

Feedback to IBIROOS group from MyOcean IBI MFC modeling team

J. Chanut, S. Cailleau, B. Levier, G. Reffray: *Mercator Océan, France*

C. Maraldi, N. Ayoub, P. DeMey: *CNRS, France*

M.G. Sotillo, E. A. Fanjul: *Puertos del Estado, Spain*

and with the contribution of NEMO modelers from the MetOffice and POL, UK



**Mercator
Ocean**
Ocean Forecasters

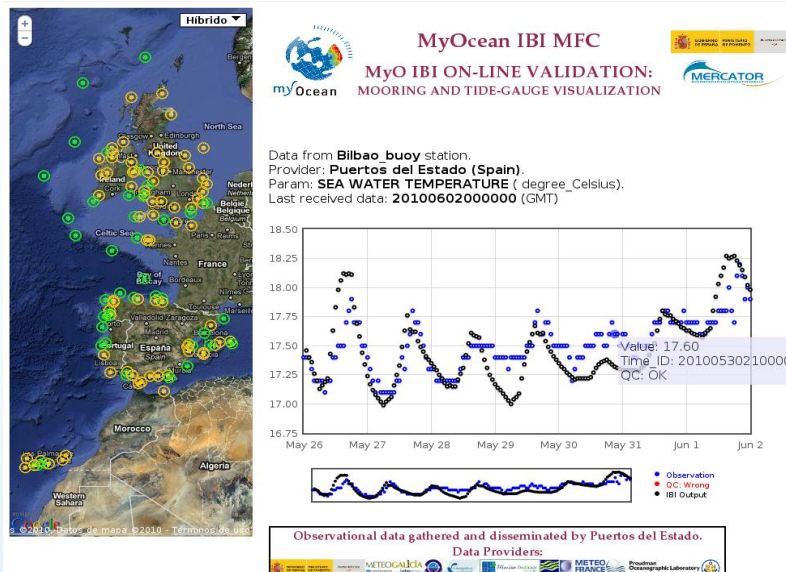
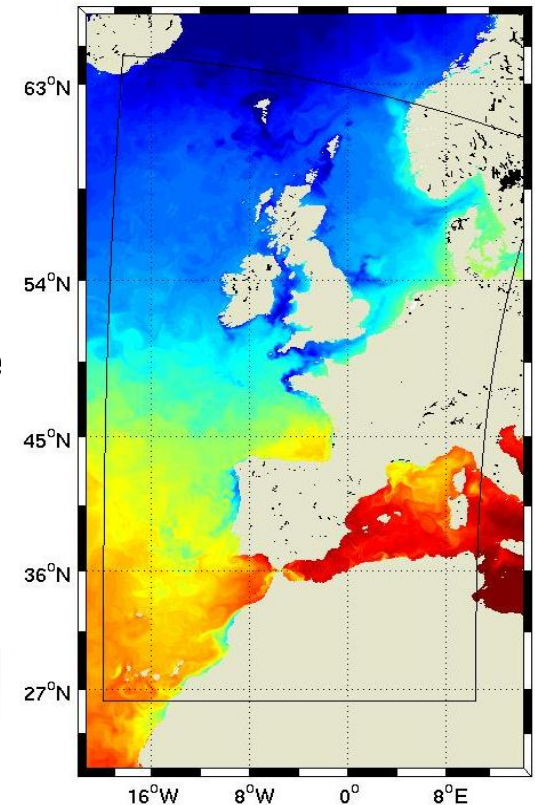
Puertos del Estado



