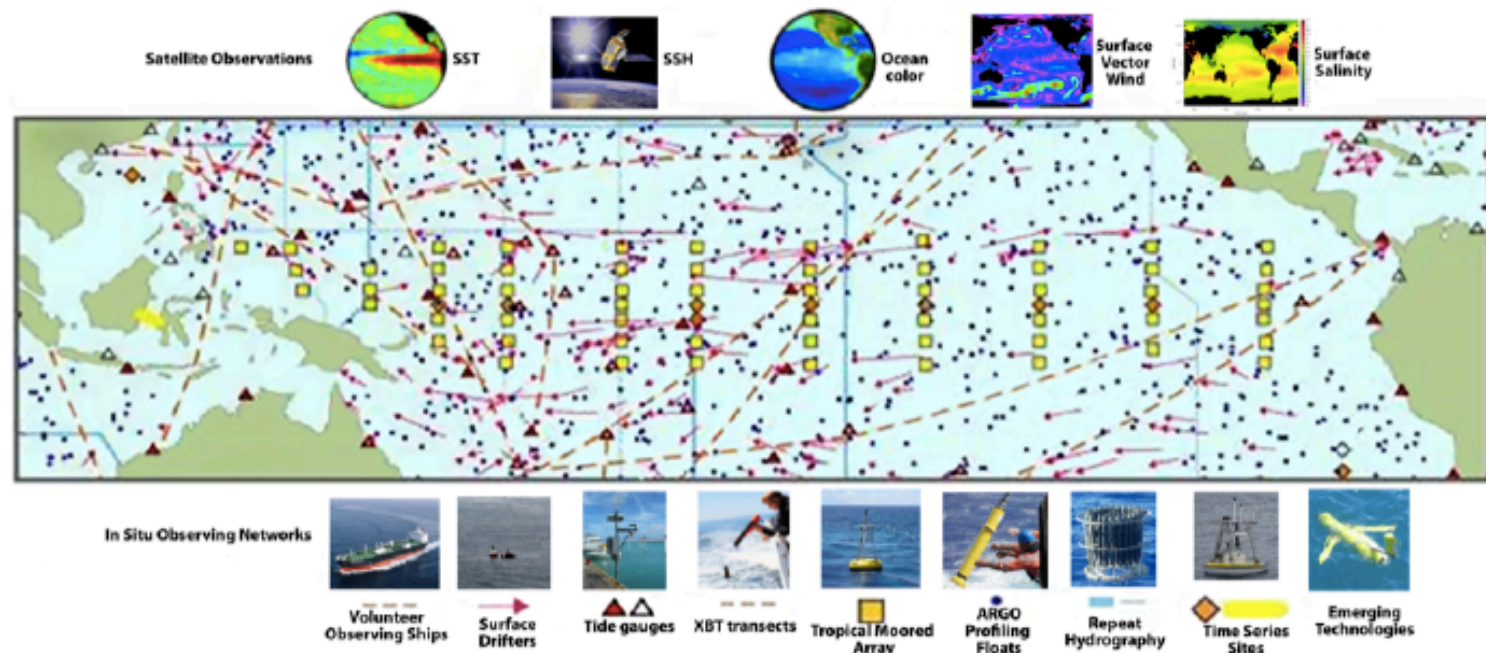


TPOS 2020 Project

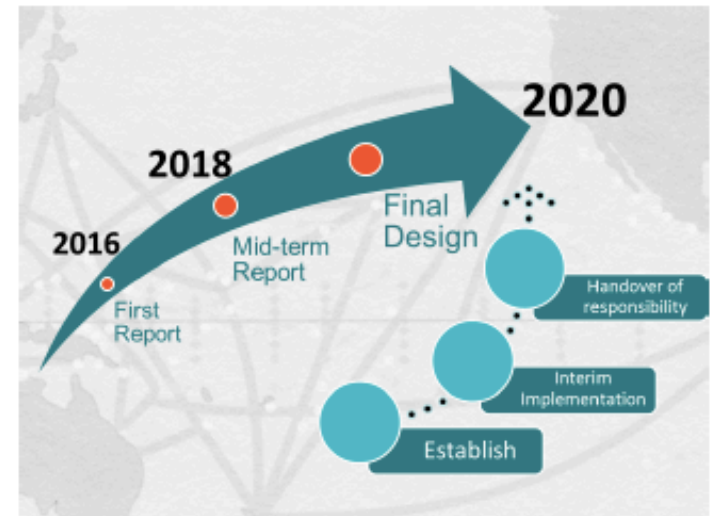
Review and re-design the Tropical Pacific Observing System

- Rethink in response to new needs, purposes, challenges: Define requirements
- Renew the interagency and intergovernmental cooperation that has been the hallmark of the TPOS since the mid-1980's
- Take advantage of new science and technology



TPOS 2020 Goals

- To redesign and refine the T.P.O.S. to **observe ENSO** and advance understanding of its causes
- To determine the most efficient and effective observational solutions to **support prediction systems** for ocean, weather and climate services
- To advance understanding of tropical Pacific **physical and biogeochemical** variability and predictability.



