

# 8th CMMAP Team Meeting



# Thanks



**John, Richard, Cindy**



# Welcome

- ◆ **George Kiladis, NOAA ESRL (EAP Chair)**
- ◆ **Brian Mapes, U. Miami (EAP)**
- ◆ **Michael Wehner, LBL (EAP)**
- ◆ **Joel Norris, Scripps**
- ◆ **Scripps and UCSD guests**
- ◆ **Akira Noda, Research Inst for Global Change, Japan**
- ◆ **Minoru Chikira, JAMSTEC**
- ◆ **Duane Waliser, Joao Teixeira, and JPL guests**
- ◆ **Barbara Whitten, CC**

## Eighth CMMAP Team Meeting, January 12-14, 2010

<b>Tuesday, January 12, 2010</b>		
<b>8:30</b>	<b>David Randall, Jay Fein</b>	<b>Opening remarks, Agenda, Logistics</b>
<b>8:45</b>	<b>David Randall</b>	<b>Updates</b>
<b>9:15</b>	<b>Linse Anderson</b>	<b>Scientists' Perspectives on Navigating the Science-Policy Frontier</b>
<b>9:25</b>	<b>Joel Norris</b>	<b>The Role of Large-Scale Dynamics in Subtropical Boundary Layer Cloud Processes and Climate Feedbacks</b>
<b>10:15</b>	<b>Break</b>	
<b>10:30</b>	<b>Knowledge Transfer</b>	<b>KT presentations, 40 mins w/20 mins Q&amp;A Overview by Wayne, Obj. 1 &amp; 2 by Steve K., Obj. 3 by David R., Obj. 4 &amp; 5 by Wayne/Rodger</b>
<b>11:30</b>	<b>Lunch</b>	
<b>1:00</b>	<b>Connie Uliasz</b>	<b>Ethics Discussion</b>
<b>1:45</b>	<b>Breakout Session #1</b>	
<b>3:15</b>	<b>Break</b>	
<b>3:30</b>	<b>Breakout Session #1 continues</b>	
<b>4:00</b>	<b>David R. &amp; Cindy C.</b>	<b>Management presentation, 30 mins w/30 mins Q&amp;A</b>
<b>5:00</b>	<b>Adjourn for the day</b>	
<b>6:00</b>	<b>EC Dinner Meeting with Jay at The Marine Room Graduate Student Dinner at Surfside</b>	

## Eighth CMMAP Team Meeting, January 12-14, 2010

<b>Wednesday, January 13, 2010</b>		
<b>8:30</b>	<b>Akira Noda</b>	<b>Recent Progress of the NICAM Research</b>
<b>9:00</b>		<b>Breakout Session #2</b>
<b>10:00</b>	<b>Break</b>	
<b>10:15</b>		<b>Breakout Session #2 continues</b>
<b>11:15</b>	<b>Lunch</b>	
<b>12:45</b>	<b>Research</b>	<b>Research presentations, 100 mins presentations, 30 mins Q&amp;A Overview by David R.; Obj. 1 by Joon-Hee J. and Akio A.; Obj. 2 by Steve K. and Chin-Hoh M.; Obj. 3 by Scott D.; Obj. 4 by Cristiana S.; Obj. 5 by Tom A.; Obj. 6 by John H., Closing by David R.</b>
<b>2:55</b>	<b>Break</b>	
<b>3:10</b>		<b>Breakout Session #3</b>
<b>5:10</b>	<b>David Randall</b>	<b>Wrap-up and head to lecture</b>
<b>Lecture and Dinner at the Birch Aquarium</b>		
<b>6:00</b>	<b>Aquarium and Climate Museum open, cash bar</b>	
<b>6:30</b>	<b>Buffet Dinner served</b>	
<b>7:30</b>	<b>Naomi Oreskes</b>	<b>A New View of Science: Title Search Realism</b>
<b>10:00</b>	<b>Aquarium Closes</b>	



CMMAP Lecture



# A New View of Science: Title Search Realism



Photo: Hannah Belliz

## Naomi Oreskes

Professor of History and Science Studies,  
University of California at San Diego

Wednesday, January 13, 2010

Buffet Dinner

6:30 pm

Lecture

7:30pm

Dinner is \$34

Doors will open to attendees at 6:00pm.

