

**Infrastructure Overview
2009
ARM Science Team Meeting**

**Jim Mather
Technical Director
ARM Climate Research Facility**



U.S. DEPARTMENT OF
ENERGY

Office of Science

Infrastructure Overview Outline

- **Program Goals, Mission, and Objective**
- **The Organization**
- **Interactions and Process**
- **Key Contacts**
- **Closing Points and Questions**

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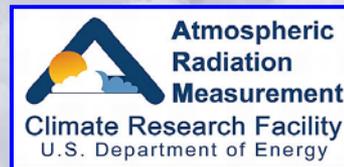
Infrastructure Overview

ARM and ACRF

- The ARM Program has two *separately funded* components
 - ARM science for grant funded science and research



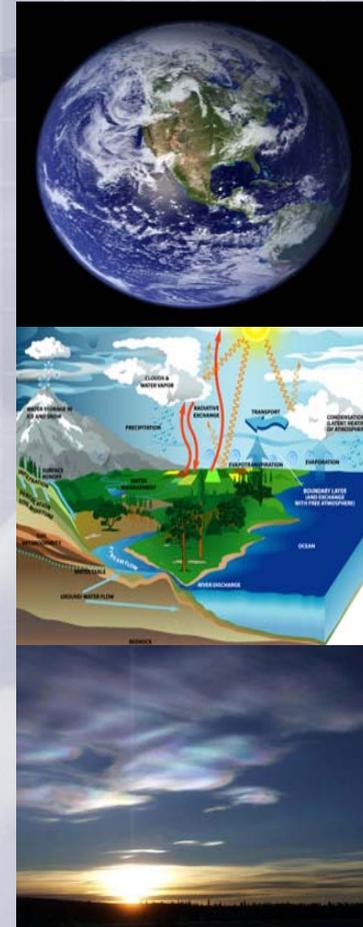
- ARM Climate Research Facility (ACRF) is the “Infrastructure”—a designated DOE Office of Science National User Facility



