



Tool to View Long-Term Trends and Detect Outliers

ARM Data Quality Office
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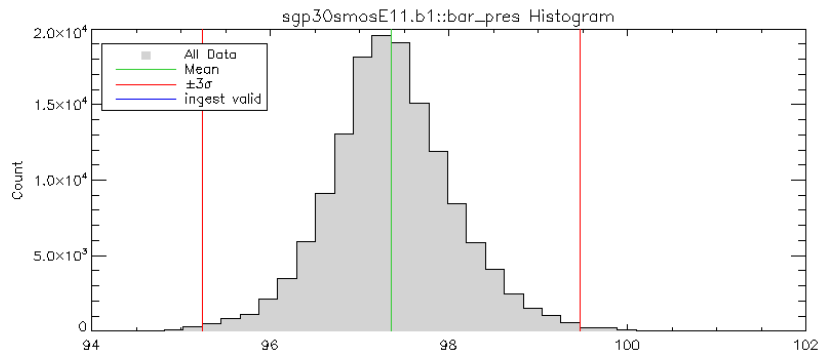
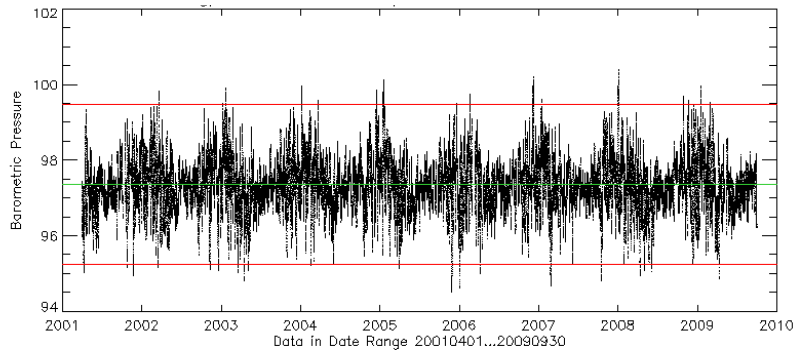
Data Tools Overview

- ▶ **ANDERS**
 - ARM NetCDF Data Extraction Request Software
- ▶ **NCVweb**
 - Inspect files for problems
 - Interactive plotting
 - Simple statistics
 - Show file metadata, values, extract data, etc
- ▶ **ARM*STAR**
 - Long term plots and statistics
 - Histograms
- ▶ **DQ HandS Plot Browser**
 - Browse many pre-made plots over many days at once
 - View by thumbnail or by list
 - Mix and match datastreams of interest
- ▶ **Collaboration Wiki**
- ▶ **WebEx**

Characterize Instrument Measurements & Engineering Data

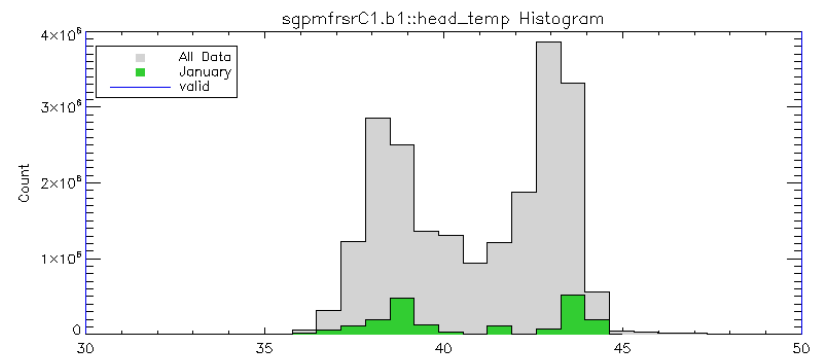
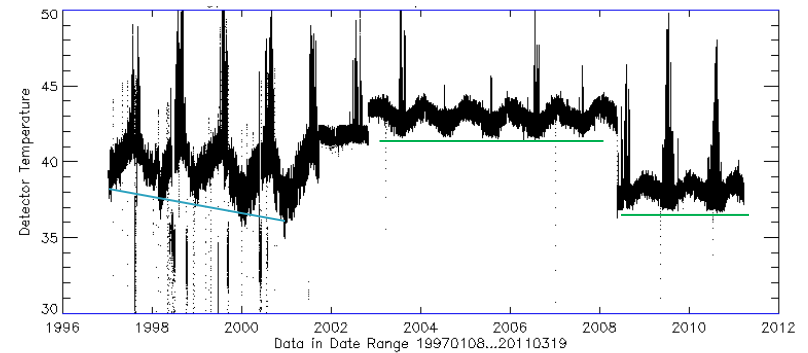
Identify Trends and Detect Problems

