



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 twelve stations in the SHADOZ network. The collective data set provides the first profile 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 for students, especially in the participating countries.

Data is publicly available at a *NEW* website:

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



Noteworthy: SHADOZ participants acknowledged

Many sites have completed their submission of 2003 profiles and another year of ozonesonde profiles archiving has begun. There are well over 2000 profiles residing in the archive and at the World Ozone and Ultraviolet Radiation Centre (WOUDC) <<http://www.woudc.org>>. The success of the SHADOZ project is largely due to the dedication and enthusiasm of our participants. To acknowledge their efforts and contributions to the project, Certificates of Appreciation have been issued by NASA's Earth Science directorate to the many participants involved worldwide. The number of affiliates since the project began in 1998 involves co-investigators, directors, station and data managers, administrative staff and students from over 15 countries.

SHADOZ LITHOGRAPH

"With unprecedented spatial and temporal coverage, SHADOZ has provided striking examples of how ozone interacts with tropical meteorology."

- Quote from the
SHADOZ lithograph

In a further effort to promote NASA's initiative of education and outreach, a SHADOZ lithograph has been created giving a project overview and highlighting recent results, such as the tropospheric wave-one feature seen in tropical profile ozone and the large-scale dynamical link between ozone and meteorology. For copies of the lithograph please make the request to Jacquie Witte at witte@gavial.gsfc.nasa.gov.

🌀 New Station Highlight: Kuala Lumpur, Malaysia 🌀

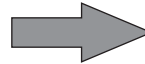
SHADOZ welcomes a new northern tropical site and international partner to the project. Since 1992, the Malaysian Meteorological Service (MMS) has been launching ozone sondes, presently operating at the Kuala Lumpur International Airport (KLIA). In partnership with MMS and the University of Tokyo, this will be the second northern latitude site in the SHADOZ archive and the first on the Asian mainland. The MMS homepage with further information about their institution and services can be found at: <http://www.kjc.gov.my>



Kuala Lumpur is located in the central portion of Peninsular Malaysia, 35 km from the western coast. It is the largest city in the nation housing a diverse population of over half a million.



Malaysian Meteorological Service staff preparing an ozonesonde on the day of launch.



KLIA Participants and Affiliates

Malaysian Meteorological Service Staff

Leong Chow Peng, Station manager
 Lim Sze Fook, Acting Head, Environmental Studies
 Khairul Najib, Meteorological Officer
 Ramzan Shamsudin, Station in-charge
 Siniarovina Urdan, Met. Officer
 Abdul Rahman, Met. observer
 Amir Shamsiddin, Met observer

University of Tokyo Group

Haruo Tsuruta
 Seiichiro Yonemura
 Shigeto Sudo

Station Information

Location: Kuala Lumpur International Airport
 Upper Air Station
 Malaysian Meteorological Service (MMS)
 Sepang, Malaysia
 Lat/Long: 2.73°N, 101.7°E
 Elevation: 17.0 m
 Ozonesonde Type: Science Pump 6A
 Radiosonde Type: Vaisala RS80-15GE
 KI Solution: 1% Buffered

➤ Upcoming Meetings ◀

This year, several international meetings with a focus on ozone will be taking place. We encourage the users and participants to attend and present analyses that uses SHADOZ data:

- * American Geophysical Union <<http://www.agu.org>>
Joint Assembly: May 17-21, 2004; Montreal, Que., Canada
- * European Geosciences Union: April 25-30 2004; Nice, France
<<http://www.copernicus.org/EGU/ga/egu04>>
- * Quadrennial Ozone Symposium: June 1-8, 2004; Kos, Greece
<<http://www.qos2004.gr>>
- * COSPAR: July 18-25, 2004; Paris, France
<<http://www.copernicus.org/COSPAR>>
- * SPARC: August 1-6, 2004; Victoria, B.C., Canada
<<http://sparc.seos.uvic.ca>>
- * International Global Atmospheric Chemistry (IGAC)
September 4-9, 2004; Christchurch, New Zealand
<<http://www.igac.noaa.gov>>

🔦 Spotlight 3: SHADOZ Related Activities 🔦

The Balloon Experiment for Standards on Ozone Sondes (BESOS) Campaign, sponsored by WMO, to establish a standard set of operating procedures for new ozonesonde stations will be conducted in April 2004 at the University of Wyoming at Laramie, USA. Experts from a number of sonde launching stations from around the world will participate in a comparison of instrument techniques. To learn more about the campaign go to the website: <<http://croc.gsfc.nasa.gov/besos>>

The Earth Observing System (EOS) Aura satellite to study ozone, air quality and climate is expected to be launched June 2004. SHADOZ will participate in the early validation effort. For more information go to <<http://aura.gsfc.nasa.gov>>

SHADOZ Science Team

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 Bertrand Calpini (Aero. Sta., Swit.)
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 Volker Kirchhoff (INPE, Brazil)
 Kok Kee Chow (Malaysian Met. Ser.)
 Giovanni Laneve (Univ. Rome, Italy)
 Richard McPeters (NASA/GSFC, US)
 Toshihiro Ogawa (NASDA, Japan)
 Samuel Oltmans (NOAA/CMDL, US)
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Editor: Jacquelyn Witte.
 The newsletter welcomes contributions from the Co-investigators and all data users. Send items to:

Jacquelyn Witte
 Fax : (301) 614-5903
 Email : witte@gavial.gsfc.nasa.gov



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

➤ Attention Data Users ◀

Questions about SHADOZ should be directed to the PI, Anne Thompson: thompson@gator1.gsfc.nasa.gov. SHADOZ data sets are products of evolving research by the site Co-Investigators and ongoing community collaboration. As you work with the data, please keep us posted on issues that will help us improve the value of the data.

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. Questions about the data should be directed to Jacquelyn Witte.

- * Requests for SHADOZ reprints can be made to Anne Thompson:
 - (1) *Journal of Geophysical Research*, 108(D2), 8238, doi: 10.129/2001JD000967, 2003.
 - (2) *Journal of Geophysical Research*, 108(D2), 8241, doi: 10.129/2002JD02241, 2003.