EGU21-14919
https://doi.org/10.5194/egusphere-egu21-14919
EGU General Assembly 2021

IBISAR downstream service: one year of supporting emergency response at sea

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IBISAR is a user-friendly science-based data downstream service that allows to visualize, compare and evaluate the performance of ocean current predictions in the Iberian-Biscay-Irish (IBI) regional seas. It is designed for emergency responders and Search and Rescue (SAR) operators, to facilitate decision-making by guiding users to identify the most accurate current prediction in near-real time.

IBISAR service portfolio includes ocean surface current predictions from models, as well as the surface current observations from all the High-Frequency radars and satellite-tracked drifters available in the IBI region from the Copernicus Marine Environment Monitoring Service (CMEMS) portfolio. It also includes coastal and regional models from complementary databases.

The service is freely accessible under registration and offers a visualization interface to make data inter-comparison, and the skill assessment tool for evaluating the accuracy of the different predictions available in a specific area and period of interest, as defined by the user. IBISAR evaluates the performance of available models and HF radars by comparing them versus drifter trajectories based on a Lagrangian approach, providing a skill score easily interpretable to end-users. The validation of the skill assessment methodology envisaged by the IBISAR service has been applied and tested in 4 different pilot areas of the IBI region against more than 140 drifters.

Finally, it is worth mentioning that IBISAR service is the result of a CMEMS User Uptake project, which together with the CMEMS Service Evolution INCREASE project, complement operational activities and feed the upstream and downstream development of the CMEMS service in the coastal zones.