



Radiative Flux Changes by Aerosols from North America, Europe, and Africa Over the Atlantic Ocean: Measurements and Calculations from Tarfox and Ace-2

By P. B. Russell

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Aerosol effects on atmospheric radiative fluxes provide a forcing function that is a major source of uncertainty in understanding the past climate and predicting climate change. To help reduce this uncertainty, the 1996 Tropospheric Aerosol Radiative Forcing Experiment (TARFOX) and the 1997 second Aerosol Characterization Experiment (ACE-2) measured the properties and radiative effects of American, European, and African aerosols over the Atlantic. In TARFOX, radiative fluxes and microphysics of the American aerosol were measured from the UK C-130 while optical depth spectra, aerosol composition, and other properties were measured by the University of Washington C-131A and the CIRPAS Pelican. Closure studies show that the measured flux changes agree with those derived from the aerosol measurements using several modelling approaches. The best-fit midvisible single-scatter albedos (approx. 0.89 to 0.93) obtained from the TARFOX flux comparisons are in accord with values derived by independent techniques. In ACE-2 we measured optical depth and extinction spectra for both European urban-marine aerosols and free-tropospheric African dust aerosols, using sunphotometers on the RV Vodyanitskiy and the Pelican. Preliminary values for the radiative flux sensitivities (Delta...

Reviews

Very beneficial to all of class of people. I am quite late in start reading this one, but better then never. You may like just how the writer create this publication.

-- **Audra Klocko PhD**

Thorough information! Its this type of great go through. It is amongst the most incredible publication i actually have read through. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Germaine Welch**