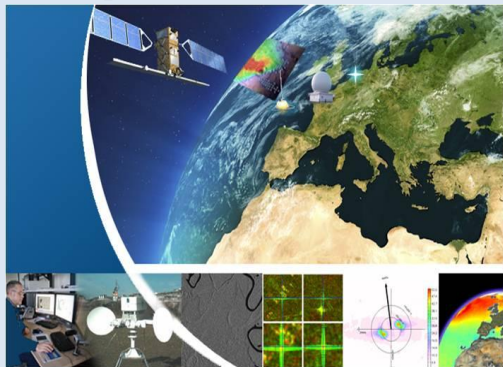


Marine Collaborative Ground Segment of GMES Sentinel satellites

MCGS partners on the way to contribute to Sentinel validation activities: Sentinel-1 MPC and S3VT-OC



Sentinel-1 MPC - CLS was selected by ESA in order to prepare and operate the Sentinel-1 Mission Performance Centre (MPC). The MPC is a core entity of the Sentinel-1 PDGS, responsible for assessing and ensuring the quality and fitness for purpose of the core data products throughout the Sentinel-1 mission lifetime with respect to the mission and core product performance requirements. In other words, the MPC is in charge of covering the following functions: calibration, validation, quality control (QC), data processors and operational QC tools corrective and perfective maintenance, end-to-end sensor and product performance assessment.

The activity will be performed in cooperation with: Aresys, British Aerospace, Ifremer, Norut, the University of Zurich, Gael Systems and S&T.



S3VT-OC – MCGS Ocean Colour platform lead by ACRI-ST was selected by ESA to be part of the Sentinel-3 Validation Team, for assessing the quality of alternative OLCI algorithms, contributing to independent validation of core data and providing feedback to ESA from end-users recommendations.

Conclusions of GIS COOC Ocean Colour workshop

This 3rd workshop, organized by the GIS COOC was held from 21 to 23 January 2013 in Nice. The first day was dedicated to the ocean color community members for their scientific activities presentations. The second day was a meeting between scientists and professionals of the marine, coastal and estuarine environments.



Professionals briefed the audience on their needs and two thematic round tables debated the requirements generated by environmental regulations and growing economic activities in coastal areas. This third workshop brought together 67 researchers and professionals in Nice. Presentations and conclusions are available at <http://www.gis-cooc.org>

Demonstration of MCGS iceberg detection service

CLS has operated its prototype iceberg detection service, as described in April 2012 MCGS Newsletter for the Vendee Globe around the world alone sailing race.

French Collaborative Ground Segments coordinator

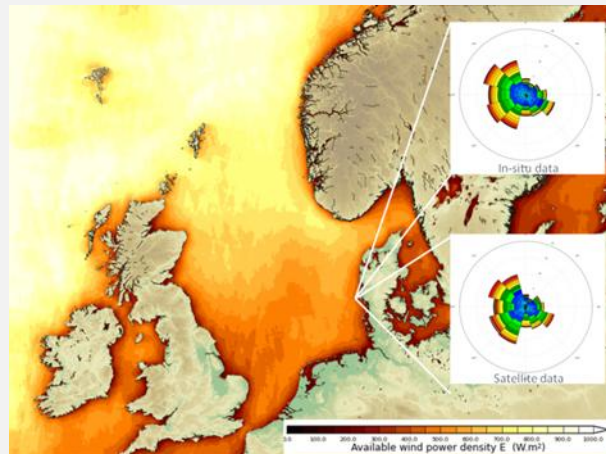
Hervé Jeanjean (CNES) is now the national coordinator of all French Collaborative Ground Segments for ESA and for the GMES Operations Consultation Group (GOCG); he becomes a permanent guest of the MCGS steering comity.



This follows the recent secondment of Vincent Toumazou, formerly CNES representative for MCGS, at the Copernicus Unit of the European Commission in Brussels.

MCGS Ocean Wind Products and related Services

One of the major goals of MCGS is to provide high resolution ocean surface winds, swell and current from Synthetic Aperture Radar. The system will process Sentinel-1a and 1b data to deliver geophysical products to end-users in near real time. In addition, the system is being defined and sized to archive those geophysical products and allow massive reprocessing and combination with other data in order to derive higher order products. In the Framework of Norsewind EU-FP7 project, such exercise has already been done by CLS and DTU Wind Energy to derive statistics about ocean wind for the offshore wind energy sector.



Available Wind Power density $W.m^{-2}$. From A. Mouche (CLS) & C.B. Hasager (DTU WIND energy). Norsewind Satellite Final Report 2012

The image shows a map of the available wind power density estimated at 10 m height for the North Sea. Thanks to satellite imaging radar, the analysis can be performed at very high spatial resolution (0.01 deg), close to the coast and over large areas (the size of each SAR scene is typically 400km by few 100 km). More than 12 000 SAR products from the previous ESA SAR mission (ENVISAT) have been used to produce this map. High resolution wind measurements (500 m) allow very local analysis: The two wind roses obtained over Horns Rev by the satellite measurement (top) and the met mast (bottom) show the ability of space measurement to depict the ocean wind speed and direction statistics.