

ASP data moved to ARM Archive

Aerosol Lifecycle Working Group

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ASP data moved to ARM Archive

- Integrating former-ASP field campaign data and metadata into ARM web pages and the Archive.
 - Collaboration between ORNL and BNL ARM staff
- 13 campaigns
 - Starting with 1995 Southern Oxidants Study
 - Ending 2008 VOCALS.
 - See list on next page (not a real web page)
- Created overview documentation
 - As needed
 - From ASP pages, publications, and consultations
- Creating links to data access from web documentation
- Enabling more discovery, long-term retention, and usage tracking

Campaign : 1995 Southern Oxidants Study (SOS)

1995.06.24 - 1995.07.20

Lead Scientist : [Peter Daum](#)

Campaign : 1996 NARSTO Northeast Field Study (NARSTO-NE)

1996.07.01 - 1996.07.28

Lead Scientist : [Larry Kleinman](#)

Campaign : 1998 Phoenix Air Quality Study

1998.05.17 - 1998.06.09

Lead Scientist : [Peter Daum](#)

Campaign : 1999 Northeast Corridor Ozone & Particulate Study

1999.07.23 - 1999.08.11

Lead Scientist : [Larry Kleinman](#)

Campaign : 2000 Houston, Texas Air Quality Study

2000.08.19 - 2000.09.12

Lead Scientist : [Peter Daum](#)

Campaign : 2001 Phoenix Sunrise Experiment

2001.06.14 - 2001.06.30

Lead Scientist : [Carl Berkowitz](#)

Campaign : 2001 Philadelphia NE-OPS Air Quality Experiment

2001.07.14 - 2001.07.30

Lead Scientist : [C Philbrick](#)

Campaign : 2002 NEAQs (New England Air Qual. Study), G-1 data

2002.07.09 - 2002.08.11

Lead Scientist : [Peter Daum](#)

Campaign : 2004 NEAX (Northeast Aerosol Experiment), G-1 data

2004.07.20 - 2004.08.15

Lead Scientist : [Peter Daum](#)

Campaign : 2005 MASE-MARine Stratus Experiment-Pt. Reyes, CA

July 5, 2005 to July 27, 2005

Lead Scientist : [Peter Daum](#)

Campaign : 2006 MAX-Mex-Megacity Aerosol eXper-Mexico City

March 3, 2006 to March 28, 2006

Lead Scientist : [Jeffrey Gaffney](#)

Campaign : 2007 Cumulus Humilis Aerosol Process Study (CHAPS)

2007.06.04 - 2007.06.25

Lead Scientist : [Carl Berkowitz](#)

Campaign : 2008 VAMOS Ocean-Cloud-Atmos-Land Study (VOCALS)


2008.10.14 - 2008.11.13

Lead Scientist : [Peter Daum](#)

There currently two paths to the ASP data and documentation:

1) The **Archive's IOP Data Browser**. To go there, click on the *Data* tab on the ARM homepage, then the *IOP Data* link under 'Get special data'. This requires a login; getting credentials is fast and easy if you don't have an account yet.


2) The *Campaigns* tab on the ARM homepage:



Navigation menu: About | Science | Campaigns | Sites | Instruments | Measurements | **Data** | News

Recovery Act
Learn about ARM's efforts.

