

CMMAP Management Overview

- **CSU is the lead institution**
 - * **Carries out research, graduate education, K-12 education, undergraduate curriculum infusion, diversity studies and evaluation of the LSOP program**
- **Within CSU, CMMAP is a project within the Department of Atmospheric Science**
 - * **Department Head has lead responsibility for personnel actions, account management, and space allocations**

Institutional Arrangements

- Within CSU, CMMAP is a project within the Department of Atmospheric Science, which is part of the College of Engineering
 - Department Head has lead responsibility for personnel actions, account management, and space allocations
 - CMMAP Management relies on the Department of Atmospheric Science staff to approve all financial transactions

Atmospheric Science West

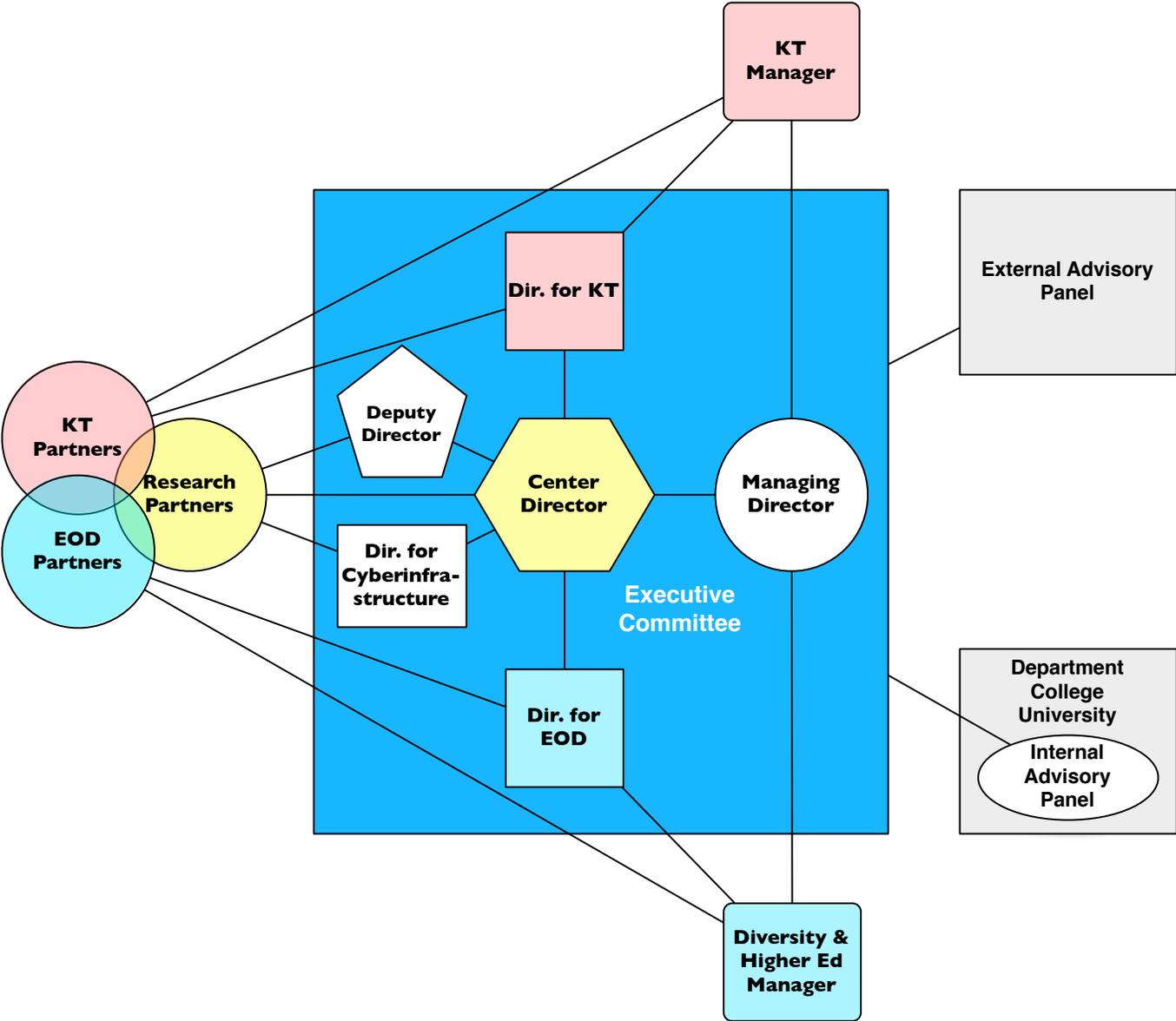
- CMMAP is comfortably housed in a building that was created for it
 - The building was completed in April 2009
 - It is managed by the Department of Atmospheric Science



