

The logo for ARM (Atmospheric Radiation Measurement) features the letters "ARM" in a bold, blue, sans-serif font. Below the letters is a blue, curved line that arches over the text, resembling a horizon or a wave. The background of the slide is a blue and white image of the Earth's horizon from space.

CLIMATE RESEARCH FACILITY

# **Data Citation using Digital Object Identifiers (DOIs)**

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U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science

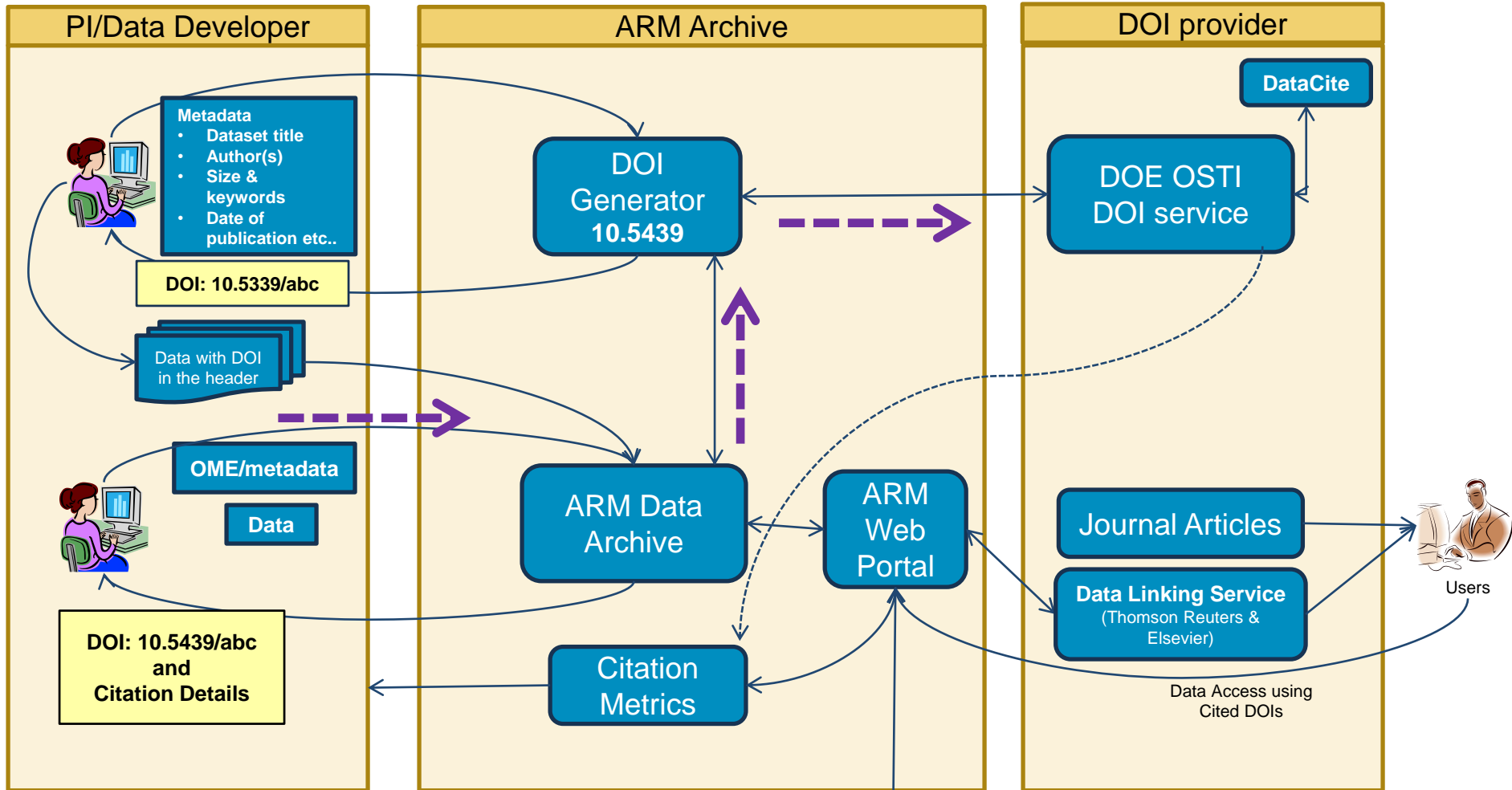
# Digital Object Identifiers (DOIs) For Your Data

