Understanding ARM Roles to Support Your Research

Jim Mather, *ARM Technical Director*

ARM

ARM Organization

ARM is a complex organization with over **200 staff** supporting the science community through a broad array of functions. It is important to understand these functions so you can fully engage and benefit from what ARM has to offer.

Why is this important?

ARM operates **6 ground-based observatories**, an **aerial facility**, over **450 instruments**, and over **6,000 datastreams**. This user facility has great potential to support research, but it is also very complex.

ARM provides long-term continuous measurements from its ground sites. Data from these measurements are made available to the research community in near-real time.

To make the best use of ARM data and the ARM facility, you should engage with technical staff. The most important ARM staff for most researchers to know are **mentors** and **translators**.

Translators: Creating Advanced Data Products

ARM translators have the primary responsibility to manage the development of **value-added data products (VAPs)**. In addition to this development role, they act more generally as liaisons between ARM and the science community. In this role, they help to identify high-priority needs from the science community.

Contact translators with questions about VAPs or with ideas for data product development.

https://www.arm.gov/connect-with-arm/organization/translators

- **Shaocheng Xie (Lead),** *Measurements-to-models linkages*
- **Scott Collis,** *Precipitation radar products*
- **Scott Giangrande,** *Cloud radar products*
- **John Shilling,** *Aerosol products*

Instrument Mentors: Managing and Advancing Instruments and Data

Each of ARM's 400-plus instruments has a mentor. Mentors are the primary technical points of contact for their instruments and have a wide range of responsibilities for their instruments, including:

- Transfer of instruments to operations
- Calibration and oversight of maintenance
- Final word on assessing data quality
- Management of upgrades and replacement
- Engagement with the user community

Anyone making use of data from an ARM instrument should reach out to the mentor with any questions and consider mentors **potential collaborators** where they are providing significant technical input. A full list of mentors is available on the ARM website:

https://www.arm.gov/connect-with-arm/organization/instrument-mentors

Adam Theisen, *Instrument Operations Manager*

Data Services: Managing Complex Data Processes

ARM provides a suite of data services for ARM staff and the user community that span the life cycle of data:

Collection › Processing › Archival › Discovery › Distribution

Users typically engage with the latter phases of **Discovery** and **Distribution**; however, computing resources are also available to support individual processing needs. More information on data services is available here:

https://www.arm.gov/data

Giri Prakash, *Data Services Manager*

Fixed and Mobile Atmospheric Observatories: Gathering Measurements

Each of ARM's ground-based observatories is managed by a **diverse team** that handles issues such as technical logistics, safety, and coordinating with local officials, along with interfacing with other groups within the ARM community.

https://www.arm.gov/capabilities/observatories

- **Mike Ritsche,** *Southern Great Plains (SGP)*
- **Mark Ivey,** *North Slope of Alaska (NSA) and third mobile facility (AMF3)*
- **Heath Powers,** *First and second mobile facilities (AMF1 and AMF2) and the Eastern North Atlantic (ENA)*

ARM Aerial Facility: Providing Airborne Measurements

The ARM Aerial Facility includes **both piloted and unmanned platforms** and is typically deployed to support ground-based measurements. The primary piloted aircraft has been the Gulfstream-159 (G-1) since October 2009, but it is in the process of being replaced. Additional information about capabilities and contacts can be found at:

https://www.arm.gov/capabilities/observatories/aaf

Beat Schmid, *Aerial Facility Manager*

Data Quality Office: Ensuring the Quality of ARM Data

The Data Quality Office provides **oversight** for managing data quality review and communications across ARM.

The office provides tools and staff to facilitate the continuous review of data and manage the implementation of Data Quality Reports (which are used to tag data with important data quality information) and Data Quality Problem Reports (which are used to manage the resolution of data quality issues).

https://www.arm.gov/connect-with-arm/organization/data-quality-office

Randy Peppler, *Data Quality Manager*

ARM Operations: Providing Measurements 24/7

Achieving **24/7 operations** around the globe requires a sophisticated operational apparatus. Key operational areas are:

- Site and Aerial Facility Operations
- Instrument Mentors
- Data Quality Office
- Data Services

https://www.arm.gov/connect-with-arm/organization/associate-director-for-operations

Nicki Hickmon, *Associate Director for Operations*

Engineering: Guiding ARM's Evolution

ARM is also always evolving. This requires an organized **change management** system and a team of scientists and engineers spanning many disciplines.

Ideas for new capabilities can be communicated to engineering area leads or directly to the engineering and process manager.

https://www.arm.gov/connect-with-arm/organization/engineering-and-process-management

Jennifer Comstock, *Engineering and Process Manager*

Communications: Enabling the Flow of Information

The **communications team** has broad responsibilities for enabling the flow of information to users and among facility staff. These responsibilities include:

- Management of the ARM website www.arm.gov
- Preparation of campaign outreach and media materials
- Publication of instrument handbooks, and campaign and workshop reports
- Production of newsletters, surveys, and community emails

https://www.arm.gov/connect-with-arm/organization/communications-and-media

Hanna Goss, *Public Information Officer*