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## **Watukosek tropospheric ozone and temperature profiles from ozonesondes: Comparisons with AQUA-AIRS**

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Ozonesonde launches have been conducted at Watukosek, East Java, Indonesia (7.5 S, 112.6 E) since 1993. The 1993 to mid-1999 data record used the Japanese MEISEI type electrochemical concentration cell (ECC) ozonesonde, while the 1999-2010 used ENSCI ECCs interfaced with a Vaisala radiosonde. The Watukosek ozonesonde station has been a member of the SHADOZ (Southern Hemisphere ADditional OZonesondes) network since the project started in 1998. We use the long term ozonesonde measurements at Watukosek to create climatologies of ozone and temperature profiles to evaluate changes in the 1993-2010 data record. We show that the correlation between the 1993-2003 mean profiles of ozone and temperature and that of the 2004-2010 profiles are high. Each of the correlation coefficient for mean profile of ozone mixing ratio and temperature indicates the value of 0.99. This indicates an insignificant change in ozone and temperature over the 1993-2010 time period at Watukosek. We validate the 18 year data record by comparing ozone and temperature profiles with AQUA-AIRS satellite overpass data. The ozone and temperature data records show good agreement with the AQUA-AIRS satellite overpass data with correlation coefficient of 0.98 for ozone mixing ratio and 0.99 for temperature.

Keywords: AQUA-AIRS, SHADOZ, temperature, tropospheric ozone