

CMEMS User Uptake 67-UU-DO-CMEMS-DEM4_LOT7



IBISAR

Data Catalog

August 9th, 2019



PURPOSE

This document gives the list of data and metadata included in the IBISAR service.

LIST OF ACRONYMS AND ABBREVIATIONS

AEMET	State Meteorological Agency (Agencia Estatal de Meteorología)
CMEMS	Copernicus Marine Environment Monitoring Service
ECMWF	European Centre for Medium-Range Weather Forecasts
GLO	Global Ocean
GLORYS	GLobal Ocean ReanalYsis and Simulations
HF	High-Frequency
IBI	Iberian-Biscay-Ireland
IBISAR	Skill assessment service for real-time met-ocean data product ranking in the IBI area for emergency and SAR operators.
ICTS	Large Scale Infrastructures (Infraestructura Científico-Técnico Singular)
INTECMAR	Instituto Tecnológico para o Control do Medio Mariño
MED	Mediterranean
NWP	Numerical Weather Prediction
NWS	North-West Shelf
OGCM	Ocean General Circulation Models
SAMOA	Met-Ocean information Services for Port Authorities (Sistema de Apoyo Meteorológico y Oceanográfico de la Autoridad Portuaria)
SAMPA	Autonomous System of Measurement, Prediction and Alert (Sistema Autónomo de Medición, Predicción y Alerta)
SMHI E-HYPE	Swedish Meteorological and Hydrological Institute European Hydrological Predictions for the Environment
SOCIB	Balearic Islands Coastal Observing and Forecasting System (Sistema de Observación y predicción Costera de las Islas Baleares)
SST	Sea Surface Temperature
TS	Temperature - Salinity
UNEP-MAP	United Nation Environmental Program - Mediterranean Action Plan
UK	United Kingdom
UTC	Coordinated Universal Time
WMOP	Western Mediterranean Sea Operational forecasting system



CONTRIBUTING EXPERTS

Adèle Révelard (SOCIB, IBISAR TEAM)
Emma Reyes (SOCIB, IBISAR TEAM)
Paz Rotllán (SOCIB, IBISAR TEAM)
Baptiste Mourre (SOCIB, IBISAR TEAM)
Joaquín Tintoré (SOCIB, IBISAR TEAM)
Anna Rubio (AZTI, IBISAR TEAM)
Julien Mader (AZTI, IBISAR TEAM)
Luis Ferrer (AZTI, IBISAR TEAM)
Tayebeh Tajalli Bakhsh (RPS, IBISAR TEAM)
Eric Comerma (RPS, IBISAR TEAM)
Christian De Lera Fernández (SASEMAR C. Jovellanos, Gijón)
Pablo Lorente Jiménez (Puertos del Estado / NOLOGIN)



Data Catalog

Product name	CMEMS – GLO – Global Ocean
Geographical extent	Global
Spatial resolution	1/12° (~8 km)
Temporal resolution	Hourly
Vertical levels	50 levels
Tidal forcing	No
Rivers runoff	Coastal runoffs from 100 major rivers from the Dai et al. (2009) database
Atmospheric Forcing	3-hourly from ECMWF NWP
Boundary conditions	None
Initial conditions	Levitus (2009 T and S) for the ocean Ifremer/Cersat data for ice concentration and GLORYS2V1 for ice thickness
Data assimilation	Sea Level, SST, In-Situ TS profiles, Sea Ice Concentration and/or Thickness
Analysis	Weekly, on Thursday
Forecast length	10-day forecast
Update frequency	Daily at 12:00 UTC
Data provider	Copernicus Marine Service (http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=GLOBAL_ANALYSIS_FORECAST_PHY_001_024)

Dai, A., Qian, T., Trenberth, K. E., and Milliman, J. D., 2009: Changes in continental freshwater discharge from 1948 to 2004, *J. Climate*, 22, 2773–2792, <https://doi.org/10.1175/2008JCLI2592.1>.