MyOcean IBI MFC: 2011 highlights 1/2

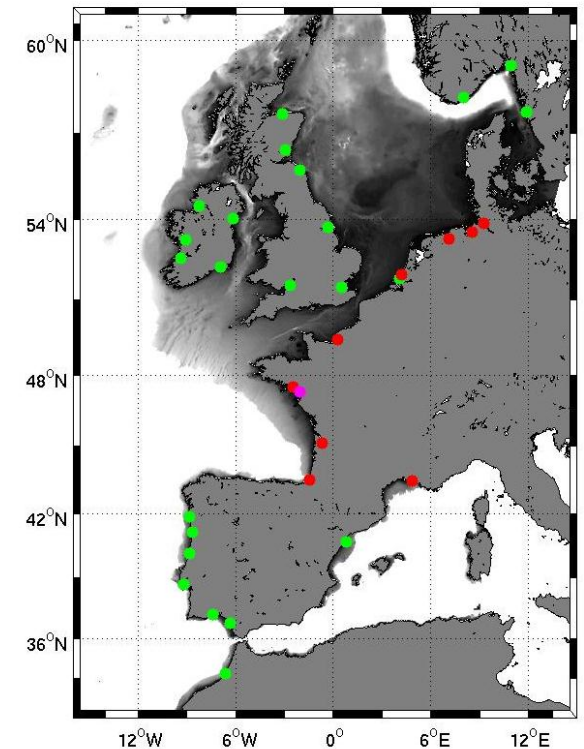
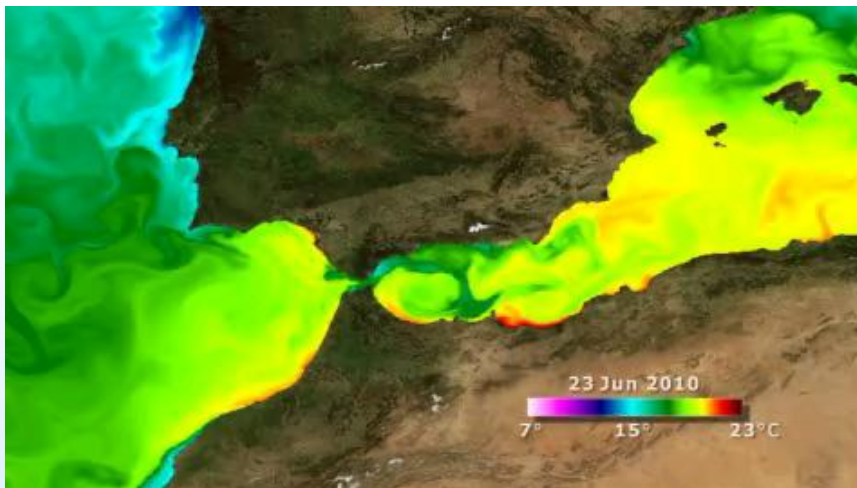
- **V1 system went live in June 2011 !**

- 2 km, NEMO based, tides, surge component, ECMWF 1/8° forcing, sequentially constrained by Mercator 1/12° data assimilated model.
- Daily (3d) /hourly (surface) regrided products on 1/36° Mercator grid freely available on MyOcean portal. 5 days forecast, 1 year running window of best estimates.
- Twin operational chains run by PdE/Mercator.
- Daily validation as well as service interface to MyOcean service desk done by PdE.



MyOcean IBI MFC: 2011 highlights 2/2

- **V2 system released in January 2012:**
 - Improved initial and boundary conditions from Mercator NA system (psy2v4r2). Corrects strong salinity bias in the Irish and North Seas.
 - Slight model updates:
 - ✓ Bathymetric corrections (multibeam data in Gulf of Cadiz and Gibraltar strait)
 - ✓ 25 hours averages.
 - ✓ **Real time river flowrates from PREVIMER observations and SMHI hydrological model.**
 - Dissemination interfaces and web site update.



V2 River input locations
Red=Obs by Prévimer
Green=SMHI

MyOcean IBI MFC V2: what's new ? **Viewing**

MyOcean interactive catalogue - MyOcean - Mozilla Firefox

Fichier Édition Affichage Historique Marque-pages Outils ?

http://www.myocean.eu/web/69-my-ocean-interactive-catalogue.php?option=com_csw&task=results&referenced_area[]=my-ocean-areas?

Les plus visités Débuter avec Firefox À la une

MyOcean interactive catalogue - My...

OCEAN MONITORING and FORECASTING
Providing PRODUCTS and SERVICES for all marine applications.

USER CORNER

- ASK THE SERVICE DESK
- NEWS FLASH!
- ACCESS TO CATALOGUE
- REGISTER NOW!

ABOUT US

SERVICES

- Catalogue of services
- Register now!
- Ask the service desk

PRODUCTS

- Access to catalogue
- News Flash!
- Product improvements
- Technical FAQ

NEWS & EVENTS

FOCUS ON

PRODUCT SHOWCASE

EDUCATION

- Observation
- Modelling
- Ocean parameters

PRESS/EDITION CORNER

- all corners

SCIENTIFIC PUBLICATIONS

- all corners

Home > Products and services > Products > Access to catalogue > MyOcean interactive catalogue

MYOCEAN INTERACTIVE CATALOGUE

Found 1 product matching your criteria

Free text: **REFINE RESULTS**

IBI-ANALYSIS-FORECAST-PHYS-005-001-b

ATLANTIC-IBERIAN BISCAY IRISH- OCEAN PHYSICS ANALYSIS AND FORECAST

The operational IBI (Iberian Biscay Irish) Ocean Analysis and Forecasting system, daily run by Puertos del Estado and Mercator Ocean, provides a 5-day hydrodynamic forecast (+ 1 day of hindcast as best estimate) including high frequency processes of paramount importance to characterize regional scale marine processes (i.e. tidal forcing, surges and high frequency atmospheric forcing, fresh water river discharge, etc.). The system is based on a (eddy-resolving) NEMO model application run at 1/36 deg. horizontal resolution.

