



**US CLIVAR Summit 2015 Agenda**  
**August 4-6, 2015**  
**Westward Look Wyndam Grand Resort**  
**Tucson, Arizona**

**Note: All times in MST (-3 hrs. EDT)**  
**Plenary sessions located in Sonoran Ballroom**

**Tuesday, August 4**

<b>Time (MST)</b>	<b>Agenda</b>
0730 – 0800	<b>Refreshments/Check-in</b>
0800 – 0815	Welcome, introductions, meeting objectives, and outcomes ( <a href="#">Bob Weller</a> , <a href="#">remote presentation</a> )
0815 – 0845	Updates on Research Challenges ( <a href="#">Mike Patterson</a> )
0845 – 0925	International CLIVAR ( <a href="#">Detlef Stammer</a> )
0925 – 0945	<b>Break</b>
0945 – 1200	<p><b>Special Science Session: ENSO Monitoring, Analysis, and Prediction Challenges</b>            (Conveners: <a href="#">Arun Kumar</a>, <a href="#">Yan Xue</a>, &amp; <a href="#">Bruce Anderson</a>)</p> <ul style="list-style-type: none"> <li>• Introduction (<a href="#">Arun Kumar</a>)</li> <li>• ENSO theory &amp; predictability (<a href="#">Mike McPhaden</a>)</li> <li>• Building the bridge between ENSO theories and operational predictions (<a href="#">Ben Kirtman</a>)</li> <li>• ENSO precursors and building an operational ENSO monitoring system (<a href="#">Bruce Anderson</a>)</li> <li>• Facilitated discussion (<a href="#">Yan Xue</a>)</li> </ul>
1200 – 1315	<b>Lunch on your own</b>
1315 – 1400	Agency Manager Engagement <ul style="list-style-type: none"> <li>• Sandy Lucas, NOAA</li> <li>• Anjuli Bamzai, NSF</li> <li>• Alberto Mestas Nuñez, NSF</li> <li>• Eric Lindstrom, NASA (remote)</li> <li>• Renu Joseph, DOE (remote)</li> <li>• Scott Harper/Dan Eleuterio, ONR (remote)</li> </ul>
1400 – 1510	<p><b>Panel breakouts (see details below)</b>            Phenomena, Observations, &amp; Synthesis            Process Study &amp; Model Improvement            Predictability, Predictions, &amp; Applications Interface</p>
1530 – 1550	<b>Break</b>
1550 – 1700	<b>Panel breakouts (continued)</b>
1700 – 1730	<b>Break</b>
1730 – 2000	<p><b>Working Dinner/ Meet in Senora Ballroom</b>  <b>Special Session: Warming Hiatus (will start promptly at 18:00)</b>            (Conveners: <a href="#">Janet Sprintall</a>, <a href="#">Dimitris Menemenlis</a>)</p>

	<ul style="list-style-type: none"> <li>• Introduction: Understanding the Earth's Climate Warming Hiatus (<a href="#">Janet Sprintall</a>)</li> <li>• Lack of evidence for a slowdown in global temperature (<a href="#">John Abraham</a>)</li> <li>• Pacific causes (<a href="#">Shang-Ping Xie</a>)</li> <li>• Deep ocean warming (<a href="#">Sarah Purkey</a>)</li> <li>• Atlantic/SO perspective (<a href="#">KK Tung</a>)</li> <li>• Sensitivity to factors underlying the hiatus (<a href="#">Kate Marvel, remote</a>)</li> <li>• Facilitated discussion (<a href="#">Dimitris Menemenlis &amp; Janet Sprintall</a>)</li> </ul> <p>Questions to be addressed by Panels</p>
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### Wednesday, August 5