The First Report

- Published 30 December 2016 (ref. GCOS-200)
- 22 Recommendations
- 15 Actions
- First published design following the GOOS Framework

tpos2020.org/first-report

(much of this applies to the other tropical oceans!)



Four newly-funded OOMD pilots for TPOS 2020

- Autonomous surface vessels for PBL and surface BGC observations
 - Argo enhancements for rainfall, windspeed and biogeochemistry
 - Enhanced ocean boundary layer observations from TAO moorings
 - Direct covariance flux measurements from TAO moorings
- (About \$4.5M over 3 years)

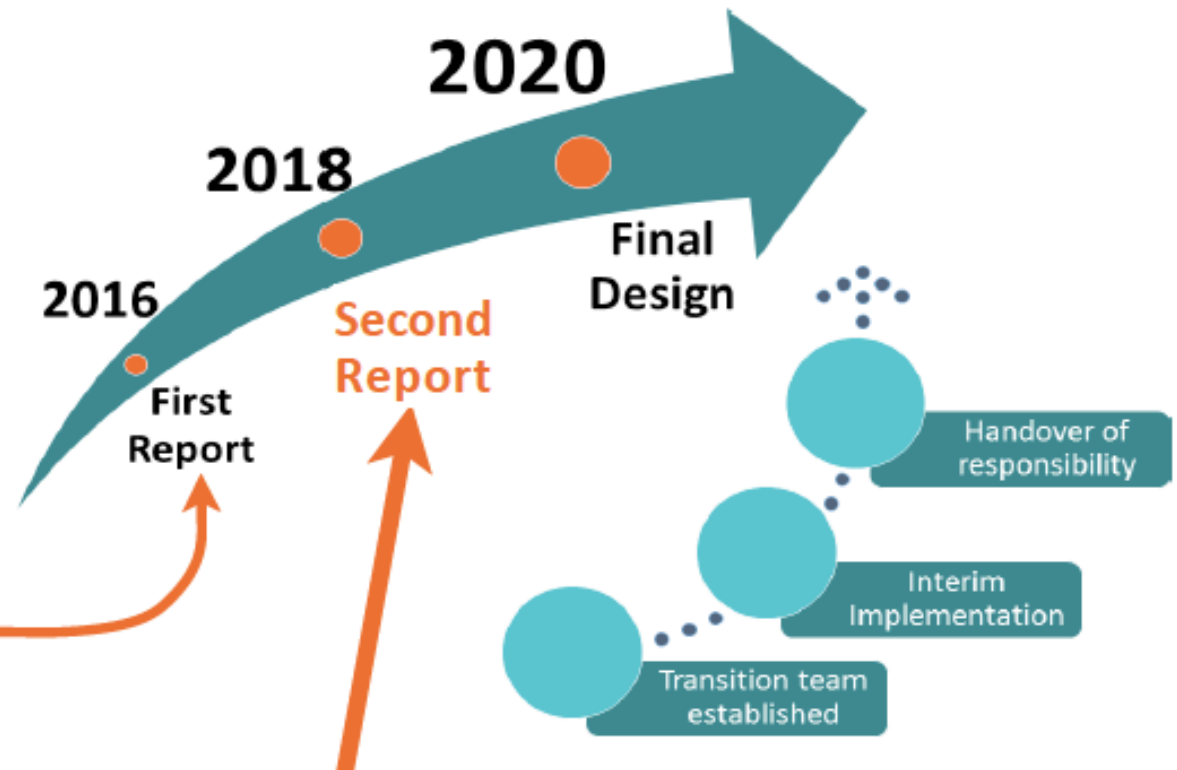
The Saildrone might change how we sample the surface met and ocean.

It has great promise, but needs real-world testing to build confidence and learn its full capabilities and limitations.