RSVP required - please register at

<http://www.cmmmap.org/research/teamMtgJan10/register.php>

Birch Aquarium Galleria  
Scripps Institution of Oceanography

Professor Oreskes is the co-author, with historian of technology Erik M. Conway, of the forthcoming book, "Merchants of Doubt" (Bloomsbury, 2010). Oreskes and Conway chronicle how a small group of prominent scientists promoted doubt about major environmental issues of our day. Remarkably, the same individuals surface repeatedly; some of the same figures who have claimed the science of global warming is "not settled" denied the truth of studies linking smoking to lung cancer, air pollution to acid rain, and CFCs to the ozone hole. "Doubt is our product," wrote one tobacco executive. These "experts" supplied it. Professor Oreskes argues that the media and the public were susceptible to these doubt-mongering campaigns in part because we have an erroneous view of science and how it works. We expect science to provide certainty, and when someone raises uncertainties, we think that means that nothing is known at all. Professor Oreskes suggests an alternative, which she labels "title search realism."



## **Eighth CMMAP Team Meeting, January 12-14, 2010**

**Thursday, January 14, 2010**

<b>8:30</b>	<b>Linse Anderson</b>	<b>Climate Politics and the Copenhagen Accord</b>
<b>9:00</b>	<b>David R.</b>	<b>Discussion</b>
<b>9:45</b>		<b>Breakout Session #4</b>
<b>10:45</b>		<b>Break</b>
<b>11:00</b>		<b>Breakout Session #4 continues</b>
<b>12:00</b>		<b>Lunch</b>
<b>1:30</b>		<b>Reports from Breakout Sessions (10 mins each)</b>
<b>2:50</b>	<b>David Randall</b>	<b>Wrap-up</b>
<b>3:30</b>		<b>Meeting ends</b>

## **Eighth CMMAP Team Meeting, January 12-14, 2010**

### **List of Breakout Sessions:**

<b>Where</b>	<b>Breakout Session #1 Tuesday PM</b>	<b>Breakout Session #2 Wednesday AM</b>	<b>Breakout Session #3 Wednesday PM</b>	<b>Breakout Session #4 Thursday AM</b>
<b>Main Meeting Room</b>	<b>MJO</b>	<b>KT to NWP &amp; Climate Centers</b>	<b>Education &amp; Diversity</b>	<b>Low-Cloud Feedbacks</b>
<b>Breakout Room</b>	<b>Multiscale Land Surface Interactions</b>	<b>Physical Processes</b>	<b>Dynamical Framework</b>	<b>Cyberinfrastructure Working Group</b>

# **The renewal process is under way.**

- **Proposal submitted in early October**
- **Strategic plan revised for renewal**
- **Mail reviews coming very soon**
- **Site visit mid-February**
  - **“Executive Summary” report due now**
  - **ED Retreat last week**
  - **Pre-rehearsal rehearsals this week**
  - **Rehearsal day before site visit**
- **Outcome announced by June 2010**
- **Annual report preparations now**
- **Colorado Global Climate Conference**
- **Teacher training course**
- **Summer interns**
- **Graduate student colloquium**

# Research Objectives for Renewal

Objective	Actions Required
1. Further development of global models with diverse representations of cloud processes	Continue work with the prototype MMF
	Complete development of the Q3D MMF, and perform climate simulations with it
	Complete development of the GCRM, and perform short climate simulations with it
	Development of a unified parameterization
2. Further development and testing of improved parameterizations of microphysics, turbulence and radiation	Develop and test improved microphysics parameterizations
	Develop and test improved turbulence parameterizations
	Develop and test improved radiation parameterizations
3. Application of CMAP models to study multiscale interactions of the atmosphere and land-surface	Land-atmosphere interactions in the current climate
	Changing roles of biogeochemistry and land-use change in future climates
4. Application of CMAP models to study the coupled climate system	Studies of cloud feedback
	Studies of the MJO
	Climate simulations using the MMF in a coupled model
5. Community-based evaluation of results produced by CMAP models, through the use of diverse observations.	Participation in Intercomparisons
	Experimental NWP using the GCRM
6. Management, analysis and visualization of very large model output datasets -- creation of infrastructure	Resource procurement and distribution
	Data management
	Analysis and visualization of model results

