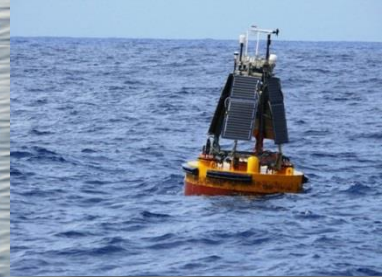


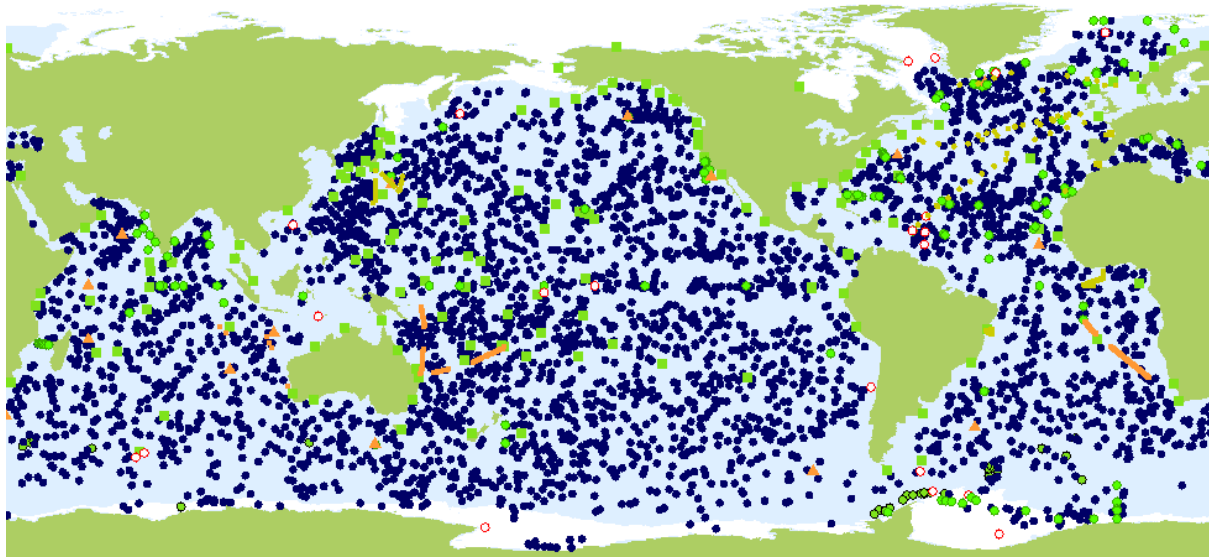
# **R3M**

## **The Ocean Data Portal for the Macaronesia**





# WORLD OCEAN OBSERVING STRATEGY



Global Ocean Observing System status on April 2014. (Source: JCOMMOPS)



