Monday, August 8, 2016
SIO Forum

8:00  Registration, Coffee, Tea and Fruit Basket
8:30  Welcome and Introductory Session: F. Martin Ralph, Keynote Speaker

- Committee co-chairs: Welcome, Introductions, & Opening Remarks : 15 mins.
- M. Ralph: Emergence of the Concept of Atmospheric Rivers : 30 mins.
- J. Jasperse: ARs and Lake Mendocino FIRO : 15 mins.

10:00 Break

10:30 Applications 1: Mike Anderson, Invited Speaker

- M. Anderson: Observing and Detecting ARs and its Application to Water Management in California : 20 mins.
- J. Jones: Atmospheric Rivers – A Potential Tool for Improving Sub-Seasonal to Seasonal Precipitation Forecasting? : 15 mins.
- C. Smallcomb: Communicating Forecast Atmospheric River Scenarios in the Sierra and Western Nevada : 15 mins.
- Applications 1 Discussion and Session Wrap : 10 mins.

12:00 Lunch
1:10  Global and Regional Perspectives 1: Bin Guan, Invited Speaker

- B. Guan: Global Perspective of Atmospheric Rivers: Climatology, and Climate Modulation : 20 mins.
• M. Viale: The Impacts of Atmospheric Rivers on Precipitation over the West Coast of Southern South America: 15 mins.
• K. Mattingly: Atmospheric River Impacts on the Greenland Ice Sheet: 15 mins.
• L. Mingli: Characteristics of Water Vapor Transport in the Three Rivers’ Headstream Region of Tibet Plateau: 15 mins.
• K. Odemark: Extreme Precipitation in Norway and the Connection to Atmospheric Rivers: 15 mins.
• J. Stuart: Atmospheric Rivers in Australia?: 15 mins.
• Global and Regional Perspectives 1 Discussion and Session Wrap: 15 mins.

3:00 Break
3:30 Panel Discussion 1, Applications and Decision Makers: Panel Members TBD
4:30 Breakout Session 1, 3-4 Topics: Topics TBD
5:30 Adjourn
Tuesday, August 9, 2016
SIO Forum

8:00  Registration, Coffee, Tea and Fruit Basket
8:30  Applications 2: Larry Schick, Invited Speaker

- L. Schick: *Managing Reservoirs for Atmospheric Rivers – The Uneven Balance of Flood Risk and Water Supply*  
  : 20 mins.
- M. Kelsch: *Atmospheric Rivers Training from UCAR’s COMET Program*  
  : 15 mins.
- D. Cox: *AR Science, Natural Hazards Risk Reduction, and ARkStorm*  
  : 15 mins.
- F. Dominguez: *The Lifecycle of an Atmospheric River – from Moisture Sources to Socioeconomic Impacts*  
  : 15 mins.
- M. McCarthy: *Integrated Modeling of Climate Stress and Resilience in Snow-Fed Arid Lands*  
  : 15 mins.
- Applications 2 Discussion and Session Wrap  
  : 10 mins.

10:00 Break
10:30 Modeling and Methodologies 1: Duane Waliser, Invited Speaker

- D. Waliser: *Atmospheric River Modeling: Forecasts, Climate Simulations and Climate Projections*  
  : 20 mins.
- M. DeFlorio: *Predictability and Prediction Skill of Atmospheric Rivers*  
  : 15 mins.
- B. Kawzenuk: *Quantification of Atmospheric River Landfall Errors at Bodega Bay, California in the Global Forecast System and West-WRF*  
  : 15 mins.
- A. Martin: *How do Spectrally Vast AR Thwart Attempts to Skillfully Forecast their Continental Precipitation?*  
  : 15 mins.
- R. Leung: *Aerosol Effects on Clouds and Precipitation: Insights from CalWater 2015 and a Multi-year Quasi-global Simulation of Trans-Pacific Transport of Aerosols*  
  : 15 mins.
- Modeling and Methodologies 1 Discussion and Session Wrap  
  : 10 mins.

12:00 Lunch
1:10 Observing and Detecting ARs 1 (IOPs / Satellite): Allen White, Invited Speaker

- A. White: *Monitoring Freezing Levels across California: Quantifying the Impacts of ARs and the Recent El Niño*  
  : 20 mins.
- R. Spackman: *Integrated Observing Strategies for Atmospheric Rivers – Major Field Studies and Future Directions*  
  : 20 mins.
• L. McMurdie: Atmosphere Rivers Observed during the Olympic Mountains Experiment (OLYMPEX) Field Campaign: 15 mins.
• J. Zagrodnik: Synoptic and Orographic Control of Observed Drop Size Distribution Regimes in Atmospheric River Events During the OLYMPEX Field Campaign: 15 mins.
• A. Kren: Impact of Global Hawk Data from the SHOUT-ENRR 2016 Field Campaign on an Atmospheric River in the Central North Pacific: 15 mins.
• Observing and Detecting ARs 1 Discussion and Session Wrap: 10 mins.

3:00 Break
3:30 Poster Session in Forum Lobby (ends 5:30)
5:00 Mixer / Cocktail Hour
6:00 Dinner at Forum outside (BBQ or Mexican buffet)

** Poster session begins 3:00 – 3:30, runs until 5:30. Cocktails begin at 5, dinner begins at 6.**
Wednesday, August 10, 2016
SIO Forum

8:00  Registration, Coffee, Tea and Fruit Basket
8:30  Impacts of ARs 1: Mike Dettinger, Invited Speaker

- C. Albano: Linking Inter-Annual Variations of Atmospheric River Landfalls to Vegetation Responses in the Southwestern United States : 15 mins.
- B. Hatchett: The Contributions of Atmospheric Rivers to Avalanche Fatalities in the Western United States : 15 mins.
- Impacts of ARs 1 Discussion and Session Wrap : 10 mins.

