WG Design and Charge to Breakouts

ASR
Atmospheric System Research

Cloud Life Cycle Working Group
14-15 October 2010

A New Program Requires New Approaches

Atmospheric System Research Program is more than simply the addition of ARM and ASP:

Objective is understanding & modeling PROCESSES and SYSTEMS

These are typically larger than any one PI project

Requires coordination and integration of Science Team activities

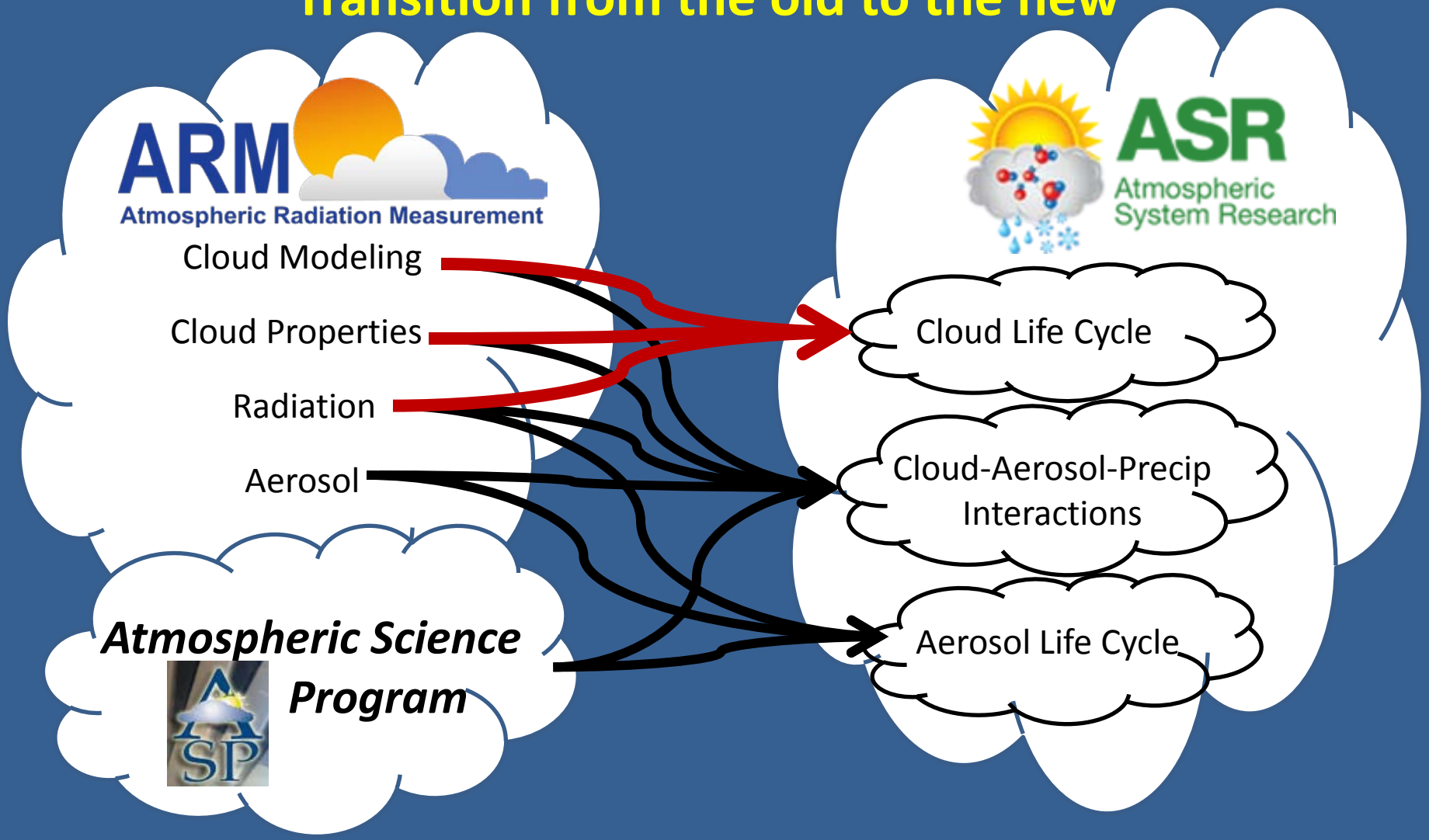
Integration at Many Levels

Working Groups and Focus Groups, with active participation from PIs, will facilitate this integration

The onus for this these integration activities falls on multiple shoulders

1) DOE Management
   – *Funding structure, RFPs, Science Team membership*
2) WG Leadership
   – *Organizing meetings, coordination of efforts, etc.*
3) Funded Principle Investigators
   – *Engaging in WG activities and collaborations*

Transition from the old to the new



Mission Statement

The mission of the **Cloud Life Cycle Working Group** is to document from *observations and modeling*, and thereby develop understanding of, the dynamical, thermodynamical, microphysical, and radiative processes that together determine the *evolution of clouds* from formation to dissipation, and to *translate this understanding* into methods for representing cloud processes in numerical weather and climate models.

Accomplishing the Mission: An Example Design for the Cloud Life Cycle WG

Mission is best served by a combined approach that includes individual PI research efforts AND larger organizational elements that can address more complex and comprehensive issues.

