

## Do we need global observations of stratospheric winds?

**Author:** William Lahoz

**Presenter:** William Lahoz

*Data Assimilation Research Centre (DARC), Department of Meteorology, University of Reading, RG6 6BB, UK; [wal@met.rdg.ac.uk](mailto:wal@met.rdg.ac.uk)*

### **Brief Abstract:**

This paper presents results from a recently completed Observing System Simulation Experiment (OSSE) that studied the impact of global stratospheric wind observations from the proposed SWIFT (Stratospheric Wind Interferometer For Transport studies) instrument (Lahoz *et al.* 2005, QJRMS). The results from this study help address concerns about: (i) the lack of global observations of stratospheric winds in the current operational meteorological system, and (ii) current estimates of the state of the tropical stratosphere and, in particular, variability in the quasi-biennial oscillation (QBO). The implications for the global observing system, the SWIFT instrument and ESA's ADM-Aeolus mission will be discussed. The suitability of an all-purpose OSSE capability for assessing future missions will also be discussed.