

Marine Intelligence - the value of data
for sea-based applications



Copernicus Marine Environment Monitoring Service [CMEMS]

Products and Services for marine applications

Dr Anthony Galea
Physical Oceanography Research Group
University of Malta
anthony.j.galea@um.edu.mt



Leader of CALYPSO South
Physical Oceanography Research Group | Department of Geosciences | Faculty of Science
Coordinator: Prof. Aldo Drago | Room 315, Chemistry Building, University of Malta
Msida MSD 2080 Malta
Tel: +356 23 402833; +356 21 440972

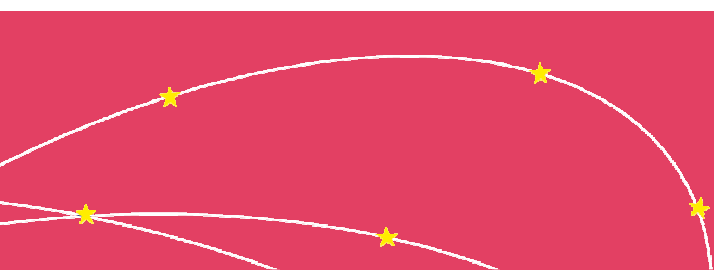
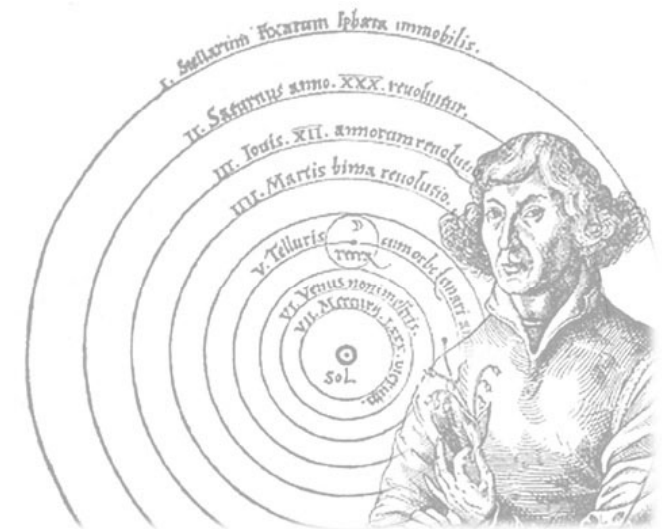


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Copernicus ?

What is the Copernicus Programme?



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10/04/2018

Copernicus presents the European State of the Climate at EU Parliament



Copernicus Services



Atmosphere
(CAMS)



Marine
(CMEMS)



Land
(CLMS)



Climate
(C3S)



Emergency
(EMS)



Security



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[C M E M S]



marine.copernicus.eu



COPERNICUS MARINE ENVIRONMENT MONITORING SERVICE

Providing PRODUCTS and SERVICES for all marine applications

**Interreg
Italia-Malta**



Calypso South

Fondo Europeo di Sviluppo Regionale
European Regional Development Fund

Search ter

ABOUT US

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NEWS

SCIENCE &
MONITORING

TRAINING &
EDUCATION

SERVICES
PORTFOLIO

SHORT-CUT TO SERVICES

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NOW!



SCIENTIFIC
QUALITY



ONLINE
TUTORIALS



COLLABORATIVE
FORUM



ACCESS YOUR OCEAN INFORMATION

GETTING STARTED →

OCEAN PRODUCTS

Ocean product catalogue, to download or visualize data across more than 10 variables, including historic, current and forecasted data.

DATA →

OCEAN MONITORING INDICATORS

Essential variables monitoring the health of the ocean

TRENDS →

OCEAN STATE REPORT

Extensive annual analysis on the state of the ocean over nearly 20 years and severe/notable annual events

EXPERTISE →

2018
22
MAR.

LATEST NEWS FLASH

CMEMS:7324-A

New Service Release on 22 March 2018 - Status on updates

INFORMATION

ALL NEWS FLASH



Copernicus Marine Environment Monitoring Service [C M E M S]



An integrated service

CMEMS is led by Mercator Océan, the French centre for analysis and forecasting of the global ocean.

The CMEMS offers a **unique access to oceanographic products** through an online catalogue.

Users can download products according to their needs in a unique format (NetCDF) and benefit from **quality and validation information** for each of them.