Participants

- 12 subaward institutions
- 8 are partners (cost sharing)
- 1 international partner (cost sharing)
- 12 other collaborating institutions, including federal laboratories, school districts, and international

CMMAP's Management Structure



Executive Committee

- Orchestrate CMMAP's overall scientific direction
- Manage the budget
- Revise Strategic & Implementation Plan
- Initiate or discontinue partnerships and collaborations
- Monitor progress relative to established milestones
- Develop diversity
- Enforce the highest standards of ethics and research quality
- Promote broad dissemination of results

Executive Committee

- Meets via teleconference frequently to conduct business without excessive travel
- Other CMMAP personnel participate as appropriate
- Meets face to face in conjunction with each of the CMMAP Team Meetings, NSF Site Visits, and External Advisory panel meetings, for a minimum of four times per year

Management Goals

- A. Create, nurture and promote a new community of researchers and educators with a strong focus on the Research, Education, Diversity and Knowledge Transfer goals of the Center.
- B. Foster collaborative relationships between the Center and other institutions
- C. Coordinate Team Meetings, Advisory Panel Meetings, internships, intern-recruiting activities, Teacher Training Workshops, lectures, colloquia, and other CMMAP activities
- D. Create synergistic relationships with non-NSF funding sources and national and international partners

External Advisory Panel

- Six members, including representatives of academia, atmospheric science research centers, a computing center or company, and the education sector
- Members serve three year terms, the Chair rotates every two years
- Meets at least once per year, members participate in Team Meetings
- Monitors progress and makes recommendations to the Executive Committee

Management Objectives

Objective	Actions Required	Supports Goal #
1. Organize CMMAP's activities so that the diverse tasks being worked on in widely separated locations feed coherently and efficiently towards the Center's Goals.	Hold "all hands" meetings twice per year, with half of the meetings hosted away from CSU.	A
	Define "Research Themes" that foster collaboration leading to progress on CMMAP's research Objectives.	
2. Create productive interactions among the researchers and educators involved in CMMAP, so that the researchers and educators function together as a team.	Create ED and KT Committees, with participation by CMMAP scientists.	A
	Engage CMMAP scientists as content providers for the ED "translators."	
3. Communicate CMMAP's activities and accomplishments to the outside world.	Create and maintain CMMAP web page.	B
	Publish review articles that provide overviews on topics highly relevant to CMMAP.	
4. Manage the CMMAP budget from year to year so as to maximize productivity across the whole range of the Center's activities.	Adjust funding levels as appropriate to achieve objectives.	A and C
	Add or delete funded program elements to optimize progress towards the Center's goals.	
5. Attract funding, including cost-share.	Submit proposals for CMMAP-related research as opportunities arise.	B and C
	Monitor and adjust cost-share agreements as required.	
	Seek private donations.	

Management Metrics

- Number of “all hands” CMMAP Team Meetings held
Addresses Objectives 1 - 2.
- Number of people participating in CMMAP Team Meetings.
Addresses Objectives 1 - 2.
- Number of publications co-authored by CMMAP participants from more than one institution
Addresses Objectives 1 - 2.
- Number of EC telecons conducted
Addresses Objectives 1 - 5.
- Number of hits on CMMAP web page.
Addresses Objective 3.
- STC funding attracted, including cost-share.
Addresses Objective 5.
- Participation in annual STC Directors’ meeting.
Addresses Objective 3.
- Professional development of CMMAP staff.
Addresses Objectives 2.
- Annual reviews of progress and plans by the External Advisory Panel.
Addresses all Objectives.

