Release Date:

September 11, 2015

Summary:

Plans for the SC-2 meeting on 14-17 October are being finalized. The meeting will feature discussions focused on the work of the Task Teams, through a review and evaluation of their strawman plans. As needed, the SC will respond to their recommendations and determine a charge to each team for next steps. Similarly, the SC will review proposals for additional tasks or actions and agree to future activities and Teams.

There will also be a focus on the process of engaging scientists in the planning and execution of TPOS 2020. The SC will review and evaluate TPOS stakeholder opportunities and seek to strengthen and broaden their participation. Agreed to activities will be designed to enhance involvement and support of the TPOS through mechanisms which encourage and embrace contributions from multiple agencies and countries.

Session discussions will also review the progress of activities initiated at SC 1, with a view toward assessment of the Project as a whole. The SC will review the operation of the Project including engagement activities and agree on any needed changes. It will also undertake a self-assessment of overall progress within the Project and, as appropriate, agree to targets/measures of success for the Project in 2020.

Highlights:

Steering Committee:

- Conduct SC-2 related details including invitations to Task Team co-Chairs, expert speakers and observers
- Supported the development of the Eastern Pacific, Modelling and Data Assimilation TTs, and the Western Pacific Working Group

Backbone Task Team:

- Plans for the Backbone TT face to face meeting hosted at IRD in Noumea were finalized.
- Contributions supporting the meeting came from PACE-NET PLUS for expert participant travel and local costs, and from NOAA Climate Office Division and NASA for TT member and project management travel.

Planetary Boundary Layer Task Team:

- Based on a template for 2 page strawman reports, members produced six reports that will be provided as a White Paper at the SC-2 meeting

Biogeochemistry Task Team:

- The TT had four working groups document the science questions being addressed in preparation for the Backbone TT meeting in Noumea.

Eastern Pacific Task Team:

- Co-Chairs Named: Yolande Serra, University of Washington & Ken Takahashi (SC Member), Instituto Geofísico del Perú
- Conducted inaugural videoconference
- Membership posted on the TPOS 2020 website (Groups & Outcomes / Task Teams / Eastern Pacific)

Western Pacific Working Group:

- Led by Ken Ando
- Neville Smith is drafting with the group an outline paper of work to date and proposed future activities

The 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

Follow us on Twitter: [@TPOS2020](https://twitter.com/TPOS2020)

Monthly Status Report (MSR)

Release Date: September 11, 2015

Background: 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.

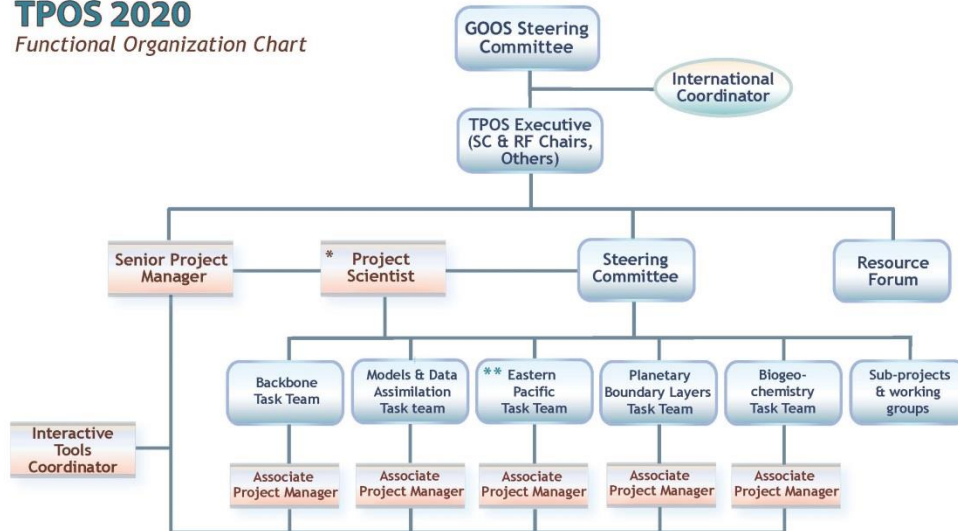
The Project will work within the Framework for Ocean Observing developed by the Global Ocean Observing System (GOOS) and use GOOS as a reporting mechanism to other relevant intergovernmental coordination mechanisms. A sustainable TPOS will be the principle outcome and legacy for GOOS. As such, TPOS 2020 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

TPOS 2020
Functional Organization Chart



* This role is currently being explored and developed
 ** This Task Team and its role are still under consideration

KEY ACCOMPLISHMENTS AND NEAR-TERM PROJECT MILESTONES

Steering Committee

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

Current Month Activities:

- Advised on SC-2 logistics details including invitations to Task Team co-Chairs, expert speakers and observers.
- Circulated for comment the SC-2 annotated Agenda listing topics and desired outcomes for each discussion.
- Prepared and distributed discussion/report templates designed to guide Task Team and Related Project conversations toward actionable plans post SC-2.
- Under the leadership of Arun Kumar, the co-Chairs continued to seek agreement among SC members on a Modelling and Data Assimilation TT path forward.
- Supported the convening of the inaugural meeting of the Eastern Pacific Task Team. Ken Takahashi and Yolande Serra will co-Chair this team. (See Eastern Pacific TT section of the report for more details.)
- Both co-Chairs conducted a planning session among a small group of SC members, designed to form agreement on the structure and purpose of a Western Pacific Group attended by Ken Ando, Weidong Yu, Dake Chen, Dongchull Jeon, Sophie Cravatte.

Upcoming Activities:

- Continue to support the planning and logistical needs of the SC-2.
- Continue to manage an agreement among SC members on a Modelling and Data Assimilation TT path forward.
- Co-lead in the drafting of a paper designed to form agreement on the structure and purpose of a Western Pacific Group.
- Formalize plans for engagement based on the Engagement Plan including a timeline and Advisory Action Panel member suggestions.

Last Month's Activities:

- Billy Kessler attended the 4th CLIVAR ENSO Workshop in Paris, France. Information and dialog at this session is being used to guide the formation of the Modelling and Data Assimilation Task Team.
- Billy Kessler provided a 15 minute presentation at US CLIVAR Summit in Tucson, Arizona. Arun Kumar and Tom Farrar were also in attendance. Comments focused on a view of sampling needs in 2030 and how to plan and design such a system in 2016.
- Neville Smith launched a campaign to reach out to TPOS 2020 Resource Forum and SC members in an effort to better understand their needs and expectations for the Project. This effort will be ongoing during 2015 and 2016 as the effort requires.
- A Draft Agenda for SC-2 was reviewed and commented upon.

Published/Posted Materials:

- 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/rKbv6>)
- 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-> amccurdy@oceanleadership.org

Resources Forum

- Chair: Craig McLean, NOAA Oceanic and Atmospheric Research

Current Month Activities:

- There are no reported activities this month.

Upcoming Activities:

- 2015 and 2016 Milestones and opportunities for meetings reviewed by members.

Last Month's Activities:

- TRF-1 Report Released and posted (See: Documents > TPOS 2020 Released Documents)
- Responses to Interim TRF Chair, Craig McLean's letters have been collated and reviewed.
- Membership in the TRF has been formalized and membership posted on the website. (See: Groups and Outcomes > Resources Forum > RF Members&Affiliation)

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, 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

This Month's Activities:

- No reported outcomes this month

Upcoming Activities:

- Formal responsibilities and ToR to be drafted in summer 2015

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

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

This Month's Activities:

- Details for the BB TT F2F meeting have been worked through.
 - PACE-NET PLUS funding has been offered to assist with the meeting's organization, travel expenses, and local costs.
 - In the planned absence of Ana Lara-Lopez, Lucia Upchurch will be supporting this meeting on behalf of the DPO.
- An agenda for the F2F meeting has been circulated to all members for discussion.
- Several members will be attending the meeting via video conference. Ongoing planning and technology testing was conducted throughout the month.
- An invitation has been extended to two external people, Shayne McGregor, ENSO dynamicist from Monash University and Tommy Moore, from Pacific Island GOOS Regional Association will be attending the sessions to help with discussions.
- Final draft of the BB TT second videoconference record is available in the Google drive.

Upcoming Activities:

- Convene the first Backbone Task Team face-to-face meeting at the IRD facilities in Noumea, New Caledonia.
 - Proceedings will include science talks from local experts
 - Several attendees will join the proceedings remotely. To help compensate and ensure informed discussion, updates on discussions/progress will be distributed daily allowing those unable to join to send feedback to consider the next day.
- An goals for the F2F meeting are as follows:
 1. Recommendations for the Steering Committee: Strawman of mature and affordable technologies with 3 levels of priority and justification
 - A – essential elements that contribute to all requirements
 - B – elements that contribute to several requirements
 - C – needed for 1 or two requirements
 2. List of pilot elements that can contribute to a future TPOS that can be tested now
 3. Suggested transition plan that reduces risk?
 4. List of gaps/questions to address with other TT or community experts

Last Month's Activities:

- Preparations for the first Backbone TT face to face meeting (BBTT-1) are underway and under review by Team and Project members.
- Notes from the second TT meeting are under review.
- Attendance gaps and needs for the face to face meeting in September have been identified.
 - It was determined that the modelling community may not be represented among the current attendee list.

