

CPO ESSM Workshop and Annual ESSM Council Meeting

Agenda (Oct. 28 version)

November 6-7, 2018

Silver Spring Civic Center, Spring Room
1 Veterans Pl, Silver Spring, MD 20910

Day 1 Morning: **Session 1: OAR/CPO/ESSM Overviews and Panel Discussion**

08:00 Coffee and refreshments

08:15: [Welcome/logistics and workshop introduction \(Jin Huang\)](#)

8:30-10:00 (Chair: Jin Huang; Rapporteur: Nicholas Komisarjevsky)

- OAR remarks (Ko Barrett, 10 min)
- [CPO overview](#) (Wayne Higgins, 20 min)
- [CPO/ESSM overview](#) (Jin Huang, 20 min)
- [Major climate science challenges and opportunities](#) (Jean-Francois Lamarque, 20 min)
- [Engaging the external research community: a historical view](#) (Dennis Lettenmaier, 20 min)

10:00-10:20 Break

10:20-11:15 Short talks (5 minutes/3 slides) (Chair: Sandy Lucas; Rapporteur: Cody Sullivan)

- **OAR labs overviews (mission; core capabilities; gaps/needs):** AOML ([Molly Baringer](#)); ARL (Ariel Stein or [Howard Diamond](#)); ESRL/CSD ([Tom Ryerson](#)); ESRL/GMD ([Jim Butler](#)); ESRL/GSD ([Stan Benjamin](#)); ESRL/PSD ([Robin Webb](#)); GFDL ([Yi Ming](#)); GLERL ([Phillip Chu](#)); NSSL ([Harold Brooks](#)); PMEL ([Chidong Zhang](#))

11:15 -12:30 [Panel Discussions \(panelist remarks and participant interaction\): Values of engaging the external community, role of CPO grants programs, and coordination/partnership strategies.](#)

Panel members: Ana Barros (Lead), Chidong Zhang (PMEL), Yi Ming (GFDL), Roger Pulwarty (PSD), Jim Hurrell, Mike Patterson (USCLIVAR)

Rapporteur: David Herring

12:30-1:30 **Lunch** (Lobby outside of Spring Room)

Day 1 Afternoon: Session 2: Research to advance climate science and to enable societal resilience to extremes

1:30 -3:30: Presentations to highlight the key issues and relevance to CPO/ESSM

(Chair: Sukyoung Lee; **Rapporteurs:** Nicholas Komisarjevsky – Applications Perspectives & Science Overviews, Cody Sullivan – NOAA Core Capabilities)

- **Application perspectives on climate research needs (15 min. each)**
 - [Climate intelligence for coupled human-natural systems from summit to sea \(Ana Barros\)](#)
 - [Upstream research to advance NWS Unified Forecast Model \(Hendrik Tolman\)](#)
 - [Climate linkage to atmospheric composition \(wildfire, air quality\) \(Tom Ryerson\)](#)
- **Science overviews and pressing research needs (15 min each)**
 - [Multi-scale predictability and model improvements \(Magdalena Balmaseda\)](#)
- **NOAA core capabilities and major gaps (10 min. each)**
 - [Modeling of the Earth system \(Yi Ming\)](#)
 - [Subseasonal-to-seasonal-to-decadal prediction system \(Andrew Wittenberg\)](#)
 - [OSSE \(Molly Baringer\)](#)
 - [Interactions of aerosols and clouds \(Graham Feingold\)](#)
 - [Decadal predictabilities of extremes \(Matt Newman\)](#)
 - [Attributions of climate extremes \(Martin Hoerling\)](#)

3:30-4:00 Break

4:00-5:00: Discussions on the pressing research needs, potential CPO/ESSM research priorities and partnership strategy (**Lead:** Ben Kirtman; **Rapporteur:** David Herring)

Day 2 Morning: Session 3: Climate research to inform coastal and marine ecosystem management

08:00: Coffee and refreshments

08:15-10:00 Presentations to highlight the key issues and relevance to CPO/ESSM

(Chair: Dan Barrie; **Rapporteur:** Nicholas Komisarjevsky)

- **Application perspectives (15 min. for each talk)**
 - [Climate science needs for Fisheries \(Cisco Werner\)](#)
 - [Climate science needs for Ocean Service \(Mark Osler\)](#)
- **Science overviews and research needs (15 min. for each talk)**
 - [Coupling at the ocean-atmosphere interface – boundary layer processes \(Joellen Russell\)](#)
 - [Advances in global Earth system predictions for marine ecosystem applications \(Charlie Stock\)](#)
 - [Towards a multi-scale Earth system model: challenges and opportunities \(Enrique Curchitser\)](#)
 - [Climate research for marine resources and ecosystem applications \(Mike Alexander\)](#)
 - [Ocean forecasts for marine resources management \(Mike Jacox\)](#)

10:00– 10:30 Break

10:30-11:30: NOAA core capabilities and major gaps (10 min for each talk)

(Chair: Ken Mooney; Rapporteur: Cody Sullivan)

- [Ocean Acidification Program \(Dwight Gledhill\)](#)
- [Ocean Carbon and BGC Argo \(Rik Wanninkhof\)](#)
- [Innovative observing technologies for studying the marine ecosystem \(Chris Meinig\)](#)
- [Climate and ocean ecosystem projections for fisheries management in Alaska \(Anne Hollowed\)](#)
- [GLERL \(Philip Chu\)](#)
- [Producing and providing climate intelligence related to coastal inundation \(Billy Sweet\)](#)

11:30-12:30: Discussions on the pressing research needs, potential CPO/ESSM research priorities and partnership strategy (**Lead:** Jim Hurrell, **Rapporteur:** David Herring)

12:30-1:30 Lunch (Lobby outside of Spring Room)

12:30-1:30 ESSM Council and Organizing Committee Side Meeting: to reflect the takeaways from the workshop so far; and to discuss the next steps to develop and disseminate the workshop report.

Day 2 Afternoon: Session 4: Linking observations to process understanding and model improvements (Chair: Monika Kopacz; Rapporteur: Cody Sullivan)

1:30-3:00 Short presentations to highlight NOAA existing observational and modeling capabilities, process studies and needs for their integrations (**10 min for each talk**)

- [Introduction \(Lori Bruhwiler, 5 min\)](#)
- [JPSS \(Mitch Goldberg\)](#)
- [NCEI \(Russell Vose\)](#)
- [A multi-lab and integrated observation/modeling approach to improving understanding land-atmosphere interactions \(Dave Turner and Tilden Meyer, 20 min\)](#)
- [GMD \(Jim Butler\)](#)
- [AOML \(Gustavo Goni\)](#)
- [PMEL \(Chidong Zhang\)](#)
- [GFDL \(Yi Ming\)](#)

3:00 – 3:00 Break

3:30- 4:30: Discussions on the pressing research needs, potential CPO/ESSM research priorities and partnership strategy (**Lead:** GMD/Lori Bruhwiler; **Rapporteur:** Nicholas Komisarjevsky)

4:30-4:45: Brief workshop summary and closing remarks (Jin Huang)