Shom operational regional ocean forecasting platform

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Abstract

Shom has developed its own operational regional ocean forecasting platform. The purpose is to provide 3D oceanographic data for both civil and military uses over Shom areas of interest. The platform is operated on the operational computing resources of Météo-France. The English Channel/Bay of Biscay, Mediterranean and North-West Indian Ocean areas are currently covered. All these regional configurations are based on the HYCOM community code (www.hycom.org) modified by the Shom for its regional/coastal needs. The spectral-nudging method is used to relax the meso-scale towards the global analyses of CMEMS. The three configurations involve many different processes (thermal fronts, tide and internal tide, eddy dynamics, density currents...). Regular validation is carried out using satellite and in-situ observations. Civilian needs are covered by the dissemination of forecasts on data.shom.fr. Future versions of the regional configurations will be based on the CROCO (https://www.croco-ocean.org/) model.