SMOS Barometric Pressure 2001–2010



SMOS Barometric Pressure Histogram

MFRSR Detector Temp 1997–2011

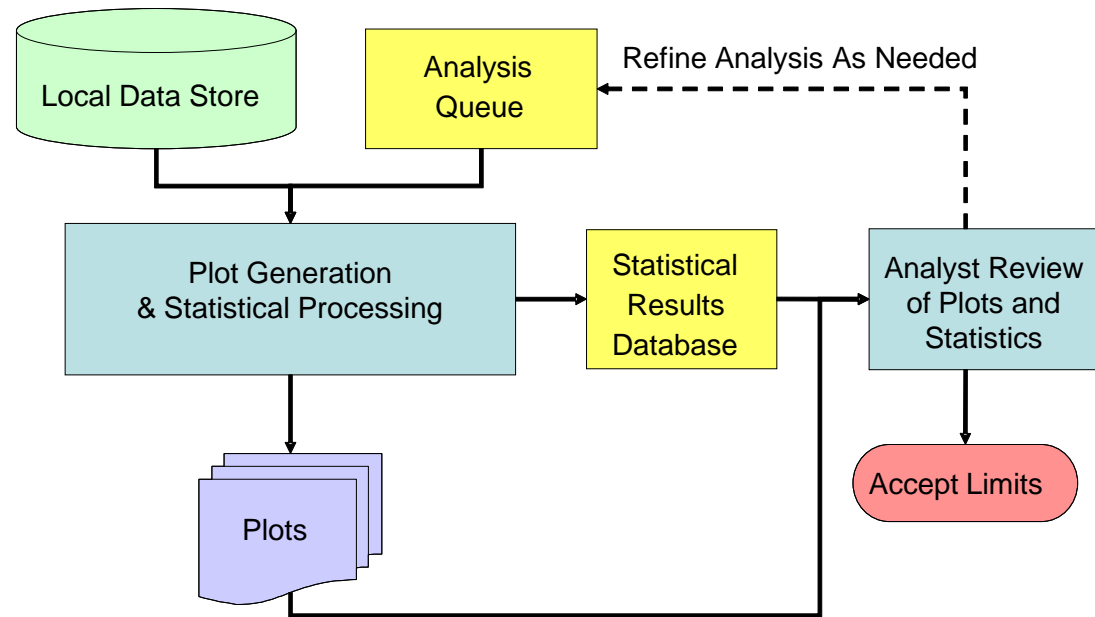


MFRSR Detector Temp Histogram

ARM*STAR

ARM Statistical Analysis Reports

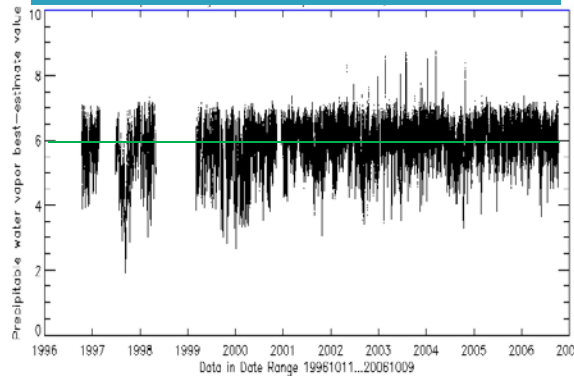
- ▶ Combines data from many months, years or decades
- ▶ Computes statistics over custom time ranges
- ▶ Produces long-term plots
- ▶ Frequency Distributions
- ▶ Feedback loop with analysts to refine results
- ▶ Analysis details, statistics and proposed limits captured into a database at the DMF.



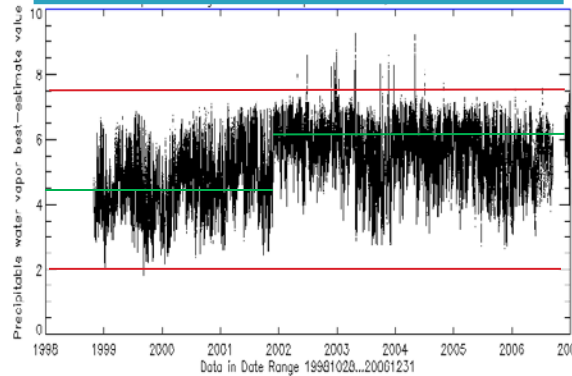
Review VAP Changes Before Release

MWRRET Best Estimate PWV (cm)