INFO

DATA

MyOcean IBI MFC V2: what's new ? **Viewing**

MyOcean interactive catalogue - MyOcean - Mozilla Firefox

http://www.myocean.eu/web/69-myocean-interactive-catalogue.php?option=com_csw&task=results&referenced_area[]=my-ocean-areas?

Les plus visités Débuter avec Firefox À la une

MyOcean interactive catalogue - My...

ABOUT US

SERVICES

- » Catalogue of services
- » Register now!
- » Ask the service desk

PRODUCTS

- » Access to catalogue
- » News Flash!
- » Product improvements
- » Technical FAQ

NEWS & EVENTS

FOCUS ON

PRODUCT SHOWCASE

EDUCATION

- » Observation
- » Modelling
- » Ocean parameters

PRESS/EDITION CORNER

- » all corners

SCIENTIFIC PUBLICATIONS

- » all corners

Home > Products and services > Products > Access to catalogue > MyOcean interactive catalogue

Metadata provided by MYOCEAN

VIEW **DATA ACCESS**

Information **Documentation**

TITLE	ONLINE RESSOURCE	PUBLICATION
Product User Manual	http://catalogue.myocean.eu.org/static/resources/myocean/pum/MYO-IBI-PUM-005-001-v1.5.pdf	2011-09-15
Quality Information Document	http://catalogue.myocean.eu.org/static/resources/myocean/quid/MYO-WP08-QUID-V1-IBI-v1.0.pdf	2011-09-16

