**Reprocessing of Atmospheric Motion Vectors at EUMETSAT**

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**ABSTRACT**

To contribute to the new global atmospheric reanalysis of the 20th century, the EUropean organisation for the exploitation of METeorological SATellites (EUMETSAT) has reprocessed the atmospheric motion vectors (AMVs) generated from imagers onboard polar (METOP) and geostationary (MTP and MSG) satellites operated by EUMETSAT. In the framework of the European Re-Analysis of global CLIMate observations (ERA-CLIM) project, the polar AMVs have been reprocessed using two independent algorithms for the period 2007-2013. The first algorithm is the EUMETSAT operational algorithm and the second one is the algorithm developed at the Cooperative Institute for Meteorological Satellite Studies (CIMSS). Both algorithms use the AVHRR infrared window channel (11 µm) but differ in many aspects (e.g. tracking, number of satellite orbit used, and height assignment method). The geostationary AMVs were reprocessed using MVIRI and SEVIRI images respectively onboard METEOSAT first and second generation satellites. The current operational algorithm run at EUMETSAT is used for the reprocessing.

In order to validate the reprocessed products, a comparison against radiosonde and NWP model analysis data was performed. The presentation will cover a description of the reprocessed AMVs, show the main similarities and differences between the various wind products, and conclude with the current standings of a unified global AMV processing code.