



The MyOcean Ocean Colour Thematic Assembling Centre: a new Integrated European Service to access satellite ocean colour data



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The Ocean Colour Thematic Assembly Centre

The main mission of OCTAC is to operate a European Ocean Colour Service for GMES marine applications. OCTAC is designed as a distributed system composed by five Production Units and three Dissemination Units (Figure 1). The production and quality assurance of global, Pan-European and regional ocean colour products is distributed among the PUs (Table 1).

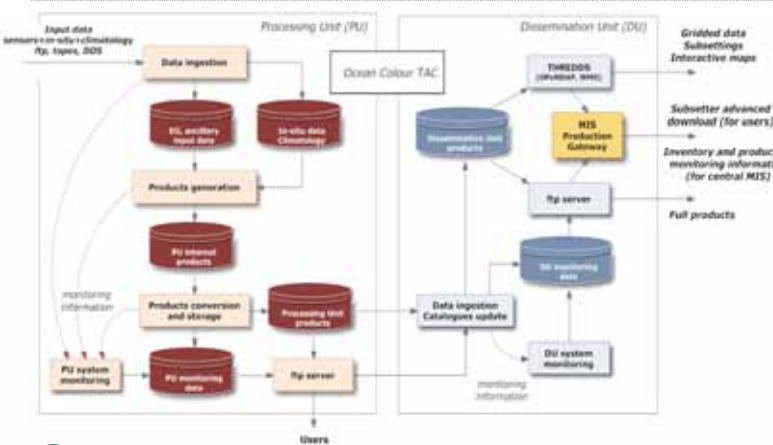


Product	Covered region	PU
Rrs(λ): normalized remote sensing reflectance	Global EUR MED BS NWS	ACRI, CNR, JRC, PML
Chl: Chlorophyll concentration (Chl)	All	All
Kd: diffuse attenuation coefficient at 490 nm	Global EUR MED BS NWS	ACRI, CNR, JRC, PML
b ₄₄₃ : particulate backscattering coef. at 443 nm	Global EUR	ACRI, JRC
a ₄₄₃ : absorption coef. due to phytoplankton at 443 nm	Global EUR	JRC, PML
a _{non} : CDOM and non-pigmented particles absorption at 443 nm	Global EUR	ACRI, JRC, PML
A: total absorption coefficient	Global EUR	PML
SPM: solid suspended matter	Iberian-Biscay-Ireland	Ifremer
Z _{sd} : Secchi depth	Global EUR	ACRI
PAR: photosynthetically available radiation	Global EUR	JRC

Figure 1: Overview of the OCTAC system (left panel) and PU/DUs organization (right Panel).

Table 1: List of ocean colour parameters associated with ocean regions and associated Pus.

Processing Chain



Generic OCTAC PU processing chain (left panel) and Dissemination Unit (right panel). All PUs' processing chains have the same structure that can be divided into five main functions (Figure 2)

Data Ingestion: Automatic acquisition and check for quality of upstream data

Products Generation: Data pre-processing (if needed) to harmonize inputs to the product generation module. Final geophysical products (L2) are stored into the internal PU database.

Products conversion and storage: According to the FTSS specifications, single L3 swaths are space-time averaged to produce final L3/L4 data. The product are then transferred to the OCTAC DU.

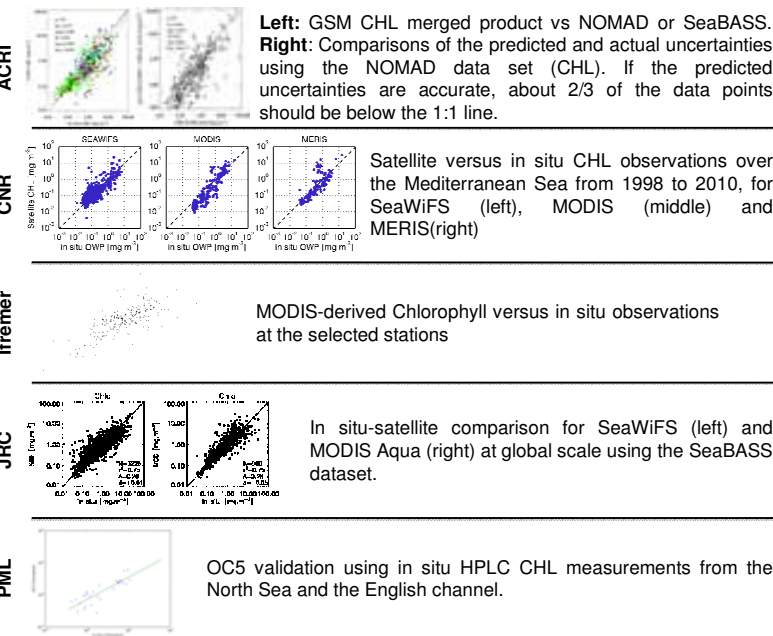
System Monitoring: all events relative to previous steps are stored. In case of anomalies, exceptions are raised to both the DU and central OCTAC Service Desk.

Data Dissemination relies on the OCTAC DU directly interfaced with MyOcean MIS

Product Validation

OCTAC set up a method for both **offline** and **online** validation activities of multi-platform OC products for all processing modes (NRT, DT and RAN).

Offline Validation



Online Validation