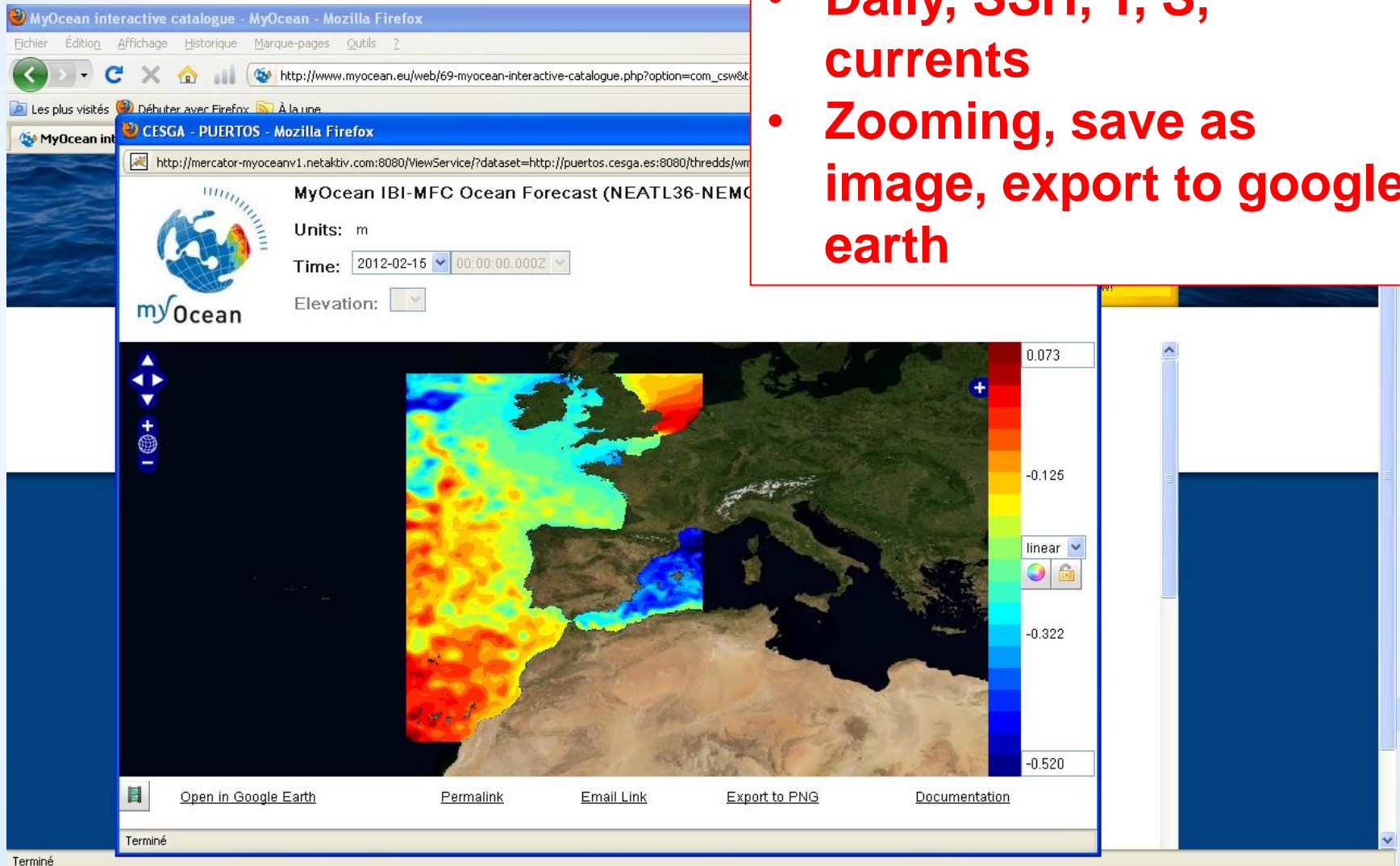
Terminé

Site map | All rights reserved | FAQ

European Union logo, Gmes logo, and other logos.

MyOcean IBI MFC V2: what's new ? **Viewing**

- **Daily, SSH, T, S, currents**
- **Zooming, save as image, export to google earth**



MyOcean IBI MFC V2: what's new ? Documentation

MyOcean interactive catalogue - MyOcean - Mozilla Firefox

Fichier Édition Affichage Historique Marque-pages Outils ?

http://www.myocean.eu/web/69-myocean-interactive-catalogue.php?option=com_csw&task=results&referenced_area[]=my-ocean-areas?

Les plus visités Débuter avec Firefox À la une

MyOcean interactive catalogue - My...

MyOcean

ABOUT US

SERVICES

- » Catalogue of services
- » Register now!
- » Ask the service desk

PRODUCTS

- » Access to catalogue
- » News Flash!
- » Product improvements
- » Technical FAQ

NEWS & EVENTS

FOCUS ON

PRODUCT SHOWCASE

EDUCATION

- » Observation
- » Modelling
- » Ocean parameters

PRESS/EDITION CORNER

- » all corners

SCIENTIFIC PUBLICATIONS

- » all corners

Home > Products and services > Products > Access to catalogue > MyOcean interactive catalogue

Metadata provided by MYOCEAN

VIEW DATA ACCESS

Information Documentation

TITLE	ONLINE RESSOURCE	PUBLICATION
Product User Manual	http://catalogue.myocean.eu.org/static/resources/myocean/pum/MYO-IBI-PUM-2001-v1.5.pdf	2011-09-15
Quality Information Document	http://catalogue.myocean.eu.org/static/resources/myocean/quid/MYO-WP08-QUID-1.0.pdf	2011-09-16

Terminé

Mercator Ocean Ocean Forecasters

Site map | All rights reserved | FAQ

Product user manual

Quality information (Quantitative performances, RMS, correlations,...)

MyOcean IBI MFC V2: what's new ? Downloading options

MyOcean interactive catalogue - MyOcean - Mozilla Firefox

http://www.myocean.eu/web/69-myocean-interactive-catalogue.php?option=com_csw&task=results&referenced_area[]=my-ocean-areas?

Les plus visités Débuter avec Firefox À la une

MyOcean interactive catalogue - My...

and FORECASTING
Providing PRODUCTS and SERVICES for all marine applications.

USER CORNER

- ASK THE SERVICE DESK
- NEWS FLASH!
- ACCESS TO CATALOGUE
- REGISTER NOW!

ABOUT US

MyOcean homepage

MARINE RESOURCES

COASTAL & MARINE ENVIRONMENT

WEATHER, CLIMATE & SF

SERVICES

- Catalogue of services
- Register now!
- Ask the service desk

PRODUCTS

- Access to catalogue
- News Flash!
- Product improvements
- Technical FAQ

NEWS & EVENTS

FOCUS ON

PRODUCT SHOWCASE

EDUCATION

- Observation
- Modelling
- Ocean parameters

PRESS/EDITION CORNER

- all corners

SCIENTIFIC PUBLICATIONS

- all corners

Home > Products and services > Products > Access to catalogue > MyOcean interactive catalogue

Information on how to download MyOcean Products can be found [here](#)

The "Subset download" allows you to subset the data, and should be used if you wish to download a small part of the total dataset.