## Benefits of assigning DOIs to your data:



- 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



# DOIs – Current Example

## Product: ARMBE

The screenshot shows the ARM Climate Research Facility website. The main content area is titled "VAP Output : ARMBEATM". It includes sections for "Active Dates", "Originating VAP Process", "Description", "Reference", and "Data Availability and DOI Numbers for Citations". A yellow arrow points from the "Data Availability and DOI Numbers for Citations" section to the "Suggested Citation Structure" section.

**Data Availability and DOI Numbers for Citations** [ collapse ]

**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 ]

### 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>

# Use of ARM DOIs

The screenshot shows the ARM website interface. At the top, there is a navigation bar with links for Home, People, Site Index, and a search box. The main header features the ARM logo and the U.S. Department of Energy Office of Science logo. Below the header is a menu with categories: About, Science, Campaigns, Sites, Instruments, Measurements, Data, News, Publications, and Education. The main content area displays the 'Datastream : SONDEWNP' page. On the left, there is a description of the Balloon-borne sounding system (BBS5), active dates (1994.04.12 - 2013.10.22), measurement categories (Atmospheric State), and the originating instrument (Balloon-Borne Sounding System (SONDE)). In the center, there is a plot titled 'Example [sondewnpn](#) Archive Data Plot'. On the right, there is a 'Documentation' section with links for XDC documentation and Data Quality. A pop-up window is overlaid on the right side of the page, containing the following text:

Citation

[DOI: 10.5439/1021460](#)

[ What is this? ]

[GENERATE CITATION](#)

Below the plot, there is a 'Measurements' section with a checkbox for 'Show all measurements' and a table of measurements:

Measurement	Units	Variable
Atmospheric moisture	C	dp ( time )
Dewpoint Temperature		
Atmospheric moisture	%	rh ( time )
Relative Humidity		

# Generating Citations

The screenshot shows the ARM website interface with a 'Generate Citation' dialog box open. The dialog box contains the following information:

- Author:** Atmospheric Radiation Measurement (ARM) Climate Research Facility
- Original Publication Date:** 1994
- Update Period:** hourly
- Location Accessed:** Site: North Slope Alaska (NSA); Facility:  Central Facility, Barrow AK (C1)
- Dates Used:** Start: 2012-10-01; End: 2013-10-15
- Editor(s) or Compiler(s):** D. Holdridge, J. Kyrouac and R. Coulter
- Date Accessed:** 2013-10-23
- Citation(s):** Atmospheric Radiation Measurement (ARM) Climate Research Facility. 1994, updated **hourly**. SONDEWNPN. **2012-10-01 to 2013-10-15, 71.323 N 156.609 W: North Slope Alaska (NSA) Central Facility, Barrow AK (C1)**. Compiled by D. Holdridge, J. Kyrouac and R. Coulter. Atmospheric Radiation Measurement (ARM) Climate Research Facility Data Archive: Oak Ridge, Tennessee, USA. Data set accessed **2013-10-23** at <http://dx.doi.org/10.5439/1021460>

Buttons in the dialog include 'Remove', 'Modify', 'Add citation for another site or time', and 'DONE'. A checkbox 'Send me a copy' is also present.

The background website shows the ARM logo, navigation links (Home, People, Site Index), a search bar, and the U.S. Department of Energy Office of Science logo. The page title is 'Generate Citation' and the datastream name is 'SONDEWNPN'.

# 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 contributor(s)*
- *Place of publication*
- *Publisher*
- ***Date accessed\****
- ***DOI\****

*\* Needed for future replication of data requests*

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

# 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>.





# Data specific DOI Documents

- <http://www.arm.gov/data/docs/doi-guidance>
- <http://www.cdlib.org/services/uc3/ezid/identifiers.html>
- <http://ipydis.org/data/citations.html>