

Introduction to SHADOZ

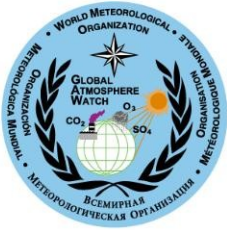


The Tropical Ozonesonde
Dataset for
Satellite Validation,
Processing and Modeling.

Masatomo Fujiwara
Hokkaido University, Japan



- SHADOZ: Southern Hemisphere ADditional Ozonesondes
- Principal Investigator: Anne M. Thompson (Penn. State Univ.)
- International Project led by NASA, since 1998
- First Tropical-Subtropical Ozonesonde Network (10-14 stations; currently 12)
- Tropical tropospheric ozone – Validation of satellite estimation by balloon-borne ozonesondes
- Networking the ozonesonde sites operated by different groups, by coordinating (satellite-overpass) launches, by supplying additional sondes in some cases, and by providing a central archive location.
- Data are collected in a timely manner, and are available through <http://croc.gsfc.nasa.gov/shadoz/> to the scientific community.



*Centre Mondial des Données sur l'Ozone
et le Rayonnement Ultraviolet*

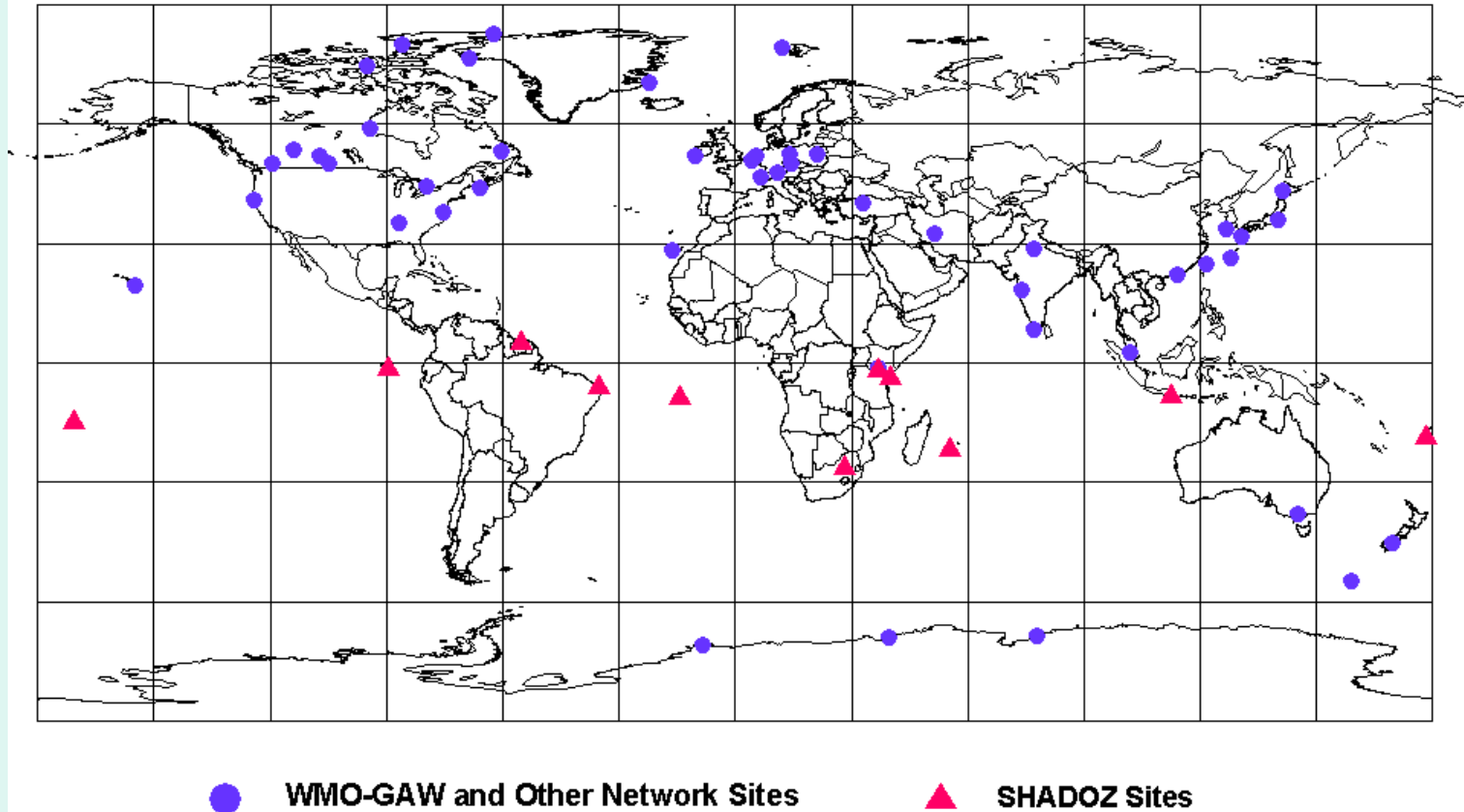
*World Ozone and Ultraviolet Radiation
Data Centre*

