CDS CERSAT

Jean-François Piolle (Ifremer)

contact@odatis-ocean.fr | www.odatis-ocean.fr

Contribution au Copernicus Marine Service

Une participation historique depuis le début des services d'océanographie opérationnelle Européens (Mersea > MyOcean > MyOcean 2 > CMEMS > Copernicus Marine Service > ...)

Organisation en TAC (Thematic Assembly Center)

Initialement autour des variables SST, Vents de Surface (Diffusiomètre), Dérive Glaces de Mer

Production Temps Réel et Séries Longues, Indicateurs climatiques

2020 : Retrait du TAC Wind en 2020 ; Participation au TAC « MultiObservation » (Salinité, 2022)

Nouvel appel d'offre en 2024 pour la phase 2025-2027

Participation accrue :

- Retour dans le TAC Wind (séries longues haute résolution)
- Participation au TAC Wave (séries longues hauteur de vague)

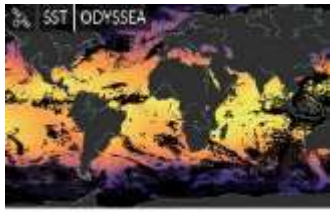
Température de surface

Composite multi-capteurs (L3S) et produits interpolés (L4) journaliers – NRT (J+1) et Séries Longues (1981-2024) + OMI

Atlantique Nord Est (ATL) 2km et Global 10 km (L4 : back-up OSTIA pendant le Brexit)

12 satellites utilisés actuellement (infra-rouge et micro-onde, polaire et géostationnaire) dans le mix

extension mensuelle à partir de Novembre 2025

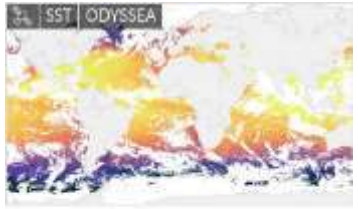


ODYSSEA Global Ocean - Sea Surface Temperature Multi-sensor...

Satellite (L3)
Global, 0.1° × 0.1°
20 Dec 2020 to 15 May 2025, daily
Temperature

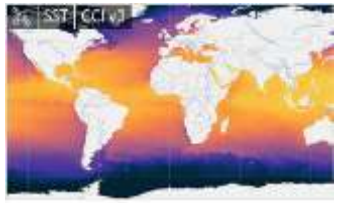
ODYSSEA Global Sea Surface Temperature Gridded Level 4 Daily...

Satellite (L4)
Global, 0.1° × 0.1°
1 Jan 2021 to 15 May 2025, daily
Temperature



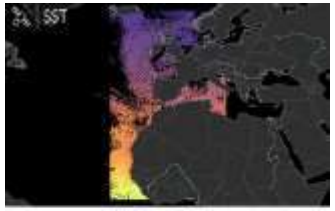
Global High Resolution ODYSSEA Sea Surface Temperature Multi-...

Satellite (L3)
Global, 0.1° × 0.1°
2 Jan 1982 to 31 Dec 2023, daily
Temperature



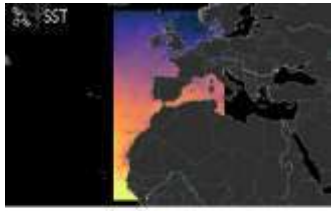
Global Ocean ODYSSEA L4 Sea Surface Temperature

Satellite (L4)
Global, 0.05° × 0.05°
1 Jan 1982 to 31 Dec 2023, instantaneous
Temperature



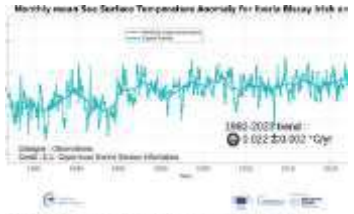
European North West Shelf/Iberia Biscay Irish Seas – High Resolution...

Satellite (L3)
Multi-area, 0.02° × 0.02°
20 Dec 2020 to 15 May 2025, daily
Temperature



European North West Shelf/Iberia Biscay Irish Seas – High Resolution...

Satellite (L4)
Multi-area, 0.02° × 0.02°
1 Jan 2018 to 15 May 2025, daily
Temperature

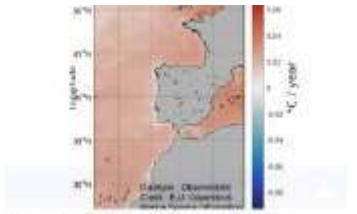


Iberia Biscay Ireland Sea Surface Temperature time series and trend...