ICSU  
International Council for Science



GEO GROUP ON  
EARTH OBSERVATIONS



European  
multidisciplinary  
seafloor & water column  
observatory





# EUROPEAN OCEAN OBSERVING STRATEGY



The Blue Economy by sea basin and by country  
shown in jobs and value

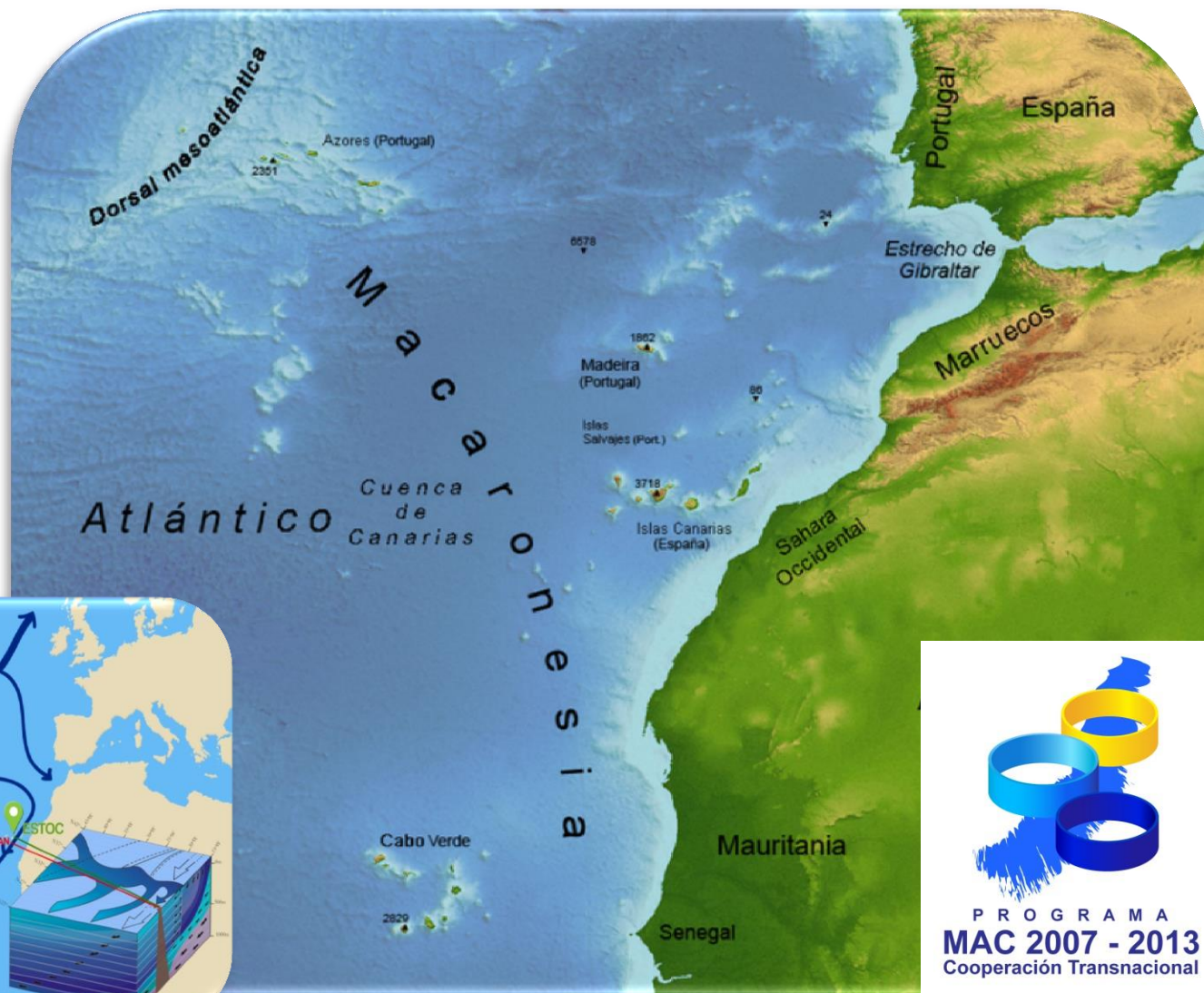


Discover  
**BLUE GROWTH**  
Building the blue economy



# THE MACARONESIAN REGION

- Outermost region
- Four ocean archipelagos
- Key socio-economic value
- **MARINE Atlantic Strategy.**



PROGRAMA  
**MAC 2007 - 2013**  
Cooperación Transnacional



# R3M: CONCEPT AND GOAL

- ❑ R3M: **regional (linked globally) initiative** aimed to increase the quantity and quality of **marine environment observations**, in order to understand and predict both the phenomena that take place on it and the related environmental and socioeconomic impact.
- ❑ R3M: **integrative and synergic tool**, making compatible and accessible to users all the marine environment observations [*time series observations gathered by different “in-situ” and remote sensing platforms from cutting-edge and conventional methodologies*], regardless of the institution or company that carry them out.
- ❑ R3M has been built “**from base to top**”, starting from the specific end- users towards general users, while maintaining the goals and rules established by national and international agencies.
- ❑ R3M initiative is involved with **technological development** for all types of required instruments and tools aiming to make them more accessible both on a technical and economical point of view.





