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How to Archive, Distribute and Acknowledge your Data

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Raymond McCord, Jim Mather, Jimmy Voyles, Tom Boden

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Data Product Registration and Submission

http://www.arm.gov/data/pi

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ARM.gov » Data » Data Documentation » Data Product Registration and Submission

Data Product Registration and Submission

The procedure for principal investigators to submit ARM science research products, field campaign data, or DOE-supported research data to the ARM Data Archive is the following:

1. To begin, use the **Data Product Registration and Submission** form.
2. Identify yourself—either from the pick list or by manual entry.
3. Select a **Data Type**. This choice determines the level of review and the procedure for handling and approving your documentation and accompanying data submissions within the ARM Climate Research Facility. Currently, three **Data Type** options are available.
   - **ARM Principal Investigator (PI) Data Product** – reviewed by ARM Translators and Infrastructure Representative.
   - **ARM Field Campaign Data** – reviewed by ARM External Data Center (XDC) staff responsible for handling field campaign data submissions.
   - **Research Data for the ARM Data Archive** – sent directly to metadata reviewers for the ARM Data Archive.
4. Fill out the Data Product Registration and Submission form as completely and accurately as possible. Nobody is better equipped or suited to describe a data submission than the scientist who created it. The Data Product Registration and Submission form allows PIs to attach files, including data files, additional documentation files (e.g., readme files), technical reports, and pertinent science articles. Scientists are encouraged to provide these additional materials.
5. Submit the Data Product Registration and Submission form. Once you have completed and submitted the form, and all mandatory fields are verified, you will receive notification to confirm successful submission.

For assistance with your Data Product Registration and Submission, please contact Giri Palanisamy.

Policies, Plans, Descriptions

Data Documentation Home

- Data Sharing and Distribution Policy
- Data Management and Documentation Plan
- Data Product Registration and Submission
- Reading netCDF and HDF Data Files
- Time in ARM netCDF Data Files

Data Archive Documentation

- ARM Archive's Catalog of Data Streams (Updated monthly)
- Access to Historical ARM Data
- More on Understanding and Finding ARM Data
- Data Quality Problem Reporting

Your Metadata is critical:

- Improves data discovery and understanding
- prepare the data package for efficient distribution
- Properly categorize your data
- Facilitate proper credits to all the authors

Title:	**Atmospheric State, Cloud Microphysics & Radiative Flux**
Data Type:	research data - ASR funded
Metadata Contact Info:	Organization Name/Individual Name: Gerald Mace Email: mace@met.utah.edu Phone: (801) 585-9489 Street: William Browning135 S 1460 East Rm 819 City: Salt Lake City State: UT Postal: 84112
Investigator(s):	Gerald Mace
Publication Info:	Publication Date: 20080601 Publication Place: Journal of Climate Publisher: AMS
Geoform:	Value Added Products
Status:	ongoing
Data Update Frequency:	as needed
Data Volume:	1 TB
File Naming Convention:	site.Integrate_Column_AveragingInterval-Mace.yyyymmdd.000000.v2.cdf
Directory Organization:	each site directory has subdirectories for the file type and then subdirectories for the years
Abstract:	Atmospheric thermodynamics, cloud properties, radiative fluxes and radiative heating rates for the ARM Southern Great Plains (SGP) site. The data represent a characterization of the physical state of the atmospheric column compiled on a five-minute temporal and 90m vertical grid. Sources for this information include raw measurements, cloud property and radiative retrievals, retrievals and derived variables from other third-party sources, and radiative calculations using the derived quantities.
Purpose:	Data were collected in order to help and improve the climate and earth system models.
Site Information:	**Sites**: sgp,nsa,twpc1,twpc2,twpc3
Content Time Range:	Begin: 19970101 End: 20091231
Scientific Measurements(s):	**Measurement name** / **Variables** averaged cloud radar: column_cfrac_mpl averaged atmospheric state: skin_temp, sndg_flag, pressure, sfc_temp, precip_rate, sfc_pressure, mxrat, temp, sfc_mxrat averaged cloud layers: top_height_layer_1, base_temp_layer_1, top_temp_layer_2, top_height_layer_3, number_of_layers, base_height_layer_3, first_cbh, base_height_layer_1