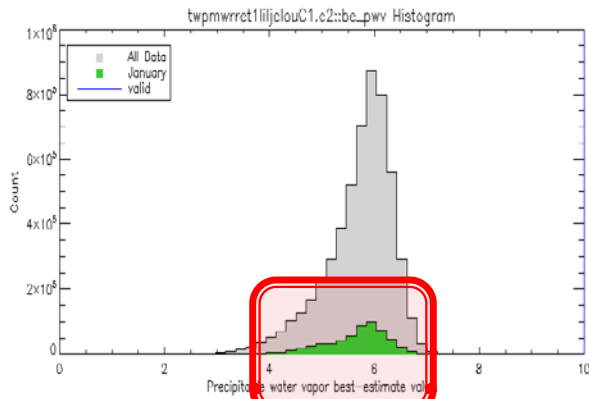
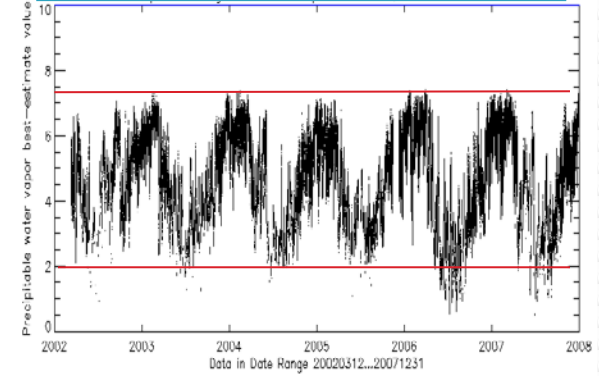
Manus 1997-2007



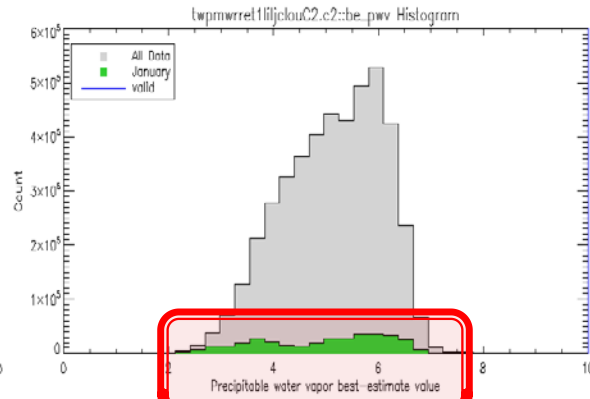
Nauru 1999-2007



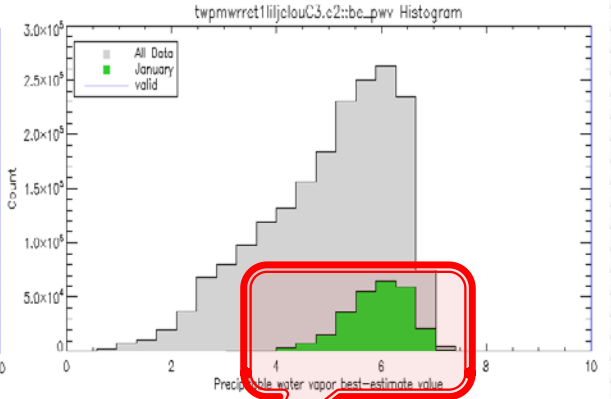
Darwin 2002-2008



Weak Seasonal Dependence



Moderate Yearly Dependence (Bi-Modal)



Strong Seasonal Dependence

Web-based Report Viewer

ARM Statistical Analysis Reports (ARM*STAR beta)

Find a report from this analyst: moore

| Sites | Platforms | Facilities | Levels | Variables | Analysis Type |
|--|--|--|---------------------------|---|--|
| * fkb grw hfe nim nsa pye sgp twp | * 30smos 915rwp 915rwpwindcon beflux1long disdrometer mfrsr mwrp mwrret1liljclou mwrtp | * B1 B6 C1 C2 C3 E11 I1 M1 | * a1 b1 c1 c2 | up_hemisp_broadband_mfr25mC1 up_hemisp_narrowband_mfr10mC1 up_hemisp_narrowband_mfr25mC1 up_short_hemisp_beflux1longC1 up_short_hemisp_irt25mC1 vel0 vert_v virtualTemperature waterVaporDensity waterVaporMixingRatio | Range_20091201_20091210 Range_20091201_20091231 Year_2004 Year_2005 Year_2006 Year_2007 Year_2008 Year_2009 Year_2010 Year_2011 |

* will match any item in the list

Search

Reset to Defaults

Found these Reports:

| | |
|---|---|
| 1 | nsa.mwrret1liljclou.C1.c2.be_pvw.Entire.png |
| 2 | nsa.mwrret1liljclou.C2.c2.be_pvw.Entire.png |

<http://dq.arm.gov/armstar/>