Service to access through MIS-GWV services to the IBI-V1 PdE products (current date bulletin outputs & historical best estimates available)

Go

The "Direct download" directly transfers the file as stored on the server. It is able to deliver compressed data and should be used if you wish to download larger datasets.

Service to access through MIS-GWV services to the IBI-V1 PdE products (current date bulletin outputs & historical best estimates available).

DirectGetFile service

Go

Back

Open-dap

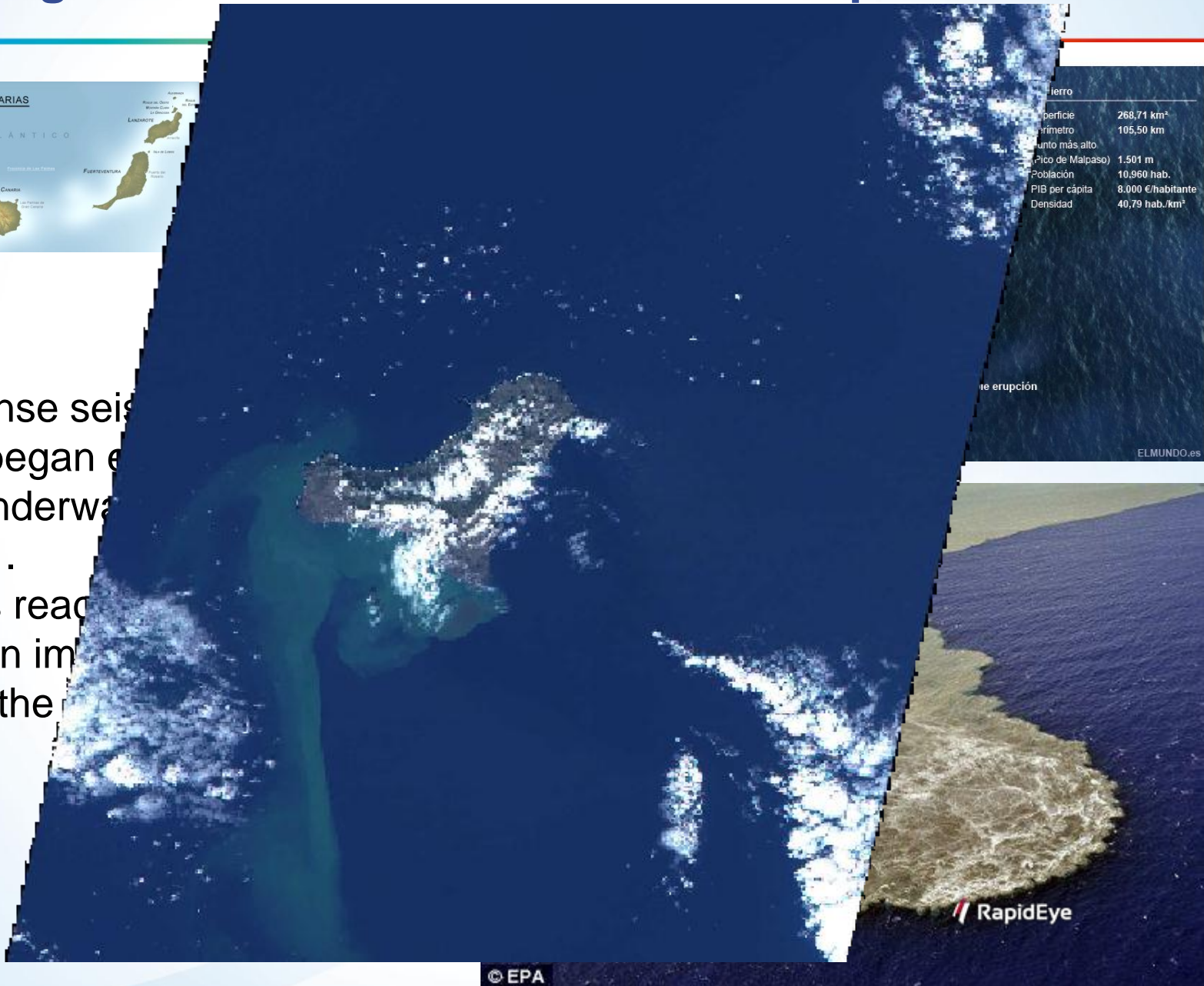
« Direct get file »
Faster download in some cases
But no subsetting

Monitoring El Hierro underwater volcano dispersal ?