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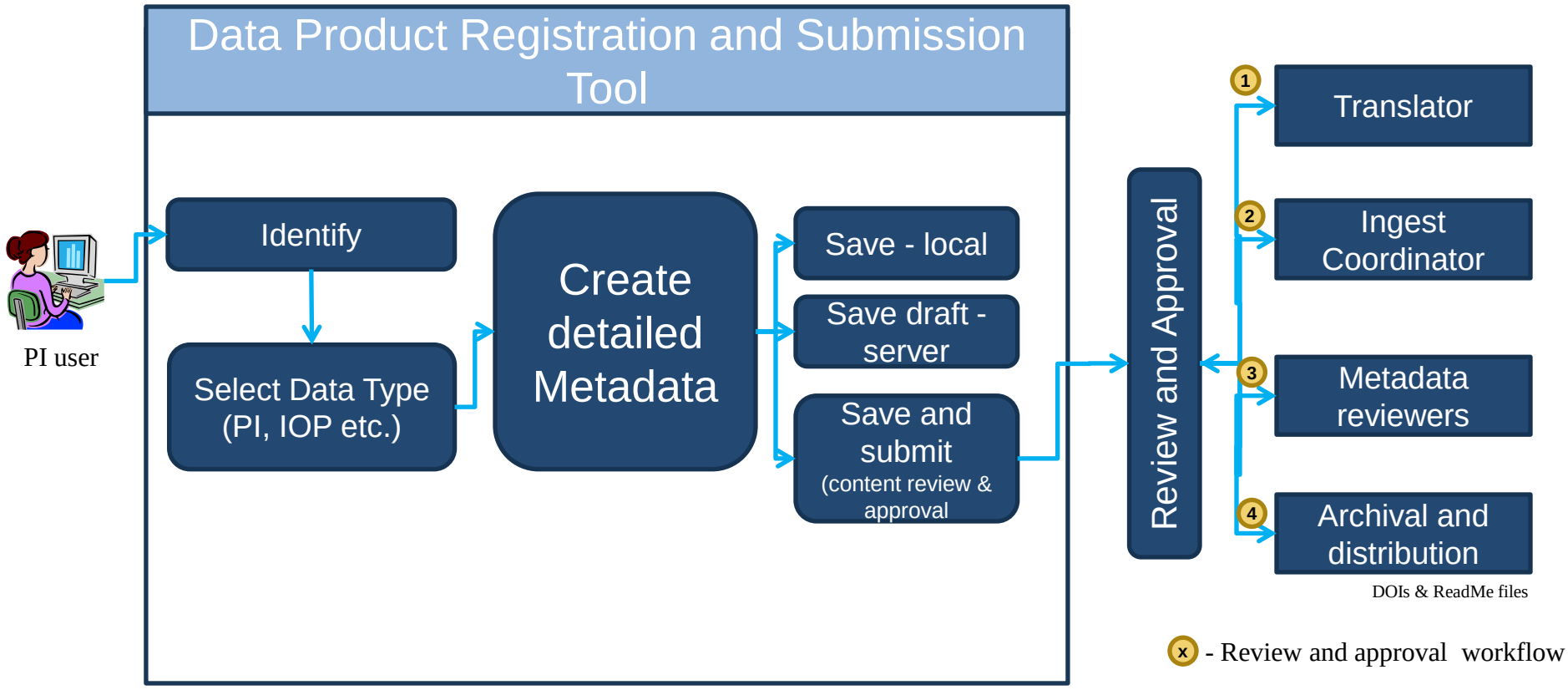
PI and IOP Data Registration Steps



http://www.arm.gov/data/pi

