OCEANIC APPLICATION OF OSI SAF RADIATIVE FLUXES

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ABSTRACT

The EUMETSAT Ocean and Sea Ice Satellite Application Facility (OSI SAF) is producing in near-real-time (with an operational status since September 2004) downward short and long wave irradiance products over the Atlantic Ocean. The presentation will first describe, in the context of operational ocean monitoring and forecasts systems like MERCATOR and MERSEA, how atmospheric forcing information from operational Numerical Weather Prediction (NWP) is used currently, and how satellite-derived fluxes could be used in near real-time during the analysis/assimilation step.

Recent examples will be presented and discussed, which illustrate the use (or potential use) of OSI SAF radiative fluxes in the following oceanic application areas:

- scientific studies in the context of oceanic research experiments,
- near real-time modelling of the Ocean Mixed Layer,
- ocean re-analysis activities,
- diurnal effects parameterisation for the use of satellite SST products.

The presentation will also examine from the user’s point of view how OSI SAF radiative fluxes could be improved, and what complementary studies or activities can be envisaged to facilitate and enhance the use of satellite-derived fluxes by operational ocean monitoring and forecast systems.