Saildrone in the Bering Sea, July 2016



Next steps



Second report focii:

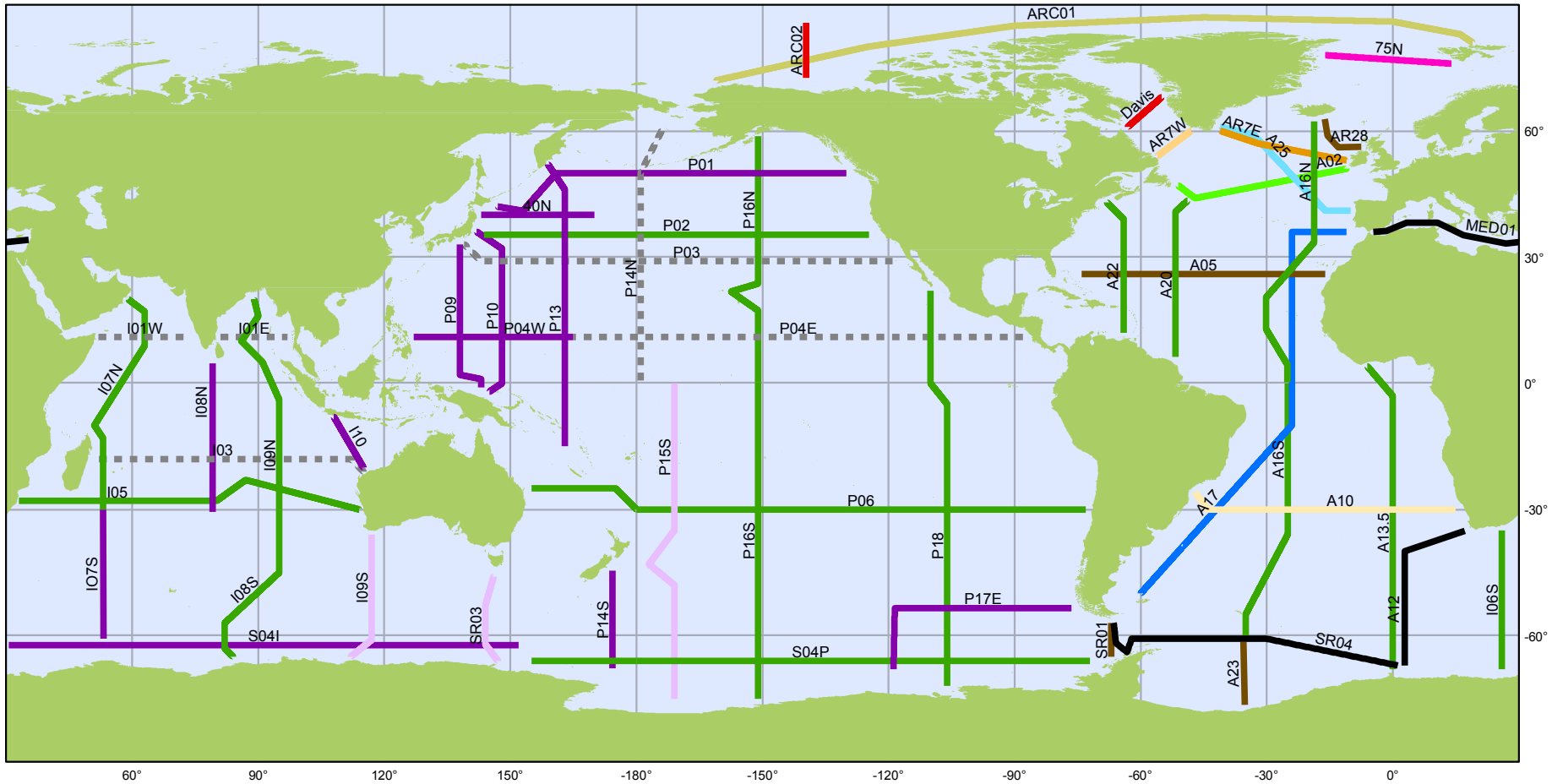
- Improving modelling and data assimilation
- Biogeochemical and ecosystem observations (Beyond pCO₂, what?)