El Hierro	
Superficie	268,71 km ²
Perímetro	105,50 km
Punto más alto	
(Pico de Malpaso)	1.501 m
Población	10.960 hab.
PIB per cápita	8.000 €/habitante
Densidad	40,79 hab./km ²

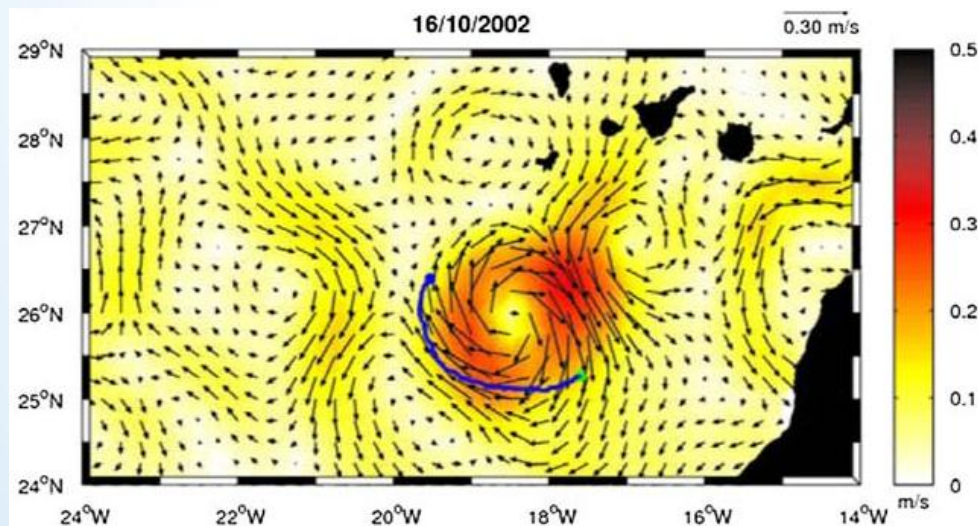
- After intense seismic activity, the volcano began erupting at 11th 2011.
- Hot vents reached 350°C and created an impressive plume at the



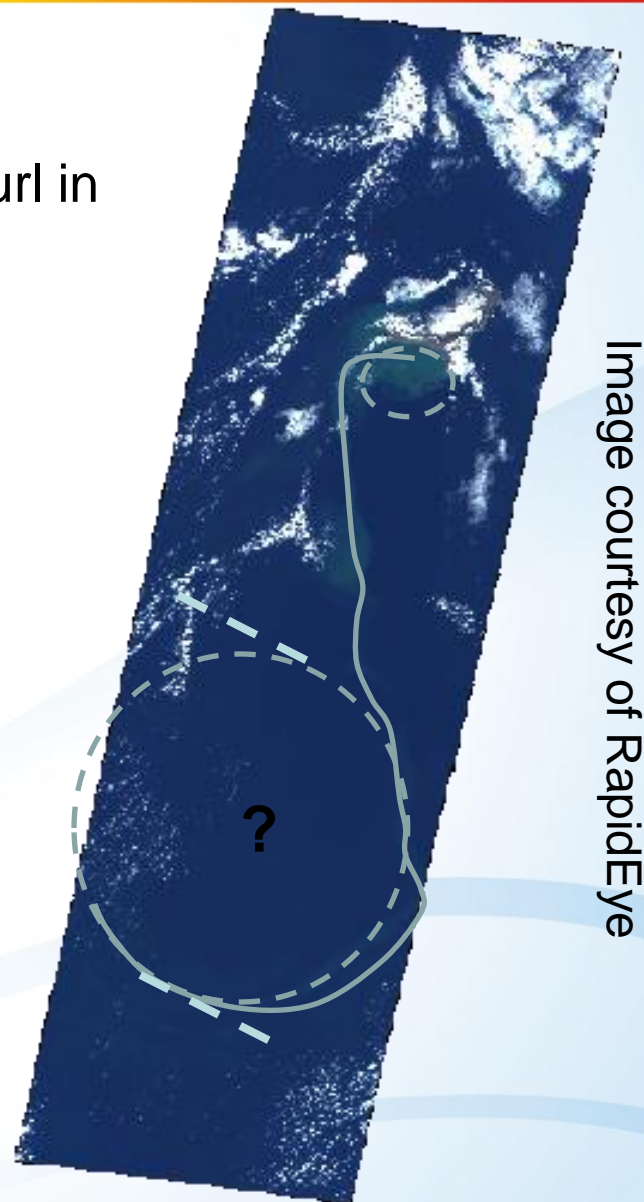
Monitoring El Hierro underwater volcano dispersal ?