Meteorological Service of Canada



- **The data is also submitted to WOUDC.**
- **SHADOZ covers important regions of the world**

WOUDC Ozonesonde Platforms - Data years 2002 - 2005



SHADOZ Sites



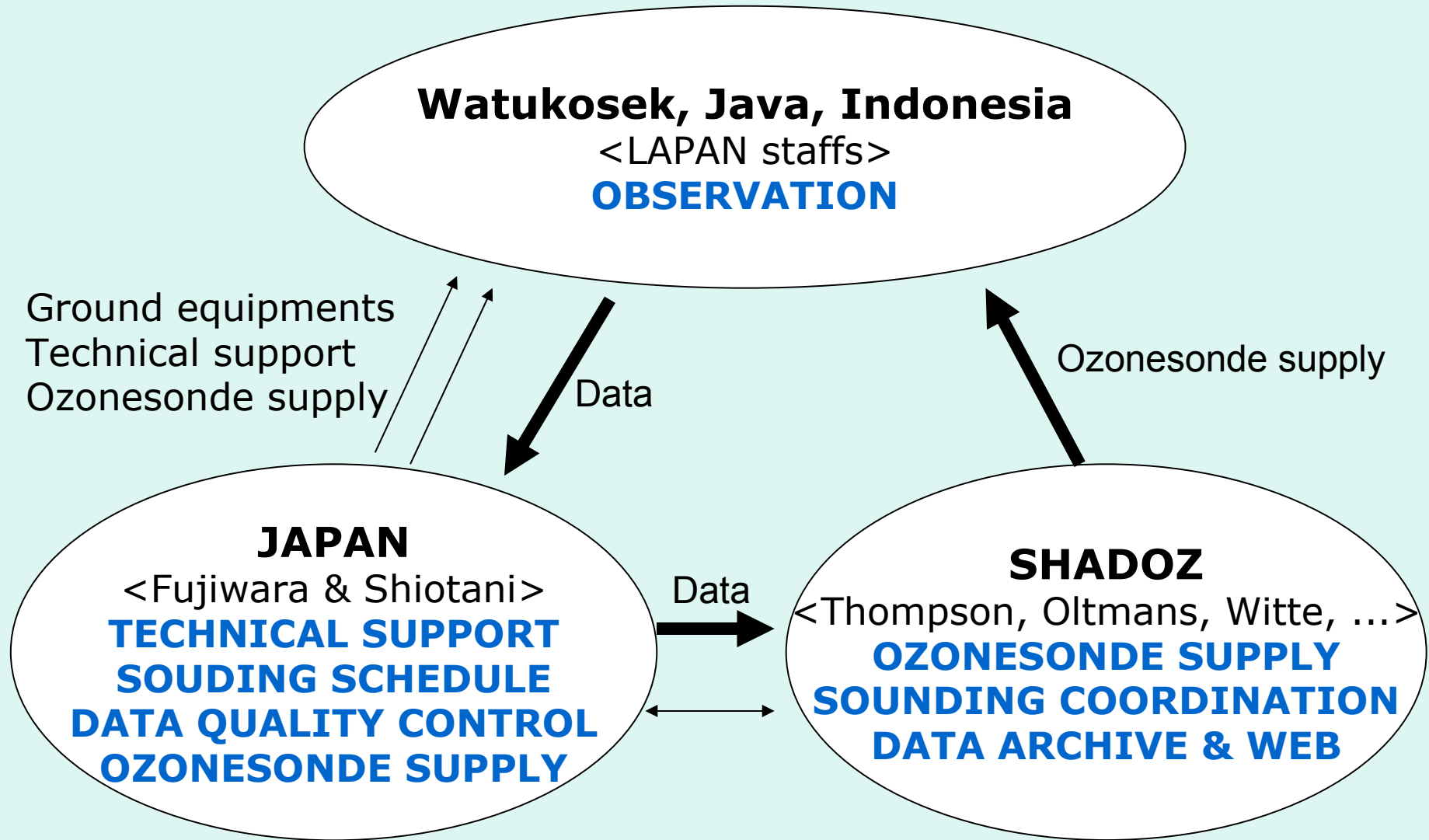
Fujiwara: Watukosek, Java, (Hanoi, Vietnam), (Paramaribo, San Cristobal)
Holger Voemel: Alajuela/Heredia, San Crisotbal, (Watukosek, Samoa, Fiji)
Franz Immler: (Paramaribo)