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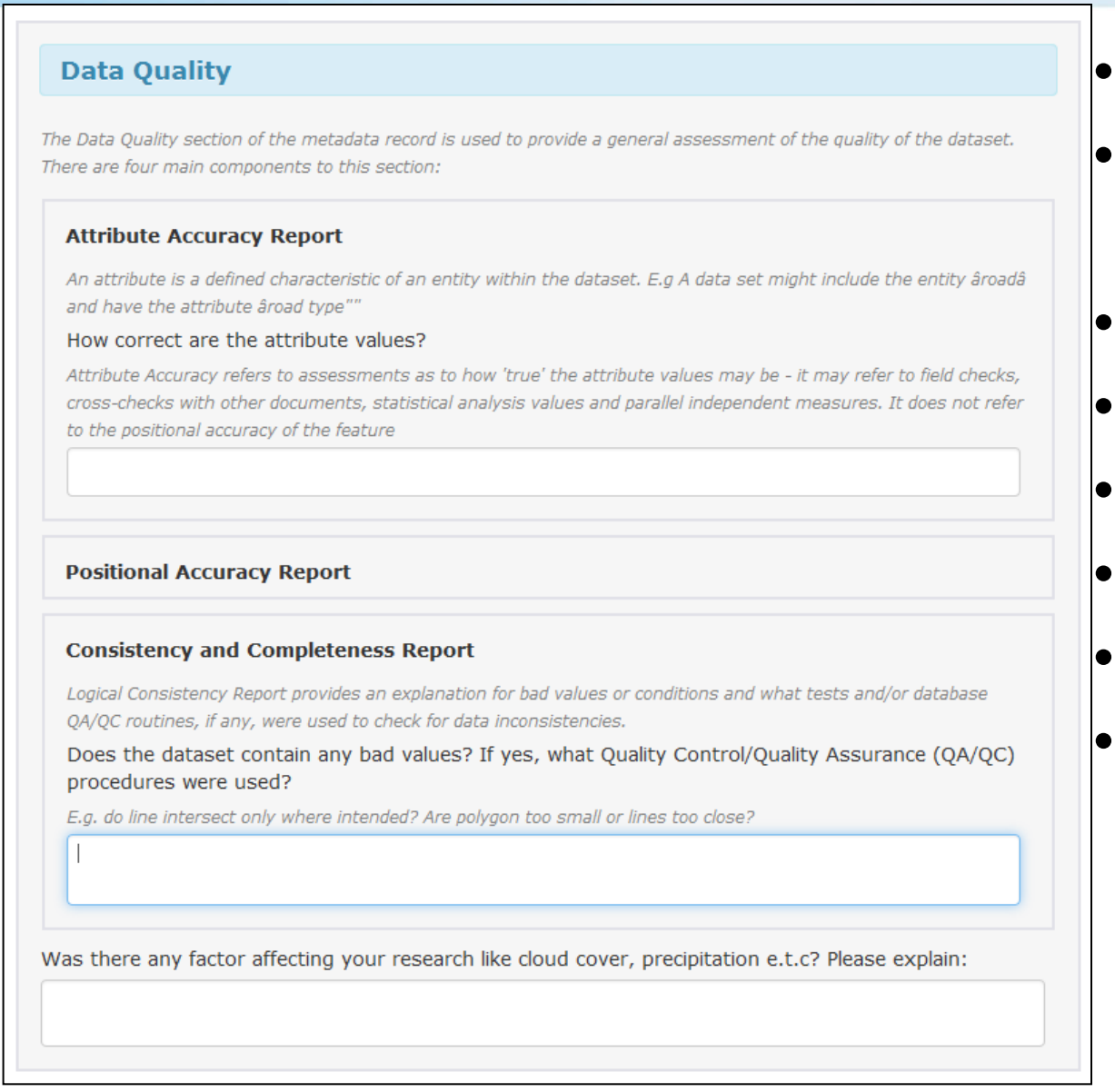
ARM Data Product Registration and Submission Form (OME)Beta



