ARM Data Services

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Sandia National Laboratories

March 17, 2025

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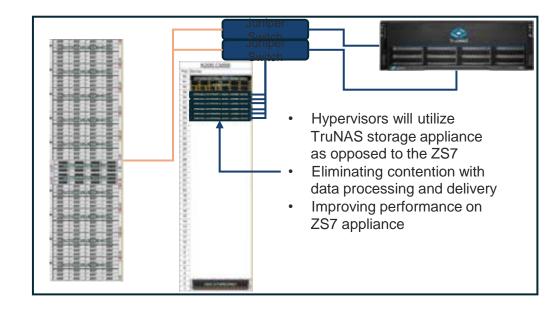
ARM Data Center - System Upgrade Status

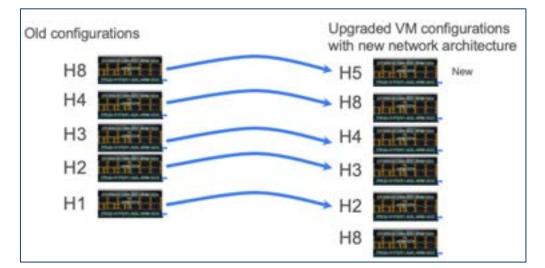
Major Infrastructure Upgrades Completed

- Virtual machines and hardware upgraded
- New file server, network switches, and hypervisor being deployed

Ongoing System Enhancements

- Firmware updates completed
- Network switch configurations finalized
- File server for data/archive and other resources is being stabilized
- Upcoming Data Center Relocation
- Migration of switches, storage appliances, and hypervisor completed
- Deployment of a new storage cluster for virtual machines







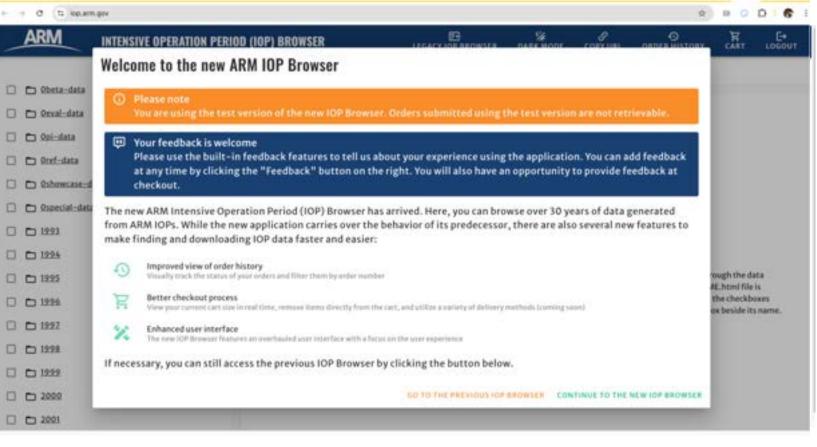


New IOP Browser for Field Campaign and PI Data

- Brand-new interface with modern and scalable software architecture
- Easy-to-navigate platform for discovering, ordering, and accessing field campaign and PI data
- Improved performance and enhanced metrics tracking
- Ongoing usability studies and active user feedback collection
- Demo and Feedback Opportunities
 - Poster by Chirag Shah (Monday 5.15 pm)
 - Data booth

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March 17, 2025 3

Data Product Submission Tool Enhancements

A New User-Centric Interface

- Enhanced navigation and usability
- Clearer UI with navigational tabs for seamless movement across the OME record

Form Improvements

- Tabs at the top of each form enable easy access to different sections •
- Improved clarity and user guidance

Support for Skinny Metadata Records

- Auto-generated OME records for approved field campaign proposals •
- Helps track data submissions and provides PIs a starting point

Save Templates and Drafts

- Enables reuse of metadata for multiple similar submissions •
- Ideal for field campaigns with recurring data submissions ۲
- Allows easy edits and future submissions •
- Uploading Data
 - Small files (<2GB) can be uploaded directly through the form
 - Large files (>2GB) require secure file transfer protocol (sftp) •