Maintaining an Effective & Cohesive Team

- Hold two Team Meetings per year
 - Operated as Workshops with presentations on recent results, near-term plans, and time for discussion
 - Invited lectures by local experts
 - Breakout groups for Research Themes, Education & Diversity goals, and Knowledge Transfer goals for specific presentations/discussion
 - Student activity to build relationships and promote collaboration

Financial Management

- In order to efficiently meet NSF reporting requirements (and questions from Site Review teams):
 - Separate accounts set up for each Research, Education, Diversity, and Knowledge Transfer objectives, as well as a Management/Administrative account
 - In addition, we have separate cost share accounts, and a gift fund.
 - Developed our own shadow accounting tools & practices

Financial Management

- Meeting University and Federal Cost Accounting Standards, and the terms of our cooperative agreement:
 - Transactions initiated by any CSU CMMAP participant are approved by Department of Atmospheric Science staff (not CMMAP staff)
 - Required transaction and backup documentation are relayed to CMMAP staff, who in turn use that to reconcile CMMAP accounts
 - CMMAP staff must identify issues and resolve them with ATS department staff

Reporting

1. Annual reports to NSF
2. Subaward institution reports to CMMAP EC twice per year
3. Internal CSU investigator reports to CMMAP EC twice per year

Annual Report to NSF

- NSF dictates the format for this report, and requires us to report by goals and/or objectives.
- Our reporting responsibilities are hierarchical in that the Objective Team Leaders are responsible for soliciting and collecting input, writing their portion of the report, and submitting it via our reporting system.
- The Executive Committee and the ED and KT Managers collate the information and write their respective sections of the report. We (the EC and Managers) are responsible for producing the final version.

Annual Report to NSF

- To successfully survive the complexity of this annual reporting process, we have developed a web-based reporting system. It also serves as part of the NSF-required database:

“Part of this reporting will take the form of a database which will be owned by the institution and eventually made available to an evaluation contractor. This database will capture specific information to demonstrate progress towards achieving the goals of the program.”

- excerpt of email from Alina Martinez of Abt Associates

Reporting Challenges

- Getting every team member to log in and do what we ask them to do.
- Objective Team Leaders shoulder a large burden of producing a coherent section of the report.
- CMMAP Executive Committee and the ED and KT Managers must take the report input and make it readable.
- All of this consumes incredible amounts of time -- time we can't spend working toward the goals in our SI plan.

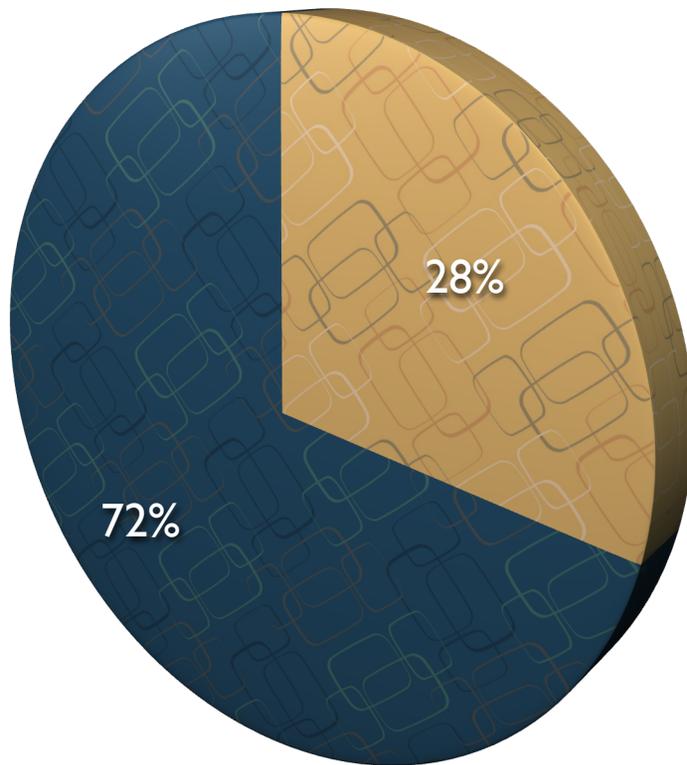
Resource Allocation

- Resources are allocated by consensus of the CMMAP Executive Committee, with the goal to use approximately:
 - 1/3 of the available funding to support Education, Outreach, and Diversity activities
 - 1/2 of the available funding to support Research activities
 - 1/6 of the available funding to support Knowledge Transfer activities

