



# SHADOZ Notes

Southern Hemisphere Additional OZonesondes:

A Data Set for Remote Sensing Research,  
Global Models, and Education.



## The Archive



SHADOZ is a project to augment balloon-borne ozonesonde launches and to archive data from tropical and subtropical operational sites. The project was initiated in 1998 by NASA/Goddard Space Flight Center with other US and international co-investigators. There are currently thirteen stations in the SHADOZ network. The collective data set provides the first profile climatology of tropical ozone in the equatorial

Data is publicly available at:  
<http://croc.gsfc.nasa.gov/shadoz>

region, enhances validation studies aimed at improving satellite remote sensing techniques for tropical ozone estimations, and serves as an educational tool for students, especially in the participating countries.

## SHADOZ CD-ROM

To increase the access of SHADOZ profiles beyond the boundaries of the internet, a cd-rom is now available which mimics the website and provides data from 1998-2003. Contact SHADOZ PI Anne Thompson at [anne@met.psu.edu](mailto:anne@met.psu.edu) for a copy.



## SHADOZ Enters Aura Era

Since 1998, SHADOZ has undergone several transformations. As a flexible archive SHADOZ has grown and evolved as scientific needs and research questions change. As part of NASA's Aura validation, including the Ozone Monitoring Instrument (OMI) and Tropospheric Emission Spectrometer (TES), SHADOZ stations are coordinating their launch schedules to satellite overpasses. Profiles are submitted in a timely manner to the SHADOZ and Aura Validation Data Center (AVDC) archives as launches and quality control checks are completed.

SHADOZ: <http://croc.gsfc.nasa.gov/shadoz>  
 Aura Homepage: <http://aura.gsfc.nasa.gov>  
 AVDC Homepage: <http://avdc.gsfc.nasa.gov>

## ☞ New Station Highlight: Cotonou, Benin ☞



SHADOZ welcomes the Cotonou, Benin, sounding station as the archive's third northern tropical site and international partner. This will be SHADOZ first northerly station in the African continent. Benin, a narrow, West African country, lies between the Equator and the Tropic of Cancer. Cotonou is Benin's largest city and is situated on the Gulf of Guinea.

Station PI Valérie Thouret from CNRS-Laboratoire d'Aérodologie, Toulouse, France, along with local manager Francis Dide (ASECNA) started launches in the beginning of 2005. Station profiles are funded by the European Commissions' African Monsoon Multidisciplinary Analyses (AMMA) program. For further information on AMMA: <[Http://amma.mediasfrance.org/france](http://amma.mediasfrance.org/france)>

### Station Information

Station PI: Valérie Thouret (CNRS)  
Local Manager: Francis Dide  
(ASECNA)

Location: Cotonou, Benin  
Lat/Long: 6.21°N, 2.23°E  
Elevation: 9.5 m  
Ozonesonde Type: SPC 6A  
Radiosonde Type: Vaisala RS80  
KI Solution: 1% Buffered



Photos: (Above) Valérie Thouret (center) with colleagues from the African aeronautics and meteorological group (ASECNA-Cotonou) and MeteoFrance in the ozonesonde preparation and conditioning laboratory.

(Below) Launch preparations underway. Photos courtesy of V. Thouret.



## SHADOZ Team wins NASA Group Achievement Award

SHADOZ Team members were honored with a prestigious NASA Group Achievement award. The award was given in fall, 2004 for 'raising international standards of ozone research, serving as a model for international collaboration, and for providing essential data for assessing global climate change.'

At a formal award ceremony hosted by the World Meteorological Organization (WMO, Geneva, Switzerland), SHADOZ PI, Dr. Anne Thompson presented the awards to Meteoswiss for sponsorship of the Nairobi, Kenya station. The station is also part of WMO's Global Atmospheric Watch (GAW) program which partners developing countries with various research institutes to build and maintain atmospheric monitoring stations. Also in attendance was the local station manager, William Ayoma, of the Kenyan Meteorological Department.



Photo (left): Martin Stanek (center) from the Solar Ozone Obs. of the Czech Hydrometeorological Inst, instructing William Ayoma (2nd left) and KMD colleagues on the Dobson total ozone spectrometer #18 which returned to the Nairobi station (May, 2005). Photo courtesy of B. Calpini.



Photo (above): From L-R: Leonard Barrie (Chief Environment Division, GAW, WMO), Pierre Viatte (Director Aerological Observatory, Switzerland), **Anne Thompson** (Penn State, USA), Alexander Bedritsky (WMO President), **Bertrand Calpini** (Recipient, Aerological Observatory, Payerne, Switz., Nairobi station PI), **Gilbert Levrat** (Recipient, Aerological Observatory, Payerne, Switz., Nairobi station manager), **Bruno Hoegger** (Recipient, former station PI), Gerhard Mueller (Deputy Director, Meteoswiss, Switz.), Hong Yan (Deputy Secretary General, WMO). Photo courtesy of L. Barrie.

### SHADOZ Science Team

Anne Thompson - Principal Investigator  
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 Bertrand Calpini (Aero. Sta., Swit.)  
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 Volker Kirchhoff (INPE, Brazil)  
 Kok Kee Chow (Malaysian Met. Ser.)  
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Editor: Jacquelyn Witte.  
 The newsletter welcomes contributions from the Co-investigators and all data users. Send items to:



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For more information about SHADOZ or to access the data archive, visit our web site.

The SHADOZ homepage also gives technical information for each station, and addresses of the Co-Investigators. The Co-I's are responsible for the original data processing and should be consulted for details of their methods and appropriate references to their work.