

# Inter-comparison of Oceansat-2 and ASCAT Winds with In Situ Buoy Observations and Short- Term Numerical Forecasts

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**ABSTRACT** Sea surface winds from the Oceansat-2 scatterometer (OSCAT) are important inputs to Numerical Weather Prediction (NWP) models. The Indian Space Research Organization (ISRO) recently updated the OSCAT retrieval algorithm in order to generate better products. An attempt has been made in this study to evaluate the updated OSCAT winds using buoy observations and the 6-hour short-term forecasts from the T574L64 model from the National Centre for Medium Range Weather Forecasting (NCMRWF) during the 2011 monsoon. The results of the OSCAT evaluation are also compared with those from the advanced scatterometer (ASCAT) onboard the Meteorological Operational Satellite-A (MetOp-A) which were evaluated in the same way. The root mean square differences (RMSDs) for wind speed and direction, are within 2 m s<sup>-1</sup> and 20° for both scatterometers. The RMSDs for OSCAT are slightly higher than those for ASCAT, and this difference may be attributed in part to the difference in frequency and resolution of the scatterometer payloads. The bias and standard deviation for ASCAT winds are also lower than those for OSCAT winds with respect to the model short-range forecast, and this can be attributed to the regular assimilation of ASCAT winds in the model.

**KEYWORDS** scatterometer; OSCAT; buoy winds