

# **VAPs Report**

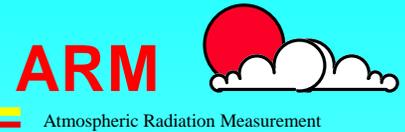
## **IRF/RP Oct. 3-5, 2006**

**Chuck Long**

# Current VAPs

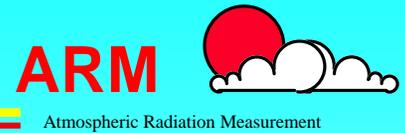
- **From the VAPs Status Report:**
  - **18 IRF/RP VAPs currently in production**
    - 12 need updating to QC flagging standards
    - 8 need Web page and tech report work
    - 5 “broken” awaiting LBL upgrade
    - 2 recommended for “sunsetting”
    - 3 “retired”
      - QME MWR COL and QME MWR PROF functionality replaced by MWRRET VAP
      - MWR PROF per BCR 881
  - **3 VAPs in development**
    - GSW CORR, MWR RET, SFC Spec ALB

# Newly Released VAPs



- **Surface Cloud Grid VAP**
  - Developers J. Christy, K. Gaustad
  - SGP area  $0.25^{\circ} \times 0.25^{\circ}$  lat/long grid of SW Flux Analysis
  - Files in Archive, January 1997 – March 2006
  - Includes new QC flag standards, All EFs SW & Cld data in one file
  - Technical Report: ARM-TR-010

# Newly Released VAPs



- **QCRad VAP**
  - Developer Y. Shi
  - Applies sophisticated automated data QA/QC to surface radiation measurements
  - Current “**recommended measure**” for surface radiation measurements
  - Technical Report: ARM-TR-074
  - Next: work with DQO on using QC information

# Newly Released VAPs

- **BBHRP VAP**
  - Developer T. Shippert
  - Files available as “PI Product”
  - Processing periods to date:
    - SGP March 2000 - February 2001
    - NSA January - October 2004
  - Related effort: TWP HRP
    - Produced by Sally McFarlane and Jim Mather
    - Also available as “PI Product”
    - Manus (Mar-Jul 2000); Nauru (Feb-Dec 1999)

# In Development

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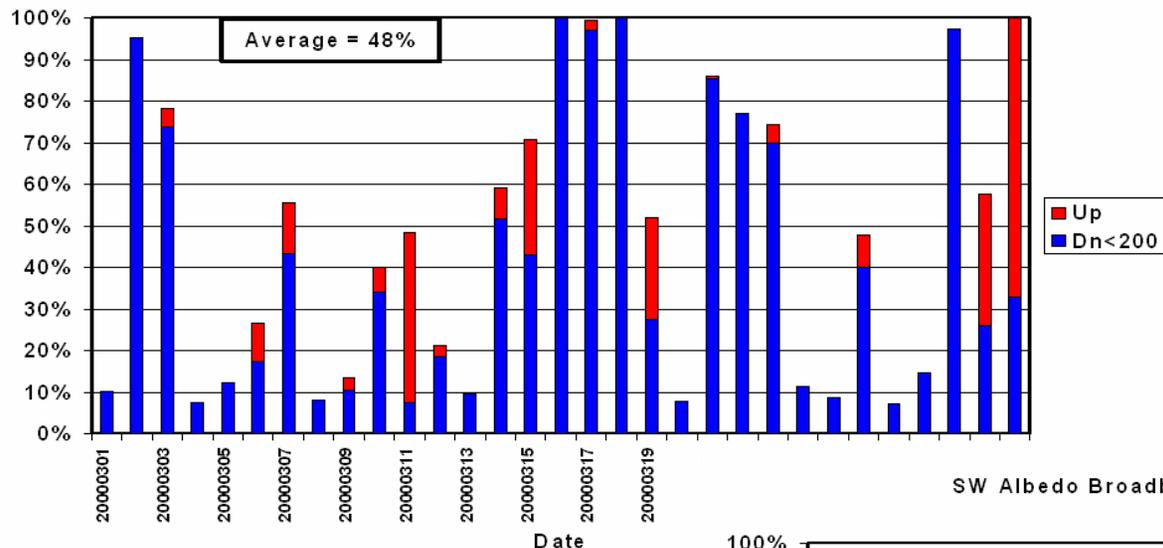
- **SGP Surface Spectral Albedo VAP**
  - **Sponsor J. Michalsky, Developer K. Gaustad**
  - **Needed as input for proposed SW QME**
  - **Extensive input measurement QC development nearly done**
  - **Spectral interpolation and binning done**

