



## **ARM Data Quality Office** A. Theisen<sup>1</sup>, J. Monroe<sup>1</sup>, S. Moore<sup>2</sup>, J. King<sup>1</sup>, K. Kehoe<sup>1</sup>, and R. Peppler<sup>1</sup> <sup>1</sup>ARM Data Quality Office, CIMMS/University of Oklahoma | Norman, OK <sup>2</sup>Orbital ATK Inc. | San Francisco, CA **Data Quality Report (DQR) Webservice Python Datastream Comparison Tools** • World accessible mechanism to query the DQR database • Generic datastream Bias=-0.028 RMSD=0.031 R<sup>2</sup>=0.039 slope=0.189 intercept=0.03 • Returns a list of time blocks that delineate known periods of problematic comparison framework • Custom time ranges, • Easily parse response from any programming language. We provide data filtering, and gpmfrsraod1michC1.c1:aerosol\_optical\_depth\_filter2 n=274 Bias=-0.04 RMSD=0.04 R<sup>2</sup>=0.942 slope=1.43 intercept=-0.077 Incorporate service into your data analysis workflow for always up-to-date resampling • Multiple plot types, Apply Changes X Y Plot X Y Y2 Multi Facility custom placement/sizes NCVIJEB pmfrsraod1michE13.c1:aerosol optical depth filte gmthour [4320] (time) Autoscale @Manual **Geospatial Analysis** direct\_horizontal\_broadband [4320] (W/m^2) Autoscale @Manua Capability to convert geospatial data to KML None Plus Star Do 3D display (e.g., Google Earth) ndicate DORs: MT Hour (time local is GMT — • 2D static geospatial plots for routine inspection and Data Quality Report izontal broadband D141215.1 incorrect SGP/MFRSR/E9 - Shadowband Misalignme diagnosis AAF Flight Path for 20160401.220349 DQ Zoom • Time logging with file export in DQRready format • On-the-fly smoothing, linear/log axis • PNG export DQ<sup>2D</sup> (Beta) Data found for chosen datastream from: 07/21/1993 to: 04/14/2010 variables found for this datastream and start data QR web service was sucessfully quer ct start date for logging ot of sgpmetE13.b1 temp\_mean for 20160401-2016041 • 2D Interactive Plots naaosccn100C1.a Value display on mouseover me Logging Toggle: OF -axis Log Scale: • Statistics (Min/Max/Stdev) Click and drag zooming • Lidars, Radars, Aerosols, ARM Data Quality Office. All Rights Reserved. Issue Precipitation (DSD) dq.arm.gov<sup>m</sup>///////

- data
- examples!
- filtering of incorrect or suspect data records

http://www.archive.arm.gov/dqrws/ARMDQR ?datastream=sgpmfrsrE9.b1 &varname=direct\_horizontal\_broadband &timeformat=YYYYMMDD.hhmmss

> 20141117.171500|20141117.223000 20141118.171500|20141118.223000 20141119.171500 20141119.223000 20141120.171500|20141120.223000

Click and drag zooming

- Value display on mouseover
- Slices of 2D variables
- DQR overlay and linking















sgpaafcpcF1.a1: 15400 cm^-3 LE concentratio LT 17400 cm^-3

Time (UTC)