Biogeochemistry Task Team

- Adrienne Sutton (Co-Chair), NOAA Pacific Marine Environmental Lab, USA
- Pete Strutton (Co-Chair), University of Tasmania, Institute for Marine and Antarctic Studies, Australia
- Fei Chai, University of Maine, USA
- Francisco Chavez, Monterey Bay Aquarium Research Institute, USA
- Dick Feely, NOAA Pacific Marine Environmental Lab, USA
- Masao Ishii, Japanese Meteorological Agency, Japan
- Kitack Lee, Pohang University of Science and Technology, South Korea
- Akihiko Murata, Japan Agency for Marine-Earth Science and Technology, Japan
- Haili Wang, Xiamen University, China





GO-SHIP

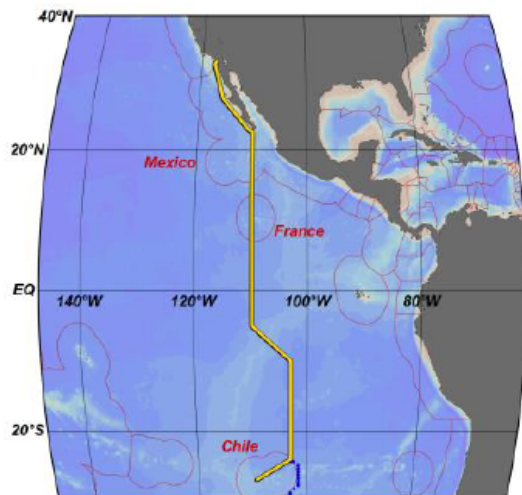
2012-2023 Survey (54 Core Lines): Lines by Nation

January 2017

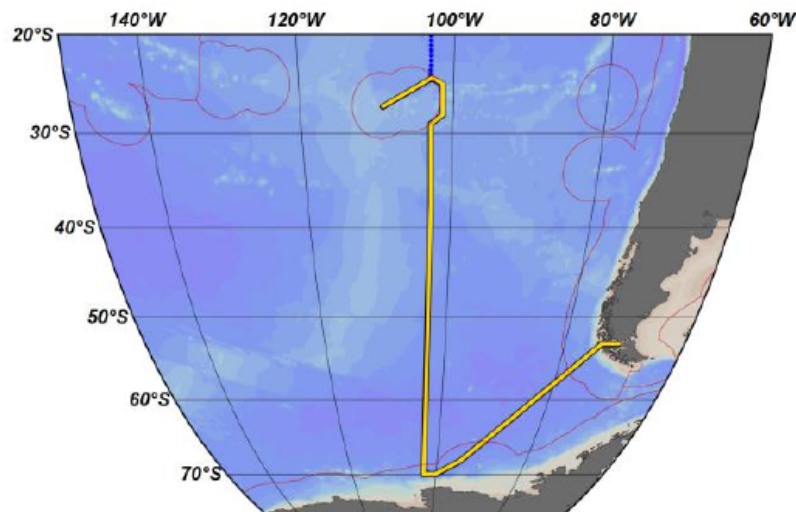


Project Summary

Section Name	P18
Expocode	33RO20161119
Chief Scientist Leg 1	Brendan Carter
Co-Chief Scientist Leg 1	Annie Bourbonnais
Chief Scientist Leg 2	Rolf Sonnerup
Co-Chief Scientist Leg 2	Sarah Purkey
Leg 1 Dates	11/19/2016 to 12/24/2016
Leg 2 Dates	12/30/2016 to 02/03/2017
Ports of call	Leg 1: San Diego, CA, USA to Hanga Roa, Chile Leg 2: Hanga Roa, Chile to Punta Arenas, Chile
Stations occupied	115 on leg 1 and 96 on leg 2 on P18 line with 2 SOCCOM float calibration stations
Equipment deployed	29 floats and 20 drifters

