

SPURS-2 Analysis and Synthesis Meeting

12-13 March 2018

Location: Robert Scripps Room, Scripps Institution of Oceanography

Purpose: To collaboratively address science questions, including the main thematic science areas that the call asks to address include “scales (e.g., large scale/seasonal, mesoscale/weekly, small scale/diurnal) and/or processes (e.g., air-sea interaction, upper ocean stratification, mixing), etc.”

Outcome: Generate 3-5 outlines, with associated teams, that will address the main themes

Background: Science questions from the original SPURS-2 Implementation Plan (2/22/16) included:

1. What governs the structure and variability of upper-ocean salinity near the ITCZ?
2. Where does the fresh water go, and how does the ocean distribute it from the small scales of the input (atmospheric mesoscale) to the regional scale of the east Pacific fresh pool?
3. What local and non-local effect does the freshwater flux have on the ocean?
4. How does ocean salinity feedback on the atmosphere?

Are these questions still relevant? Do they need fine-tuning? Are there other questions that arose as part of the SPURS-2 field work and modelling effort?

Please review the SPURS-2 white paper for more motivation on the relevant scales of SPURS-2 measurements:

https://ocean3.jpl.nasa.gov/spurs2/pdf/SPURS-2_White_Paper_v13rev.pdf

Science questions from the SPURS-2 Processing and Synthesis Research Announcement (2/14/18) are:

1. What are the physical processes responsible for the location, magnitude, and maintenance of the low surface salinity region in the eastern tropical Pacific Ocean?
2. How will the ocean respond to changes in thermal and freshwater forcing associated with a changing climate?
3. What is the nature of the cascade of salinity variance from the largest (climate) scales down to dissipation scales of a few millimeters?
4. What new information must be supplied to ocean models in order for these questions to be adequately examined?

Monday 12 March 2018

8:30 am: Breakfast available

8:30 am – 8:45 am: Sprintall Welcome and Overview

8:45 am – 9:00 am: Lindstrom Introduction and Background to call

9:00 am – 10:00 am

Individual Presentations (12 minutes each including Q&A)

- Kyla Drushka
- Elizabeth Thompson
- Steve Rutledge (remote)
- Julian Schanze
- Andrey Shcherbina
- David Ho

10:00 – 10:30 am: Coffee

10:30 – 12:30 pm (Chair: Andrey Shcherbina)

- Jim Edson
- Jie Yang
- Janet Sprintall
- Andy Jessup
- Ben Hodges
- Verena Hormann
- Steve Riser (via Jie Yang)
- Dongxiao Zhang
- Fred Bingham
- Gene Li
- Alex Soloviev

12:30 – 1:30 lunch

1:30 - 3:00 pm Group Discussion

(Discussion leader Julian Schanze and Rapporteur Elizabeth Thompson)

Development of Science Questions

- Are the original SPURS-2 Science Implementation questions (2/22/16) still applicable? (see above).
- What key theme does each question address?
- Are there other questions that have risen after the field campaign?
- Goal of this discussion to identify 3-5 areas and their PIs needed to address and develop hypotheses to address science questions

3:00 – 3:30 pm: coffee

3:30 – 5:00 pm: Group Discussion (continued)

(Discussion leader Kyla Drushka and rapporteur Fred Bingham)

6:00 pm: Drinks and nibbles at Janet's:

8244 La Jolla Shores Drive, La Jolla

(858-551-1701)

A few blocks walk between our meeting location and Hotel La Jolla.

Tuesday 13 March 2018

8:30 – 09:00 breakfast and brief recap of Day 1 charges

09:00 – 10:30 Break-outs (self-organize leader and note takers)

- Break-outs based on Monday's discussion of each of the 3-5 areas that might be developed
- fine-tune questions and hypotheses and develop outlines
- participation in cross-over groups possible

10:30 – 11:00 coffee

11:00 – 12:30 Break outs (continued)

12:30 - 1:30 pm lunch

1:30 – 3 pm Break-out groups each report back to plenary.

- Help each other to fine-tune proposal outlines and identify gaps in science and personnel

3:00 - 3:30 pm coffee

3:30 – 5 pm Wrap-up and break-out groups to each identify writing assignments