**Update on the preparations for Aeolus at ECMWF**

Michael Rennie1, Andras Horanyi1 and Lars Isaksen1

1European Centre for Medium-Range Weather Forecasts (ECMWF), Reading, UK

Abstract

This presentation will focus on the progress made since the last Winds Workshop on the processing of Aeolus measurements to Level-2B wind observations — the product intended for assimilation at NWP centres. The processing software has been developed in collaboration with KNMI. Some verification of the quality of the L2B wind results will be shown, as produced through the chain of operational processing (L0, L1 and L2) applied upon realistic simulations (E2S) of raw Aeolus data. The L2B winds are compared to the simulation’s input “truth” fields and also to the L1B winds (more basic processing than L2B). This provides a useful indication of the quality of the observations in preparations for when the satellite is planned to be launched in late 2015.

Next, the effect upon L2B winds of some newly discovered features to Aeolus data (i.e. features previously not simulated) and of errors in the calibration processing. With the launch date approaching quickly (at the time of writing!), plans for the operational processing and data assimilation of Aeolus at ECMWF will be presented.

Finally results from an impact study on the use of single component wind data (Aeolus like horizontal line-of-sight winds, as derived from in-situ observations) within the ECMWF data assimilation system will also be presented. The same study also provided some insight into the impact of mass versus wind observations.