Product name	CMEMS – NWS – European North-West Shelf Seas
Geographical extent	[16°W – 13°E ; 46°N – 63°N]
Spatial resolution	1.5 km
Temporal resolution	Hourly
Vertical levels	33 levels
Tidal forcing	Yes
Rivers runoff	Daily climatology for 279 rivers from Global River Discharge Database and the UK Centre for Ecology and Hydrology
Atmospheric Forcing	3-hourly from ECMWF NWP
Boundary conditions	Atlantic lateral boundary: UK Met Office North Atlantic 1/12° Baltic lateral boundary: CMEMS-Baltic Sea
Initial conditions	The model run started on 10/01/206 from initial condition from a long simulation

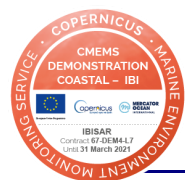


Data Catalog

Data assimilation	SST, sea level, TS profiles
Analysis	Daily
Forecast length	6-day forecast
Update frequency	Daily at 12:00 UTC
Data provider	Copernicus Marine Service (http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=NORTHWESTSHELF_ANALYSIS_FORECAST_PHY_004_013)

Product name	CMEMS – IBI – Iberian-Biscay-Irish Regional Seas
Geographical extent	[19°W – 5°E ; 26°N – 56°N]
Spatial resolution	1/36° (~2 km)
Temporal resolution	Hourly
Vertical levels	50 levels
Tidal forcing	Yes
Rivers runoff	River discharge for 33 rivers. Combination of daily observations from PREVIMER, simulated data from SMHI E-HYPE hydrological model, monthly climatology from Global Runoff Data Centre and French Banque Hydro dataset + (since April 2017) extra coastal runoff rate (derived from monthly climatology) for consistency with the parent CMEMS GLOBAL system
Atmospheric Forcing	3-hourly from ECMWF NWP
Boundary conditions	Daily output from CMEMS GLOBAL 1/12°
Initial conditions	CMEMS GLOBAL 1/12°
Data assimilation	SST, sea level, in-situ TS profile
Analysis	Weekly
Forecast length	5-day forecast
Update frequency	Daily at 14:00 UTC
Data provider	Copernicus Marine Service (http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=IBI_ANALYSIS_FORECAST_PHYS_005_001)

Product name	CMEMS – MED – Mediterranean Sea
Geographical extent	[17.29°W – 36.30°E ; 30.18°N – 45.98°N]
Spatial resolution	1/24° (~4 km)
Temporal resolution	Hourly



Data Catalog

Vertical levels	141 levels
Tidal forcing	No
Rivers runoff	River runoff for 39 rivers from monthly mean datasets (Global Runoff Data Centre, Raich (1996), UNEP-MAP, PERSEUS)
Atmospheric Forcing	3-hourly from ECMWF NWP
Boundary conditions	OGCM
Initial conditions	OGCM
Data assimilation	SST, sea level, in-Situ TS Profiles
Analysis	Weekly (on Wednesday)
Forecast length	10-day forecast
Update frequency	Daily at 03:00 UTC
Data provider	Copernicus Marine Service (http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=MEDSEA_ANALYSIS_FORECAST_PHY_006_013)

Raich, F., 1996: On the fresh balance of the Adriatic Sea. J. Mar. Syst. 9, 305–319.
[https://doi.org/10.1016/S0924-7963\(96\)00042-5](https://doi.org/10.1016/S0924-7963(96)00042-5)

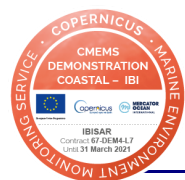
Product name	SOCIB – WMOP – Western Mediterranean
Geographical extent	[6°W – 9°E ; 35°N – 44.5°N]
Spatial resolution	1.8-2.2 km
Temporal resolution	3-hourly
Vertical levels	32 levels
Tidal forcing	No
Rivers runoff	Daily climatological values over 2009-2013 for 6 rivers from the French HYDRO database and the Spanish hydrographic confederations of Ebro and Júcar rivers.
Atmospheric forcing	Hourly from AEMET-HARMONIE for the first 48 hours of simulation and 3-hourly from ECMWF for the third day of simulation
Boundary conditions	CMEMS-MED
Initial conditions	CMEMS-MED
Data assimilation	SST, sea level, in-situ TS profiles, HF radar Ibiza Channel
Analysis	Weekly (on Tuesday)
Forecast length	3-day forecast
Update frequency	Daily
Data provider	ICTS SOCIB - Balearic Islands Coastal Observing and forecasting System (http://www.socib.es/?seccion=modelling&facility=forecast_system_description)