ACCESS TO DATA

Marine Monitoring Service

Search and Browse



- 140 products
- Key physical and biogeochemical ocean parameters (currents, temperature, chlorophyll...)
- Global ocean and 6 European regional seas
- Analysis, forecast and long time series
- Models and observations (Satellite or in situ)

Discover and Visualise



- Visualise, analyse, interpret and share the data you need
- Access to quality information per product



Copernicus Marine Environment Monitoring Service [C M E M S]

An Open and Free service



Users can benefit from following **services provision without any registration:**

- To discover the catalogue of products
- To get in-depth information on products
- To view products
- To access information on products quality
- To get news about products & services : "Newsflash" also accessible through an RSS field
- To use technical FAQs
- To learn latest improvements on products
- To exchange and share on an interactive web-based forum meant for current or future CMEMS users, for scientists implied in ocean knowledge, for CMEMS partners and more generally for the whole CMEMS community.





Marine
Monitoring

Discover and search for CMEMS products

COPERNICUS MARINE ENVIRONMENT MONITORING SERVICE
Providing PRODUCTS and SERVICES for all marine applications

Search terms

ABOUT US BENEFITS NEWS SCIENCE & LEARNING TRAINING SERVICES PORTFOLIO

ACCESS TO PRODUCTS
Search and download your datasets!

Select your:

AREA
PARAMETERS
TIME COVERAGE
OBSERVATIONS/MODELS

- GLOBAL OCEAN
- ARCTIC OCEAN
- BALTIC SEA
- EUROPEAN NORTH WEST SHELF SEAS
- IBERIA-BISCAY-IRELAND REGIONAL SEAS
- MEDITERRANEAN SEA
- BLACK SEA

PDF CATALOGUE OBSERVATIONS OVERVIEW
ONLINE CATALOGUE MODELS OVERVIEW

SHORT-CUT TO SERVICES

- REGISTER NOW
- VALIDATION STATISTICS
- ONLINE TUTORIALS
- COLLABORATIVE FORUM

LATEST NEWS FLASH
CMEMS.yes!
Undelivery of SCTAC products in progress.

28 SECURITY AGENDA

PARTNERS AND STAKEHOLDERS

FOCUS ON

RAMON MARGALEF SUMMER COLLOQUIA, 6-10 JULY 2015, BARCELONA, SPAIN
Participate to the next edition of the Ramon Margalef Summer Colloquia, to be carried out from 6th to 10th July 2015 in the Marine Sciences Institute in Barcelona (Spain).
The focus this year is: "Patterns and processes in..."

THE RAMON MARGALEF SUMMER COLLOQUIA
A year of the ocean, from observation to modelling

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Access to products



Users can **download** any CMEMS product provided they are **registered**.

Register



- To download data
- To benefit from customised services and from a manned-expert helpdesk
- To share your requirements with us

Registration is required to **download**, but search and viewing are not.

Download



- Select and download the data sets you need
- One-off download or by scripts

With **your login/password** delivered when you first registered, you can **access all products** from the online catalogue.



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Downloading products from the online and interactive catalogue

The interactive catalogue allows users to select products according to:

- **7 geographical areas** : GLOBAL Ocean, ARCTIC Ocean, BALTIC Sea, Atlantic-European North West Shelf-Ocean, Atlantic-European South West Shelf-Ocean, MEDITERRANEAN Sea, BLACK Sea.
- **Parameters**: Temperature, Salinity, Currents, Sea Ice, Sea Level, Wind, Ocean Optics, Ocean Chemistry, Ocean Biology, Ocean Chlorophyll.
- **Time Coverage**: FORECAST, NEAR REAL TIME, MULTI-YEAR, TIME INVARIANT products (either from OBSERVATIONS or MODELLING).
- Models or Observations (Satellite or InSitu)
- Grid type
- Time span
- Vertical coverage
- Processing Level
- Temporal resolution

Download



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Downloading products from the online and interactive catalogue

Users are offered different on-line downloading options:

- To download the **whole product**
- To extract and download **only a part of a product**
(per area, per variable, for a period of time, some depths).
- To **download automatically** by using scripts (python)
for a regular use.



Download



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What for?

Compute



- Use data as you wish for calculation, estimation, rating, producing indicators...
- Integrate data into other models
- Merge data with your own ones

CMEMS supports a large range of applications in a variety of domain such as:

- Maritime Safety
- Coastal and Marine Environment
- Marine Resources
- Weather, Seasonal Forecasting and Climate activities



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Example

YOUR SEARCH

Search by keyword

REGIONAL DOMAIN
Mediterranean Sea

PARAMETERS
Temperature

TEMPORAL COVERAGE
From 2018-04-17 To 2018-04-17

If checked, the search results will only show products containing the whole selected time range

PRODUCT WITH DEPTH LEVEL

COPERNICUS MARINE ENVIRONMENT MONITORING SERVICE

Providing PRODUCTS and SERVICES

Search terms OK

ABOUT US | MARKETS & BENEFITS | NEWS

Found 5 ocean products matching your criteria.

Home > Services portfolio > Access to products

The catalogue has been upgraded and some products accesses still need to be updated. If you face any issue, please check [live status](#).

