Jülich Ozone Sonde Intercomparison Experiment 2017 Jülich, Germany, 9–20 October and 23 October–3 November 2017

In October/November 2017, the joint JOSIE (Juelich Ozone Sonde Intercomparison Experiment) - SHADOZ campaign (Smit and Thompson, 2017) was conducted at the World Calibration Centre for Ozone Sondes (WCCOS: https://www.fz-juelich.de/iek/iek-8/EN/Expertise/Infrastructure/WCCOS/WCCOS_node.html), established at the Research Centre Juelich, Germany. The main objective was to resolve on-going discontinuities in the existing ozonesonde data records in general and particularly in SHADOZ due to ground equipment, Standard Operating Procedures (SOP's), and changes in sonde manufacture and performance (See videos: https://www.youtube.com/watch?v=5KwHw4gNLzg & https://www.youtube.com/watch?v=zOgL_0_pu00). A unique feature of JOSIE–SHADOZ was that the ozonesondes were prepared by 12 operators from organizations representing SHADOZ sites in 9 countries including Brazil, Costa Rica, France, Germany, Kenya, Malaysia, South Africa, Vietnam and USA (see video: https://vimeo.com/240986625). The JOSIE 2017-SHADOZ results have been presented at several scientific workshops and conferences (e.g. EGU, AGU, SPARC, CIMO-TECO etc.) and published in scientific literature (Thompson and Smit et al., 2019). The new insights gained in result of this Intercomparison Experiment have brought the community forward in making important steps to improve the performance of the ozonesondes, in scientific as well as operational perspective. Those results also lead to initiating a new WMO-NDACC-IOC activity: Assessment of Standard Operating Procedures (SOPs) of Ozone Sondes (ASOPOS 2.0) to evaluate and revise the existing Standard Operating Procedures to improve the uncertainty level of ozonesondes to less than 5-10 % in the global ozonesonde network of WMO/GAW-NDACC-SHADOZ.



JOSE 2017 Ozone Sonde intercomparison Experiment.Source: Research Centre Juelich