

ARM (Atmospheric Radiation Measurement) Enhanced Shortwave Experiment (ARESE) Langley DAAC Project/Campaign Document



Summary:

The ARM Enhanced Shortwave Experiment (ARESE) was conducted at the Department of Energy's ARM Southern Great Plains (SGP) Central Facility between September 22, 1995 and November 1, 1995. The principal objectives of ARESE were (1) to directly measure the absorption of solar radiation by the clear and cloudy atmosphere and to place uncertainty bounds on these measurements; and (2) to investigate the possible causes of absorption in excess of model predictions.

Table of Contents:

- [1. Project/Campaign Overview](#)
- [2. Data Availability](#)
- [3. Data Access](#)
- [4. Principal Investigator Information](#)
- [5. Submitting Investigator Information](#)
- [6. References](#)
- [7. Glossary and Acronyms](#)
- [8. Document Information](#)

1. Project/Campaign Overview:

ARESE is a DoE - NASA collaboration designed to measure absorption of solar radiation in the cloudy atmosphere by measuring the upwelling and downwelling radiative fluxes using three aircraft flying at the tropopause (ER-2), near cloud top (Egrett), and below cloud base (Twin Otter).

Name of Project/Campaign:

ARM (Atmospheric Radiation Measurement) Enhanced Shortwave Experiment (ARESE)

Project/Campaign Introduction:

See Project/Campaign Overview.

Project/Campaign Mission Objectives:

To investigate the absorption of solar radiation by clouds, aerosols, and atmospheric gases.

Discipline(s):

Atmospheric Radiation
Cloud Radiative Properties
Aerosol
Atmospheric Gases

Geographic Region(s):

Oklahoma, New Mexico, Arizona, Texas, and the Gulf Coast

Detailed Project/Campaign Description:



[See ARESE Home Page](#)

2. Data Availability:

Data Type(s):

...

Input/Output Media:

...

Proprietary Status:

There is no proprietary status for the data sets currently on-line at the Langley DAAC.

3. Data Access:

Data Center Location:

Langley DAAC User and Data Services Office
NASA Langley Research Center
Mail Stop 157D
Hampton, Virginia 23681-2199
USA
Telephone: (757) 864-8656
FAX: (757) 864-8807
E-mail: support-asdc@earthdata.nasa.gov

Contact Information:

...

Associated Costs:

There is no cost associated with this data.

4. Principal Investigator Information:

Investigator(s) Name and Title:

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6. References:

Ayers, J.K., Minnis, P., et. al: "Calibration of GOES Using Satellite and ARESE Aircraft Data". 6th ARM Science Team Meeting (San Antonio, TX, March 4-7, 1996)

Minnis, P., et. al: "Cloud Shortwave Radiative Forcing from Satellite and Surface Data During ARESE". 6th ARM Science Team Meeting (San Antonio, TX, March 4-7, 1996)

7. Glossary and Acronyms:

[EOSDIS Acronyms](#) (PDF).

8. Document Information:

- **Document Creation Date:** August, 1998
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