



SHADOZ Notes

Southern Hemisphere Additional Ozonesondes

A NASA public archive of tropical ozonesonde profile data for remote sensing research, model studies and education

Data are public <<http://croc.gsfc.nasa.gov/shadoz>>

SHADOZ is a NASA project to augment and archive balloon-borne ozonesonde launches and to archive data from tropical and sub-tropical operational sites. The project was initiated in 1998 by NASA/Goddard Space Flight Center with other US and international co-investigators. There are currently eleven stations launching ozonesondes in the SHADOZ network. The collective

data set provides the first climatology of tropical ozone in the equatorial region, enhances validation studies aimed at improving satellite remote sensing techniques for tropical ozone estimations, and serves as an educational tool to students, especially in participating countries.

Current SHADOZ Sites



Future Meetings that will feature Ozonesondes

- SPARC/IOC/GAW/NDACC supported ozonesonde workshop, April 12-13, 2012, Greenbelt, MD, USA. This is a group effort to check and improve the quality, homogeneity, and consistency of the global ozonesonde records.
- Quadrennial Ozone Symposium, August 27-31, 2012, Toronto, Ontario, Canada
 - <http://www.cmos.ca/QOS2012/>
 - Scientific themes include, (i) Observations and analyses of total and vertical ozone distributions, (ii) Observation techniques and intercomparisons, and (iii) Tropospheric ozone; past and future budgets and trends and long-range transport.

Past Meetings that featured Ozonesondes

- WCRP (World Climate Research Program) Open Science Conference, Denver, CO USA
 - <http://www.wcrp-climate.org/conference2011/>
 - The C15 session and several others featured SHADOZ.
- NDACC Symposium XX at St Paul, La Réunion Island.
 - This is a SHADOZ site, at St-Denis!
 - Registration: <http://ndacc2011.univ-reunion.fr>

The SHADOZ website gets a facelift !

SHADOZ Website

http://croc.gsfc.nasa.gov/shadoz/

Wikipedia News (5) Popular Google

NASA National Aeronautics and Space Administration
Goddard Space Flight Center

SHADOZ: Southern Hemisphere Additional OZonesondes

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Principal Investigator: Dr. Anne M. Thompson (Penn State University)

A number of ozonesonde stations are operating in the tropics and subtropics, but with differing frequency and reporting procedures. **SHADOZ** (Southern Hemisphere Additional OZonesondes) is designed to remedy this data discrepancy, by coordinating launches, supplying additional sondes in some cases, and by providing a central archive location. Since 1998, ozonesonde data have been collected and made available through this website.

Click on the **ARCHIVE** link in the banner above too access the ozonesonde data.

Questions regarding sonde data from specific stations should be directed to the stations' principal investigator. A list of PI contact information can be found on the **CONTACTS** link in the banner above.

We would like to keep a running list of papers that use SHADOZ data. Please email a reference of your manuscript to the archiver: [Jacquelyn Witte](#)

Publications using SHADOZ data should include at least one of the following references:

- Thompson, A.M., et al. (2003), Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2000 tropical ozone climatology 1. Comparison with Total Ozone Mapping Spectrometer (TOMS) and ground-based measurements, *J. Geophys. Res.*, 108, 8238, doi:10.1029/2001JD000967.
- Thompson, A.M., et al. (2003), Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2000 tropical ozone climatology 2. Tropospheric variability and the zonal wave-one, *J. Geophys. Res.*, 108, 8241, doi:10.1029/2002JD002241.
- Thompson, A.M., J.C. Witte, H.G.J. Smit, S.J. Oltmans, B.J. Johnson, V.W.J.H. Kirchhoff, and F.J. Schmidlin (2007), Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2004 tropical ozone climatology: 3. Instrumentation, station-to-station variability, and evaluation with simulated flight profiles, *J. Geophys. Res.*, 112, D03304, doi:10.1029/2005JD007042.

Data Disclaimer and Guidelines:

The data on this website are subject to revision and reprocessing. Check dates of creation to download the most current version. Contact the co-investigators for questions concerning data techniques and quality.

Access to these data is free to the public. Whenever substantial use is made of their data, you accept that an offer of co-authorship will be made through personal contact. In all cases, an acknowledgement must be made to the data co-investigators and SHADOZ when these data are used in publication. [Click here for a list of contact information on the SHADOZ station PIs](#)

SHADOZ reserves the right to limit access to the Data Archive and to alter or change the layout and content of the website.

Archiver/Webmaster: [Jacquelyn Witte \(SSAI\)](#)
Responsible NASA official: [Jose Rodriguez, Laboratory Head, GSFC Atmospheric Chemistry & Dynamics Laboratory](#)

New Data Format

A new SHADOZ file format is available since 2012. Version 05 will include more header information and additional data. Version 04 format will remain available on the archive for the 1998 to 2010 or 2011 time period. 1998-2011 has been reprocessed to the new version 05 for almost all stations.



Irene launch by SHADOZ Co-I Dr. Gerrie Coetzee of South African Weather Service (SAWS). Irene may soon re-join the SHADOZ archive. Soundings were suspended since 2008, resumed in 2011 with support from the South African Weather Service. Many thanks to Co-I Dr. Gerrie Coetzee and his South Africa Weather Service Management team led by Mr. Lucky N. Ntsangwane.

SHADOZ Science Team

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SHADOZ Notes is published for and about the data archive and stations. SHADOZ is supported by ACMAP an Aura NASA programs. Individual SHADOZ stations are supported by in-country agencies and universities.

The SHADOZ homepage provides technical information for each station and contact information. The station managers are responsible for the original data processing and should be consulted for details of their methods and appropriate references to their work.

SHADOZ Principal Publications

- Thompson, A. M. et al., Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2004 tropical ozone climatology. 3. Instrumentation, Station-to-station variability, evaluation with JOSIE-2000 results, *J. Geophys. Res.*, doi:10.1029/2005JD007042, 2007.
- Thompson, A. M., et al., Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2000 tropical ozone climatology. 2. Tropospheric variability and the zonal wave-one, *J. Geophys. Res.*, 108, 8241, doi: 10.1029/2002JD002241, 2003.
- Thompson, A. M. et al., Southern Hemisphere Additional Ozonesondes (SHADOZ) 1998-2000 tropical ozone climatology. 1. Comparison with Total Ozone Mapping Spectrometer (TOMS) and ground-based measurements, *J. Geophys. Res.*, 108, 8238, doi: 10.1029/2001JD000967, 2003.