

# Operational Oceanography: Implementation At The European And Regional Scales Proceedings Of The Seco

## OCEAN MONITORING AND FORECASTING CORE SERVICES, THE EUROPEAN MYOCEAN EXAMPLE

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### ABSTRACT

Since OceanObs 1999, ocean monitoring and forecasting core services have reached an initial level of maturity. A world-wide network of operational oceanography centres now provide real-time information on the ocean based on space and in situ observations and assimilative models.

Europe has defined in 2005 the "Marine Core Service" as a new pan-European service aiming at delivering to anyone, and particularly downstream service providers, core information on the ocean (currents, temperature, sea surface height, ice coverage and thickness, primary ecosystems, ...) recognized as common denominator data required to develop adding-value services.

MyOcean is the first implementation project of this integrated pan-European Marine Core Service for ocean monitoring and forecasting. This 3-year project started in 2009 and involves 61 partners in 29 countries.

MyOcean users are service providers involved in four application areas: marine safety, marine resources, marine and coastal environment and weather, seasonal and climate prediction. They form a wide and diverse community but share a common interest for a generic information on the ocean state as an input to their own services.

MyOcean has already opened a first marine core service for ocean monitoring and forecasting, and provides access to a range of observation-based and model-based products. This is based on a "system of systems" organization interconnecting different centres in Europe to form a single pan-European capacity with five thematic assembly centres dealing with observations, seven monitoring and forecasting centres dealing with assimilative models and a single service desk to ensure the easiest access to users. This operational oceanography service relies on remote-sensed and in situ observation networks and their sustainability.

What are the main choices we've made in Europe to define MyOcean? The market, the service offer, the production capacity and the organization that will drive the implementation of a Marine Core Service in Europe? What is required upstream from observation networks to run such a service? What is required downstream from this service by operational oceanography users to develop further their mission?

### 1. OCEAN MONITORING AND FORECASTING CORE SERVICES, INTRODUCTION

Ocean forecasts are provided on a regular basis by more than a dozen operational oceanography centres in the world. Forecasts are produced by routine assimilation of real-time remotely sensed and in situ data into numerical models. Some of them describe the global ocean as a whole, others are regional.

Europe, Australia, the United States, Canada, Japan, and now China, are deeply engaged in the development and consolidation of an operational ocean monitoring and forecasting capacity. Space oceanography programs, as well as in situ ones (e.g. the international ARGO program), are gathering a wider range of countries in this global earth observation challenge for the ocean; this large international cooperative effort is actively coordinated through GOOS and GEOSS.

Systems such as Mercator (France), FOAM (UK), TOPAZ (Norway) and MFS (Italy) in Europe, and Buellink in Australia, HYCOM and ECCO in the United States, Concepts in Canada, and the systems run at JMA/MRI/JMASTEC in Japan, and SOA/NMFC in China are today international references for ocean monitoring and forecasting core services. The *GOALS Ocean View* international initiative (see [2] and <http://www.goals.org>) provides up-to-date references of existing monitoring and forecasting systems at the international level.

Operational Oceanography. Implementation at the European and Regional Scales. Proceedings of the second international Conference on EuroGOOS. CORIOLIS-Atlantic, an in situ network for operational oceanography. Original research. Operational oceanography: implementation at the European and regional scales; proceedings of the Second International Conference on EuroGOOS 11 - Operational oceanography: implementation at the European and regional scales; proceedings of the Second International Conference on EuroGOOS, the European Commission for enabling these proceedings to be published. past three years at both the European and global scales, identifying gaps in the current and computer systems for operational oceanography, and its implementation, EuroGOOS was also very successful in establishing Regional Task Teams. Operational Oceanography for Sustainable Coastal and Regional Development. Mediterranean ocean forecasting system: First phase of implementation (N. Pinardi et al.) quality of marine information in European home waters, and the second is to The proceedings of the first EuroGOOS conference were published by. Implementation at the European and Regional Scales N.C. Flemming, S. Vallerga, N. Pinardi, H.W.A. Behrens, G. Manzella, David Prandle, J.H. Stel. EuroGOOS, , Operational Oceanography Implementation at the European and Regional Scales, Proceedings from the second international conference. Operational Oceanography: Implementation at the European and Regional Scales, Proceedings of the Second International Conference on EuroGOOS, Elsevier. Time-space states in marine biogeography. In A. C. Proceedings of the Second International Conference, IOC Workshop report Operational Oceanography: Implementation at the European and Regional Scales. Proceedings of. Operational Oceanography serving Sustainable Marine Development. Proceedings of the Eight EuroGOOS International Conference. October. The new CYCOFOS forecasting systems at regional and sub-regional scales. Euro-Argo is to implement the next phase of Argo with an extension towards. Buy Operational Oceanography: Implementation at the European and Regional Scales on moreloshemprende.com? FREE SHIPPING on qualified orders. Operational Oceanography, Volume Implementation at the European and Regional Scales (Elsevier Oceanography Series) [N.C. Flemming, to improve the quality of marine information in European home waters, and the second is to The proceedings of the first EuroGOOS conference were published by Elsevier in regional and European scales, EuroGOOS from its very beginning established the Regional Operational Oceanography. Systems implementation of European policies in marine-related Di- tegrated into operational data flow for forecasting; second, oceanography, Proceedings of the 7th EuroGOOS Conference. Proceedings of the Sixth International Conference on EuroGOOS Operational Oceanography for climate monitoring and impact. sea level forecast status and implementation for the IBIROOS. European and regional Scales, eds. between the reference sensor and a second temperature sensor. attention to regional-scale information management Operational Oceanography in the European Sea areas

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