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ARM0918	Tansey_MICRE_D98_microphysics_V5
Contact Info Dataset Description Da	Pataset Status Time and Place Tools Data Quality Keywords row Data Upload
Data Product	
If the data were collected as part Field Campaign ASR Other	of an ARM field campaign, select the associated campaign. For non-field campaign datasets, select the funding organization.
Dataset Authors*	
lease list the person(s) and e-mail(s) who dev	veloped the dataset in the order you want them to appear in the dataset citation.
	© ORCID
Emily Tansey	tetansey@uw.edu v 0000-002-2440-5454 v tetansey@uw.edu 16-digit ORCID with or without hyphens
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Dataset Description	
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This data file contains retrievals of cloud retrieval is based on observed downwell Details on the algorithm and analysis of	d-effective-radius and cloud-droplet-number-concentration for low clouds based on the Dong et al. 1998 retrieval technique for the MICRE campaign. The ling broadband SW fluxes and microwave-radiometer-retrieved-liquid-water-path averaged on a 5 minute time scale (mean when low cloud is present). f results are given in Tansey et al. 2024 (submitted DOI: 10.22541/essoar.173482310.03809503/v1). The data is limited to the period 20160410 to 20160612 ch time good quality microwave-radiometer measurements are available.
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Data Workbench Update



- Data Studio: A no-code data analysis platform with the following features:
 - Visualization & Subsetting: Enables analysis of ARM data using open-source packages (e.g., ACT, NoSQL technologies). •
 - Multi-User Project Support: Allows collaborative data exploration and analysis. ٠

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Data & Software Publication: Will support publication through ARM Git and PI data submission workflows. •

- https://workbench.arm.gov
- https://studio.arm.gov/

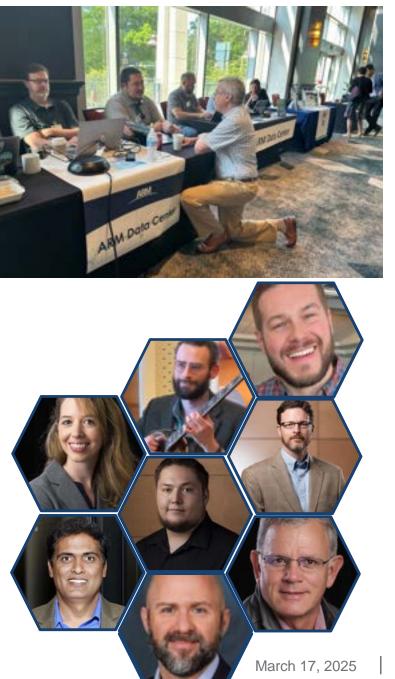


and presentation (Tuesday 8.30 am)

Visit the ARM Data Booth!

- Stop by the ARM Data Booth to explore data resources, tools, and services available to the scientific community.
- Connect with ARM Data Services Staff and ask your questions
- Learn about data tools and open-source software available for PIs and users
- Explore HPC computing resources for large-scale data analysis
- Discuss data integration and interoperability topics with experts

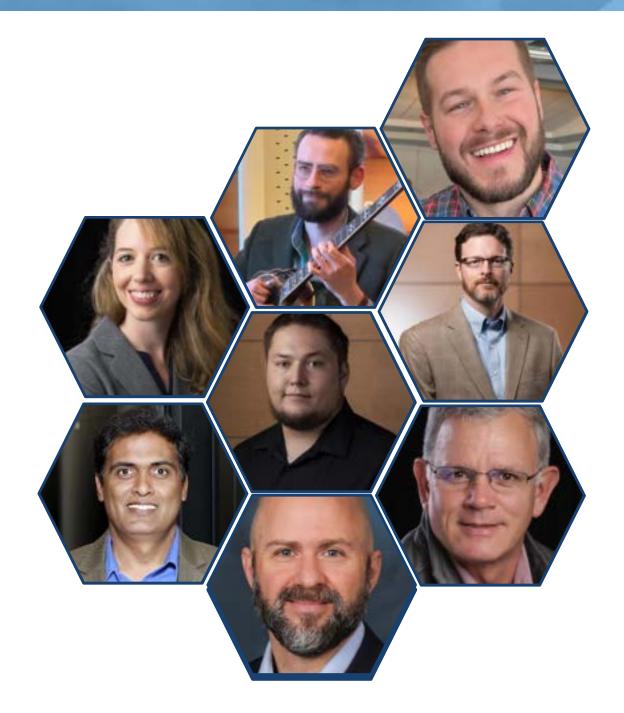








Data Services Operations Team







March 17, 2025 7