- **Data Type**
- **Description and keywords**
- **Contact information**
- **Data Quality**
- **Time and Place**
- **Related Publications**
- **Analytical Tools**
- **Save, revisit and Submit**

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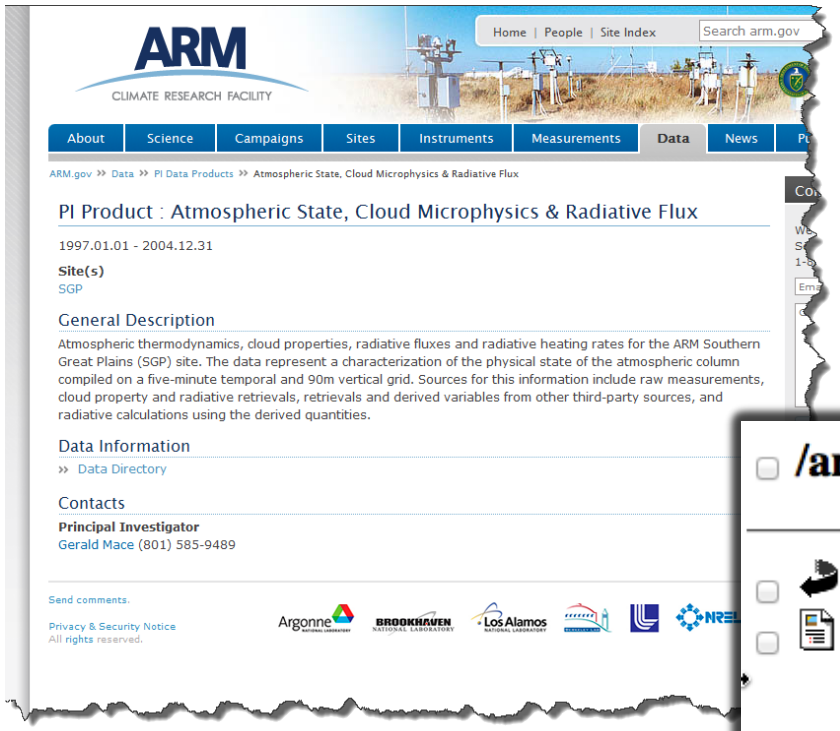
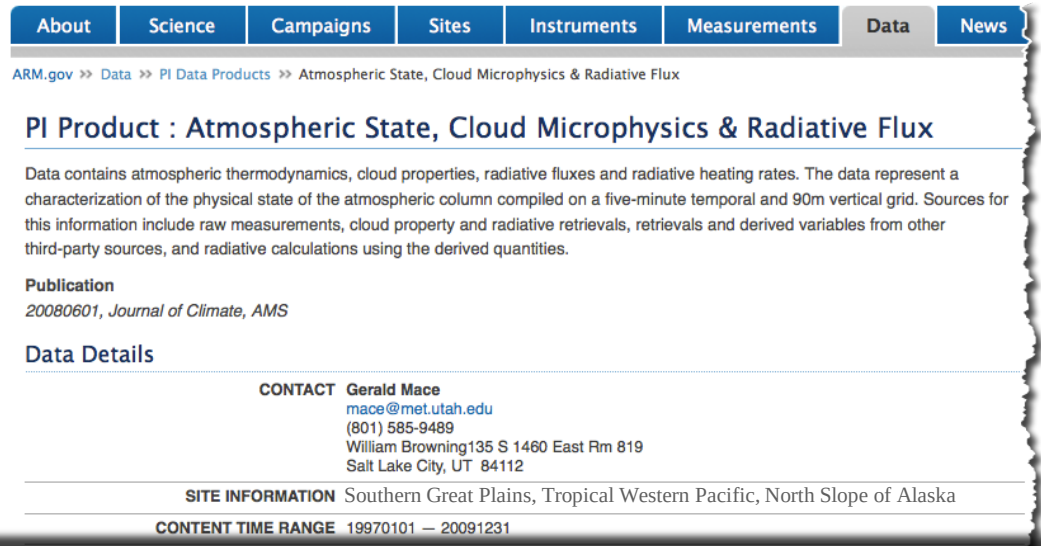
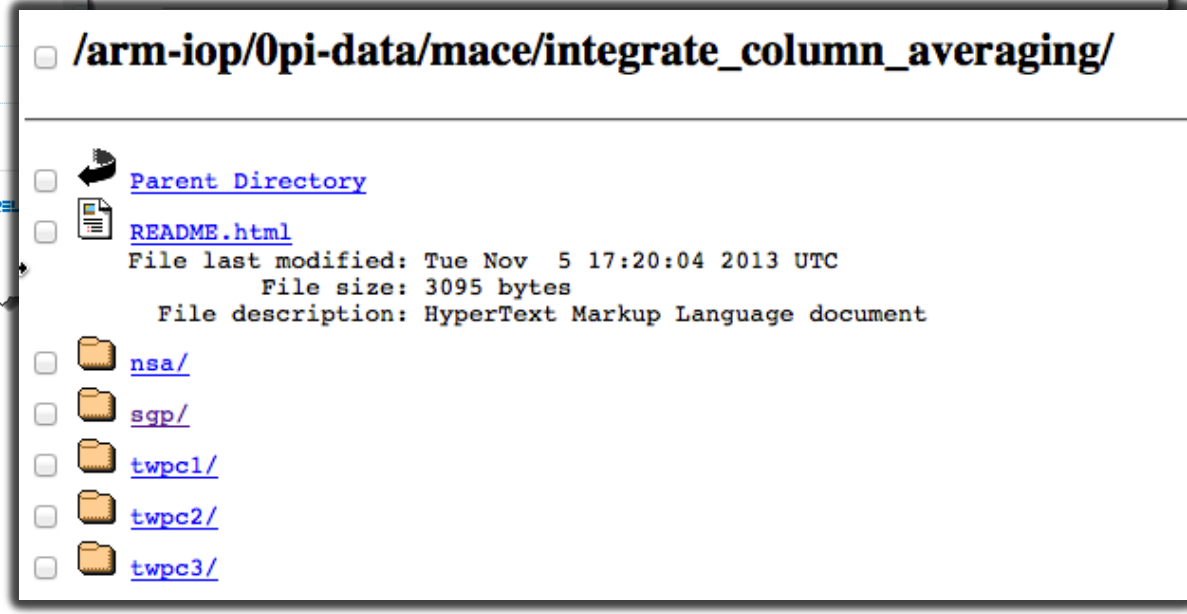
Improving Data Discovery

Before



Now





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Data Citation using Digital Object Identifiers (DOIs)