Infrastructure Overview

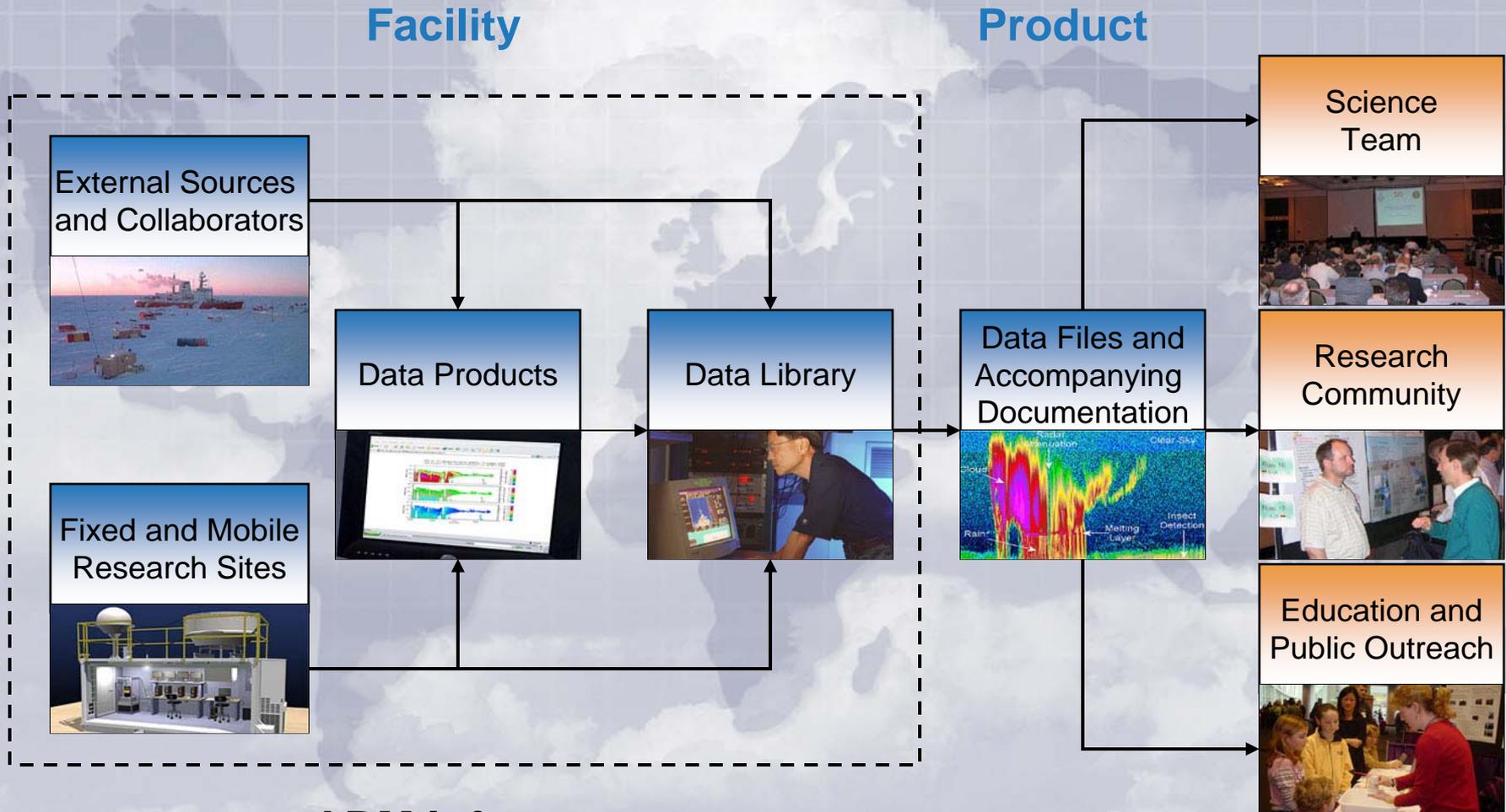
Program Goals

- Provide the national and international scientific community with the infrastructure needed for scientific research on global change
- Global change research includes the study of alterations to climate, land productivity, oceans, water cycle, atmospheric chemistry, and ecological systems



Infrastructure Overview

ARM Climate Research Facility Concept



ARM Infrastructure

Infrastructure Overview

Infrastructure Objectives

- Manage and operate the ARM Climate Research Facility—a DOE Office of Science designated **national user facility**
- Improve and advance the efficiency and sustainability of our management, engineering, operations, and data usability processes



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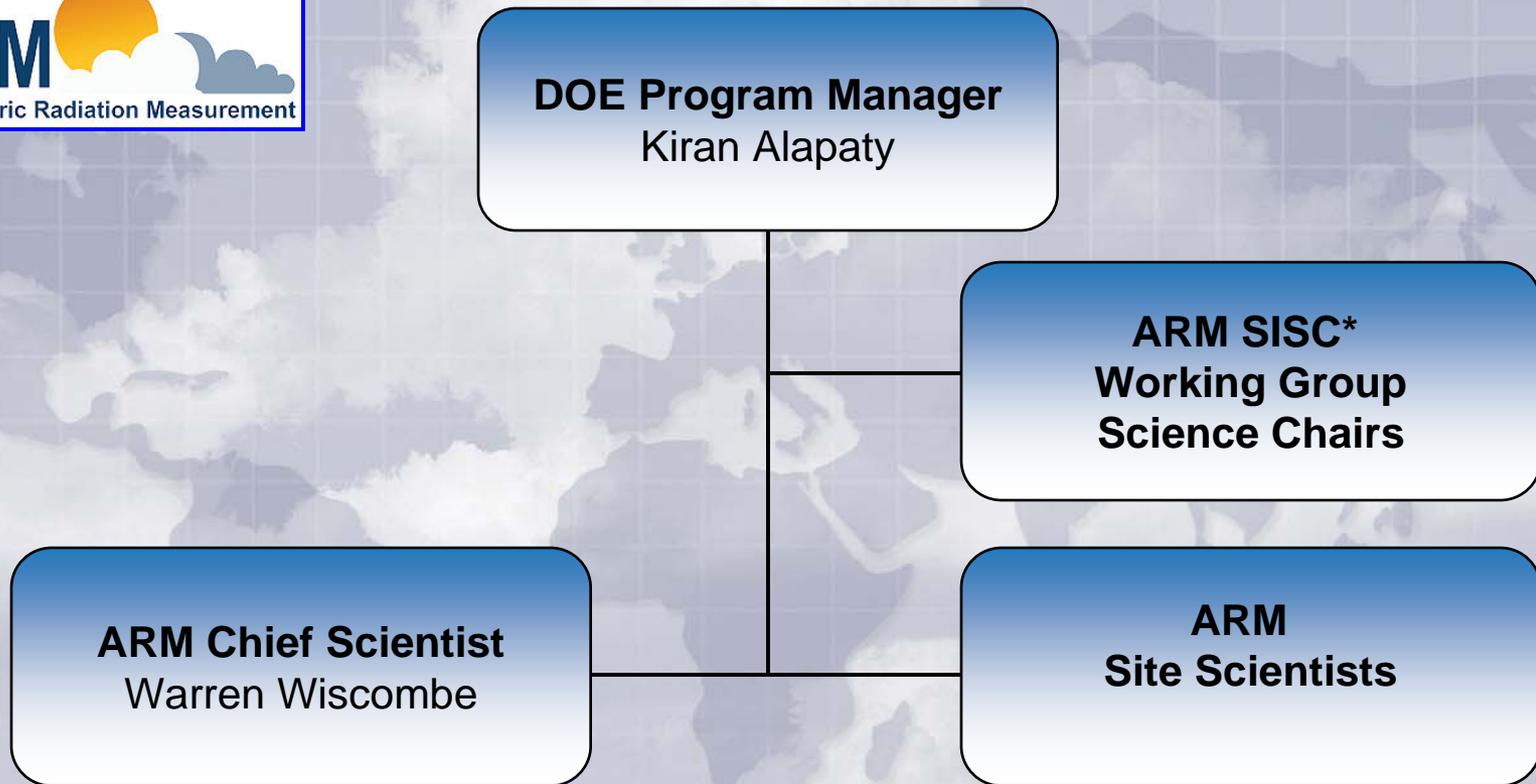
Infrastructure Overview

