

CMMAP Summer Education and Diversity Retreat
 August 8, 2011
 CMMAP Seminar Room

Agenda

CMMAP Summer Education and Diversity Retreat		
Monday, August 8, 2011		
8:00	Everyone	Coffee and Pastries
8:30	Melissa Burt	Welcome, Introductions, and LSOP Activity
8:45	David Randall	Updates on CMMAP's Research
9:00	Scott Denning	Video Production Project
10:30	Break	
10:45	Silvia Canetto	Why Atmospheric Science? Educational Choice and Career Plans of Female and Male Atmospheric Science Graduate Students
11:00	Thomas Windham and Melissa Burt	CMMAP Recruiting - goals, trips, and progress
11:30	John Calderazzo	Discussion: Informal Science Education - NSF Solicitation
12:00	Lunch	
1:00	Randy Russell	The Simple Climate Model and Friends
1:45	Claire Fleming	CGCC Updates
2:00	Break	
2:15	Brian Jones	Discussion: Projects, Podcasts, and TV programs
3:15	Rodger Ames and Marcia Donnelson	Reach updates and ClimateSense
4:15	Howard Drossman	Intro Discussion: TUES Proposal - What it's all about.
4:30	Adjourn	

Attendees:

Len Albright, Rodger Ames, Michele Betsill, Cherie Bornhorst, Lawrence Budd, Melissa Burt, John Calderazzo, SueEllen Campbell, Scott Denning, Marcia Donnelson, Howard Drossman, Sheila Ferguson, Claire Fleming, Rebecca Haacker-Santos, Brian Jones, Mike Lacy, Nisse Lee, Raj Pandya, Dave Randall, Randy Russell, Dave Swartz, Andrea Weinberg, and Tom Windham.

8:30 - LSOP - Be the Parcel Activity

LSOP has a variety of new kinesthetic activities. We opened the meeting with the “Be the Parcel” Activity. Explaining stability and something that LSOP came up with on the fly during the Teacher Course.

8:45 - Dave Randall - What's up with the hexagon?

Talked about why our model is hexagonal.

Geodesic grid starts as an icosahedron, bisect each edge and connect the dots, pop out onto the unit sphere. And so on, until we reach our target resolution. There isn't a coordinate system in the geodesic grid. “Coordinate systems are for Sissies.”

9:15 - Scott Denning - Video Production Project

We have a vision to capture the material that ChangingClimates has done and make them into smaller segments. LSOP has done a lot of work in these short segment videos at the K-12 level. ChangingClimates audience is at the non-specialist level, for adults, it's college level content, primer level clarity across all of academia.

They need help and advice our advice.

Lawrence Budd showed a video with Scott Denning talking about costs.

Know your audience. Choose graphics and music that will appeal to your audience. Need to test the concept, approach, marketing. What is the scope? What about the idea of Ted Talks. Include dialogue.

By the next team meeting. Try to focus on 3 videos. Well chosen to capture short pieces of communication, be appropriately audience targeted include visuals and spoken word. Test in Michele's class on Climate Policy. They are the target audience.

10:45 - Silvia Canetto - Why Atmospheric Science? Educational Choice and Career Plans for Female and Male Atmospheric Science Graduate Students

look at presentation/slides to include some of her findings.

Expanding the data. Talk with UCAR Member Institutions to reach out to students at those participating schools. Make comparisons to other fields.

11:15 - Melissa Burt and Thomas Windham - CMMAP Recruiting

Plans, goals, strategies.

11:45 - John Calderazzo - NSF Informal Science Education

Deadline: 1/11 Informal Science Education

ISE with web based video or games. LSOP Franchising.

Homework for Wednesday - Think of ideas for the ISE proposal. We will discuss our ideas during the Education/Diversity Breakout on Wednesday, August 10, 2011.

12:00 - Lunch woohoo!

1:00 - Randy Russell - The Simple Climate Model and Friends

We've incorporated the Very Simple Climate Model into this years Teacher Course. The Simple Climate Model has a couple new features. Calibration setting to test how well the model matches with history.

This model has also been used in the RETI program. Teachers are also interested in using the IPCC Scenarios with their students.

Randy is starting to work on the assessment of the Simple Climate Model. Possibly be used as a pre-test/post-test.

Carl Schmidt - Early career scientists working with NCAR who is interested in education and outreach. It's related to making raindrops & Snowflakes -- cloud microphysics.

Exploring to make the model a game.

Possibly add a paleoclimate version to discuss natural climate variability.

1:45 - Claire Fleming - CGCC updates

CGCC will be held at CSU this year on October 17, 2011. Hoping to have 400 participants from grades 9-12. 18 different sessions have been confirmed.

Talk back with Mike about his session - lean more towards climate change.

Call science teachers from the Alliance schools.

2:15 - LSOP - Discussion: Projects, Podcasts, and TV programs

Next year LSOP would like to do a Waves everyday science Show. 3 studio segments, 3 edited sections. Historical scientist, Current Scientist

Waves TV Show-

Waves in your life (slash zone, water waves, seismic waves)

Sound and light waves (easy demonstrations in the studio)

About waves (speed, wavelength, amplitude)

What is waving?

Find the wave

Scales

The Wave at Hughes Stadium

Waves on the Poudre

2012: Scales: How Big is Your World

3:15 - Rodger Ames and Marcia Donnelson - Reach Updates and ClimateSense

Have been working with a company to come up with a logo for Reach.

ClimateSense - where do we see it going?

How will it pay for itself? maybe find sponsors?

Would be a good idea to have a writer's workshop. To engage others in the writing of the journal. Incorporate education resources.

Talk with UCAR Connections magazine as a possible collaborator.
May want to pick a theme for the first issue.

Consider events of the past. Maybe include articles related. For example, the Joplin tornado. Include an article on Tornadoes and Climate.

4:00 - Howard Drossman - Intro. Discussion on TUES Proposal

Deadline - May 26, 2012

Type 1 projects. Integrating current science and pedagogy into teacher preparation programs, and developing a new instrument to assess students' knowledge about a particular discipline or the mastery of key science processes. - Creating a concept inventory for climate.

Deadline: Jan 13, 2012 or 2013

Type 2 projects. A sequence of courses that integrates a conceptual or pedagogical approach at several institutions. - 600K

We've developed courses at CC: Climate Change, Human Impacts, Water, and Air. Service learning course of Energy, where students do energy audits. Maybe we can develop and then port to a larger university.

Type 3 projects. Regional or national dissemination of proven materials or pedagogies; the creation of a self-sustaining model for professional development. \$5 million.

Could use the course developed by Scott or the grad student teaching experience between CC and CSU as a Type 3 project.

TU(ES)² - Transforming Undergraduate Education in Earth System Science.
4-6 week, where we would disseminate the courses.

What are we going to do? Look at how we teach ESS. Look at the misconception research. Develop new pre-assessment tools. Look at what we've developed so far, ways that the courses have incorporated dissonance. Put together teacher training and undergraduate work in 1 week modules. Incorporating the learning process to include in proposal: pre-assess, cognitive dissonance, feedback, reflection.

Possibly include other Centers who are in the Earth System Sciences.

Retreat adjourned at 4:30 pm.