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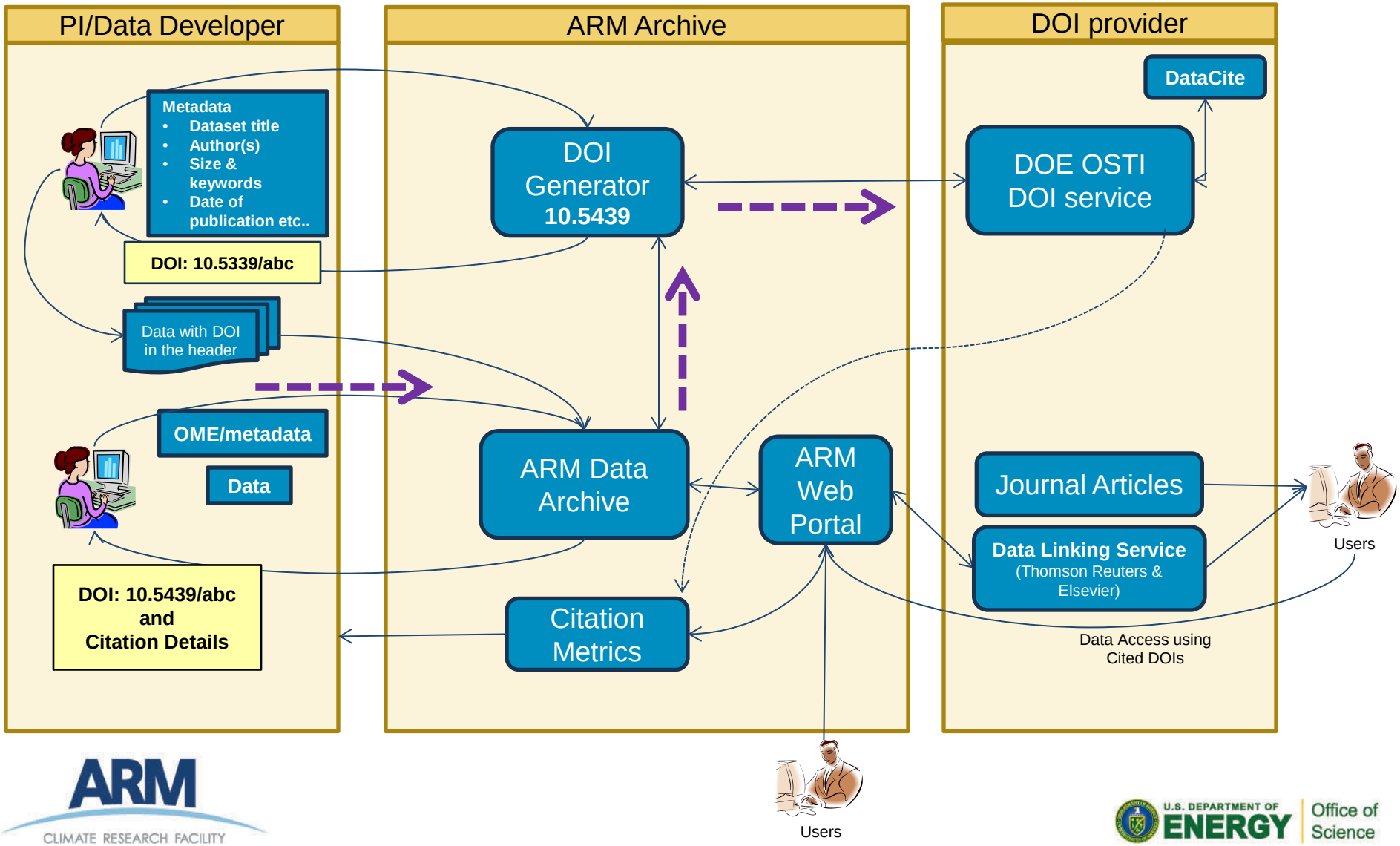
Digital Object Identifiers (DOIs) For Your Data

Benefits of assigning DOIs to your data:

10.5439/1021460

- Provide proper credit to all authors
  - DOIs will be registered with all authors involved in creating data products
- Create persistent, globally unique, fully resolvable ids for ARM/ASR datasets
- DOIs allow the users to more directly cite the exact ARM data that they used in their research.
- DOIs also allow the future data users and the ARM program to easily track the data cited in various publications, and can answer questions such as:
  - Show me the exact data (and the data creator) that this journal article is referring
  - List of papers using my data (citation index)
  - List of articles citing ARM data

Assigning DOIs to your Data



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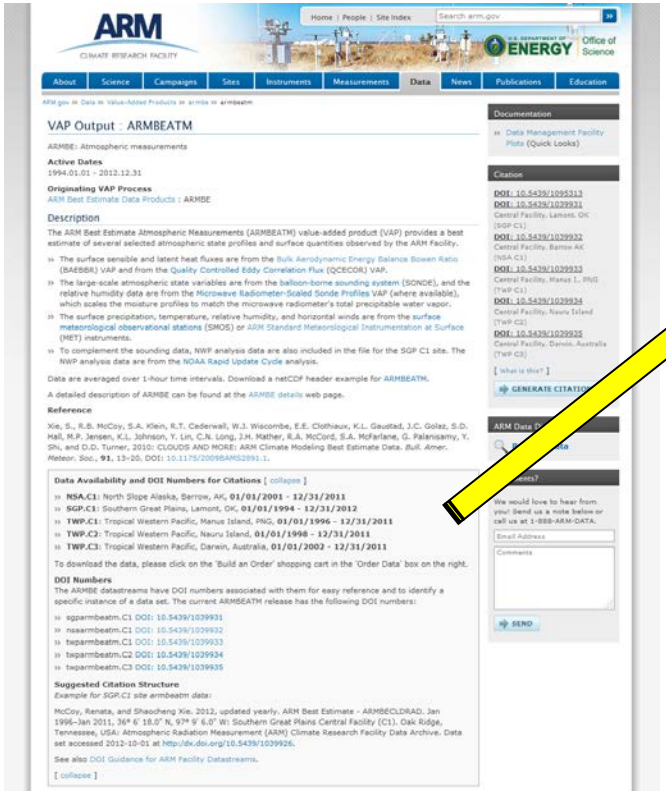
DOIs Example

Product: ARMBE



Data Availability and DOI Numbers for Citations [collapse]