Time	Agenda
0730 – 0800	<b>Refreshments</b>
0800 – 1000	Panel breakouts (see details below)
1000 – 1030	<b>Break</b>
1030 – 1200	Breakouts resume
1200 – 1330	<b>Lunch on your own</b>
1330 – 1510	Breakouts resume
1510 – 1530	<b>Break</b>
1530 – 1730	Breakouts resume
1730 – 1900	<b>Networking event, Palm Terrace</b>

### Thursday, August 6

Time	Agenda
0730 – 0800	<b>Refreshments</b>
0800 – 1000	Panel breakouts continue
1000 – 1020	<b>Break</b>
1020 – 1120	Panel breakout reports (Panel Co-chairs, each 15 min presentation plus 5 min discussion)
1120 – 1145	Conclusions and Next Steps ( <a href="#">Sonya Legg</a> )
<b>1145</b>	<b>Summit adjourns</b>
1200 – 1330	SSC Post-Summit Meeting

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## Breakout Sessions

### POS Panel Breakout – Tuesday, August 4

Time	Agenda
<b>1400 – 1530</b>	<b>Joint POS/PSMI Session on TPOS 2020</b>
1400 – 1415	Overview of TPOS 2020 ( <a href="#">Billy Kessler</a> )
1415 – 1430	Reporting on SPURS II ( <a href="#">Fred Bingham</a> )
1430 – 1445	Evaluating Tropical Pacific Observing Systems Using OSEs ( <a href="#">Yan Xue</a> )
1445 – 1500	Perspectives of ENSO Diversity WG ( <a href="#">Antonietta Capotondi</a> )
1500 – 1530	Discussion
<b>1530 – 1550</b>	<b>Break</b>
<b>1550 – 1700</b>	<b>Session 1: Sustaining Ocean Observing Systems</b>

1550 – 1605	Tropical moored arrays in the Atlantic and Indian Oceans (PIRATA and RAMA) ( <a href="#">Renellys/Kyla</a> )
1605 – 1620	Argo and XBT ( <a href="#">Fred/Kyla</a> )
1620 – 1640	GO-SHIP ( <a href="#">Lynne Talley</a> )
1640 – 1700	Discussion
1700 – 1730	<b>Break before working dinner</b>

### POS Panel Breakout – Wednesday, August 5

Time	Agenda
<b>0800 – 1000</b>	<b>Session II: Syntheses of Climate Parameters</b>
0800 – 0830	Surface heat fluxes and ocean heat content budget ( <a href="#">Carol Anne/Kyla</a> )
0830 – 0850	Need for sustained and improved ocean observations and synthesis for global water cycle studies ( <a href="#">Subra</a> )
0850 – 0910	Near-surface salinity dynamics ( <a href="#">Kyla/Fred</a> )
0910 – 0940	CLIVAR GSPO and GODAE OceanView Ocean Reanalysis Intercomparison Project (ORA-IP) ( <a href="#">Yan/Xiaosong</a> )
0940 – 1000	Discussion
<b>1000 – 1030</b>	<b>Break</b>
<b>1030 – 1200</b>	<b>Session III: Understanding of Climate Variations and Impacts, Part I</b>
1030 – 1050	ENSO diversity and impacts ( <a href="#">Antonietta/Xiaosong</a> )
1050 – 1110	PDO/NPGO and interactions with ENSO ( <a href="#">Emanuele/Art</a> )
1110 – 1130	Report on “Blob Workshop” ( <a href="#">Art</a> )
1130 – 1200	Discussion
<b>1200 – 1330</b>	<b>Lunch on your own</b>
<b>1330 – 1510</b>	<b>Joint POS/PPAI Session on Predictability of Coastal/Shelf Systems, Including Ecosystems</b>
1330 – 1450	Presentations
1450 – 1510	Discussion
<b>1510 – 1530</b>	<b>Break</b>
<b>1530 – 1730</b>	<b>Session III: Understanding of Climate Variations and Impacts, Part II</b>
1530 – 1550	AMOC/AMO and ATLANTOS Overview ( <a href="#">Renellys</a> )
1550 – 1620	The MJO and other Indian Ocean Science (ASIRI, NASCAR, IIOE-2, YMC) ( <a href="#">Kyla</a> )
1620 – 1640	Arctic climate ( <a href="#">Jin-Ho</a> )
1640 – 1700	Southern Ocean ( <a href="#">Joellen Russell</a> )
1700 – 1730	Discussion