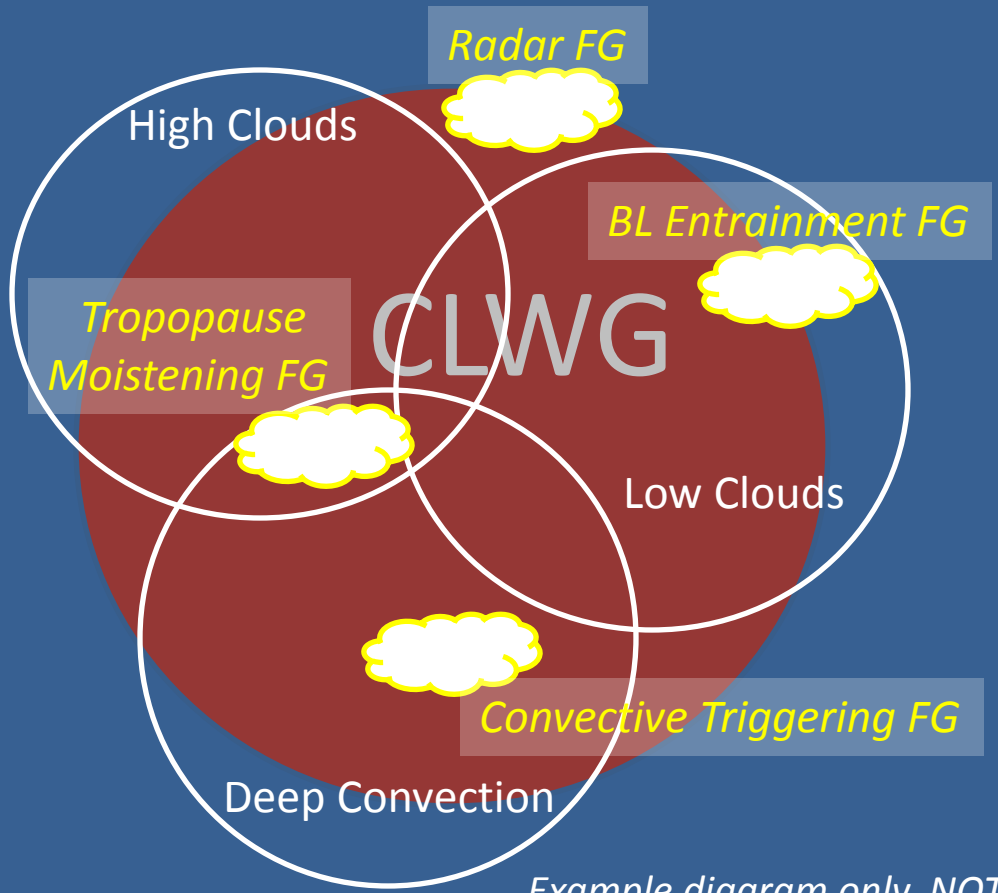
❖**PI Research:** Basic and exploratory research. Relatively narrow and focused.

❖**Cloud regime groups**: Useful for organizing meetings/sessions based on cloud types/process regimes. Most PIs can identify with one of these.

❖**Instrument Focus Groups**: Provide guidance for specific instruments and/or observational approaches (e.g., Radar Focus Group).

❖**Science Focus Groups**: Organized around a specific science topic or theme that is broader than an individual PI project.

Accomplishing the Mission: An Example Design for the Cloud Life Cycle WG



Example diagram only, NOT actual design!

Focus Groups are a vehicle for broader integration of research activities

- FGs can occur in any cloud regime group or combination of these groups
- Potential overlap with other WGs
- FGs can be independent of cloud regime subgroups

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The Vision for Focus Groups

Still a lot to be determined!

Basic Guidelines:

- Have a mission that clarifies the general objectives
- Plan/approach for using coordinated efforts to address objectives (white paper)
- Attainable progress in ~5 year time scale
- Critical mass of participation
- Demonstration of progress (talks, papers, products)

Benefits:

- Recognition of activities w/i WG and Science Team
- Meeting time
- Increased leverage for prioritization
- Potential infrastructure support

The Vision for Focus Groups

Examples from ARM:

1) **CLOWD – Clouds with Low Optical Water Depth**
   Narrow objectives, ~15-25 participants, made measurable progress at characterizing thin liquid clouds, results summarized in BAMS
2) **Vertical Velocity Focus Group**
   Very important parameter. Help to coordinate various efforts towards a better overall characterization of w in many conditions. Working towards data products.

Time for discussion of Focus Groups on Friday

Charge to the Breakouts

- Manage the time: 15 min. per speaker!
- Emphasize discussion on the following themes:
  - Identify common research themes
  - Identify pressing needs by the modeling community
  - Identify broad approaches for addressing the needs (How can ASR as a program address the needs?)
  - Identify priorities in terms of measurements, products, model activities, etc.
  - Consider potential Focus Groups, their mission, and people to lead/coordinate the efforts
- Session leaders will give a summary report to the CLWG plenary on Friday
- Session leaders, get a copy of all talks

Questions or thoughts about this general design?

Also time for discussion on Friday afternoon

Breakout Schedule

Ballroom (upstairs)
Breakout #1: Deep Convection 8:00 – 15:30

Century (downstairs)
Breakout #2: Low Clouds & BL 8:00 – 12:00
Breakout #5: Radar Focus Group 13:30 – 15:30

Millenium (downstairs)
Breakout #3: Cloud Properties & Products 8:00 – 10:00
Breakout #4: Cirrus / High Clouds 10:30 – 15:30