

CEC-NOAA-Scripps CalWater Science Planning Workshop

Scripps, La Jolla, CA

Sept 15-17, 2008

Co-Chair: Guido Franco (California Energy Commission)

Co-Chair: Dan Cayan (Scripps)

Co-Chair: Marty Ralph (NOAA)

Room 101, Nierenberg Hall

Day 1 – Monday, Sept 15: Purpose, Introduction, Background

Session Chair: Marty Ralph Rapporteur: _____

- 1:00** Greeting, Purpose of Workshop, Introductions and Logistics – Ralph (20 min)
- 1:20** California Energy Commission Perspectives – Franco (10 min)
- 1:30** Climate observations/models and diagnostics: Recent CEC-PIER report – Cayan (10 min)
- 1:40** California Department of Water Resources Perspectives – Anderson (10 min)
- 1:50** NOAA Climate Office perspectives – Rosen (10 min)

- 2:00** CalWater Background – Summary presented at CEC Climate Symposium – Ralph (20 min)
- 2:20** CalNex Background - Summary presented at CEC Climate Symposium - Parrish (20 min)
- 2:40** Results from SUPRECIP – Rosenfeld (15 min)
- 2:55** HMT results and plans for winter 2009/10 – Schneider (15 min)
- 3:10** Recent UAV activities and plans in California and the Pacific – Wick and Scripps rep (15 min)

- 3:30 Break (15 min)**

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Day 1 – Monday, Sept 15: Discussion paper summaries

Session Chair: Marty Ralph Rapporteur: _____

3:45 Discussion paper Science Theme 1a (Reducing uncertainties in the impacts of anthropogenic aerosols on precipitation – modeling dimensions - Jacobson)

4:00 Discussion Paper Science Theme 1b (Reducing uncertainties in the impacts of anthropogenic aerosols on precipitation – observational dimensions - Rosenfeld)

4:15 Discussion paper Science Theme 2a (Long-range black carbon transport – Leung)

4:30 Discussion paper Science Theme 2b (Black carbon deposition on snow - Hadley)

4:45 Discussion paper Science Theme 3 (The role of shallow rain processes in modulating aerosol impacts on precipitation and on deposition of black carbon – Williams or White)

5:00 Discussion Paper Science Theme 4 (Understanding the role of atmospheric rivers on black carbon transport, aerosol entrainment and precipitation formation, for both water supply and extreme events – Dettinger or Wick)

5:15 Overall discussion and guidance for tomorrow (15 min)

5:30 Adjourn

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Day 2 – Tuesday, Sept 16: Science Brainstorming

AM Session Chair: Guido Franco Rapporteur : _____

Science theme presenters focus on identifying key science gaps and implications for CalWater's experimental design. Special attention should be given hypotheses and design elements that draw from findings and objectives of the other CalWater science themes. Where appropriate short technical presentations can be included at the beginning of a session. The session should produce a list of specific hypotheses to be tested, as well as observations and modeling needed to address them. While the observational needs are most directly posed as part of an integrated field study during winter 2009/10, the need for early start observations during winter 2008/09 should be considered, as well as for long-term monitoring beyond 2010.

8:30 The role of shallow rain processes in modulating aerosol impacts on precipitation and on deposition of black carbon – Williams & White (90 min)

10:00 Break (30 min)

10:30 Reducing uncertainties in the impacts of anthropogenic aerosols on precipitation – Rosenfeld & Jacobson (90 min)

12:00 Lunch (sandwiches will be brought in)

PM Session Chair: Dan Cayan Rapporteur : _____

1:00 Long-range black carbon transport and deposition on snow – Prather & Hadley (90 min)

2:30 Break

3:00 Understanding the role of atmospheric rivers on black carbon transport, aerosol entrainment and precipitation formation, for both water supply and extreme events – Dettinger & Wick (90 min)

4:30 Discussion of integrated hypotheses - (60 min)

5:30 Adjourn

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Day 3 – Wednesday, Sept 17: Synthesis and Next steps

Session Chairs: Franco, Ralph, Cayan Rapporteur: _____

8:30 Objectives of today's session – Ralph, Cayan, Franco (15 min)

8:45 Science theme summaries (5 at 15 min each)

10:00 Break - (15 min)

10:15 Listing of hypotheses and key elements of the experiment (90 min)

11:45 Next Steps (30 min)

12:00 Adjourn