# Albedo Measurement Testing



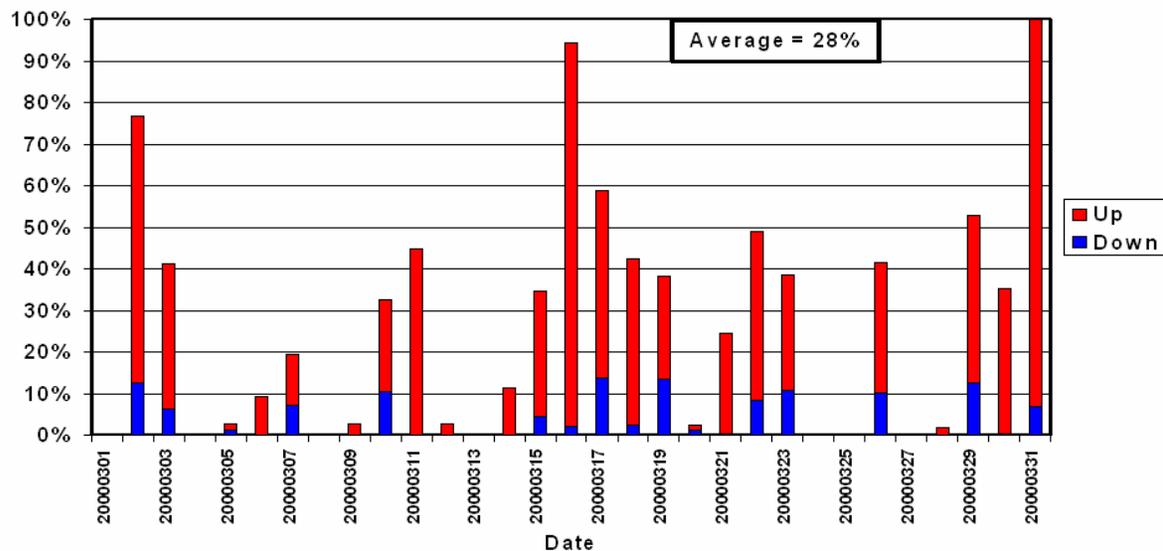
Atmospheric Radiation Measurement

SW Albedo Broadband Data Testing, Screen SW dn < 200 Wm<sup>-2</sup>



**March 2000**  
**Daily Totals**  
**SZA < 80°**

SW Albedo Broadband Data Testing, Incl. SW dn < 200 Wm<sup>-2</sup>

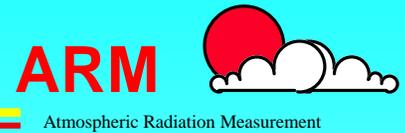


# In Development

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- **Global SW IR Loss VAP**
  - Sponsor E. Dutton, Developer Y. Shi
  - Applies same IR Loss correction as DiffCorr VAP, but to unshaded pyranometer data
  - All of the science and most of the coding done already via DiffCorr efforts
  - Will not lend itself to automation (yearly manual processing required)

# In Development



- **MWR Retrievals VAP**
  - Sponsors J. Liljegren & T. Clough, Developer K. Gaustad
  - Provides precipitable water vapor (PWV) and liquid water path (LWP) from the 2-channel microwave radiometer
  - New version of the forward model was just released, beta datasets are available
  - Autonomous operation, but annual reprocessing will be required to properly determine and apply the  $T_b$  offsets
  - Replaces QME MWR COL and QME MWR PROF

**Thank You**