OCEAN PRODUCTS → OCEAN MONITORING INDICATORS → OCEAN STATE REPORT → GETTING STARTED → MY CART 0 My Account

YOUR SEARCH

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PRODUCT WITH DEPTH LEVEL

Found 5 ocean products matching your criteria. [Export results](#)

MEDSEA_ANALYSIS_FORECAST_PHY_006_013		
MEDITERRANEAN SEA PHYSICS ANALYSIS AND FORECAST		
MODEL	MED	
T bottomT S SSH UV MLD	0.042 degree x 0.042 degree (141 depth levels)	
From 2016-01-01 to Present	monthly-mean, daily-mean, hourly-mean	
MORE INFO	ADD TO CART	WMS Sub-setting

SST_EUR_SST_L3C_NRT_OBSERVATIONS_010_009_B		
EUROPEAN OCEAN- SEA SURFACE TEMPERATURE MONO-SENSOR L3 OBSERVATIONS		



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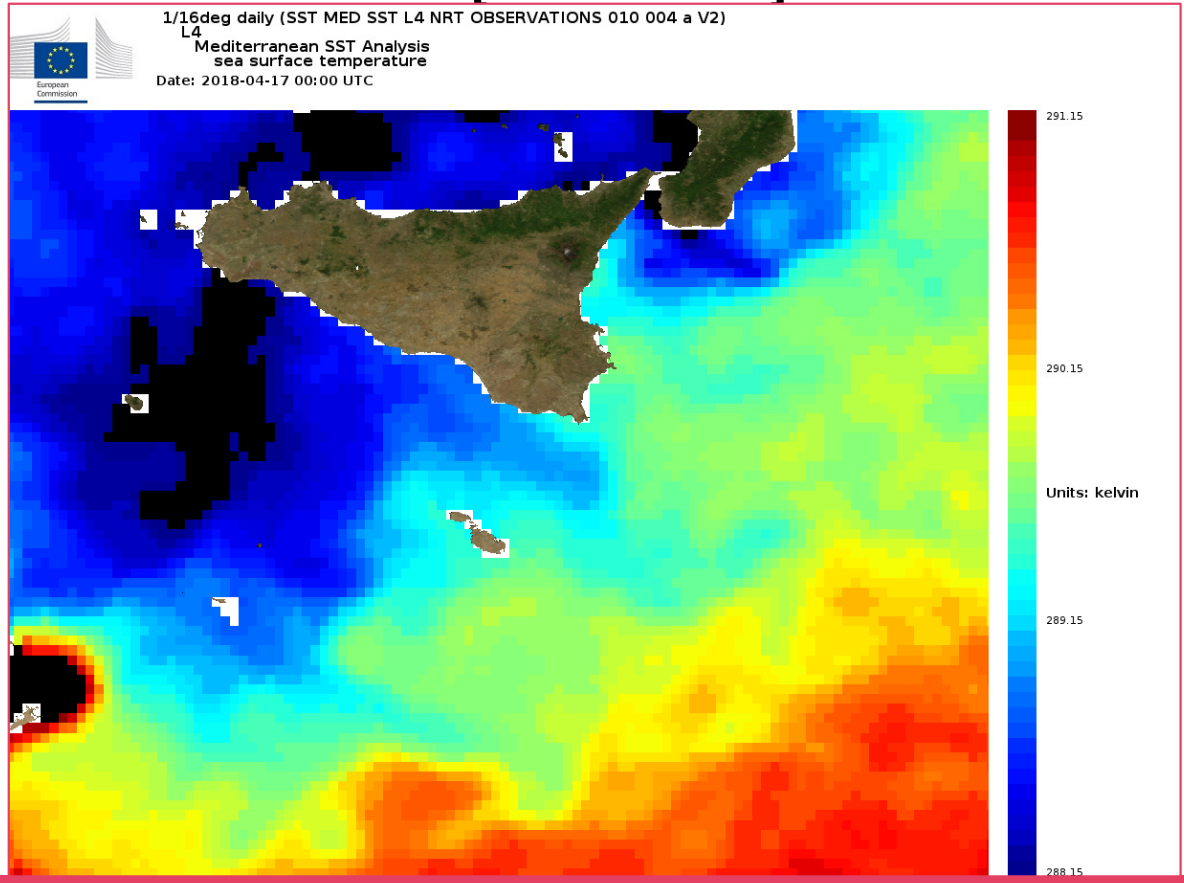
Example

MEDSEA_ANALYSIS_FORECAST_PHY_006_013	
MEDITERRANEAN SEA PHYSICS ANALYSIS AND FORECAST	
MODEL	● ● ● ✕
T bottomT S SSH UV MLD	MED
0.042 degree x 0.042 degree (141 depth levels)	Potential Temperature [°C] 01/01/2015 00:00 UTC
From 2016-01-01 to Present	
monthly-mean, daily-mean, hourly-mean	
MORE INFO	ADD TO CART WMS Sub-setting