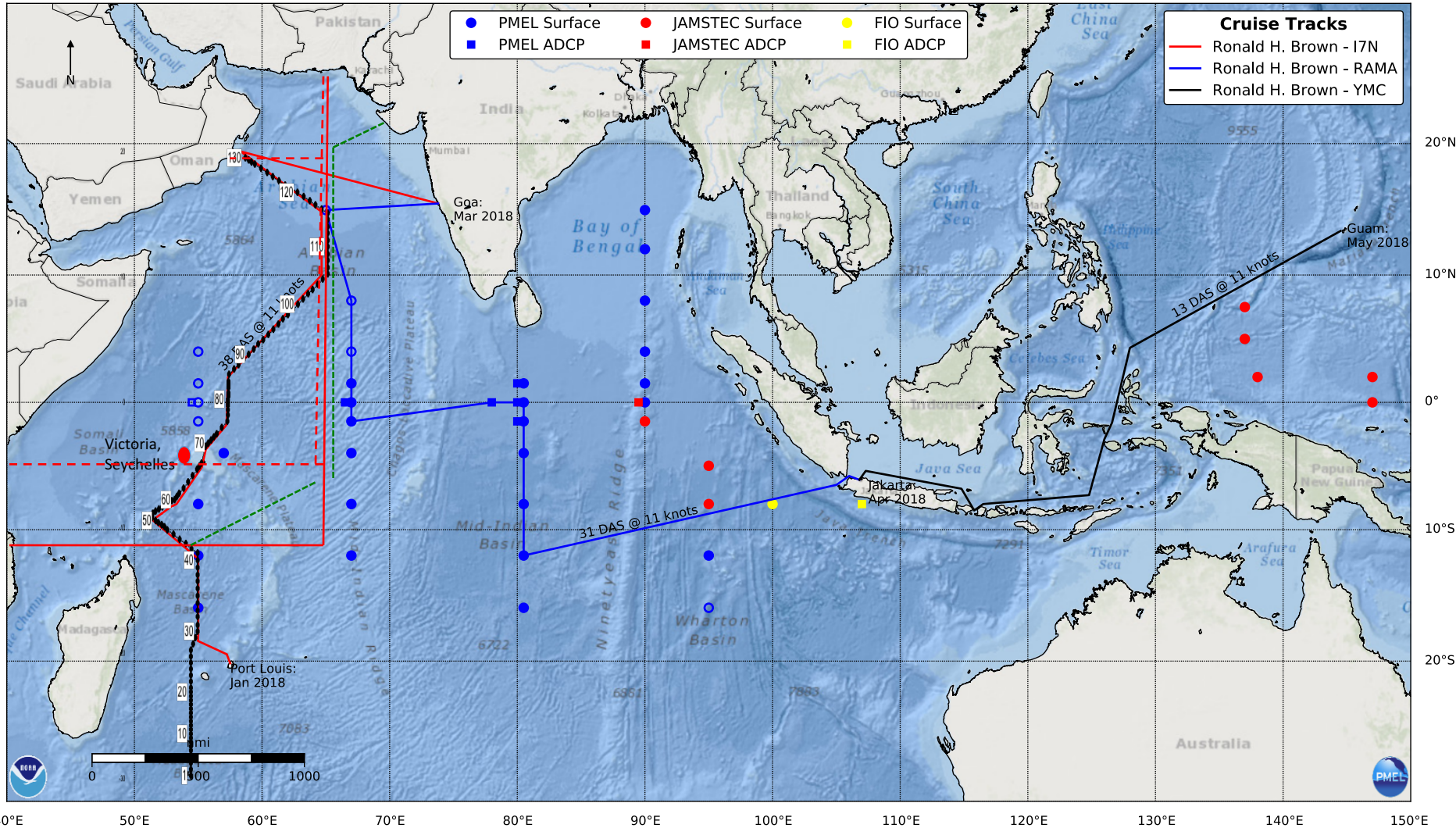


P18 Leg 1



P18 Leg 2

NOAA Ship Ronald H. Brown Indian Ocean - FY 2018



Open symbols indicate yet to be established sites.
In FY18, Indian partners will provide ship time to establish sites between 0°-4°N, 55°E, Seychelles the site at 1.5°S, 55°E, and Indonesia the site at 16°S, 95°E.

- - - - - High risk area, effective Dec 2015
 - Indian Ocean/Arabian Sea/ Gulf of Aden/Gulf of Oman Listed Area
- From latitudebrokers.com

NOAA OCEAN OBSERVING AND MONITORING DIVISION EXPERT REVIEW PANELS

- **Surface Ocean CO₂ Observing Program**
- **NOAA EXpendable BathyThermograph (XBT) Network**

REVIEW GOALS

- Determine Program progress, assess changes in goals and objectives, and addressing approaches, issues, and challenges in accomplishing those goals
- Increase awareness and scope of understanding by the Ocean Observing and Monitoring Division (OOMD) of the objectives, accomplishments, and challenges of the Programs
- Determine the value of the Programs as a contribution to broader observing, modeling, and analysis efforts within NOAA, nationally and Internationally
- Inform strategic management decisions regarding the future of the Program within OOMD, including its alignment with OOMD and NOAA priorities



United States Carbon Cycle Science Program An Interagency Partnership

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National Academies Committee to Review SOCCR-2: Comment Period

May 15, 2017

Excerpts cross-posted from <http://dels.nas.edu/Study-In-Progress>

Review of the Second State of the Carbon Cycle Special Report (SOCCR-2)

The National Academy of Sciences announced the selected nominees appointed to serve on the Committee to review SOCCR-2.

[View or comment on the Committee](#)

Statement of Task

A new ad hoc Committee of the Academies will conduct an independent review of the Second State of the Carbon Cycle (SOCCR-2) report, which will be available in early to mid-2017. The committee will conduct this review concurrent with the public review period for the SOCCR-2 Report and produce a report.