

6.054 SHADOZ (Southern Hemisphere Additional Ozonesondes) Network Report: Station Activities and Impacts of Re-processed Ozone Profile Data (1998-2015).

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Abstract:

SHADOZ (Southern Hemisphere Additional Ozonesondes) has collected more than 6000 profile sets from ozonesondes and radiosondes in the tropics and subtropics since 1998. Measurements originate at 14 long-term stations; map of the stations and data are archived at . Through affiliation with the Network for Detection of Atmospheric Composition Change (NDACC; www.ndsc.ncep.noaa.gov) and posting of profiles to the NASA Aura Validation Data Center and WMO's World Ozone and UV Data Centre (woudc.org), SHADOZ data are distributed across the satellite, monitoring and modeling communities. We review major activities of SHADOZ since the last IGAC, including re-activation of five SHADOZ stations: Ascension, Fiji, Irene, San Cristobal, Natal. Examples of newer data from those sites will be shown. The most significant SHADOZ activity we have recently carried out is the first major reprocessing of the 18-year ozonesonde dataset to account for changes in radiosonde and ozonesonde instrumentation and biases among stations. The reprocessing has been done following guidelines of WMO and SI2N (SPARC/Intl Ozone Commission/IGACO and NDACC). Impacts of re-processing on agreement between satellite profiles and total ozone and the corresponding sonde measurements will be displayed along with re-examination of station biases in the stratospheric portion of the ozonesondes.