Watukosek, Java -as an example-

- Regular ozonesonde sounding (weekly~monthly) since 1993
- As a validation site for a Japanese satellite mission (ADEOS)
- Balloon observatory of LAPAN (Indonesian National Institute of Aeronautics and Space)
- Japanese side: EORC/NASDA (JAXA), Univ. Tokyo, Kyoto Univ., Hokkaido Univ. <currently, Fujiwara & Shiotani>
- Since 1999, this station has been participating in SHADOZ



The SHADOZ System: Watukosek as an Example



SHADOZ stations (2008)

Heredia/Alajuela, Costa Rica	H. Voemel (U. Colorado)	Instituto Nacional de Meteorologia
American Samoa	S. J. Oltmans (NOAA)	
Ascension Island	F. J. Schmidlin (NASA)	
Fiji	S. J. Oltmans (NOAA)	The University of the South Pacific
Irene, South Africa	G. J. R. Coetzee (South African Wea. Serv.)	
Kuala Lumpur, Malaysia	K. K. Chow (Malaysian Met. Serv.)	
La Reunion, France	F. Posny (U. de La Reunion)	
Nairobi, Kenya	G. Levrat (MeteoSwiss)	
Natal, Brazil	F. R. da Silva (INPE)	
Paramaribo, Suriname	H.Kelder (KNMI)	Meteorological Service of Suriname
San Cristobal, Galapagos, Ecuador	S. J. Oltmans (NOAA)	
Watukosek, Java, Indonesia	M. Fujiwara (U. Hokkaido)	LAPAN

SHADOZ Contents

[HOME](#)
[Scope of SHADOZ](#)
[Contact Info:](#)
[Station Principal](#)
[Investigators](#)
[THE DATA ARCHIVE](#)
[Campaign Data](#)
[Photo Gallery](#)
[Papers &](#)
[Newsletters](#)
[TOMS](#)
[UMD Tropo. Ozone](#)
[Archive](#)

Participants

[NASA/GSFC](#)
[NASA/WFF/UAIRP](#)
[NOAA/ESRL/GMD](#)


The Tropical Ozone
 Sonde
 Dataset for
 Satellite Validation,
 Processing and Modeling.

Principal Investigator: Anne M. Thompson

Archiver/Webmaster: [Jacquelyn Witte](#)

Data Disclaimer and Guidelines:

The data on this website are preliminary: 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. [Link here for contact information of the SHADOZ Co-Investigators and station PI's](#)

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



SHADOZ Contents

[HOME](#)
[Scope of SHADOZ](#)
[Contact Info:](#)
[Station Principal](#)
[Investigators](#)
[THE DATA ARCHIVE](#)
[Campaign Data](#)
[Photo Gallery](#)
[Papers &](#)
[Newsletters](#)
[TOMS](#)
[UMD Tropo. Ozone](#)
[Archive](#)

Participants

[NASA/GSFC](#)
[NASA/WFF/UAIRP](#)
[NOAA/ESRL/GMD](#)


[| Heredia/Alajuela](#) | [| Am. Samoa](#) | [| Ascension Is.](#) | [| Fiji](#) | [| Irene](#) | [| Kuala Lumpur](#)
[| La Réunion](#) | [| Nairobi](#) | [| Natal](#) | [| Paramaribo](#) | [| San Cristóbal](#) | [| Watukosek, Java](#)

Former SHADOZ Stations

[Malindi, Kenya \(1999-2006\)](#)
[Papeete, Tahiti \(1998-1999\)](#)
[Cotonou, Benin \(2005-2007\)](#)

SHADOZ Contents

[HOME](#)
[Scope of SHADOZ](#)
[Contact Info:](#)
[Station Principal](#)
[Investigators](#)
[THE DATA ARCHIVE](#)
[Campaign Data](#)
[Photo Gallery](#)
[Papers & Newsletters](#)
[TOMS](#)
[UMD Tropo. Ozone Archive](#)