DOI Numbers

The ARMBE datastreams have DOI numbers associated with them for easy reference and to identify a specific instance of a data set. The current ARMBEATM release has the following DOI numbers:

- sgparmbeatm.C1 DOI: 10.5439/1039931
- nsaarmbeatm.C1 DOI: 10.5439/1039932
- twparmbeatm.C1 DOI: 10.5439/1039933
- twparmbeatm.C2 DOI: 10.5439/1039934
- twparmbeatm.C3 DOI: 10.5439/1039935

Suggested Citation Structure

Example for SGP.C1 site armbeatm data:

McCoy, Renata, and Shaocheng Xie. 2012, updated yearly. ARM Best Estimate - ARMBECLDRAD. Jan 1996–Jan 2011, 36° 6' 18.0" N, 97° 9' 6.0" W: Southern Great Plains Central Facility (C1). Oak Ridge, Tennessee, USA: Atmospheric Radiation Measurement (ARM) Climate Research Facility Data Archive. Data set accessed 2012-10-01 at http:/dx.doi.org/10.5439/1039926.

See also DOI Guidance for ARM Facility Datastreams.

[collapse]

http://www.arm.gov/data/vaps/armbe/armbeatm

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Citing ARM Datastreams

Use of ARM DOIs

ARM - Recommended Citation Format

- *Author*
- *Original publication date*
- *Update period, if applicable (daily, monthly, quarterly, yearly, etc.)*
- *Dataset name*
- ***Dates used****
- ***Locations**** *(latitude/longitude, site name, and facility identifier)*
- *Editor(s) or compiler(s) or collaborator(s)*
- *Place of publication*
- *Publisher*
- ***Date accessed****
- ***DOI****

**** Needed for future replication of data requests***

http://www.arm.gov/data/docs/doi-guidance

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Sample Citations

Citation Examples

1. **Single datastream, single site, single data range:**

Atmospheric Radiation Measurement (ARM) Climate Research Facility. 1994, updated daily. Balloon-borne sounding system (SONDEWNPN). Oct. 2010–March 2011, 36° 36' 18.0" N, 97° 29' 6.0" W: Southern Great Plains Central Facility (C1). Compiled by R Coulter, J Prell, M Ritsche, and D Holdridge. ARM Data Archive: Oak Ridge, Tennessee, USA. Data set accessed 2011-04-13 at http://dx.doi.org/10.5439/1021460.

2. **Single datastream, single site, multiple date ranges:**

Atmospheric Radiation Measurement (ARM) Climate Research Facility. 1994, updated daily. Balloon-borne sounding system (SONDEWNPN). Oct. 2008–March 2008, Oct. 2009–March 2009, Oct. 2010–March 2011, 36° 36' 18.0" N, 97° 29' 6.0" W:

Atmospheric Radiation Measurement (ARM) Climate Research Facility. 1996, updated **yearly**. ARMBECLDRAD. **2011-01-01** to **2011-01-01, 71.323 N 156.609 W: North Slope Alaska (NSA) Central Facility, Barrow AK (C1)**. Compiled by R. McCoy and S. Xie. Atmospheric Radiation Measurement (ARM) Climate Research Facility Data Archive: Oak Ridge, Tennessee, USA. Data set accessed **2013-10-30** at http://dx.doi.org/10.5439/1039927

4. **Single datastream, single site, single data range, specific measurement extracted:**

Atmospheric Radiation Measurement (ARM) Climate Research Facility. 1994, updated daily. Balloon-borne sounding system (SONDEWNPN). Oct. 2010–March 2011, 36° 36' 18.0" N, 97° 29' 6.0" W: Southern Great Plains Central Facility (C1), relative humidity. Compiled by R Coulter, J Prell, M Ritsche, and D Holdridge. ARM Data Archive: Oak Ridge, Tennessee, USA. Data set accessed 2011-04-13 at http://dx.doi.org/10.5439/1021460.

Alternate Format

If, for some reason, it is necessary to cite the datastream editors/compilers as the author, the following format is recommended:

Coulter, Richard, Jenni Prell, Michael Ritsche, and Donna Holdridge. 1994, updated daily. Balloon-borne sounding system (SONDEWNPN). Oct 2010–March 2011, 36° 36' 18.0" N, 97° 29' 6.0" W: Southern Great Plains Central Facility (C1). Atmospheric Radiation Measurement (ARM) Climate Research Facility Data Archive: Oak Ridge, Tennessee, USA. Data set accessed 2011-04-13 at http://dx.doi.org/10.5439/1021460.