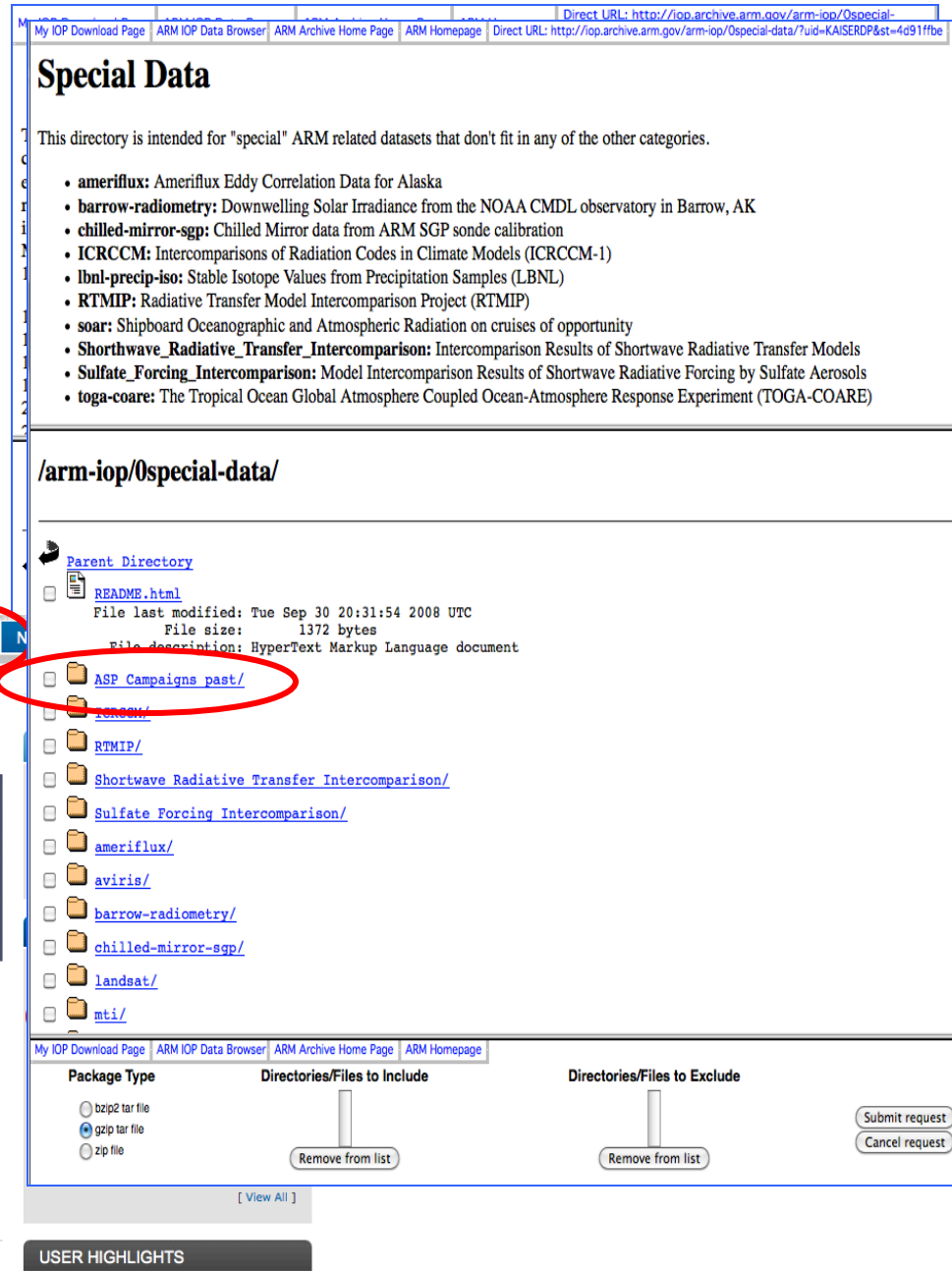
The **Atmospheric Radiation Measurement (ARM) Climate Research Facility** is a U.S. Department of Energy scientific user facility for the study of global climate change by the national and international research community.



[Live Data Displays]

FEATURE 03.21.2011
Not Your Typical 3D Movie
Now that ARM's new X-band scanning precipitation radars are up and running at the Southern Great Plains site, it's time to share some videos of that great data. >> Read More
VIEW ALL FEATURES

News & Announcements
03.25.2011 Remote Schools Welcome Much-Needed Resources
03.09.2011 Forecasting Exercise Begins Oklahoma State Study Court Daves



Special Data

This directory is intended for "special" ARM related datasets that don't fit in any of the other categories.

