WINDS   **PREDICTION**

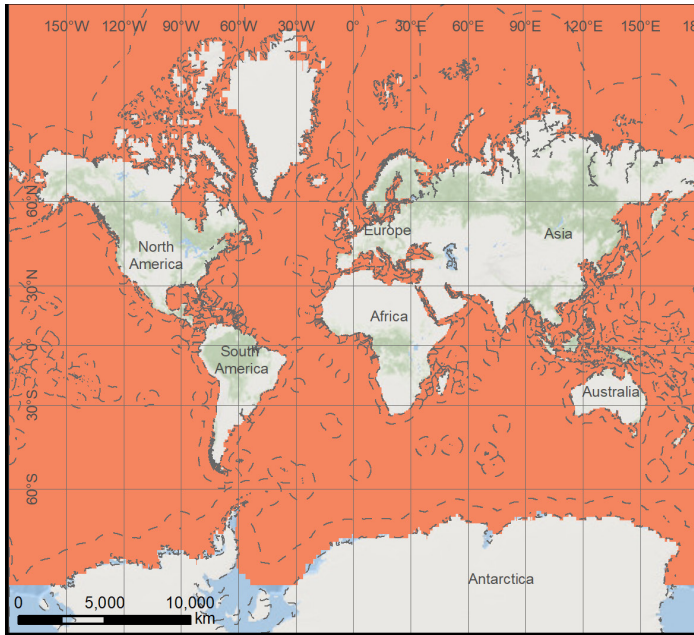**CURRENTS**   OBSERVATION

GLOBAL

REGIONAL

LOCAL

EDS CATALOG
COPERNICUS GLOBAL

The Copernicus Global Operational Forecast is run and delivered by Copernicus Marine Environment Monitoring Service (CMEMS). CMEMS is the European Earth observation and monitoring program, which provides oceanographic products and services from in-situ measurement, remotely sensed images and model output, to end-users or service providers including maritime safety, coastal and marine environment, weather and climate forecasting, and marine resources.The forecasting system is based on version 3.1 of the Nucleus for European Modelling of the Ocean (NEMO) ocean model. The bathymetry used in the system is a combination of two different databases. For regions deeper than 300 m ETOPO1 dataset is used while in shallow water (depth < 200m) GEBCO 8 leveraged. Depth were linearly interpolated between 200 and 300m depth. The atmospheric fields for forcing the ocean model comes from the European Centre for Medium-Range Weather Forecasts (ECMWF) Integrated Forecast System. A 3-hour sampling of the atmospheric variables is used to reproduce the diurnal cycle, which includes wind speed, surface air temperature, humidity, mean sea level pressure, downward longwave and shortwave radiative fluxes, and rainfall. Data assimilation for the modeling includes in-situ data of vertical profiles of temperature and salinity, and satellite data of sea level anomaly, sea surface temperature and sea ice concentration.

Data Provider: http://marine.copernicus.eu/

Key details

EDS Data Product	Copernicus, Global
Coverage	Global
Owner/Provider	CMEMS
Type of Data	Current Predictions
Forecast Length	240 hours
Horizontal Grid Size	0.083°x0.083° (~9km x ~9km)
Model Run Frequency	Daily
Time Step	1 hour
Wind Forcing	ECMWF
River Flow	Yes
Tides	Yes

rps MAKING COMPLEX EASY