A challenging situation:

- Currents largely impacted by the strong wind curl in the island lee due to orography.
- Proximity with « Canary eddy corridor ».
- Impact of local instability processes.

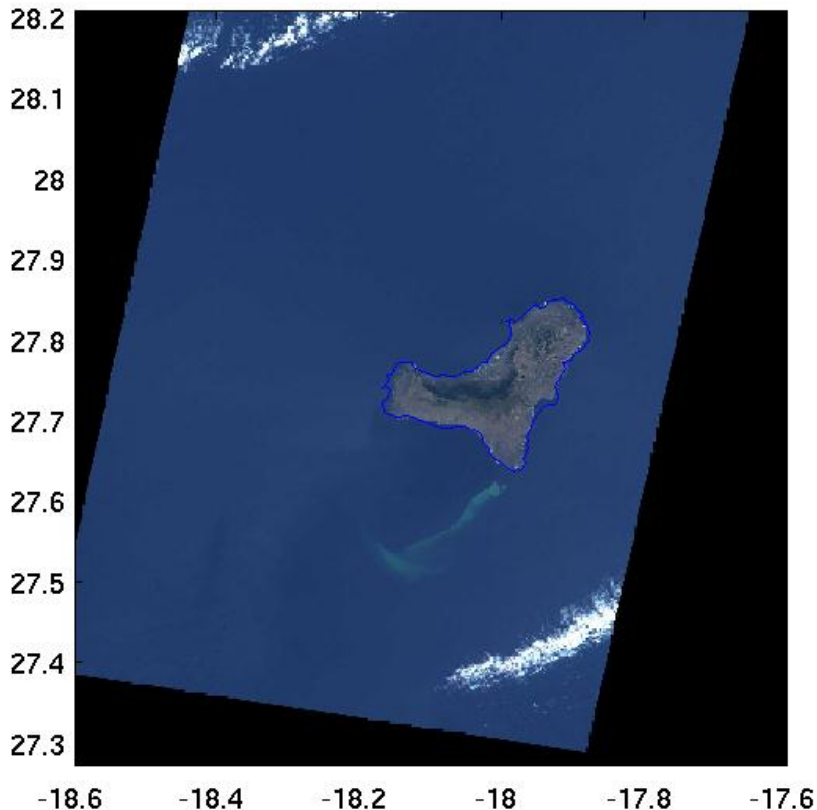


From Sangra et al, DSR II, 2009

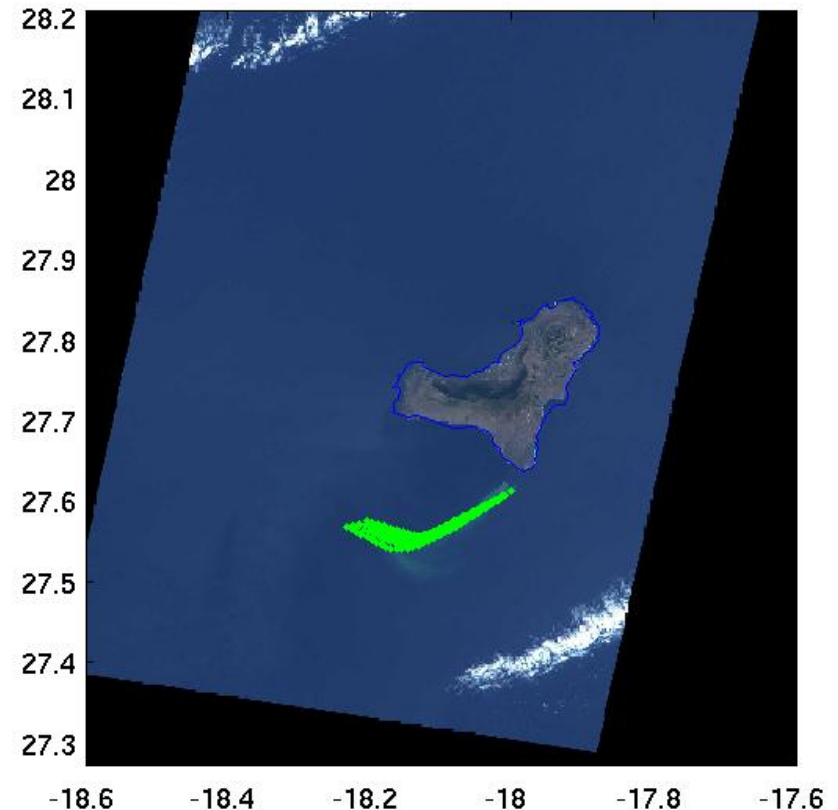


Monitoring El Hierro underwater volcano dispersal ?