# Education Objectives for Renewal

Objective	Actions Required
1. Enhance K-12 science education.	Develop, document, distribute and test curriculum enhancement kits for classroom teaching in local schools and make information available via web.
	Develop climate content for LSOP and TV show to be distributed through school programs, mini programs, workshops, Channel 10, Rocky Mountain PBS, and the web.
	Provide, document, and disseminate K-12 teacher training course to teachers every year.
	Develop leveled climate and atmospheric science content for K-12 students and teachers via Windows to the Universe.
	Develop, promote and disseminate web-based seminars and virtual labs designed for high school climate science teachers and students.
	Host a state-wide global climate conference for high school students every year.
	Examine effects of education activities including LSOP delivery systems, student gains in science content, use of exhibits, and Everyday Science Show.  Spin-off a nonprofit enterprise to distribute materials developed.
2. Improve undergraduate climate education	Host summer undergraduate research interns.
	Develop, pilot and package for distribution new undergraduate climate courses at Colorado State University and Colorado College.
	Sponsor undergraduate research opportunities at Colorado College.
	Collaborate with CSU faculty to infuse climate content across undergraduate curriculum.
3. Train the next generation of climate scientists	Support graduate students across institutions who have direct involvement in the center's research.
	Host CMMAP graduate student summer colloquium
	Provide formal and informal opportunities for graduate students to develop skills in pedagogy.
	Host CMMAP graduate student teaching fellowships at Colorado College
	Support social science graduate student research on climate policy and politics and/or the use of scientific information in environmental decision making.
4. Engage the larger culture regarding climate	Outreach to climate stakeholders and policymakers through science policy dialogues
	Improve citizen literacy on climate through formal and informal outreach activities
	Create and disseminate short video productions on climate

# Diversity Objectives for Renewal

Objective	Actions Required
1. Recruit and support undergraduate and graduate students from underrepresented groups.	Support graduate fellows and summer interns per year through SOARS.
	Develop relationships with Minority Serving Institutions
	Host summer undergraduate interns from underrepresented groups.
	Support minority scholarships in Atmospheric Science at CMMAP institutions.
	Promote atmospheric science graduate programs to underrepresented, undergraduate populations. Actively recruit and promote summer internships and graduate programs at national conferences and host informal sessions at universities/colleges.
2. Implement programs that encourage retention of women, minorities and the underrepresented in the science pipeline.	Support undergraduate women in Little Shop of Physics internships.
	Develop a science mentoring program between college students and under-represented K-12 students.
	Support K-12 programs that encourage and engage students in science.
	Develop, package and port a one week course in weather and climate for middle school students (MSP Program). Support LSOP to provide programs, teacher workshops and instructional activities to diverse communities and schools in the region.
3. Understand historical ethnic underrepresentation in climate science	Survey study of Atmospheric Science graduate students at CSU and MIT to assess education and career pathways
4. Engage diverse communities in conversations about climate	Create focus groups in school districts with diverse populations to assess community attitudes, concerns and questions about climate change.
	Meet with community leaders to discuss and learn how climate change affects their communities.
	Document and disseminate results.

# Knowledge Transfer Objectives for Renewal

Objective	Actions Required
1. Collaborate with CCSM on climate change simulations.	Perform simulations
	Analyze results
	Communicate results to AR5
2. Collaborations on global atmospheric model development.	Continue interactions with NCEP, NCAR and GFDL
	Create new interactions with ESRL
	Organize intercomparison of GCRMs
3. Create a national training resource for global modelers.	Create materials for both university classes and summer school
	Create summer school
	Make class materials available nationally
4. Foster JAMES and wean it from CMMAP.	Establish financial self-sufficiency
	Establish managerial self-sufficiency
	Hand-off to IGES
5. Create an online magazine for public outreach.	Create business model
	Organize content creation
	Create web site

# Questions?