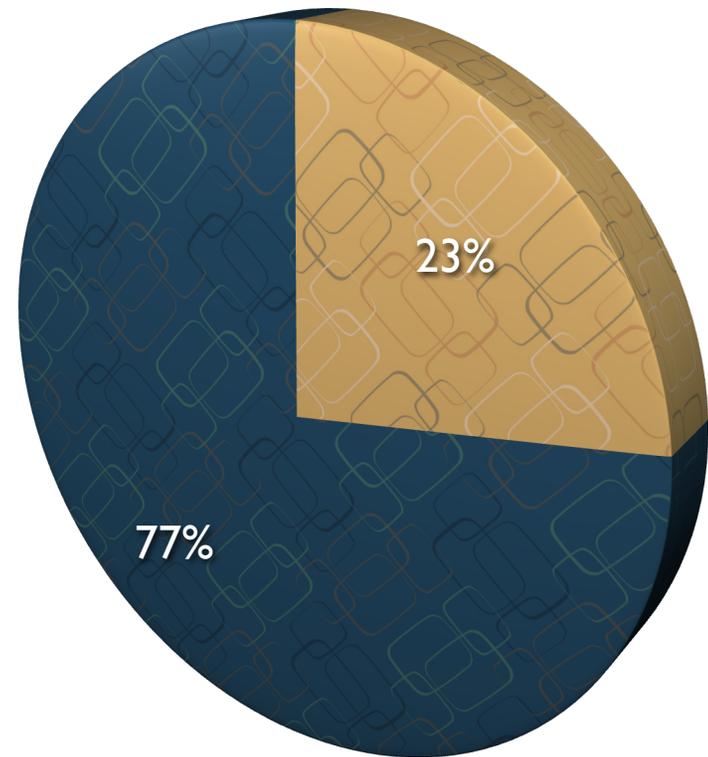
Renewal Budget vs. Cost Share

● Subawards

● CSU

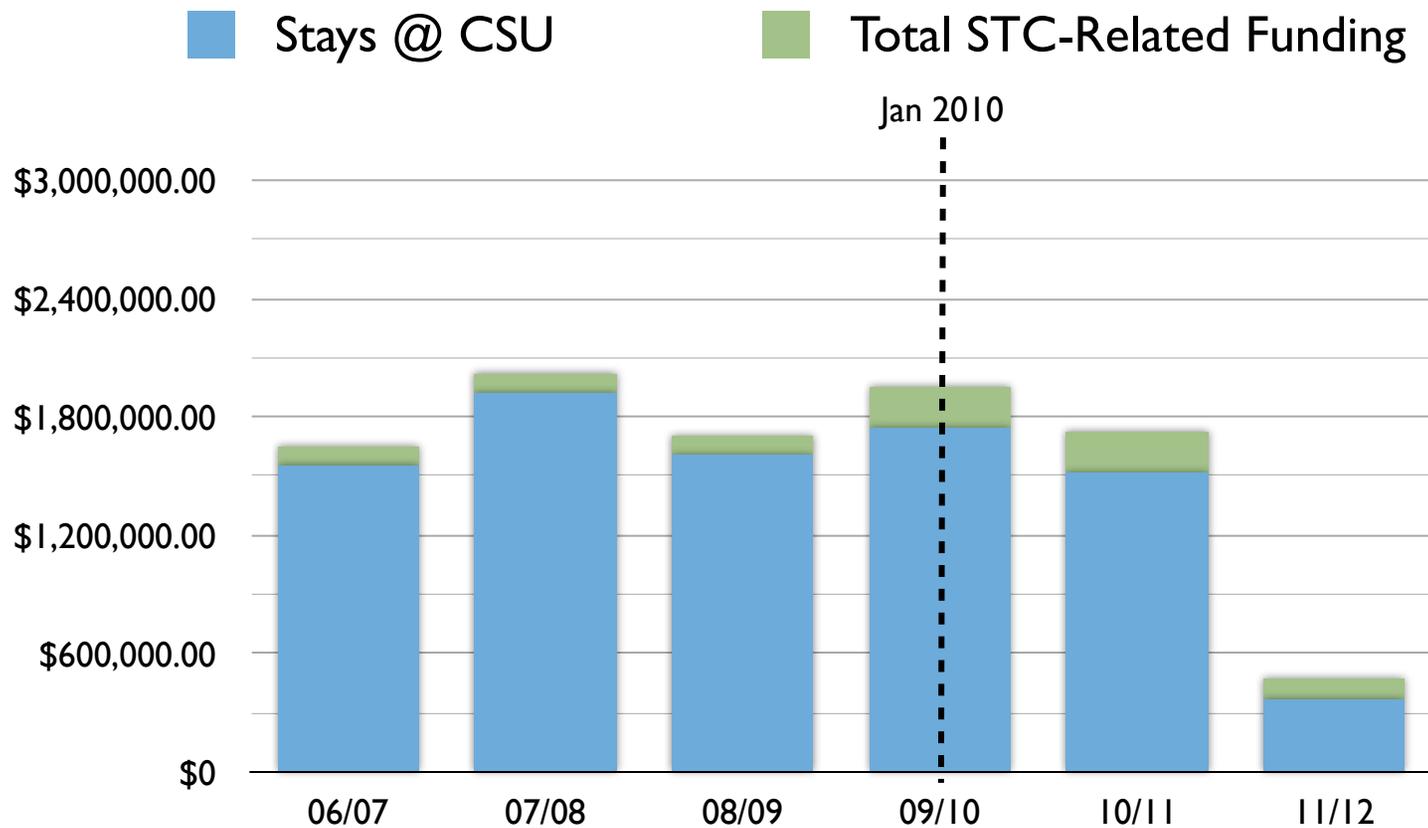


Budget



Cost Share

STC-Related Funding to CSU



Total CMMAP-Related Funding Awarded to 4 CSU ATS CMMAP PIs through FY11/12	
Center Total	Colorado
\$9.5M	\$8.7M

Things still to prepare:

- Slide about meeting planning
- slide re: budget, % for E, D, R, KT and Mgmt

Things we may need to present but haven't prepared yet:

- Ethics
- Intellectual Property (attached a previous IP site review presentation)

Intellectual Property Agreement

CMMAP's research is highly academic in character and is not expected to produce any patentable items. Our plan is to share data, software, and scientific results with the maximum possible openness, but with appropriate respect for the right of CMMAP scientists to priority in the publication of their own work.

Intellectual Property Agreement

CMMAP's **scientific results** will be **promptly published** in the peer-reviewed literature. CMMAP's **modeling techniques**, including source codes, will be **made freely available** to the academic community immediately **after publication** by the scientists involved in their development. For these reasons, issues associated with intellectual property rights are expected to be **very minimal**.

Intellectual Property Agreement

In general, each collaborator will retain all right, title and interest in intellectual property created solely by its employees; collaborators jointly own all right, title and interest in intellectual property that is created jointly by employees of multiple collaborators.

Intellectual Property Agreement

CMMAP does not presume to subvert or take precedence over the roles and responsibilities of the individual technology transfer offices at collaborating institutions. Rather, **CMMAP provides coordination** across those entities.

