SHADOZ (Southern Hemisphere Additional Ozonesondes) Network
Report: Updates and Station Activities (68-170407B)
Anne M. Thompson¹, Jacquelyn Witte¹,², Ryan M. Stauffer¹,³ and the SHADOZ Team

¹ = NASA/Goddard Space Flight Center, Greenbelt, MD USA; ² = SSAI, Lanham, MD; ³ = USRA, Columbia, MD

- SHADOZ is a NASA project in collaboration with NOAA/GMD and international partners to collect profiles from ozonesondes in tropical environments. Data are available at http://tropo.gsfc.nasa.gov/shadoz. SHADOZ is affiliated with NDACC (Network for Detection of Atmospheric Composition Change; ndacc.org). SHADOZ data reside at NASA’s Aura Validation Data Center & WMO’s WOUDC (World Ozone and UV Data Centre). SHADOZ DATA RECORD SPANS 1998-PRESENT.

- SHADOZ is a backbone of satellite and model validation and have been used in selected trends studies. Using SHADOZ data?? Don’t forget to credit JGR papers below. This is a NASA data protocol! See below: 17.

SHADOZ WHERE, WHO & SITE DATA RECORD

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

Record Sonde Number in 2016
More than 450 profiles from 13 Sites! Total > 7000 profiles

SITE DATA DISTRIBUTION

MAJOR 2016-2017 ACTIVITIES

- Visits to INAMHI (Quito, for San Cristobal) and Suriname Meteorological Services in Paramaribo (Photos Below)
- Represented at 9th Ozone Research Managers Mtg
- Planned JOSIE-2017 Sonde Intercomparison, Germany, Oct-Nov 2017 (Test Sonde Types Below)

Paramaribo Launch

SHADOZ @ INAMHI

Primary SHADOZ Papers

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Figure 1. Samoa Total O₃ Comparisons. Figure 2. Summary Histograms of Total O₃ Differences.

Figures 3 & 4. Most SHADOZ stations display remarkably similar column ozone amount in tropopause transition region (TTL). Mean value in boxes, with 25-75 percentile range box edges, and whiskers denoting 1.5x interquartile range, Left. TTL ozone thickness is statistically uniform for stations within +/- 18 degrees latitude, but cross-section shows longitudinal variability, Right.

Figures 5 & 6. Tropospheric Wave-One (Thompson et al., 2003b) appears in column ozone, from surface to tropopause, Left, and in O₃ mixing ratio cross-section, Right.

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