Satellite
Multi-area
Since 1 Jan 1982, monthly
Temperature

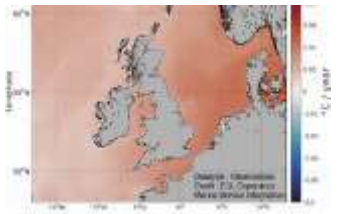
European North West Shelf Sea Surface Temperature time series an...

Satellite
Multi-area
Since 1 Jan 1982, monthly
Temperature



Iberia Biscay Ireland Sea Surface Temperature trend map from...

Satellite
Multi-area
Since 1 Jan 1982
Temperature



European North West Shelf Sea Surface Temperature trend map fro...

Satellite
Multi-area
Since 1 Jan 1982, monthly
Temperature

European North West Shelf/Iberia Biscay Irish Seas – High Resolution...

Satellite (L3)
Multi-area, 0.05° × 0.05°
1 Jan 1982 to 31 Dec 2023, daily
Temperature

European North West Shelf/Iberia Biscay Irish Seas - High Resolution...

Satellite (L4)
Multi-area, 0.05° × 0.05°
1 Jan 1982 to 31 Dec 2023, daily
Temperature

Vents régionaux hautes résolutions

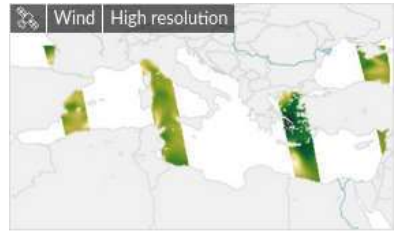
Composite multi-orbites (L3) de vitesse et direction du vent de surface, mesures SAR à 1km de résolution, journalier, mono-mission (Sentinel-3A & 3B)

5 régions d'intérêt (définition Copernicus)

Projet précurseur en 2024 (***HR-Wind*** - 2021-2024)

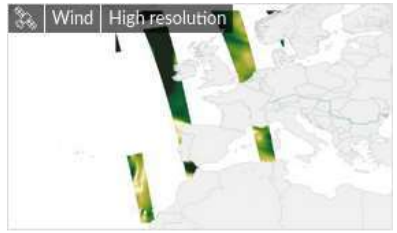
Séries longues (2018-2024) en Juin, extension mensuelle à partir de Novembre 2025 – Ajout de Sentinel-3C

Collaboration avec CLS (NRT)



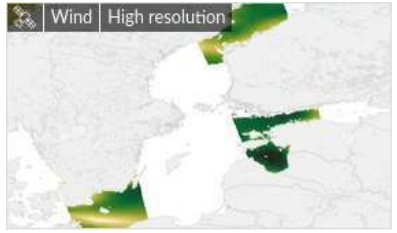
High-resolution L3 Sea Surface Wind from MY Satellite...

WIND_MED_PHY_HR_L3_MY_012_109
Satellite (L3)
Med Sea, 1 × 1 km
27 Jun 2021 to 30 Jun 2024, daily
Wind



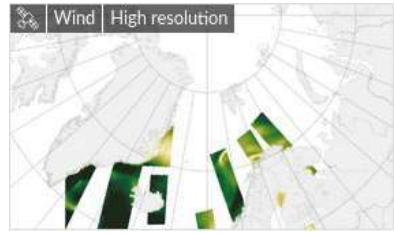
High-resolution L3 Sea Surface Wind from MY Satellite...

WIND_ATL_PHY_HR_L3_MY_012_106
Satellite (L3)
Multi-area, 1 × 1 km
27 Jun 2021 to 30 Jun 2024, daily
Wind



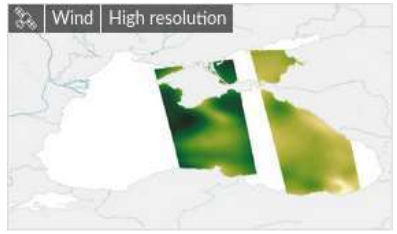
High-resolution L3 Sea Surface Wind from MY Satellite...