# R3M: END USERS

- Commercial and Recreational Navigation.
- Harbors.
- Safety and Security.
- Oil & Gas.
- Aquaculture.
- Wastewater.
- Tourism
- Science / Research.
- Water Sports.
- Ocean Energies.
- Protected Areas.
- Weather Agencies.
- National / Regional Governments.

...





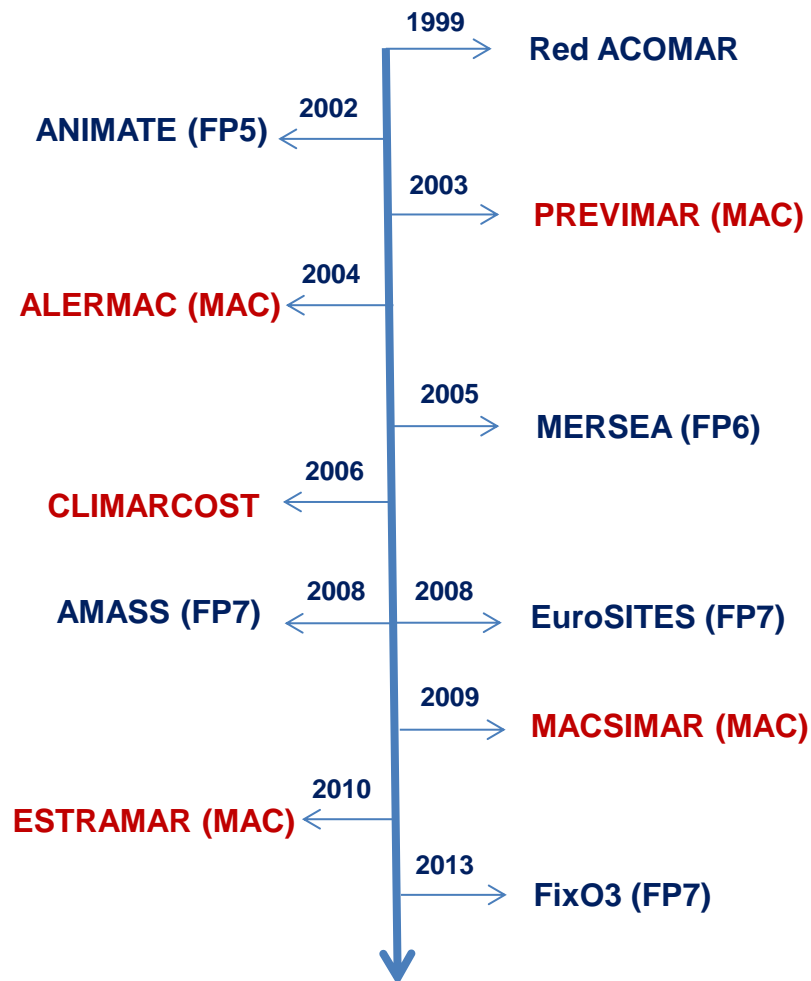
# R3M: "MAC" PROJECTS and MAIN ACTIONS



The screenshot shows the R3M website interface. At the top, there are logos for AÇORES, MADEIRA, CANARIAS, and the R3M logo. Below these are logos for the Unión Europea FEDER, INTERREG III B, and MAC 2007-2013. The main content area is titled 'Proyectos' and lists several projects with their descriptions and logos:

