

# TARFOX

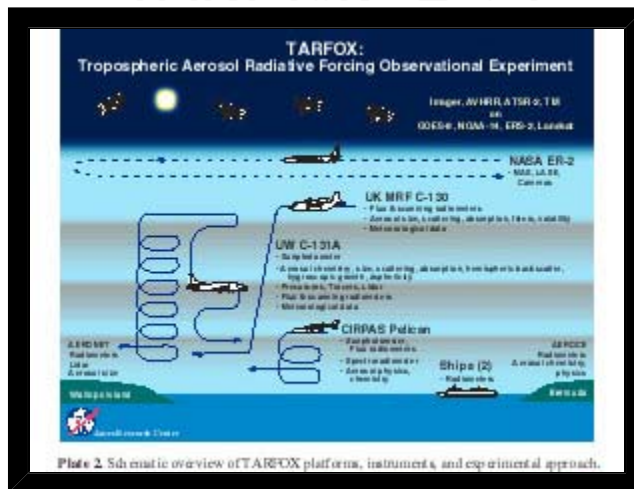


Plate 2. Schematic overview of TARFOX platforms, instruments, and experimental approach.

<b>T</b> ropospheric	<b>A</b> erosol	<b>R</b> adiative
<b>F</b> orcing	<b>O</b> bservational	<b>e X</b> periment

## A Field Project of the *International Global Atmospheric Chemistry Project (IGAC)*

\* Focus 8, Atmospheric Aerosols \*

Coordinators: [P.B.Russell](#), [P.V.Hobbs](#), [L.L.Stowe](#)

- 
- [WHAT'S NEW WITH TARFOX!](#) - updated Feb-01-2000
  - [TARFOX Schedule](#) - updated Feb-02-1999
-

- [Science and Implementation Plan](#)
  - [TARFOX Summary for IGAC/FAA Booklet](#)
  - [Mission Summaries and Overview Data](#)
  - [More on TARFOX](#)
- 

## ● **JGR Special Section One** - *updated Feb-18-1999*

**Volume 104, number D2,**

Published Jan 27, 1999

- Aerosol properties and radiative effects in the United States East Coast haze plume: An overview of the Tropospheric Aerosol Radiative Forcing Observational Experiment (TARFOX) - *Russell, et al.*
- Interannual variation of ambient aerosol characteristics on the east coast of the United States - *Remer, et al.*
- An overview of the University of Washington airborne measurements and results from the Tropospheric Aerosol Radiative Forcing Observational Experiment (TARFOX) - *Hobbs*
- Humidification factors for atmospheric aerosols off the mid-Atlantic coast of the United States - *Kotchenruther, et al.*
- Aerosol optical depth retrieval using ATSR-2 and AVHRR data during TARFOX - *Veefkind, et al.*
- Retrieval of aerosol optical thickness and size distribution over ocean from the MODIS airborne simulator during TARFOX - *Tanré et al.*
- Comparison of observed and modeled direct aerosol forcing during TARFOX - *Hignett, et al.*
- Aerosol-induced radiative flux changes off the United States mid-Atlantic coast: Comparison of values calculated from Sun photometer and in situ data with those measured by airborne pyranometer - *Russell, et al.*
- Aircraft observations and modeling of sky radiance distributions from aerosol during TARFOX - *Francis, et al.*

## ● **JGR Special Section Two** - *list revised 05-14-1999*

Submission Deadline set for **May 1, 1999**.

