



## 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



There is a new Digicora MW 31 system at the Irene, SA station. Once installed sometime in September 2012, Irene should return to launching bi-monthly soundings and re-join the SHADOZ archive.

*Left image of Irene, SA launch by SHADOZ Co-I Dr. Gerrie Coetzee of South African Weather Service (SAWS).*

### 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.

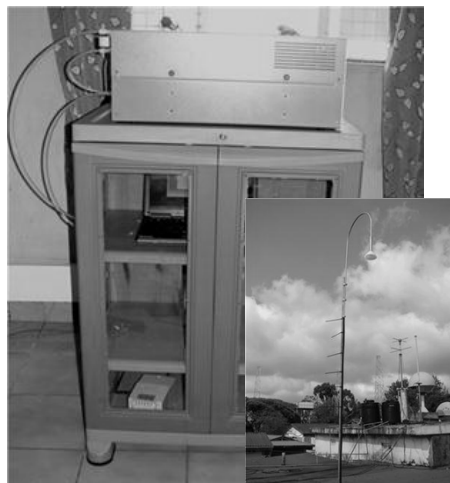
Latest SHADOZ paper: Thompson, A. M. et al., SHADOZ (Southern Hemisphere Additional Ozonesondes) Ozone Climatology (2005- 2009). 4. Tropospheric and Lower Stratospheric Profiles with Comparisons to OMI Total Ozone, *J. Geophys. Res.*, submitted, 2012.

Since June 2010 the SHADOZ/GAW Nairobi station has been modernized. Installed is a new calibration bench and ground station digiCORA system (photo 1), an automated surface ozone instrument (photo 2), an H<sub>2</sub> generator, and a new data transfer system that will allow data managers at MeteoSwiss faster access to the raw data. There has also been a change solution strength from the original 1% KI to 0.5% KI with a half buffer and a switch from RS80 radiosondes to RS92.

*Photos from Gilbert Levrat, MeteoSwiss, Swit.*



*Photo 1: New calibration bench "ECC-ASAP"*



*Photo 2: New Thermo 49i for measuring ground-level ozone. Inset photo is of the air inlet 2.5m above the roof.*



*Team Training!*

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### **SHADOZ Science Team**

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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.