

AGENDA

Workshop on High-Resolution Climate Modeling in the Northern Great Plains

24 - 25 September, 2015

Room GB-124, NOAA ESRL, 325 Broadway, Boulder, CO 80305

Light breakfast, buffet lunch and refreshments during breaks will be provided at the workshop

Thursday, Sept. 24th

I - Welcome and introductions

- 8:30 – 9:00 Check-in and **Breakfast**
- 9:00 – 9:10 **Robin Webb** (PSD Director) - Welcome
- 9:10 – 9:20 **Jeff Morisette** (NCCSC Director) - Overview of NCCSC's goals and needs related to high-resolution climate information
- 9:20 – 9:40 **Joe Barsugli** - Overview of the workshop goals, including a brief narrative of the climate and ecological needs in the Northern Great Plains region
- 9:40 – 10:30 **Interactive Introductions** – What do you bring to the table and what do you want from the workshop?

10:30 – 10:45 **Coffee Break**

II - High-resolution simulation of precipitation in the Northern Great Plains (Moderator: Joe Barsugli)

Motivating questions: How well do RCMs and convection-resolving models simulate precipitation in the region, and what can we tell decision-makers about future changes in precipitation?

- 10:45 – 11:30 Presentations
- Bob Oglesby**, University of Nebraska - Lincoln
- Rao Kotamarthi**, Argonne National Laboratory
- Ray Arritt**, Iowa State University
- Melissa Bukovsky**, NCAR
- 11:30 – 12:00 Open discussion
- 12:00 – 1:00 **Lunch Break**

III – Land surface processes and feedbacks

(Moderator: Candida Dewes)

Motivating questions: In what ways do high-resolution models better represent coupling of the atmosphere and land surface? Can they provide better assessment and quantification of extremes such as droughts?

1:00 – 1:45 Presentations
Scott Denning, Colorado State University
Clint Rowe, University of Nebraska - Lincoln
David Rupp, Oregon State University
Roy Rasmussen, NCAR

1:45 – 2:30 Open discussion

2:30 – 3:00 **Tea Break**

IV – Usability of high-resolution model output for socio-ecological impacts assessment

(Moderator: Imtiaz Rangwala)

Motivating questions: From “ecological modeling” and “scenario planning” perspectives, what needs could be met by high-res models? What are some of the challenges related to uncertainty and bias in high-res models? When and how can they provide increased usability relative to GCMs and statistical downscaling?

3:00 – 4:00 Presentations
Linda Mearns, NCAR
Brian Miller, Colorado State University & North Central CSC
Mari Tye, NCAR
Mike Hobbins, NIDIS

4:00 – 5:00 Panel Discussion
Nicholas Fisichelli, National Park Service
Derek Rosendahl, University of Oklahoma & South Central CSC
Helen Sofer, Fort Collins Science Center, USGS
Gregor Schuurman, National Park Service
Brian Miller, Colorado State University & North Central CSC

5:00 **Adjourn**

5:30 **Socializing at a local brewery (*Under the Sun*)**

Friday, Sept. 25th

8:30 – 9:00 **Breakfast**

V – Recommendations for the use and development of high-resolution models in the Northern Great Plains region

(Moderator: Joe Barsugli)

The goal of the workshop is to produce a report that can guide users and developers on future modeling efforts and the applicability of data from high-resolution models. The working session on Friday will develop a detailed outline for that report.

9:00 – 9:30 Re-cap of salient issues and setting intention for the day

9:30 – 12:00 **Working session** – Breakout group activities to address the important questions raised during the workshop and develop a detailed outline for the workshop report

	Group A	Group B	Group C
9:30 - 10:30	Precipitation	Land Surface	Usability
10:30 - 11:15	Land Surface	Usability	Precipitation
11:15 - Noon	Usability	Precipitation	Land Surface

12:00 – 1:00 **Lunch Break**

1:00 – 3:00 Discussions and write-up related to the workshop report continues

3:00 **Workshop Adjourns**

Breakout Groups		
Group A	Group B	Group C
Joe Barsugli	Candida Dewes	Imtiaz Rangwala
Abby Jaye	Clint Rowe	David Rupp
Robert Ogelsby	Ray Arritt	V. Rao Kotamarthi
Melissa Bukovsky	Linda Mearns	Yonggang Wang
Mike Hobbins	Mari Tye	Roy Rasmussen
Nicholas Fisichelli	Aaron Pina	Helen Sofaer
Kelly Mahoney	Jeff Morisette	Brian Miller
Derek Rosendahl	Gregor Schuurman	Katie Renwick
Scott Denning	Ben Livneh	Andrea Ray

Participants List

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