### POS Panel Breakout – Thursday, August 6

Time	Agenda
<b>0800 – 1000</b>	<b>POS Panel Summary and Plan</b>
0800 – 0830	Sustaining Ocean Observing Systems ( <a href="#">Fred</a> )
0830 – 0900	Syntheses of Climate Parameters ( <a href="#">Yan</a> )
0900 – 0930	Understanding of Climate Variations and Impacts ( <a href="#">Kyla</a> )
0930 – 1000	Future Plan ( <a href="#">Art</a> )
<b>1000 – 1030</b>	<b>Break and return to plenary</b>

## PSMI Panel Breakout – Tuesday, August 4

Time	Agenda
<b>1400 – 1530</b>	<b>Joint POS/PSMI Session on TPOS 2020</b>
1400 – 1415	Overview of TPOS 2020 ( <a href="#">Billy Kessler</a> )
1415 – 1430	Reporting on SPURS II ( <a href="#">Fred Bingham</a> )
1430 – 1445	Evaluating Tropical Pacific Observing Systems Using OSEs ( <a href="#">Yan Xue</a> )
1445 – 1500	Perspectives of ENSO Diversity WG ( <a href="#">Antonietta Capotondi</a> )
1500 – 1530	Discussion
<b>1530 – 1550</b>	<b>Break</b>
<b>1550 – 1700</b>	<b>Evaluation of new reporting mode (Process Studies &amp; CPT)</b>
1550 – 1605	Follow-up on SPURS I ( <a href="#">Tom</a> )
1605 – 1620	Discussion: Pros/Cons from webinar (YMC/DYNAMO) vs in-person (SPURS I/II) ( <a href="#">Gad/Caroline</a> )
1620 – 1635	Discussion: Reporting template ( <a href="#">Maria</a> )
1635 – 1700	Discussion: Lessons learned & planning for reporting webinars for process studies ( <a href="#">Aneesh</a> )
<b>1700 – 1730</b>	<b>Break before working dinner</b>

## PSMI Panel Breakout – Wednesday, August 5

Time	Agenda
<b>0800 – 1000</b>	<b>Implementing Process Understanding in Models</b>
0800 – 0820	Overview of implementation/pathway document ( <a href="#">Jin Huang, on behalf of M. Ek, remote presentation</a> )
0820 – 0840	Research-to-operations transition of process understanding to operational model development ( <a href="#">Jin Huang, remote presentation</a> )
0840 – 0900	Overview of feedback from process study survey ( <a href="#">Caroline</a> )
0900 – 0940	Discussion: How to establish pathways/processes for implementing process understanding into models ( <a href="#">Steve</a> )
0940 – 1000	Discussion: How can the CPT workshop accommodate this ( <a href="#">Aneesh</a> )
<b>1000 – 1030</b>	<b>Break</b>
<b>1030 – 1200</b>	<b>Joint PSMI/PPAI Session on Quantifying Improvements in Prediction/Projections</b>
1030 – 1045	Quantifying uncertainties and improvements in prediction ( <a href="#">Arun</a> )
1045 – 1100	Ocean predictability – research needs, gaps, and recent advances ( <a href="#">Steve</a> )
1100 – 1200	Discussion
<b>1200 – 1330</b>	<b>Lunch on your own</b>
<b>1330 – 1510</b>	<b>Discussion of issues arising from special science sessions</b>
1330 – 1350	ENSO ( <a href="#">Kris</a> )
1350 – 1410	Warming Hiatus ( <a href="#">Beate</a> )
1410 – 1510	Discussion (e.g., contributions from process studies) ( <a href="#">Gad</a> )
<b>1510 – 1530</b>	<b>Break</b>