WIND_BAL_PHY_HR_L3_MY_012_107
Satellite (L3)
Multi-area, 1 × 1 km
27 Jun 2021 to 30 Jun 2024, daily
Wind



High-resolution L3 Sea Surface Wind from MY Satellite...

WIND_ARC_PHY_HR_L3_MY_012_105
Satellite (L3)
Multi-area, 1 × 1 km
27 Jun 2021 to 30 Jun 2024, daily
Wind



High-resolution L3 Sea Surface Wind from MY Satellite...

WIND_BLK_PHY_HR_L3_MY_012_108
Satellite (L3)
Med Sea, 1 × 1 km
27 Jun 2021 to 30 Jun 2024, daily
Wind

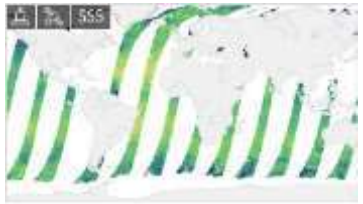
Salinité de surface

Composite multi-orbites (L3, journalier) et multi-capteur (L4, hebdo) de salinité de surface de surface, 1/4° de résolution

Transfert du Centre de Traitement Aval des Données SMOS (CATDS) opéré par le CERSAT (partenariat CNES)

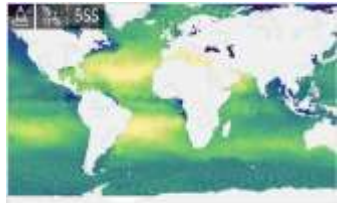
Multi-capteur : fusion SMOS – SMAP – In Situ (ISAS)

Séries longues (2010-) et NRT



SMOS CATDS Qualified (L2Q) Sea Surface Salinity product

In-situ, satellite (L3)
Global, 0.25° × 0.25°
12 Jan 2010 to 15 May 2025, daily
Salinity



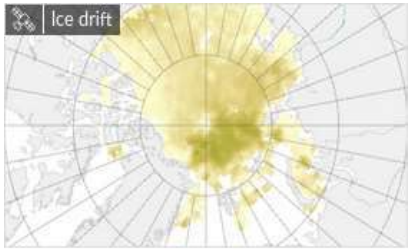
SSS SMOS/SMAP L4 OI - LOPS-v2023

In-situ, satellite (L4)
Global, 0.25° × 0.25°
3 Jun 2010 to 27 Jun 2024, weekly
Temperature, salinity, surface density

Dérives Glaces de Mer

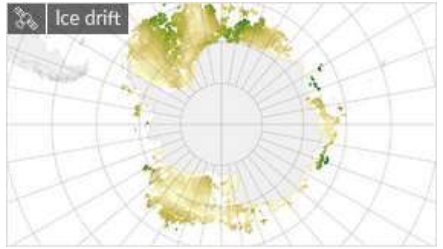
Dérives de glace de mer, 62.5 km de résolution, journalier et hebdomadaire, observations radiomètre micro-ondes SSM/I et AMSR

Séries longues (1991-) – extension régulière



Arctic Ocean Sea Ice Drift REPROCESSED

SEAICE_ARC_SEAICE_L3_REP_OBSER... 011_010
Satellite (L3)
Arctic, 62.5 × 62.5 km
3 Dec 1991 to 31 Dec 2024, daily, weekly,...
Sea ice



Antarctic Ocean Sea Ice Drift REPROCESSED

SEAICE_ANT_PHY_L3_MY_011_018
Satellite (L3)
Antarctic, 62.5 × 62.5 km
1 Apr 2003 to 31 Oct 2024, daily
Sea ice

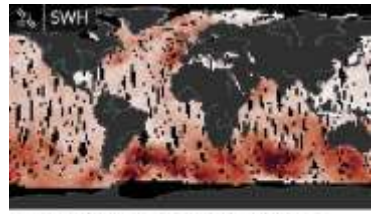
Hauteur significative des vagues

Observation de Hs par altimétrie : observations sous la trace (L3) et statistiques mensuelles (L4, 1° résolution)

Séries longues (1991-) – extension régulière

Transfert du projet ESA CCI Sea State à partir de 2026 (version 4 bientôt disponible)

Global Ocean L 3 Significant Wave Height From Nrt Satellite...



Global Ocean L 4 Significant Wave Height From Nrt Satellite...

(version NRT pour Illustration)