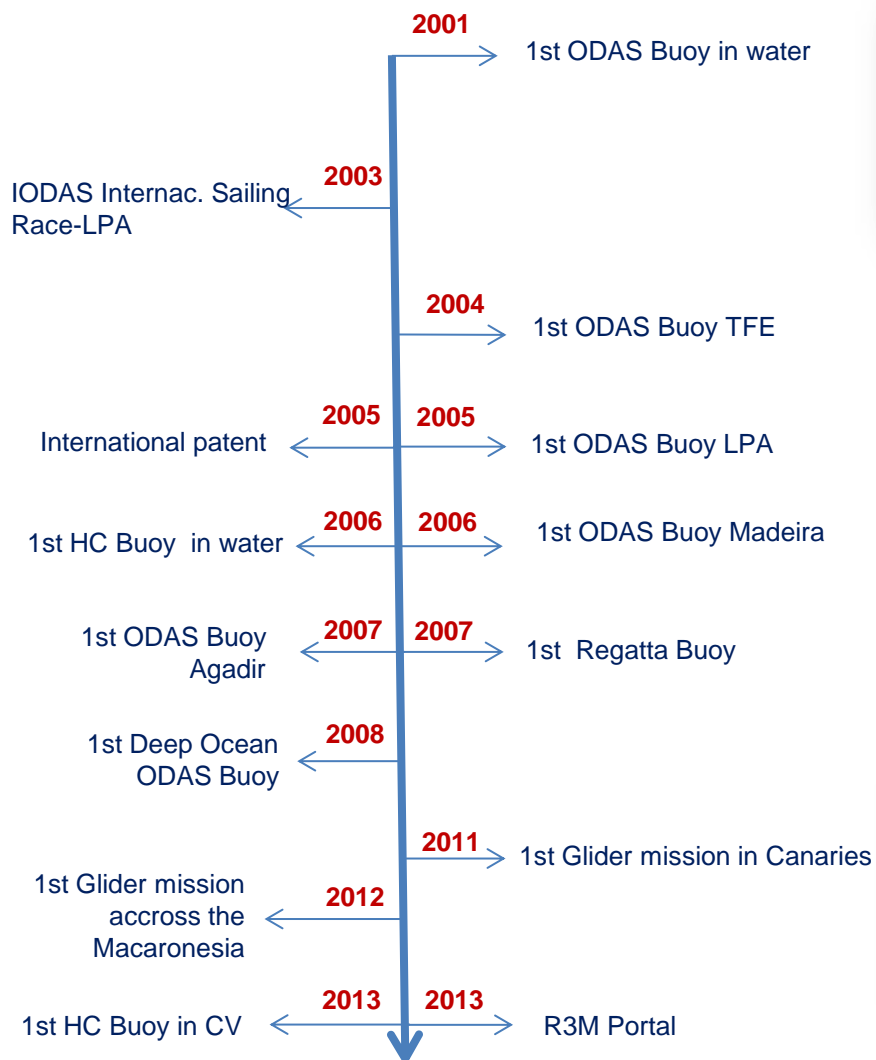
- ALERMAC**: El proyecto ALERMAC (Ref. Interreg IIIB-03-MAC-4.2-C.6) tiene como objetivo principal aportar una solución integral a la monitorización efectiva de contaminantes y a la gestión de riesgos de desastres en la zona marítima de la Macaronesia. [Leer Más](#)
- PREVIMAR**: PREvisión de circulación del espacio MARino macaronésico, desarrollado como una iniciativa Interreg IIIB, 2002-2005
- CLIMARCOST**: Proyecto CLIMARCOST, Clima Marítimo Costero, Sistema de monitorización de datos Meteo-Oceanográficos, ( 2005-2008 ). [Leer Más](#)
- MacSimar**: Proyecto MacSimar: Incorporación de un sistema integrado de monitorización meteorológica y oceanográfica de la Macaronesia en la estrategia de investigación marino/marítima europea. [www.macsimar.eu](http://www.macsimar.eu)
- ESTRAMAR**: "Estrategia Marino-Marítima de I+D+i en la Macaronesia ( ESTRAMAR )". [www.estramar.eu](http://www.estramar.eu)

At the bottom, there are logos for the Unión Europea FEDER, INTERREG III B, and MAC 2007-2013.