Coordinator: Rich Ferrare. Email address: [r.ferrare@larc.nasa.gov](mailto:r.ferrare@larc.nasa.gov)

Potential Papers:

- Properties of aerosols aloft relevant to direct radiative forcing off the mid-Atlantic coast of the United States - *Hartley, Hobbs, Ross, Russell and Livingston*

- Comparisons of aerosol optical depths from aircraft and satellites off the East Coast of the United States - *Hartley, Hobbs, Stowe, Russell, Livingston*

- A TARFOX case study of the aerosol direct radiative forcing closure problem using aircraft data from the UK Met Office C-130 - *Haywood, J.M., Francis, P.N., Hignett, P., and Taylor, J.*

- Retrieving the vertical structure of the effective aerosol complex index of refraction from a combination of aerosol in situ and remote sensing measurements during TARFOX (Part 1) - *Redemann, Turco, Liou, Russell, Bergstrom, Schmid, Livingston, Hobbs, Hartley, Ismail, Ferrare, Browell*

- Case studies of the vertical structure of the direct shortwave aerosol radiative forcing during TARFOX - *Redemann, Turco, Liou, Hobbs, Hartley, Bergstrom, Browell, Russell*

- Aerosol optical properties from NOAA AVHRR and GOES-8 measurements during TARFOX - *P. A. Durkee, B. B. Brown, K. E. Nielsen, P. B. Russell, J. Livingston, P. Hobbs, P. Hignett*

- Comparisons of aerosol optical properties and water vapor among ground and airborne lidars and sun photometers during TARFOX - *R.Ferrare, S. Ismail, E. Browell, V. Brackett, S. Kooi, M. Clayton, S. H. Melfi, D. Whiteman, G. Schwemmer, K. Evans, P. Russell, J. Livingston, B. Schmid, B. Holben, L. Remer, A. Smirnov, P. Hobbs*

- Comparisons of LASE, aircraft, and satellite measurements of aerosol optical properties and water vapor during TARFOX - *R.Ferrare, S. Ismail, E. Browell, V. Brackett, S. Kooi, M. Clayton, P. Hobbs, S. Hartley, J.P. Veeffkind, P. Russell, J. Livingston, D. Tanré and P. Hignett*

- Measurement of atmospheric optical parameters on US Atlantic coast sites, ships and Bermuda during TARFOX - *A.Smirnov, B.N.Holben, O.Dubovik, N.O'Neill, L.Remer, T.F.Eck, and I.Slutsker*

- Intercomparison of aerosol properties derived from in-situ data and satellites. Deficiencies and their impact on aerosol direct forcing estimates - *Kinne, Russell, Hignett, Bergstrom, Holben, Stowe, Prins, Veeffkind, Durkee, Torres, Vermote*

- LASE measurement of aerosol and water vapor profiles measured during TARFOX - *S. Ismail, E.V. Browell, R. Ferrare, S. A. Kooi, M. Clayton, V. Brackett*

- CCN spectra and CNN size distributions during TARFOX - *Q. Ji, S.C. Tsay, Y.J. Kaufman, G.E. Shaw and W.H. Cantrell*

## ● TARFOX Papers from Conference on Visibility,

**Aerosols and Global Radiation Balance** - September 1997

● [An Overview of the Tropospheric Aerosol Radiative Forcing Observational Experiment \(TARFOX\)](#).

● [Direct Aerosol Radiative Forcing: Calculations and Measurements from the Tropospheric Aerosol Radiative Forcing Observational Experiment\(TARFOX\)](#).

## ● Paper from IGACTivities Newsletter #11

● [Sulfate Versus Carbonaceous Materials on the East Coast of the United States: Results from TARFOX](#).

---

## ● [TARFOX Data Archive](#)

- LASE lidar data
- U. Washington C131A data
- Ames Sunphotometer data from C131A
- Wallops Island meteorological data
- Wallops Island Scanning Mobility Particle Sizer (SMPS)
- Wallops Island Radiosonde

---

Important Links: [NOAA website](#) [SGG website](#) [NASA Ames homepage](#) [NASA homepage](#)

[View the NASA Privacy Statement, Disclaimer, and Accesibility Certification](#)

To request information on this web site in a Section 508 accessible format, please contact [access@mail.arc.nasa.gov](mailto:access@mail.arc.nasa.gov)

[Go to AATS Website for TARFOX](#)

[Go to Ames Sunphotometer/Satellite Team Website](#)

**Responsible NASA Official:** Phil Russell

**Site Maintainer:** Stephanie Ramirez

*Last updated July-20-2002*