



The new global coverage dual Metop wind product developed at EUMETSAT

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EUMETSAT currently derives Atmospheric Motion Vectors (AMV) operationally from the EUMETSAT Polar System satellite Metop. The launch of Metop-B in 2012 permitted to double the product frequency extracting AMVs from both Metop-A and Metop-B satellite data. The tandem configuration with two satellites on the same orbital plane, but with a phase difference provides an interesting opportunity to create global AMVs from satellites with a significant overlap in imagery data. Therefore EUMETSAT developed recently a new dual Metop winds product derived from a pair of Metop-A and Metop-B images. The temporal gap between the two images used for the tracking is about 50 minutes. The global coverage of the dual Metop wind products allows getting a homogeneous retrieval over the whole globe, including the Polar Regions, and helps to filling the gaps between 55 to 70° latitude north and south, where no wind observations are currently available for assimilation. It also allows a direct comparison with other AMVs derived from geostationary satellite.

This presentation describes the scientific concept of winds extraction using dual-Metop satellites and presents the performances of new dual-Metop wind product and the potential advantages of its assimilation in forecast models.