Participants

[NASA/GSFC](#)
[NASA/WFF/UIARP](#)
[NOAA/ESRL/GMD](#)
[GAW](#)
[Hokkaido University](#)
[INPE](#)
[KNMI/RADChis](#)
[Krete University](#)

完了

-- Watukosek, Java Observatory --

Station Information		Sonde Information	
Latitude:	7.57 S	Ozonesonde Type:	1998: MEISEI RS11-KC79D, >08/1999: EnSci 2Z ECC,
Longitude:	112.65 E	Radiosonde Type:	>08/1999 - Vaisala
Elevation:	50 m	KI Solution:	Since 1993/05/28: 4e-2%Buff., > 1999-08-07: 2.0%Unbuff.

[2001-2004 Archive Reprocessed](#) (updated 2005-02-09)

The 50-m averaging in the former archived files between 16 June 2001 and the end of 2003 was found to be incorrect for the first few data points. High resolution 1-second data have been submitted for many of the profiles. Also included are profiles during the 2001 and 2003 SOWER Campaigns (Principal Investigator: Masatomo Fujiwara - Hokkaido University) Very few profiles were excluded due to quality control issues. Date information has been changed and corrected for several soundings in 2003 (one day difference for the most cases, and some month difference for some). Contact Masatomo Fujiwara (fuji@ees.hokudai.ac.jp) for any questions.

Data Disclaimer:

The data on this website is preliminary: 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.

CITATION - If you use SHADOZ data please cite the following:

Thompson, A.M., J.C. Witte, R.D. McPeters, S.J. Oltmans, F.J. Schmidlin, J.A. Logan, M. Fujiwara, V.W.J.H. Kirchhoff, F. Posny, G.J.R. Coetzee, B. Hoegger, S. Kawakami, T. Ogawa, B.J. Johnson, H. Vömel and G. Labow, 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.*, Vol. 108 No. D2, 8238, doi: 10.1029/2001JD000967, 30 January 2003.

Archived by year

1998	1999	2000	2001	2002	2003	2004	2005
2006	2007						

SHADOZ Contents


[HOME](#)
[Scope of SHADOZ](#)
[Contact Info:](#)
[Station Principal](#)
[Investigators](#)
[THE DATA ARCHIVE](#)
[Campaign Data](#)
[Photo Gallery](#)
[Papers & Newsletters](#)
[TOMS](#)
[UMD Tropo. Ozone Archive](#)

Participants




[NASA/GSFC](#)
[NASA/WFF/UAIRP](#)
[NOAA/ESRL/GMD](#)
[GAW](#)
[Hokkaido University](#)
[INPE](#)
[KNMI/RADChis](#)
[Krete University](#)

完了

+ Index of /archive/java/2007



This Is a U.S. Government Computer
 This system is for the use of authorized users only.
 By accessing and using the computer system you are consenting to system monitoring, including the monitoring of keystrokes. Unauthorized use of, or access to, this computer system may subject you to disciplinary action and criminal prosecution.

 [Parent directory](#)
 [Return to SHADOZ sites](#)
 [Click here to ftp the full year of data.](#)

Data File	Size	Last Modified	Data Profile	Air Parcel History
java_20070130.dat	418k	5 Mar 2007	java_20070130.gif	20070130 ktj.gif
java_20070226.dat	338k	27 Mar 2007	java_20070226.gif	20070226 ktj.gif
java_20070226.dat	338k	27 Mar 2007	java_20070226.gif	20070226 ktj.gif
java_20070328.dat	438k	25 Apr 2007	java_20070328.gif	not yet available
java_20070426.dat	385k	18 May 2007	java_20070426.gif	20070426 ktj.gif
java_20070529.dat	429k	8 June 2007	java_20070529.gif	20070529 ktj.gif
java_20070627.dat	626k	16 July 2007	java_20070627.gif	20070627 ktj.gif
java_20070725.dat	463k	6 Sept 2007	java_20070725.gif	20070725 ktj.gif
java_20070828.dat	751k	6 Sept 2007	java_20070828.gif	20070828 ktj.gif



ファイル(F) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(I) ヘルプ(H)

← → ↻ × 🏠 🔍 Google

オンラインマニュアル 📖 Vine Linux ホーム 📁 バグトラッキング

SHADOZ Contents

[HOME](#)