CMMAP's Executive Committee monitors activities to detect possible emerging issues, and will take action to deal with these.

Intellectual Property Agreement

To formalize these ideas, CSU and the CMMAP subaward institutions have **jointly signed an IPA**. It has not been changed since signing.

Other CMMAP partners and collaborators are not asked to sign the IPA. However, in the event that matters of a proprietary nature are discussed at a CMMAP meeting, the participants in the discussion will be asked to sign a non-disclosure agreement.

Ethics

- ◆ **CMMAP requires all Center and subwardee staff and students to participate in ethics trainings during our Team Meetings**
 - ▲ **Covers the nature of CMMAP's research as it relates to intellectual property issues**
 - ▲ **CMMAP's policies and expectations with respect to intellectual property rights**
 - ▲ **Code of ethical behavior documented in our Strategic and Implementation Plan**

CMMAP Ethics

CMMAP Education and Diversity activities include research involving human subjects

- ◆ **The Research Integrity & Compliance Review Office at CSU provides training, assistance to researchers in obtaining required approvals, and administration of faculty oversight committees**
- ◆ **The Human Research Committee and its procedures have been fully approved by the federal office overseeing human subjects protections**
- ◆ **Code of ethical behavior documented in our Strategic and Implementation Plan**

CMMAP Ethics

As part of its regular business, the CMMAP Executive Committee monitors ongoing and proposed CMMAP activities to detect any emerging issues in connection with unethical behavior, and takes action to deal with such issues as they arise.