- **ameriflux**: Ameriflux Eddy Correlation Data for Alaska
- **barrow-radiometry**: Downwelling Solar Irradiance from the NOAA CMDL observatory in Barrow, AK
- **chilled-mirror-sgp**: Chilled Mirror data from ARM SGP sonde calibration
- **ICRCCM**: Intercomparisons of Radiation Codes in Climate Models (ICRCCM-1)
- **lbnl-precip-iso**: Stable Isotope Values from Precipitation Samples (LBNL)
- **RTMIP**: Radiative Transfer Model Intercomparison Project (RTMIP)
- **soar**: Shipboard Oceanographic and Atmospheric Radiation on cruises of opportunity
- **Shorthwave_Radiative_Transfer_Intercomparison**: Intercomparison Results of Shortwave Radiative Transfer Models
- **Sulfate_Forcing_Intercomparison**: Model Intercomparison Results of Shortwave Radiative Forcing by Sulfate Aerosols
- **toga-coare**: The Tropical Ocean Global Atmosphere Coupled Ocean-Atmosphere Response Experiment (TOGA-COARE)

/arm-iop/0special-data/

Parent Directory

- [-] [README.html](#)
File last modified: Tue Sep 30 20:31:54 2008 UTC
File size: 1372 bytes
File description: HyperText Markup Language document
- [-] [ASP Campaigns past/](#)
- [-] [barrow/](#)
- [-] [RTMIP/](#)
- [-] [Shortwave Radiative Transfer Intercomparison/](#)
- [-] [Sulfate Forcing Intercomparison/](#)
- [-] [ameriflux/](#)
- [-] [aviris/](#)
- [-] [barrow-radiometry/](#)
- [-] [chilled-mirror-sgp/](#)
- [-] [landsat/](#)
- [-] [mti/](#)

My IOP Download Page | ARM IOP Data Browser | ARM Archive Home Page | ARM Homepage

Package Type	Directories/Files to Include	Directories/Files to Exclude
<input type="radio"/> bzip2 tar file <input checked="" type="radio"/> gzip tar file <input type="radio"/> zip file	<input type="button" value="Remove from list"/>	<input type="button" value="Remove from list"/>

[View All]

USER HIGHLIGHTS

Field Campaigns

<<< < 1/2 > >>> 20

+/-	Field Campaign	Lead Scientist	Start	Duration	Site	Data
	Time Response of DOE Cloud Imaging Probe	McFarquhar, Greg	2010.06.01	3 months	OSC	
	Carbonaceous Aerosol and Radiation Effects Study (CARES) Photo-Acoustic Aerosol Light Absorption and Scattering	Arnott, Pat	2010.05.26	4.9 weeks	OSC	
	Carbonaceous Aerosol and Radiative Effects Study (CARES): SMPS & CCN counter deployment during CARES/Cal-NEx	Wang, Jian	2010.05.04	8.4 weeks	OSC	
	Carbonaceous Aerosol and Radiative Effects Study (CARES) Ground Based Instruments	Cziczo, Daniel	2010.04.01	3.5 months	OSC	
	PCASP calibration	Kleinman, Larry	2009.10.01	8.1 months	SDSR	
	Chile: Radiative Heating in Underexplored Bands Campaign 2 (RHUBC-II)	Turner, David	2009.08.14	2.4 months	OSC	
	Microwave Oxygen Absorption Study (MOAS)	Crewell, Susanne	2009.08.01	3 months	OSC	
	Alaska: Beaufort Shelf Ocean Current Mapping Program Using Shore-Based High Frequency Radars	Weingartner, Thomas	2009.07.15	4.1 months	OSC	
	Loan of ACRF Nephelometers for NOAA Aircraft Mission	Ogren, John	2009.02.01	8.5 months	OSC	
→	2008 VAMOS Ocean-Cloud-Atmos-Land Study (VOCALS)	Daum, Peter	2008.10.14	4.3 weeks	OSC	✓
	Low-Latitude Marine Stratocumulus Liquid Water Paths	Zuidema, Paquita	2008.10.01	2.1 months	OSC	
	CO2 DIAL	Davis, Kenneth	2008.06.02	4.9 weeks	OSC	
	Year of Tropical Convection (YOTC)	McFarlane, Sally	2008.05.01	24.3 months	SDSR	
→	2007 Cumulus Humilis Aerosol Process Study (CHAPS)	Berkowitz, Carl	2007.06.04	3 weeks	OSC	✓
→	2006 MAX-Mex-Megacity Aerosol eXperiment - Mexico City	Gaffney, Jeffrey	2006.03.03	3.6 weeks	OSC	
→	2005 MASE-Marine Stratus Experiment-Pt. Reyes, CA	Daum, Peter	2005.07.05	3.1 weeks	OSC	
	Rain Microphysics Study with Disdrometer and Polarization Radar	Zhang, Guilfu	2005.04.28	2.1 months	OSC	✓
	Loan of Filters	Bock, Olivier	2005.02.01	9.1 months	OSC	
	Cloud Algorithm Studies and Related Studies	Shields, Janet	2004.09.01	7.1 weeks	OSC	
→	2004 NEAX (Northeast Aerosol Experiment), G-1 data	Daum, Peter	2004.07.20	3.7 weeks	OSC	