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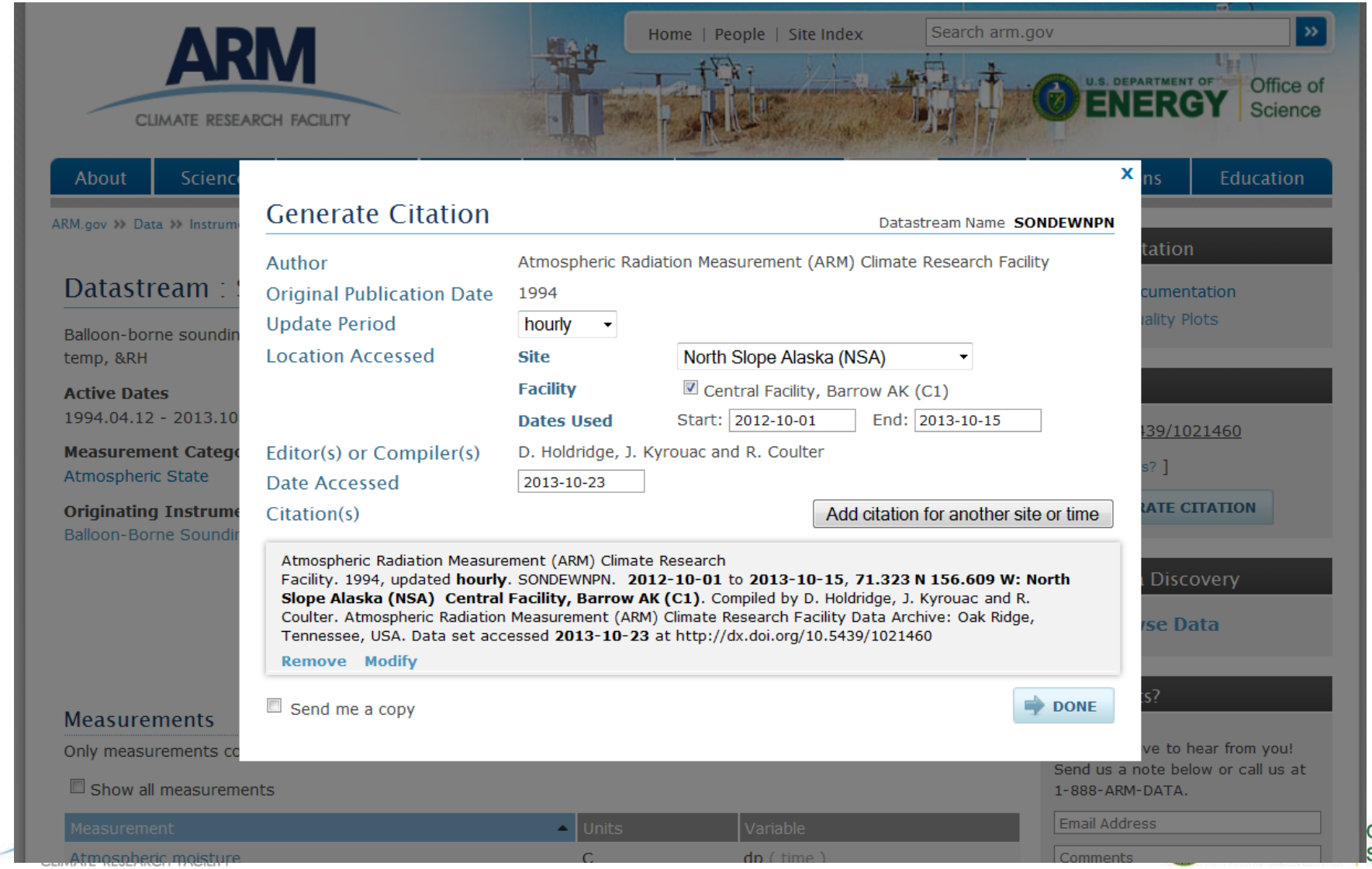
Generating Citations