Our Organization

- DOE, multi-laboratory program; technical leadership activities conducted from:
 - **Argonne National Laboratory (ANL)**
 - **Oak Ridge National Laboratory (ORNL)**
 - **Pacific Northwest National Laboratory (PNNL)**
 - **Brookhaven National Laboratory (BNL)**
 - **Lawrence Livermore National Laboratory (LLNL)**
 - **Sandia National Laboratories (SNL)**
 - **Los Alamos National Laboratory (LANL)**
 - **Lawrence Berkeley National Laboratory (LBL)**
 - **National Renewable Energy Laboratory (NREL)**
- DOE Office of Science program management works with the climate research community to establish our agenda

Infrastructure Overview

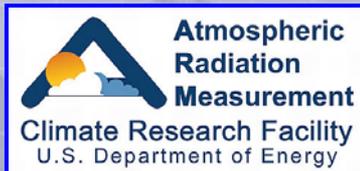
ARM Science Management



* SISC – Science and Infrastructure Steering Committee

Infrastructure Overview

ACRF Management



DOE Program Managers
Wanda Ferrell, ACRF
Rick Petty, AAF

Facility Science Board
ARM SISC Working Group
Science Chairs and Climate
Research Community
Appointees

Infrastructure Management Board
Jim Mather, Technical Director
Doug Sisterson, Operations Manager
Raymond McCord, Archive Manager
Beat Schmid, ARM Aerial Facility (AAF) Manager
Jimmy Voyles, Instrument and
Field Campaign Coordinator

Archive

Raymond McCord (ORNL)

Operations

Doug Sisterson (ANL)

Engineering

Jim Mather (PNNL)

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Infrastructure Overview

Interactions and Process

- Actions of the infrastructure are driven by the science and research needs
- The main components of the infrastructure are engineering, operations, and the archive

Engineering:

- Instrumentation
- Computing and Networks
- Data Quality
- Value Added Processing

Operations:

- Research Sites
- Instruments
- Data Processing
- Safety

Archive:

- Data Storage
- Data Delivery

Infrastructure Overview

Interactions and Process

- You can help us evolve and improve
- By providing feedback as you interact with ARM products, research sites, and processes

Science Working Groups:

- Measurements and Instrumentation
- Field Campaigns
- Value Added Products
- Tools and Applications

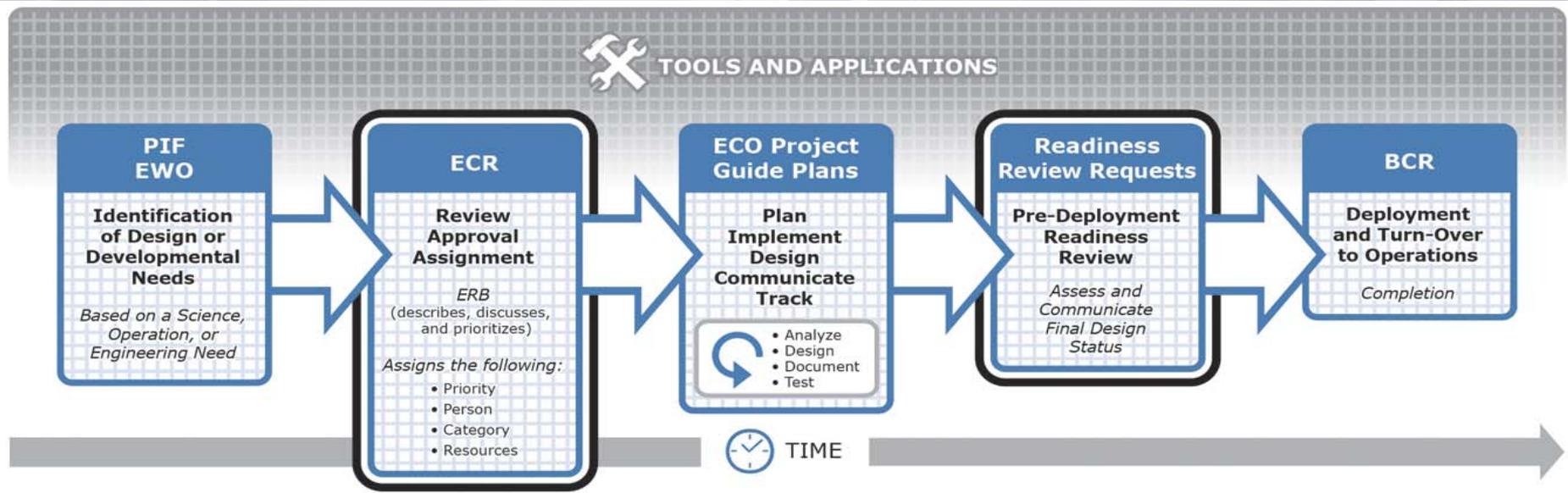
ARM Website:

- Measurement Performance
- Data Quality
- Engineering/Operations Processes
- Information Content

Infrastructure Overview Interactions and Process

Engineering and Operational Processes

“Transform ideas into new products”

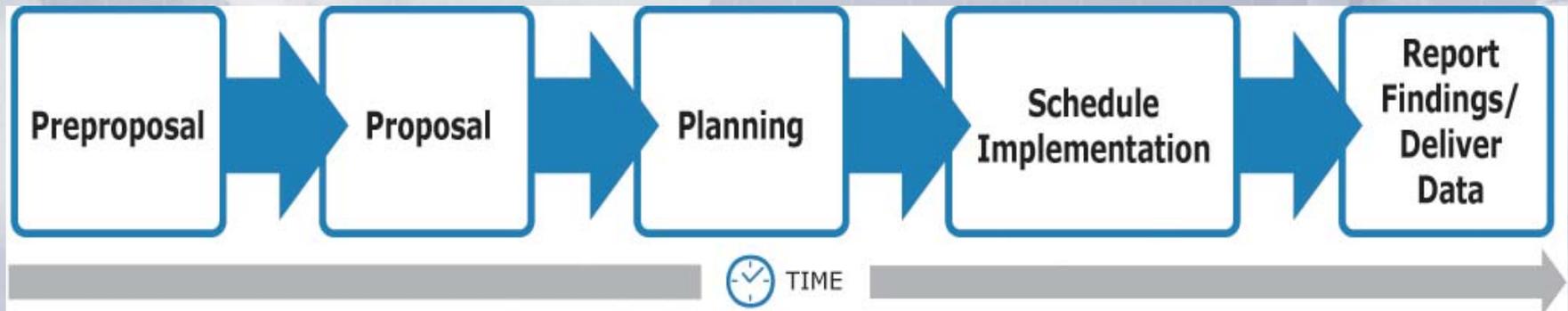


<http://www.arm.gov/acrf/capabilities.stm>

Infrastructure Overview Interactions and Process

Field Campaign and Intensive Operational Period Processes

“Augment routine data acquisition and test new measurement technologies”



<http://www.arm.gov/acrf/fc.stm>

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Infrastructure Overview

Key Contacts

Jackie Marshall	Technical Coordination Office	jackie.marshall@pnl.gov	509.375.2111
Nancy Burleigh	Communications and Publications	nancy.burleigh@pnl.gov	509.375.2785
Kelle Smith	Engineering Administrator	kelle.smith@pnl.gov	509.372.6136
Jim Mather	Technical Director / IMB	jim.mather@pnl.gov	509.375.4533
Doug Sisterson	Operations Manager / IMB	dlsisterson@anl.gov	630.252.5836
Jimmy Voyles	Instruments, Campaigns / IMB	jimmy.voyles@pnl.gov	979.690.9846
Raymond McCord	Archive Manager / IMB	mccordra@ornl.gov	865.574.7827
Beat Schmid	ARM Aerial Facility/ IMB	beat.schmid@pnl.gov	509.375.2996
Randy Pepler	Data Quality Office	rpepler@ou.edu	405.325.6667
Dick Eagan	Data System Coordinator	dick.eagan@anl.gov	630.252.3435
Rick Wagener	External Data Center Manager	wagener@bnl.gov	631.344.5886
Jennifer Comstock	Lead Science Translator	jennifer.comstock@pnl.gov	509.372.4244

<http://www.arm.gov/acrf/contacts.stm>

Infrastructure Overview

Closing Points

- Your feedback is important to us!
- Because you provide feedback—we have more opportunities to improve
- The ARM Website is a valuable information resource:
<http://www.arm.gov>
- Please call or send e-mail if you have any questions