

Vertical Velocity Focus Group: Mission Statement

The mission of the ASR Vertical Velocity FG is to use ARM measurements to improve the understanding of the connection between cloud microphysics and cloud-scale dynamics and provide observational targets (vertical velocity products) suitable to evaluate Large-eddy simulations, Cloud-resolving models and aspects of large-scale model parameterizations



*Science Team Meeting
29 March 2011*

Vertical Velocity Focus Group: Formation Process

Develop white paper (4 pages, with feedback from the WG chairs) that outlines:

Mission statement

Objectives

Milestones – Measuring progress

Short term (1 year)

Long term (5 years)

Organizational structure

Target/Task subgroups

Participation

Demonstration of progress



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Vertical Velocity Focus Group: Objectives

Short term

Develop white paper on status of vertical velocity measurements using ground-based observations

Prioritize VV products (Importance, Maturity, Level of effort, validation strategy)

Identify a few VV products that will push towards production (available at the ARM archive)

Long term

Integrated suite of algorithm for VV products at all sites and all cloud and precipitation conditions - Active role in future IOP's

Enhance our understanding on how cloud systems dynamics impact cloud microphysics and cloud lifetime



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Vertical Velocity Focus Group: Organization

ASR/VVFG

Large-scale
Precipitation

Deep
Convective
Clouds

Ice
Clouds

Mixed-phase
Clouds

Liquid
Clouds

Clear
Air

Models
Products
IOP

ARM

Atmospheric Radiation Measurement

Infrastructure
VAP Development
Instrument Groups

Vertical Velocity Focus Group: Key performance metrics

- i) Number of vertical velocity retrieval algorithms run by ARM with appropriate validation strategy
- ii) Number of vertical velocity products in the ARM archive with emphasis in ARM IOP's,
- iii) Number of publications by VVFG-affiliated scientists using vertical velocity data to understand processes in the atmosphere and clouds.

Other

Participation

Living report (updated every 6 months)

Web site



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