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 Layers Task Team

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

This Month's Activities:

- PBL TT finalized its community survey and distributed to the wider community including the WMO Rolling Review of Requirements (RRR) Application Area (AA) Points of Contact (PoCs).
 - Currently, there are ~18 respondents including task team members.
 - The survey will collect input until Sept 12 in order to provide input to the backbone TT meeting.
- Based on a template for the 2-page strawmen were produced and delivered for consideration.
- More formal recommendations in the form of a white paper will be due prior to SC-2.
- Strawmen topics:
 - SPURS-2 Enhancements (Proposal will be submitted to the NOAA call)
 - YMC Enhancements (strawman received)
 - MJO/diurnal cycle process study (strawman received)
 - Pacific Upwelling and Mixing Physics (included in double ITCZ strawman)
 - Diurnal Cycle Rectification and Interaction with Multiscale Variability (strawman received)
 - Double ITCZ (EP TT created strawman for this)
 - Data Assimilation (strawman received)
- A work plan leading up to the BB-TT meeting and SC-2 meeting was laid out.
 - August 1, deadline for 2-page strawman whitepapers
 - August 3, Questionnaire distributed
 - September 10, Deadline for Questionnaire responses
 - September 15, Questionnaire responses synthesized into a presentation of results for input into the Backbone Task Team meeting (Sept. 16-18)
 - October 14, Questionnaire responses synthesized into a White Paper report for the TPOS2020 Steering Committee (SC-2) Meeting

Upcoming Activities:

- Schedule and conduct White Paper planning videoconference
- September 12 Deadline for input to Questionnaire for consideration at the BB TT meeting.
- Fourth WebEx session is planned for early September
- Compilation of material from Questionnaire into presentation and white paper for upcoming meetings.

Last Month's Activities:

- Third videoconference was conducted on 28 July
- By August 1, 2-page strawmen will be conceived based on topics established in the second teleconference. A template was distributed for the 2-pagers.
- The strawmen ideas should be fleshed out by August 1, with more formal recommendations (in the form of White Papers) due prior to SC-2.
- The PBL TT Co-chairs have drafted a questionnaire to gather community input on PBL needs for the sustained observing system. The draft was circulated to members and discussed during the second teleconference and will be distributed to the community in August after task team approval.
- A work plan leading up to the BB-TT meeting and SC-2 meeting was laid out and being adhered to.

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 Discussion

This Month's Activities:

- Explore data assimilation issues that should be addressed during the SC-2 session
- Ongoing exploration of how to best meet the needs of the modelling community; several ideas have been generated and solutions are being discussed along with potential follow-up activities.

Upcoming Activities:

- Draft Terms of Reference will be created and sent to SC members for review
- Leadership will be confirmed and group membership identified
- SC Members may be asked to generate short summaries of what they perceive as TPOS M&DA needs, and how the Project might go about meeting those needs

Last Month's Activities:

- Explore data assimilation issues that should be addressed during the SC-2 session
- Ongoing exploration of how to best meet the needs of the modelling community; several ideas have been generated and solutions are being discussed along with potential follow-up activities.

Published/Posted Materials:

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

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 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

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

This Month's Activities:

- BGC second videoconference was conducted on the 4th of September:
 - It was agreed to divide the group into 4 subgroups
 - Each group will prepare the documentation to explain clearly the science questions for the BGC TT.
 - This will need to be done before the Backbone Task Team meeting that I'll attend Sep 16-18.
- It is intended that a third telecom takes place after the BB F2F on the week of September 21

Upcoming Activities:

- Based on the outcomes of the September 4 videoconference all members have been notified of the outcomes of the meeting and leaders to the subgroups have been nominated
- It is expected that the co-chairs will summarize all the ideas and comments on the science rationale created by members to be presented at the 2nd TPOS SC in Hobart.