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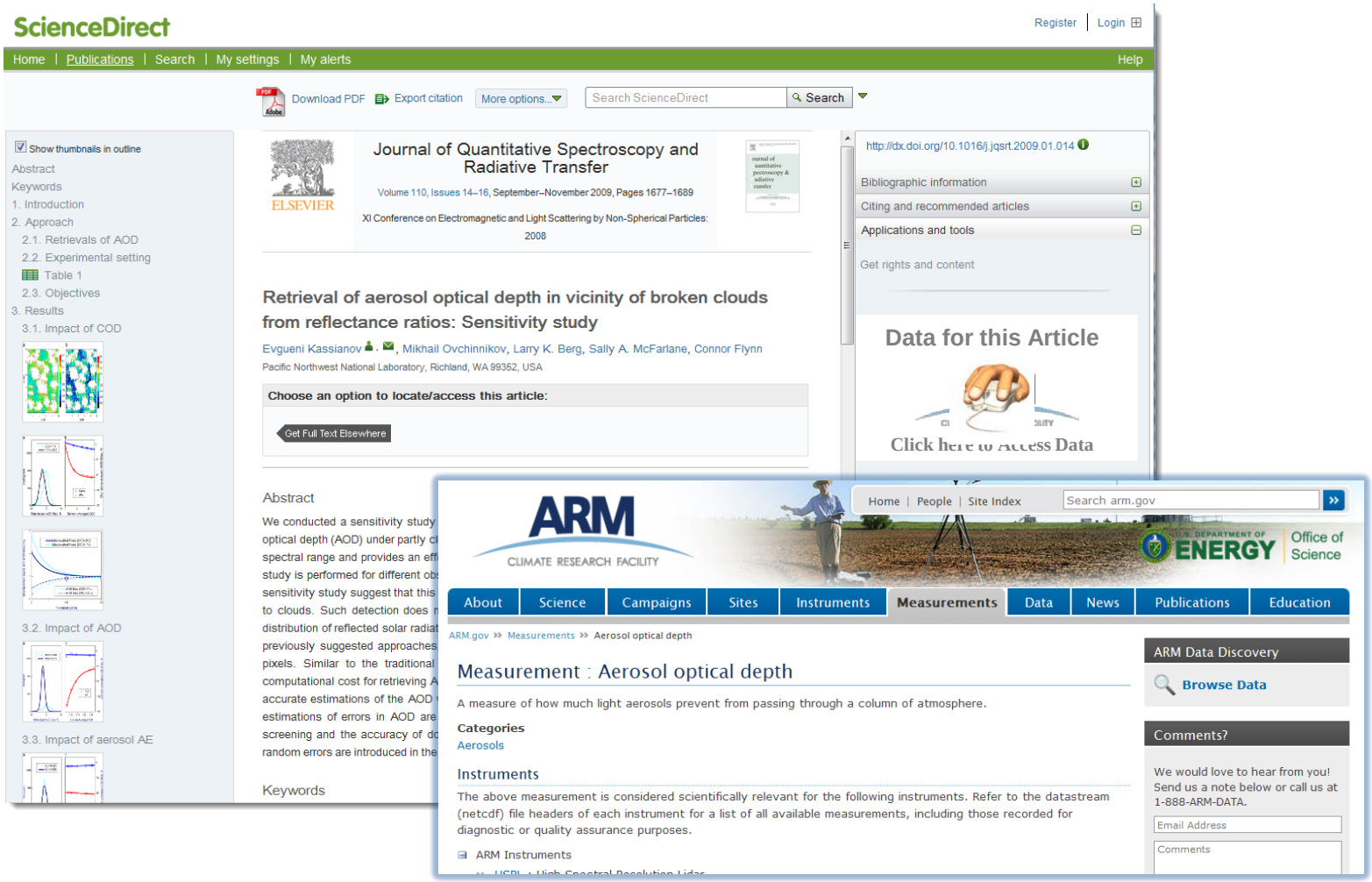
Linking Data and Publications

Linking Data and Publications



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Linking Data and Publications

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(1) | Send to: my.endnote.com

Ka ARM Zenith Radar (KAZR): filtered spectral data, cirrus mode, cross-polarized mode at Southern Great Plains.

From Repository: Atmospheric Radiation Measurement Program.

Author(s): Bharadwaj, Nitin; Widener, Kevin; Johnson, Karen

Source: Atmospheric Radiation Measurement Program **DOI:** http://dx.doi.org/10.5439/1025 | Date: 20 Sep 2013) **Published Year:** 2013

Cited References: 0

Abstract: The Ka-band ARM zenith radar (KAZR) remotely probes the extent and composition
radar that operates at a frequency of approximately 35 GHz. The main purpose of this radar is to
and spectral width) at a range resolution of approximately 30 meters from near-ground to nearly

Document Type: Data set

Data Type: observational data

Accession Number: DRCI:DATA2013120003858083

Language: English

Author Keywords: Atmospheric Radiation Measurement; Doe arm; arm; ARM Observed Data;
meteorology; upper air state; Mean Doppler Velocity; Equivalent reflectivity factor; SPECTRA; S

Web of Science Category: Meteorology & Atmospheric Sciences

Subject Area: Meteorology & Atmospheric Sciences

Geospatial:

Descriptor Term	Classifier
Oklahoma	USA, North America
East Bounding Coordinate: -95 59	
North Bounding Coordinate: 34 98	
South Bounding Coordinate: 34 98	
West Bounding Coordinate: -95 59	
Southern Great Plains ,Central Facility, Lamont, OK	

Times Cited: 0

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ARM.gov >> Data >> Instrument Datastreams >> kazrspeccmaskcixpol

Datastream : KAZRSPECCMASKCIXPOL

Ka ARM Zenith Radar (KAZR): filtered spectral data, cirrus mode, cross-polarized mode

Active Dates
2011.01.20 - 2011.11.10

Measurement Categories
Atmospheric State, Cloud Properties

Originating Instrument
Ka ARM Zenith Radar (KAZR)

Measurements

Only measurements considered **scientifically relevant** are shown below *by default.*

Show all measurements

Documentation

>> Data Quality Plots

Citation

DOI: 10.5439/1025217

[What is this?]

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ARM Data Discovery

Browse Data

Questions and Feedback?

armarchive@ornl.gov

Breakout Session: Tutorial for Product Registration(OME) and DOIs

Today at 3.45 pm

(Regency room)