Improving the Understanding and Accessibility of ARM Aerosol Data

Background

▶ Discussion revolved around

- Current documentation and processes

- Calibration Information

- Data Quality

- User Engagement

- General Improvements for ARM Data

Obstacles and Opportunities

1. Mentors have limited time and do not have the resources necessary to further advance the data science and publish on the instrumentation.

2. How to more effectively communicate information out to the broader aerosol community? Many reports from ARM are not available to users.

3. Data quality information in multiple areas

1. Utilize the newer Data Analysts to support mentor activities. Process was defined during the last mentor meeting.

2. AMSG could have a role to communicate information out

3. Incorporate DQRs into files on delivery. Default to suspect removed on ordering as well.

Obstacles and Opportunities

1. Understanding what data products should be used

2. Mentors and others spend time working with users on baseline "ARM 101" type topics

3. Handbooks are inconsistent across instruments

1. ARM has implemented rankings of measurement sources. More is needed to detail users what is available and in which products

2. Provide more resources for first time users (Readmes, Jupyter Notebooks)

3. ARM has implemented a new handbook template and are working on updates to most handbooks by the end of the year.

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Obstacles and Opportunities

1. Uncertainty information does not have a standard path forward in ARM

2. Many users are not aware of DQ tools and products that could greatly help them out in data exploration

3. IOP data organization is confusing

4. Ease of use of data across organizations

1. Existing uncertainty reports that need to be communicated out more

2. Presentation at the PI meeting but maybe we need more information on the main ARM pages

3. ADC working on bringing the IOP data into data discovery more (Non-standard data)

4. Provide data products in similar format as other organizations or software to provide that transformation

Obstacles and Opportunities

1. Lots of different data products to go to for information

2. Need additional tools to provide productive ways for PIs to engage with the data

1. Provide aerosol composite products that pull together information valuable for certain purposes (Closure style products, NPF, etc…)

2. DQ Office tools may be underutilized so could be opportunities for outreach.

   ARM Field Campaign Dashboard provides a customizable view for PIs

   Alpha release of a customizable visualization dashboard

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Example