<b>1530 – 1730</b>	<b>PSMI Panel Business</b>
1530 – 1545	Overview of gaps in process studies from survey ( <a href="#">Caroline</a> )
1545 – 1615	Discussion: Gaps in existing process studies: How to approach gaps via top-down or bottom-up? ( <a href="#">Tom</a> )
1615 – 1700	Discussion: PSMIP contributions in light of US CLIVAR Science Plan ( <a href="#">Alessandra</a> )
1700 – 1730	Revisit Terms of Reference & role of PSMIP ( <a href="#">Gad/Caroline</a> )

### PSMI Panel Breakout – Thursday, August 6

Time	Agenda
<b>0800 – 1000</b>	<b>PSMI Panel Discussion</b>
0800 – 1000	Collate summaries from session leads for final report & Panel co-chair presentation
<b>1000 – 1030</b>	<b>Break and return to plenary</b>

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### PPAI Panel Breakout – Tuesday, August 4

Time	Agenda
<b>1400 – 1530</b>	<b>PPAI Breakout Session</b>
1400 – 1415	PPAI Business ( <a href="#">Gregg/Kathy</a> )
1415 – 1510	ENSO monitoring, analysis, and prediction challenges ( <a href="#">Arun/Bruce</a> )
<b>1510 – 1700</b>	<b>Systems Sensitive to Decadal Variations</b>
1510– 1530	Presentations ( <a href="#">Bruce/Andrea</a> )
<b>1530 – 1550</b>	<b>Break</b>
<b>1550 – 1700</b>	<b>Systems Sensitive to Decadal Variations, continues</b>
1550 – 1630	Presentations continue ( <a href="#">Bruce/Andrea</a> )
1630 – 1700	Discussion
<b>1700 – 1730</b>	<b>Break before working dinner</b>

### PPAI Panel Breakout – Wednesday, August 5

Time	Agenda
<b>0800 – 1000</b>	<b>Climate and Extreme Events: Dynamics and Predictability</b>
0800 – 0900	Subseasonal predictability and prediction ( <a href="#">Kathy/Hyemi</a> )
0900 – 1000	Warm season precipitation and extremes ( <a href="#">Scott/Chris</a> )
<b>1000 – 1030</b>	<b>Break</b>
<b>1030 – 1200</b>	<b>Joint PSMI/PPAI Session on Quantifying Improvements in Prediction/Projections</b>
1030 – 1045	Quantifying uncertainties and improvements in prediction ( <a href="#">Arun</a> )
1045 – 1100	Ocean predictability – research needs, gaps, and recent advances ( <a href="#">Steve</a> )

1100 – 1200	Discussion
1200 – 1330	<b>Lunch on your own</b>
<b>1330 – 1510</b>	<b>Joint POS/PPAI Session on Predictability of Coastal/Shelf Systems, Including Ecosystems</b>
1330 – 1450	Presentations
1450 – 1510	Discussion
<b>1510 – 1530</b>	<b>Break</b>
<b>1530 – 1730</b>	<b>Applications Interface</b>
1530 – 1630	Connecting priorities between PPAI's Predictions & Projections and Communicating Climate Information Activities ( <a href="#">Gregg/Simon/Arun</a> )
1630 – 1700	Evaluation of US CLIVAR Research ( <a href="#">Andrea/Gregg</a> )
1700 – 1730	Strategy for facilitating interactions between climate intermediaries and US CLIVAR ( <a href="#">Andrea/Gregg</a> )

### PPAI Panel Breakout – Thursday, August 6

Time	Agenda
<b>0800 – 1000</b>	<b>PPAI Panel Discussion</b>
0800 – 1000	Breakout wrap-up and highlights ( <a href="#">Gregg/Kathy</a> )
<b>1000 – 1030</b>	<b>Break and return to plenary</b>