**A NEW ATMOSPHERIC MOTION VECTOR INTERCOMPARISON STUDY**

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Abstract

Previous Atmospheric Motion Vector (AMV) intercomparison studies conducted from 2007 to 2009 compared the operational AMV algorithms of many of the satellite-derived wind producers using a common set of Meteosat Second Generation (MSG) Spinning Enhanced Visible and Infrared Imager (SEVIRI) images and ancillary data. The study assessed how the cloudy AMVs from the various wind producers compared in terms of coverage, speed, direction, and cloud height.

The goal of this new effort was to:

* Include the Satellite Application Facility to Nowcasting and Very Short Range Forecasting (NWC SAF) High Resolution Winds (HRW) algorithm in the intercomparison studies and to quantify its performance relative to the other AMV algorithms.
* Update the results of the previous AMV intercomparison studies, because many of the operational AMV algorithms have changed since that time.

In this study, seven AMV producers participated: EUMETSAT, NOAA/NESDIS, CMA, JMA, KMA, NWC SAF, and the Brazilian Meteorological Center. Each center used the same input data and ran four different configurations, which was used to quantify the differences in the algorithms.

A detailed description of the four experiments along with the results of this intercomparison study will be presented.