Data Catalog

Product name	PUERTOS – SAMPA – Strait of Gibraltar
Geographical extent	Coastal area: Strait of Gibraltar [7.4166°W – 2.9945°W ; 35.0000°N – 37.1998°N]
Spatial resolution	~ 300-500 m
Temporal resolution	Hourly
Vertical levels	46 levels
Tidal forcing	Yes
Rivers runoff	No
Atmospheric forcing	Hourly from AEMET-HARMONIE for the first 48 hours of simulation and 3-hourly from ECMWF for the third day of simulation
Boundary conditions	CMEMS-IBI
Initial conditions	CMEMS-IBI
Data assimilation	No
Analysis	Daily
Forecast length	3-day forecast
Update frequency	Daily
Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/circulation_regional_gib/catalog.html)

Product name	PUERTOS – SAMOA – Bilbao
Geographical extent	Coastal area: Bilbao (Bay of Biscay) [3.5369°W – 2.6985°W ; 43.3062°N – 43.7696°N]
Spatial resolution	~ 350 m
Temporal resolution	Hourly
Vertical levels	20 levels
Tidal forcing	Yes
Rivers runoff	From CMEMS-IBI
Atmospheric forcing	Hourly from AEMET-HARMONIE for the first 48 hours of simulation and 3-hourly from ECMWF for the third day of simulation
Boundary conditions	CMEMS-IBI
Initial conditions	CMEMS-IBI
Data assimilation	No
Analysis	Daily
Forecast length	3-day forecast
Update frequency	Daily

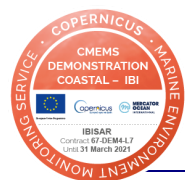


Data Catalog

Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/circulation_coastal_bil/catalog.html)
---------------	--

Product name	PUERTOS – SAMOA – Ferrol
Geographical extent	Coastal area: Ferrol (North-West Iberian Peninsula) [8.6685°W – 8.1704°W ; 43.2931°N – 43.5137°N]
Spatial resolution	~ 350 m
Temporal resolution	Hourly
Vertical levels	20 levels
Tidal forcing	Yes
Rivers runoff	From CMEMS-IBI
Atmospheric forcing	Hourly from AEMET-HARMONIE for the first 48 hours of simulation and 3-hourly from ECMWF for the third day of simulation
Boundary conditions	CMEMS-IBI
Initial conditions	CMEMS-IBI
Data assimilation	No
Analysis	Daily
Forecast length	3-day forecast
Update frequency	Daily
Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/circulation_coastal_fer/catalog.html)

Product name	PUERTOS – SAMOA – Tarragona
Geographical extent	Coastal area: Tarragona (North-East Iberian Peninsula) [0.5574°E – 1.6876°E ; 40.3831°N – 41.2501°N]
Spatial resolution	~ 350 m
Temporal resolution	Hourly
Vertical levels	20 levels
Tidal forcing	Yes
Rivers runoff	From CMEMS-IBI
Atmospheric forcing	Hourly from AEMET-HARMONIE for the first 48 hours of simulation and 3-hourly from ECMWF for the third day of simulation
Boundary conditions	CMEMS-IBI
Initial conditions	CMEMS-IBI
Data assimilation	No



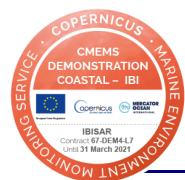
Data Catalog

Analysis	Daily
Forecast length	3-day forecast
Update frequency	Daily
Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/circulation_coastal_tar/catalog.html)

