Aerosol Research Branch (ARB), 48-inch Lidar Langley DAAC Project/Campaign Document

Summary:

This document provides information for the Aerosol Research Branch project data that is archived at the Langley Distributed Active Archive Center (DAAC).

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1. Project/Campaign Overview:

Name of Project/Campaign:

Aerosol Research Branch (ARB), 48-inch Lidar System

Project/Campaign Introduction:

This project obtains ground-based lidar profiles of upper troposphere and stratospheric aerosol at 694 nm.

Project/Campaign Mission Objectives:

Routine ground-based lidar measurements have been taken at the Langley Research Center, Hampton, Virginia (37.1 degrees North, 76.3 degrees West), since May 1974. (Measurements prior to 1982 are not currently available in digital forms.) These lidar measurements provide high-resolution vertical profiles of the stratospheric and upper tropospheric aerosols. The lidar system, often referred to as the 48-inch lidar system because of its 48-inch telescope, has evolved over the years and provides a valuable long-term history of the mid-latitude stratospheric aerosol.

Discipline(s):

Aerosol lidar

Geographic Region(s):

Hampton, Virginia (37.1N, 76.3W)

Detailed Project/Campaign Description:

This information is not available.

2. Data Availability:

Data Type(s):

The data currently archived at the Langley DAAC are as follows:

ARB_48_IN_LIDAR	Aerosol Research Branch (ARB) 48 inch Lidar

Input/Output Media:

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Proprietary Status:

These data are available to the public.

3. Data Access:

Data Center Location and Contact Information:

Langley DAAC User and Data Services Office
NASA Langley Research Center
Mail Stop 157D
Hampton, Virginia 23681-2199
USA
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Associated Costs:

There are no costs associated with these data.

4. Principal Investigator Information:

Dr. Chris Hostetler, PI, ARB, NASA Langley Research Center

5. Submitting Investigator Information:

This information is not available.

6. References:

Fuller, W. H., Osborn, M. T., and Hunt, W. H. *48-Inch Lidar Aerosol Measurements Taken at the Langley Research Center - May 1974 to December 1987.* NASA RP-1209, 1988.

Osborn, M. T., R. J. DeCoursey, C. R., Trepte, D. M. Winker, and D. C. Woods, *Evolution of the Pinatubo Volcanic Cloud Over Hampton, Virginia*, Geophys. Res. Lett., Vol. 22, No. 9, May 1, 1995, pp 1101-1104.

Russell, Philip B., Swissler, Thomas J., and McCormick, M. Patrick, *Methodology for Error Analysis and Simulation of Lidar Aerosol Measurements*. Appl. Opt., vol. 18, no. 22, Nov. 15, 1979, pp. 3783-3797.

Woods, D. C., M. T. Osborn, D., M. Winker, R. J. DeCoursey, and O. Youngbluth, *48-inch Lidar Aerosol Measurements Taken at the Langley Research Center - July 1991 to December 1992*. NASA RP-1334, 1994.

7. Glossary and Acronyms:

EOSDIS Acronyms (PDF).

DAAC - Distributed Active Archive Center
NASA - National Aeronautics Space Administration

8. Document Information:

- **Document Revision Date:** Jan 06, 1997; May 21, 1997; Jun 27, 1997; Nov 24, 1997
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