Last Month's Activities:

- A record of the BGC TT meeting has been drafted and is under review

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 foci, 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:

- EP TT had their inaugural videoconference on August 14th.
- Ken Takashi (SC Member) and Yolande Serra have volunteered as co-Chairs.
- Member list posted to the website (See Groups & Outcomes / Task Teams / Eastern Pacific)

Upcoming Activities:

- High-level schedule agreed to
- Plans for SC-2 arranged

Last Month's Activities:

- Terms of Reference were approved and posted to website
- Membership invited and confirmed
- Email list constructed

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

Sub-projects and Working Groups

Western Pacific Working Group

This Month's Activities:

- Conducted a videoconference among group lead and key SC members
- Agreed to a team structure and purpose
- Western Pacific group activity will be led by Ken Ando
- Plans for next steps agreed to and documented in videoconference notes
- Neville Smith drafted an outline for a paper to report on the conclusions of the work undertaken by the small group and provide a proposal for future activities

Upcoming Activities:

- Provide commentary against ToR for this activity which may also identify initial actions
- Draft Paper for SC Review and Decision:
 - Summarise key reasons for proceeding with a major project
 - Summarise potential partners and likely timeline
 - Form for new activity: A Task Team-led Project
- Ask the SC to endorse the formation of a Task Team for the Western Pacific.
 - Attach potential Terms of Reference (use models used for other TTs)
 - Suggest potential members

Last Month's Activities:

- Scope, membership, and ToR conversations are ongoing

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

This Month's Activities:

- The Backbone TT has adopted this activity

Upcoming Activities:

- Confirm at the SC-2 that this activity will no longer be tracked as a stand-alone activity

Last Month's Activities:

- The Backbone TT continues to explore the adoption of this activity

Published/Posted Materials:

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

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.

Distributed Project Office

This Month's Activities:

- Consultative Draft Annotated Agenda for SC-2 created, revised, distributed
- Provide logistics support for SC-2 attendees
- Provided logistical support for Backbone TT face-to-face meeting

Upcoming Activities:

- Support SC-2 plans and conduct activities as required:
 - Prepare DPO overview paper (Project Reporting Tools, Engagement Resources)
 - Prepare RF activities review paper
 - Prepare SC-1 Actions Update
- Engagement:
 - Approval of Engagement Plan
 - Engagement Plan Milestones drafted and agreed to
 - Engagement Advisory Panel members identified and contacted
 - Prepare TRF and SC Chair and Co-Chair briefing on Engagement Plans and Milestones

Last Month's Activities:

- Project Slide Set Released and posted on the Project website
- TRF Membership and POC list documented and confirmed.
- Draft Agenda for SC-2 created and revised.
- Engagement Plan and Engagement Action Plan placed under initial comment by a small number of internal and external reviewers.
- Semi-annual review of website core content conducted, and edits made.

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 OPPORTUNITIES

[No Update]

The Climate Observation and Monitoring Division of NOAA's Climate Program Office released a Federal Funding Opportunity on 2 July 2015 for "*In Situ* Technologies to Contribute to the Tropical Pacific Observing System (TPOS 2020) Project." In this solicitation, COM invites proposals to advance the readiness of *in situ* observing platforms (e.g. floats, gliders, moorings) and assess their potential to address observational requirements and gaps in the tropical Pacific Ocean region. These advancements will contribute to the Tropical Pacific Observing System (TPOS 2020) Project (<http://tpos2020.org/>). Technology proposed should be at a Technology Readiness Level between 4 and 8 (http://www.sab.noaa.gov/Reports/RRR_Report-080604.pdf; Appendix V.A).

- LOI Deadline: 30 July 2015
- Proposal Deadline: 23 September 2015
- For more information please visit: <http://cpo.noaa.gov/GrantsandProjects/ClimateProgramOfficeFFO.aspx>

During the SC-Interim call in early April Dongchull Jeon provided an overview of KIOST activities that may be TPOS related. They are summarized below:

- 2016: 6 month ship plan. Crossing Western/Eastern Pacific
- Could bring research vessel to EP. (A CTD Survey across Equator might be basis for future plans)
- Coastal Current monitoring system near Peruvian coast; latter half of 2016, for 4 years, potential to hand to Peruvian agency
- Connection to Equatorial Upwelling in 2016: new research vessel can be committed to around 1 month, for scoping/testing ahead of a larger CP upwelling activity

In addition to the content provided above, over the next several 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.

PROJECT SCHEDULE

[No Update]

During the next month the project will remain focused on the confirmation of remaining TT, sub-project, and working group membership and plans. Along with development of plans to work with the TRF members to understand and provide support for their activities and needs.

June marked the beginning of concerted planning for the SC-2 session to be conducted at CSIRO in Hobart, Australia on 14-17 October. With the assistance and support of CSIRO, IMOS and Ocean Leadership resources logistics and resources are being identified and secured.

In lieu of a formal project schedule, the project is currently being tracked through Action Tables generated at SC and TT meetings. These Action Tables were updated and presented in the April Monthly Status Report. In time this section of the MSR will provide select glimpses of the Integrated Master Schedule once it is produced. This tool will be brought together once the TTs, sub-projects, and working groups formulate their plans and deliverables.

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:

- **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)