**RECENT IMPROVEMENTS IN THE DERIVATION OF GEOSTATIONARY ATMOSPHERIC MOTION VECTORS AT EUMETSAT.**

Manuel Carranza 1, Régis Borde 2, Marie Doutriaux-Boucher 2

1 GMV Aerospace and Defence S.A. at EUMETSAT

2 EUMETSAT

Abstract

EUMETSAT derives atmospheric motion vectors (AMVs) operationally from the imagery of four geostationary satellites: Meteosat 7 (sub-satellite longitude 57° E), Meteosat 8 (sub-satellite longitude 3.5° E), Meteosat 9 (sub-satellite longitude 9.5° E) and Meteosat 10 (sub-satellite longitude 0º).

Important changes have been recently implemented in the operational Meteorological Product Extraction Facility (MPEF), some of which are:

* Introduction of the Cross-Correlation Contribution (CCC) tracking method, together with an inversion correction algorithm for the infrared and visible channels, in order to correct the too-small amount of low-level winds.
* Introduction of the calculation of a best-fit pressure for every single AMV.
* Use of the Optimal Cloud Analysis (OCA) product in order to retrieve cloud-top pressure (CTP) information, instead of the current CLA product.
* Implementation of the nested-tracking algorithm from NOAA/NESDIS in the MPEF, and comparison of different test cases.

A summary of those and other recent changes will be presented.