



# TPOS 2020 Status Report

QUARTERLY UPDATE ON TPOS 2020  
ACTIVITIES

## US CLIVAR TPOS 2020 Workshop

US CLIVAR hosted the "Bridging Sustained Observations & Data Assimilation for TPOS 2020" workshop from May 1-3, 2018 in Boulder, Colorado. It was attended by 54 participants (see photo on page 2), many of whom were new to the TPOS 2020 Project.

The workshop was divided into 3 main parts: 1) providing background and overview of the issues, 2) breakout sessions to address the issues, and 3) a poster session. The breakouts covered:

1. The design and conduct of OSSEs
2. Process studies for model improvements
3. Phenomena ripe for adaptive ocean observing technologies
4. Key observations to obtain the Essential Ocean Variables necessary to constrain models
5. Initial modeling and data assimilation studies needed to refine observational goals as defined by TPOS 2020
6. Building observations for process oriented climate model diagnostics and intercomparison

The outcomes from the workshop are being summarized by the Scientific Organizing Committee and US CLIVAR into a report, which will be leveraged to inform the Modeling chapter of the TPOS 2nd Report.

For additional information on the workshop or to view the poster gallery, please visit: [usclivar.org/meetings/tpos-2020-workshop](http://usclivar.org/meetings/tpos-2020-workshop).

### WHAT'S IN THIS ISSUE?

Writing updates and  
deadlines - 2

Field work - 3

Upcoming meetings - 3

# CLIVAR Workshop Participants



## PUBLICATIONS

### China's Vision towards the Tropical Pacific Observing System (TPOS) 2020

Several Chinese agencies have contributed toward a TPOS 2020 Vision document that will be published through CLIVAR. Once published, it will be posted on the TPOS 2020 website.

### TPOS 2020 2nd Report Updates

The plans for the 2nd Report are well underway, with a new expected publication date of March 2019. Much of the effort is focused towards the TPOS 2020 Ocean Obs '19 Whitepaper, which will provide some of the framework for the 2nd Report chapter content. A list of 2nd Report chapters is available in the SC-4 Report on the TPOS website.

### Recent Peer-reviewed Publications

This section is designed highlight Tropical Pacific research by the TPOS 2020 community. If you have papers you'd like to have included here, please send them to [info@tpos2020.org](mailto:info@tpos2020.org). Thank you!

- Hu et al. 2018. *Climate Dynamics*. "On the variety of coastal El Nino events." pp. 1-16.

- Timmermann et al. 2018. *Nature: Insight Review*. "El Nino Southern Oscillation Complexity."

- Keppler et al. 2018. *JGR: Oceans*. "Observed characteristics and vertical structure of mesoscale eddies in the Southwest Tropical Pacific."

## TASK TEAM ACTIVITIES

### Backbone Task Team

The Backbone Task Team has had monthly meetings since April with focus on getting agreement on the new TMA configuration, as well as address other backbone components with input from the Planetary Boundary Layer and Biogeochemistry TTs. In early July there was a joint Backbone-CLIVAR telecon to share ideas and discuss concerns. CLIVAR has agreed to provide input for 2nd Report consideration by late September 2018.

### Western Pacific Task Team

Some members of the WP-TT were able to meet face-to-face at the Open Science Symposium on Western Pacific Circulation in May. The WP-TT also had a meeting to provide update on various agency activities, including pilot studies from the First Report.

### Planetary-Boundary Layer Task Team

The PBL-TT is hosting a telecon on 18 July for all interested TPOS persons to discuss the locations of the meridional extensions to the TMA. Please contact [lucia.upchurch@noaa.gov](mailto:lucia.upchurch@noaa.gov) if you'd like to be included!

### Transition and Implementation Task Team

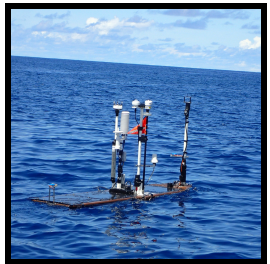
The T&I TT had their first telecon in June 2018. The call was led by Neville Smith and provided an opportunity for the stakeholders to become acquainted. Primary discussions included a background of project progress thus far and plans for the 2nd Report.



## RELATED FIELD WORK



Saildrone; Image from Saildrone Inc.



Flux Glider; Image from I. Ueki, JAMSTEC

### Recent TPOS Fieldwork highlights include:

- Billy Kessler traveled to the Solomon Islands in late May to build, calibrate and deploy two gliders as part of the ongoing Western Boundary Current monitoring in the Solomon Sea.
- The first Saildrone Mission to the Tropical Pacific was completed in May 2018. Saildrone's are a wind driven surface vessel for observing the planetary layer and surface biogeochemistry and have great potential as an adaptive sampling platform. The PI's for the project are M. Cronin, C. Meinig, A. Sutton and D. Zhang and the funding is provided by NOAA's Ocean Observing and Monitoring Division.
- After several field deployments focused on confirmation of performance in 2015 and 2016, JAMSTEC started evaluation of payload sensors on their flux glider in 2017 and 2018. Intercomparison with air-sea flux observations between moorings and surface flux gliders indicate very good agreement. In March 2018 JAMSTEC started repeat observations along 137E from 13N to 5N, a line which includes the 2 TRITON moorings.

## WEBSITE UPDATES

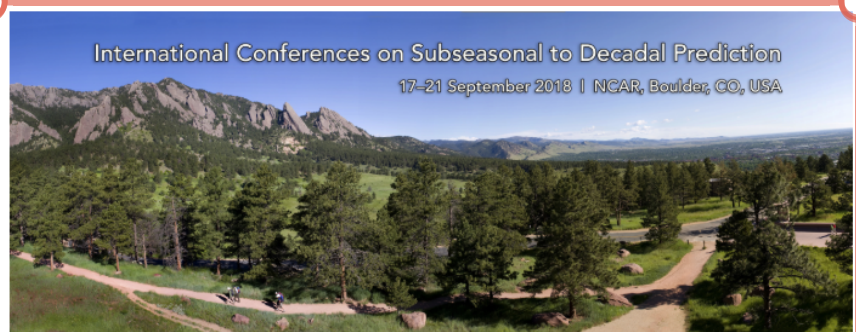
The Distributed Project Office has been working to update the website content to be more useful to the TPOS 2020 community. For example, data links have been added for easy access to important Tropical Pacific Observing System data at [tpos2020.org/resources/datalinks/](https://tpos2020.org/resources/datalinks/). Please send additional suggestions to [into@tpos2020.org](mailto:into@tpos2020.org).

## Upcoming meetings and events

SAVE THE DATE!

# BB-TT FACE-TO-FACE MEETING

26-28 September 2018  
Woods Hole, Massachusetts, USA



International Conferences on Subseasonal to Decadal Prediction  
17-21 September 2018 | NCAR, Boulder, CO, USA

FEATURING A TPOS 2020 SIDE EVENT:

## STATE OF COUPLED MODELS AND S2S PREDICTIONS

Panel led by Neville Smith to discuss conclusions for 2nd Report

EVENING OF 18 SEPTEMBER 2018;  
REACH OUT FOR MORE INFORMATION

SAVE THE DATE

# 5TH STEERING COMMITTEE MEETING FOR TPOS 2020

6-9 NOVEMBER, 2018

YOKOHAMA INSTITUTE FOR EARTH SCIENCES,  
JAMSTEC, JAPAN