9:45  Break
10:15 Breakout Session 2, 3-4 Topics: Topics TBD
11:00 Impacts of ARs 2: Alexandre Ramos, Invited Speaker

- A. Ramos: Atmospheric Rivers in Europe: From Moisture Sources to Impacts and Future Climate Scenarios : 20 mins.
- Impacts of ARs 2 Discussion and Session Wrap : 10 mins.

12:00 Lunch
1:10  Theory, Structure, Processes 1: Jason Cordeira, Invited Speaker

- J. Cordeira: Mid-Latitude Dynamics and Atmospheric Rivers : 20 mins.
• S. Harris: *Backwards Trajectory Analysis of Atmospheric Rivers Affecting Southern California using HYSPLIT* : 15 mins.
• Theory, Structure, Processes 1 Discussion and Session Wrap : 15 mins.

3:00  Break
3:30  Panel Discussion, Converging on a definition of AR: Panel Members TBD
4:15  Modeling, Methodologies 2: Ruby Leung, Invited Speaker

• V. Espinoza: *Projections of Climate Change Effects on Global Atmospheric River Landfalls* : 15 mins.
• A. Subramanian: *Stochastic Multi-scale Atmospheric Modeling for Weather Forecasting: An Atmospheric River Case Study* : 15 mins.
• C. Shields: *U.S. West Coast Versus the U.K. Atmospheric Rivers: Differences in Future Climate Projections* : 15 mins.
• Modeling, Methodologies 2 Discussion and Session Wrap : 10 mins.

5:30  Adjourn
Thursday, August 11, 2016
SIO Forum

8:00  Registration, Coffee, Tea and Fruit Basket
8:30  Observing and Detecting ARs 2 (ARDT): Gary Wick, Invited Speaker

- G. Wick: Recent Updates to Objective Atmospheric River Detection Techniques and Resulting Implications for Atmospheric River Climatologies : 20 mins.
- J. Rutz: The Development of an Atmospheric River Catalog at the Center for Western Weather and Water Extremes : 15 mins.
- A. Gershunov: Assessing the Climate-Scale Variability and Seasonal Predictability of Atmospheric Rivers Affecting the West Coast of North America : 15 mins.
- Observing and Detecting ARs 2 Discussion and Session Wrap : 10 mins.

10:00 Break
10:30 Global and Regional Perspectives 2: Jon Rutz, Invited Speaker

- J. Rutz: Factors Influencing the Inland Penetration of Atmospheric Rivers over Western North America : 20 mins.
- S. Reilly: Influence of the Santa Cruz Mountains on Precipitation from a Landfalling Atmospheric River : 15 mins.
- Global and Regional Perspectives 2 Discussion and Session Wrap : 10 mins.

12:00 Lunch
1:10  Theory, Structure, Processes 2: Marty Ralph, Invited Speaker

• H. Mix: Coordinated Sampling and Analytical Effort to Examine Interactions Between INPs and Rainout in Winter 2016 ARs in California: 15 mins.
• J. Nusbaumer: A Numerical Evaluation of the Sources of Moisture for Atmospheric Rivers that Impact the West Coast of the United States in the Modern Era and 2100: 15 mins.
• Theory, Structure, Processes 2 Discussion and Session Wrap: 15 mins.

3:00  Break
3:30  Panel Discussion 3, Future Directions: Panel Members TBD
4:15  Closing Remarks, M. Ralph
4:30  Adjourn / Book Author Wrap-up
Poster Session
SIO Forum Lobby
3:30 pm to 5:30 pm Tuesday, August 9.

- D. Buch: *Atmospheric River Event over the Eastern Pacific in February 2014: Analysis and Climatological Context*: Global and Regional Perspectives Posters
- S. Czyzyk: *Forecasting High Impact Precipitation Events in the Lee of the Southern Sierra, Bishop, CA*: Applications Posters
- K. Gonzales: *Response of North Pacific Atmospheric Rivers to Climate Change Conditions*: Modeling, Methodologies Posters
- A. Jacobs: *Atmosphere Rivers in Alaska – Yes They do Exist and are Usually Tied to the Biggest and Most Damaging Rain Generated Floods in Alaska*: Global and Regional Perspectives Posters
- A. Liu: *Some Unique Features Associated with the June 2013 Alberta Flooding: Precipitation, Atmospheric River and Evapotranspiration*: Global and Regional Perspectives Posters
- A. Moore: *National Weather Service Forecasters Use GPS Precipitable Water Vapor for Enhanced Situational Awareness during the Southern California Summer Monsoon*: Applications Posters
- B. Moore: *Atmospheric Rivers and Heavy Precipitation Events in the Southeastern U.S.:* Global and Regional Perspectives Posters
- R. Moore: *Dynamics and Predictability of an Extreme Norwegian Precipitation Event*: Global and Regional Perspectives Posters
- L. Muscatine: *How Does a Multi-Authored Academic Book Get Published Anyway?:* Applications Posters
- J. Ryoo: *Classification of Atmospheric River Events on the U.S. West Coast Using a Trajectory Model*: Theory, Structure, Process Posters.
- T. Salami: *Variability of Climatic Elements in Nigeria over Recent 100 Years*: Global and Regional Perspectives Posters