2011-10-13



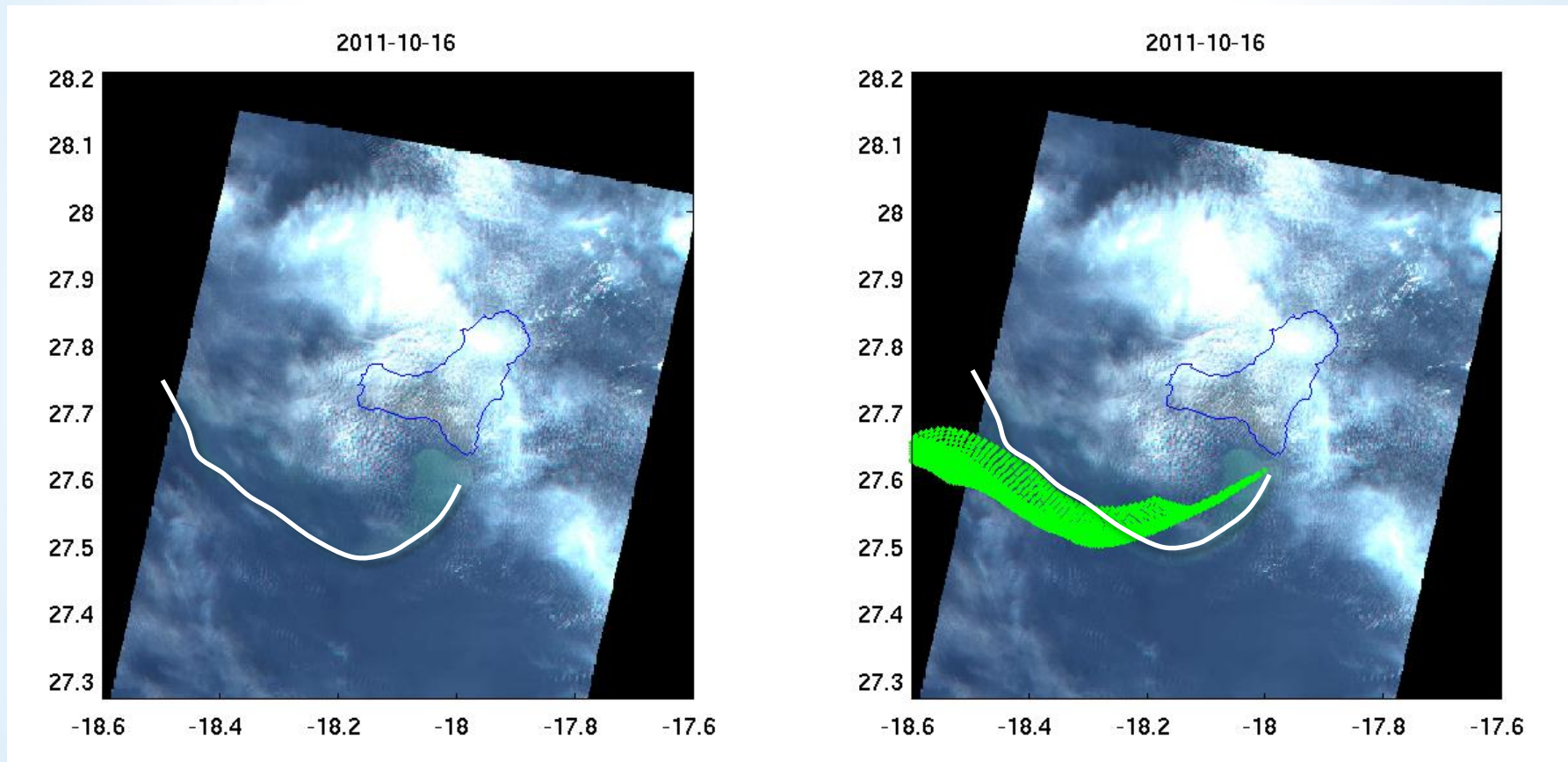
2011-10-13



Continuous seeding of lagrangian particules from estimated date and location of eruption. Currents from IBI V2.

Results at T0+1 day

Monitoring El Hierro underwater volcano dispersal ?



Continuous seeding of lagrangian particules from estimated date and location of eruption. Currents from IBI V2.

Results at T0+4 day