[Scope of SHADOZ](#)

[Contact Info:](#)
[Station Principal](#)
[Investigators](#)

[THE DATA ARCHIVE](#)

[Campaign Data](#)

[Photo Gallery](#)

[Papers &
Newsletters](#)

[TOMS](#)

[UMD Tropo. Ozone
Archive](#)

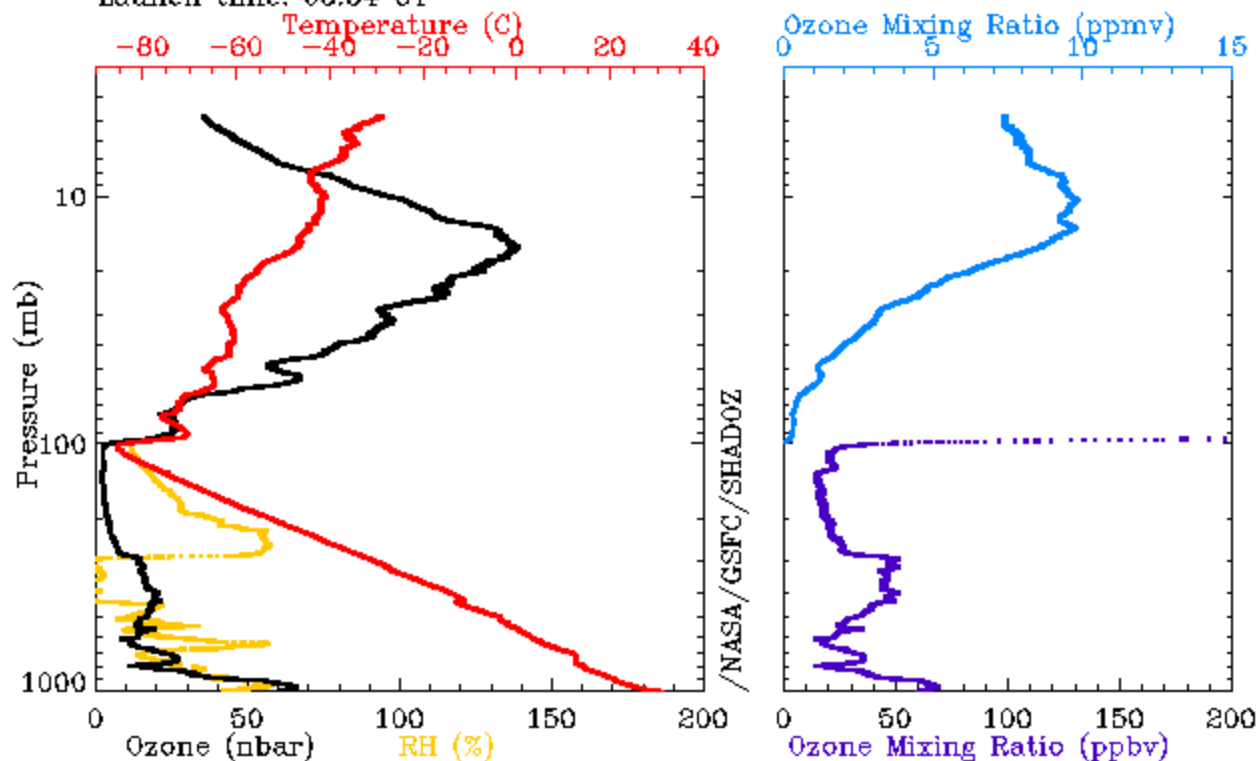
Participants

[NASA/GSFC](#)
[NASA/WFF/UIARP](#)
[NOAA/ESRL/GMD](#)
[GAW](#)
[Hokkaido
University](#)
[INPE](#)
[KNMI/RADChIS](#)
[Krete University](#)

完了

Station: Watukosek-Java
 25 July, 2007
 Launch time: 05:34 UT

Lat = -07.57 TO3(SBUV) = 251(35) DU
 Lon = +112.65 TO3(CMR) = 261(45) DU



Summary

- SHADOZ is the ozonesonde sounding network in the tropics and subtropics that cover a half of the Earth
- Free, quick data distribution to the scientific community → so many scientific publications by researchers in & outside the SHADOZ team
- The SHADOZ system may be one of the possible solutions/models for the GRUAN project
- Some of the SHADOZ stations might be potential candidates for the highest-level or the second-highest-level GRUAN stations (we need discussions with local contact points)

