Taking stock

- What is going well
  - Education, across the board
  - Coupled run
  - Q3D, but it’s taking time
  - GCRM
  - Testing parameterizations in CRMs
  - Book
  - Journal
- What needs work
  - Implementing parameterizations in the MMF
  - Interactions with climate centers
  - Interactions with NWP centers
  - Diversity recruiting

The process, I

- First five years end on June 30, 2011.
- Renewal proposal is due October 9, 2009.
- The budget is flat.
- Cost share is unchanged: 30%.
- NSF will conduct a site visit (3 days), mid-February 2010.
- We will be notified of the outcome by June 2010.

The process, 2

- This is the "inclusive" phase of proposal preparation.
- Ideas / "content" are solicited from all Team Members, including students.
- Text is by far the most useful form.
- We will discuss the renewal proposal in multiple sessions at this meeting.
- Deadline is August 31.
- The proposal is being prepared by the EC, based in part on input received from the Team.
- Not all suggestions will make it into the proposal.

Research I

Future Objective	Actions Required
1. Further development of global models with explicit representations of cloud processes	Q3D MMF
	GCRM
	Others?
2. Application of the MMF to study the coupled climate system and anthropogenic climate change	High-resolution simulations of the interactions of the atmosphere with the land-surface, with foci on water, energy and carbon.
	Academic CMIP run
	Academic AR5 scenario
3. Accelerating improvement of conventional parameterizations.	Cumulus convection
	Turbulence in and above the boundary layer
	Momentum transport by convectively generated gravity waves
4. Further development and testing of improved parameterizations of microphysics, turbulence, and radiation for MMFs and GCRMs.	Develop new parameterizations
	Test in CRMs
	Test in MMFs and GCRMs

Research 2

Future Objective	Actions Required
5. Innovative analysis, evaluation and interpretation of model results using emerging data sets.	Participation in CFMIP
	Participation in GEWEX intercomparisons
	Experimental NWP using the GCRM
6. Application of the MMF and GCRM to study multiscale interactions of the atmosphere and the land-surface.	Hydrology
	Topography
	Monsoons
7. Management, analysis, and visualization of very large model output datasets -- creation of infrastructure	Creating model output
	Accessing/transporting model output
	Analyzing model output
	Visualizing model output

Knowledge Transfer

Future Objective	Actions Required
1. Interact with CCSM (and GFDL?)	Outreach
	Joint project(s)
	Offer parameterizations and/or dynamics through Working Group process
2. Interact with ESRL and NCEP	Continue interactions with NCEP
	Create new interactions with ESRL
3. Create a national training resource for global modelers (NOAA connection)	Create instructional materials
	Organize summer school
	Make instructional materials broadly available
4. Wean JAMES from CMMAP.	Establish financial self-sufficiency
	Establish managerial self-sufficiency
	Hand-off to IGES

Education Objectives

Future Objective	Actions Required
1. Enhance K-12 science education	Curriculum enhancement kits for K-12 classroom teaching
	Climate content for LSOP and TV show
	K-12 teacher training course
	climate and atmospheric science content via Windows to the Universe.
	state-wide global climate conference for high school students
2. Outreach to climate stakeholders and policy makers	Science/policy dialogues with local, state, & federal government officials
	IPCC participation
	United Nations climate change negotiations.
	Develop decision support resources for decision makers.
3. Improve undergraduate climate education	new undergraduate climate courses.
	Undergraduate research scholarships & internships
	Climate content across undergraduate university curricula
4. Improve graduate research and education	Graduate student research.
	graduate student summer colloquium
	graduate students teach undergrad courses at Colorado College.
	Grad student exchanges among CMMAP institutions


7th CMMAP Team Meeting