SST_MED_SST_L4_NRT_OBSERVATIONS_010_004	
MEDITERRANEAN SEA HIGH RESOLUTION AND ULTRA HIGH RESOLUTION SEA SURFACE TEMPERATURE ANALYSIS	
OBSERVATION	L4
SST	MED
0.01 degree x 0.01 degree (Surface only)	
From 2008-01-01 to Present	
daily-mean	
MORE INFO	ADD TO CART WMS Sub-setting



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PRODUCT DATA SHEET

MEDITERRANEAN SEA HIGH RESOLUTION AND ULTRA HIGH RESOLUTION SEA SURFACE TEMPERATURE ANALYSIS

PRODUCT IDENTIFIER: SST_MED_SST_L4_NRT_OBSERVATIONS_010_004

GEOGRAPHICAL COVERAGE: 46.0
-18.12 36.25
Areas: mediterranean-sea

VARIABLES: sea_surface_temperature (SST)

OBSERVATION/MODELS: satellite-observation

PRODUCT TYPE: near-real-time

PROCESSING LEVEL: L4

DATA ASSIMILATION: Not Applicable

SPATIAL RESOLUTION: 0.01degree x 0.01degree

VERTICAL COVERAGE (m): Surface

COORDINATE REFERENCE SYSTEM: WGS 84 (EPSG 4326)

FEATURE TYPE: Grid

TEMPORAL COVERAGE: from 2008-01-01 to Present

TEMPORAL RESOLUTION: daily-mean

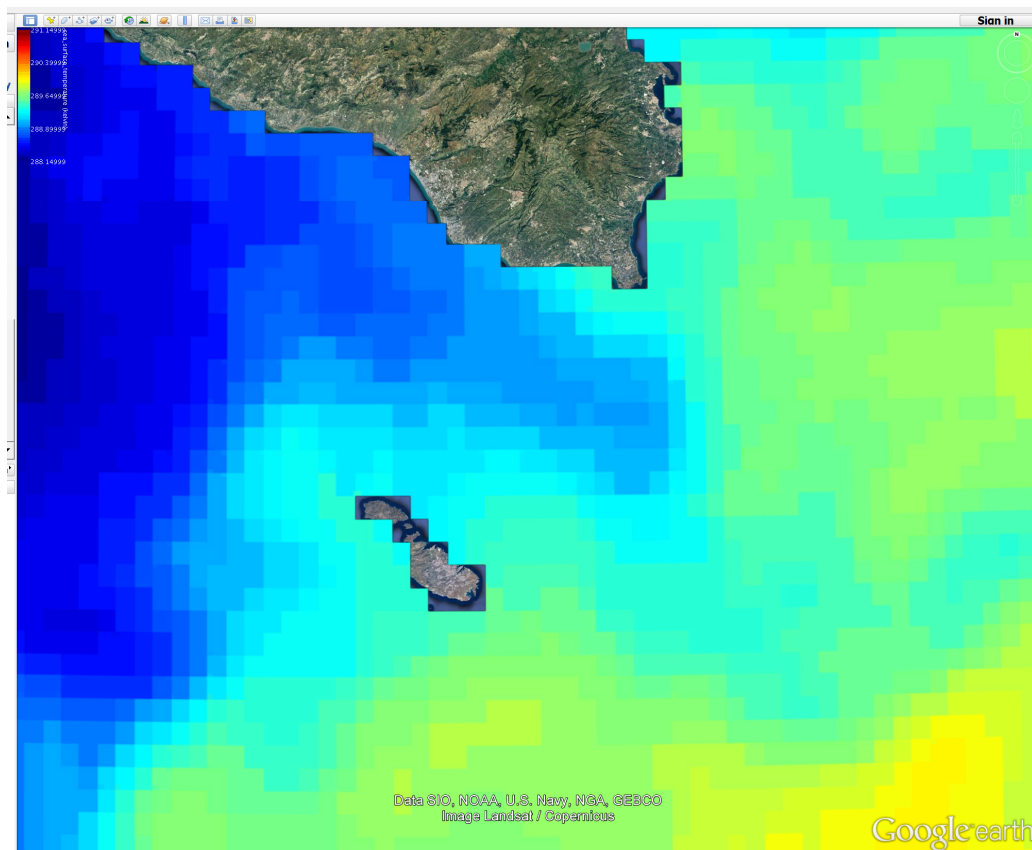
UPDATE FREQUENCY: daily

PRODUCTION UNIT: SST-CNR-ROMA-IT



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Example



 **Interreg**
Italia-Malta
Calypso South
Fondo Europeo di Sviluppo Regionale
European Regional Development Fund



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Thank you

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