Additional Sorting

By Site
 AAF
 AMF
 NSA
 SGP
 TWP
 Other

By Activity
 Current
 Upcoming
 Past

By Year
 1992 to 2014

By Keyword
 Keyword Search

Campaign : 2008 VAMOS Ocean-Cloud-Atmos-Land Study (VOCALS)

2008.10.14 - 2008.11.13

Lead Scientist : [Peter Daum](#)

For data sets, see below.

Description

The DOE G-1 aircraft was deployed to Arica, Chile as part of the NSF VAMOS Ocean-Cloud- Atmospheric-Land Study (VOCALS). The purpose of VOCALS is to develop an understanding of the physical and chemical processes central to the climate system of the Southeast Pacific. In this region, extensive areas of marine clouds exist (coverage about 70% in October). The ASP component of VOCALS focused on aerosols, and how their chemical and microphysical properties, and their ability to act as CCN differ between remote marine air masses and marine air masses that have been influenced to varying degrees by anthropogenic aerosols, and how these differences in aerosol properties influence the microphysical properties of the clouds that form in these different environments. The NSF C-130 aircraft and the NOAA R/V Ronald H. Brown also collected data in the region during the G-1 flights.

The data collected during this field campaign allow examination of the relationship between aerosol composition, size, and CCN activity; between CCN loading and activity and cloud droplet microphysics; between cloud droplet microphysics and cloud radiative properties (first indirect effect studies); and between cloud droplet microphysics and the formation of drizzle (second indirect aerosol effect studies). Data can also be used to examine the validity of recently developed parameterizations of cloud microphysical processes and the properties designed for use in GCMs, and to develop the physical insight needed to develop more complete and sophisticated parameterizations of these quantities.

The G-1 was instrumented with its standard suite for meteorology/state parameters. Additional instrumentation allowed characterization of the chemical and microphysical properties of aerosols and the microphysical properties of clouds. Trace-gas instrumentation measured aerosol precursors (SO₂ and DMS) and species that aid in estimating anthropogenic contributions to aerosols (CO and O₃) in the air masses being sampled. Aerosol optical properties (absorbance and scattering), size distributions and concentrations of aerosols and clouds, aerosol chemical composition and cloud forming tendencies were all measured using a suite of research grade instruments modified for aircraft operations. Flights included below-cloud legs to measure pre-cloud aerosol properties, in-cloud flights at several altitudes to examine the relationships between pre-cloud aerosol properties, cloud dynamics and cloud droplet microphysics, and their variation with altitude, and sampling through and above cloud top to define the vertical dimensions of the cloud, to document the thermodynamic structure of the atmosphere, and to sample the properties of the above-cloud aerosols.

Other Contacts

Co-Investigators

[Larry Kleinman](#)
[Yin-Nan Lee](#)
[Yangang Liu](#)
[Robert McGraw](#)
[Gunnar Senum](#)
[Stephen Springston](#)
[Jian Wang](#)

Campaign Data Sets

Campaign Participant	Data Set	Archived Data
Senum, Gunnar	Cloud Aerosol Precip Spectrometer	Order Data
Senum, Gunnar	Passive Cavity Aerosol Spectrometer	Order Data

Comments?

We would love to hear from you!
 Send us a note below or call us at
 1-888-ARM-DATA.

Where are we now?

- All data can be accessed in a structure similar to previous ASP data archive
- VOCALS Campaign has been integrated in ARM structure
- README information has been created and is being added to directory structure
- Metadata are being added to provide direct access links to data from web documentation
- Metadata will be added to list these IOPs on instrument and measurement web pages
- **Questions???**