Product name	HF radar – Strait of Gibraltar
Geographical extent	Coastal area: Strait of Gibraltar [5.6489°W – 4.9832°W ; 35.8420°N – 36.2025°N]
Spatial Resolution	1 km
Temporal resolution	Hourly
Variables	Surface currents (~ 0.5 m depth)
Temporal coverage	01/05/2011 - present
Update frequency	Hourly (near real-time)
HF radar operator	Spanish Port System
Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/radar_local_gibraltar/catalog.html)

Product name	HF radar – Gulf of Cadiz
Geographical extent	Coastal area: Gulf of Cádiz (South-West Iberian Peninsula) [9.2862°W – 6.3358°W ; 35.9830°N – 37.2131°N]
Spatial Resolution	1.5 km
Temporal resolution	Hourly
Variables	Surface currents (~ 1 m depth)
Temporal coverage	01/05/2013 - present
Update frequency	Hourly (near real-time)
HF radar operators	Spanish Port System and Hydrographic Institute of Portugal
Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/radar_local_huelva/catalog.html)

Product name	HF radar – Ibiza Channel
Geographical extent	Coastal area: Ibiza Channel, Balearic Sea [0.5038°E – 1.4007°E ; 38.3230°N – 39.1067°N]
Spatial Resolution	3 km
Temporal resolution	Hourly



Data Catalog

Variables	Surface currents (~ 0.9 m depth)
Temporal coverage	01/06/2012 - present
Update frequency	Hourly (near real-time)
HF radar operator	ICTS SOCIB - Balearic Islands Coastal Observing and forecasting System
Data provider	Copernicus Marine Service http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=INSITU_GLO_UV_NRT_OBSERVATIONS_013_048)

Product name	HF radar – SE Bay of Biscay
Geographical extent	Coastal area: South-East Bay of Biscay [4.0°W – 1.2999°W ; 43.5°N – 45.40°N]
Spatial Resolution	5 km
Temporal resolution	Hourly
Variables	Surface currents (~ 2 m depth)
Temporal coverage	01/01/2009 - present
Update frequency	Hourly (near real-time)
HF radar operator	Euskalmet
Data provider	Copernicus Marine Service http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=INSITU_GLO_UV_NRT_OBSERVATIONS_013_048)

Product name	HF radar – Ebro
Geographical extent	Coastal area: Ebro Delta [0.0635°E – 2.0781°E ; 39.5851°N – 41.2331°N]
Spatial Resolution	3 km
Temporal resolution	Hourly
Variables	Surface currents (~ 1 m depth)
Temporal coverage	26/12/2013 - present
Update frequency	Hourly (near real-time)
HF radar operator	Spanish Port System
Data provider	Spanish Port System http://opendap.puertos.es/thredds/catalog/radar_local_deltaebro/catalog.html)



Data Catalog

Product name	HF radar – Galicia
Geographical extent	Coastal area: Galicia coast [11.4172°W – 7.8087°W ; 41.4041°N – 44.6986°N]
Spatial Resolution	6 km
Temporal resolution	Hourly
Variables	Surface currents (~ 2 m depth)
Temporal coverage	01/01/2010 - present
Update frequency	Hourly (near real-time)
HF radar operator	Spanish Port System and INTECMAR
Data provider	Spanish Port System (http://opendap.puertos.es/thredds/catalog/radar_local_galicia/catalog.html)

Product name	Surface drifters – Iberian-Biscay-Irish Regional Seas
Geographical extent	Iberian-Biscay-Irish Regional Seas
Spatial resolution	Discrete
Temporal resolution	3 hours / 1 hour (before / after 25/03/2018)
Variables	Zonal and meridional velocities at 15-m depth, surface temperature if available, zonal and meridional wind stress and 10-m wind from ECMWF
Temporal coverage	01/01/2010 - present
Update frequency	Weekly (Mondays)
Data provider	Copernicus Marine Service (http://marine.copernicus.eu/services-portfolio/access-to-products/?option=com_csw&view=details&product_id=INSITU_GLO_UV_NRT_OBSERVATIONS_013_048)