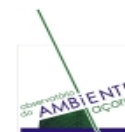


# R3M: "MAC" PROJECTS and MAIN ACTIONS





# R3M: INVOLVED PARTNERS





# R<sub>3</sub>M: “MAC” PROJECTS and MAIN ACTIONS



2001



2003



2005



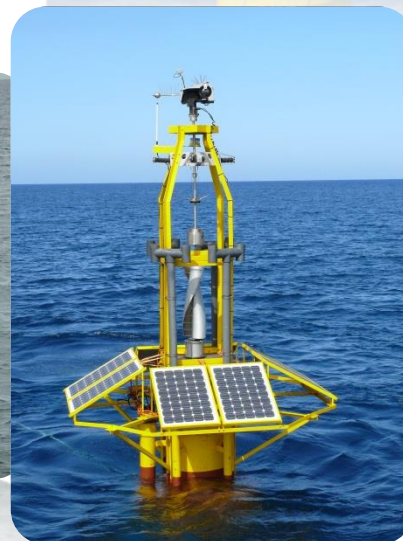
2006



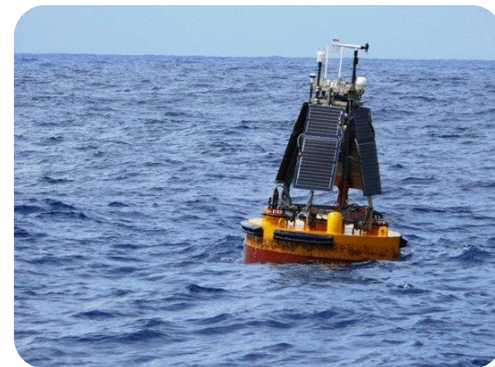
2007



2009



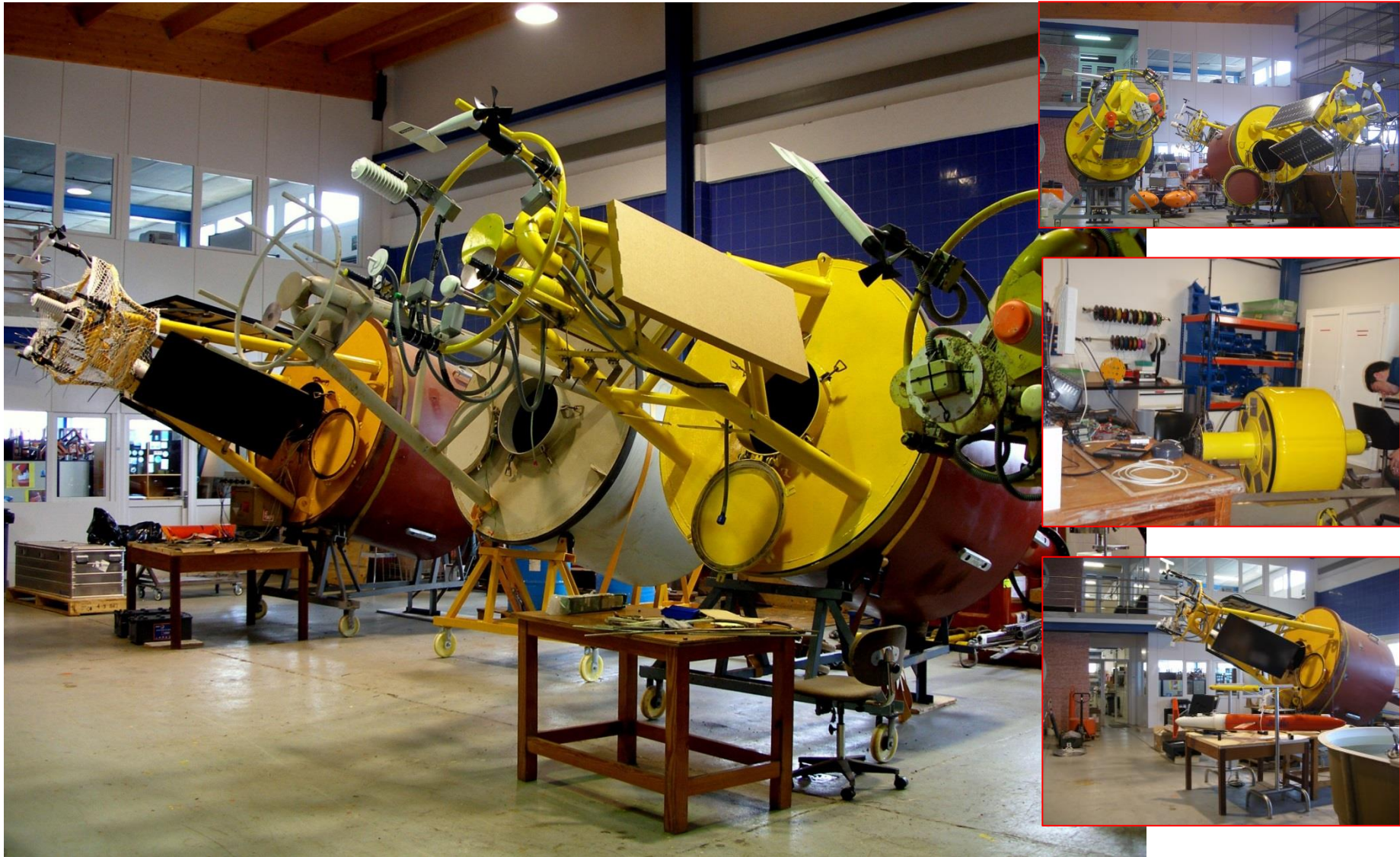
2010



2011-Present

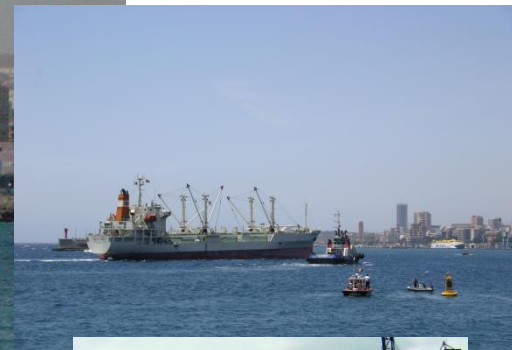
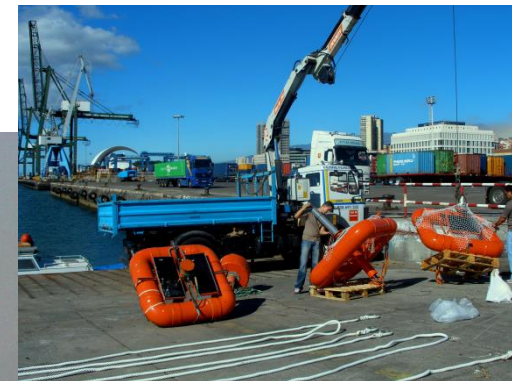
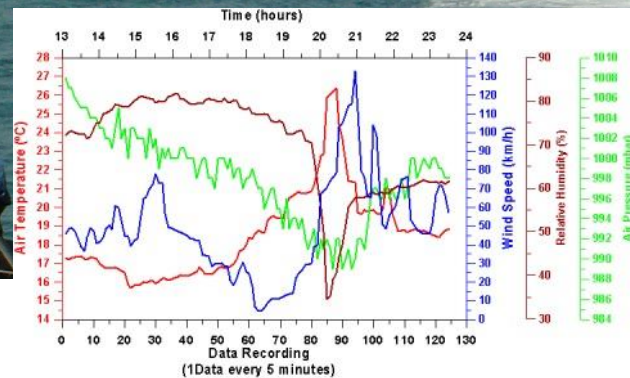
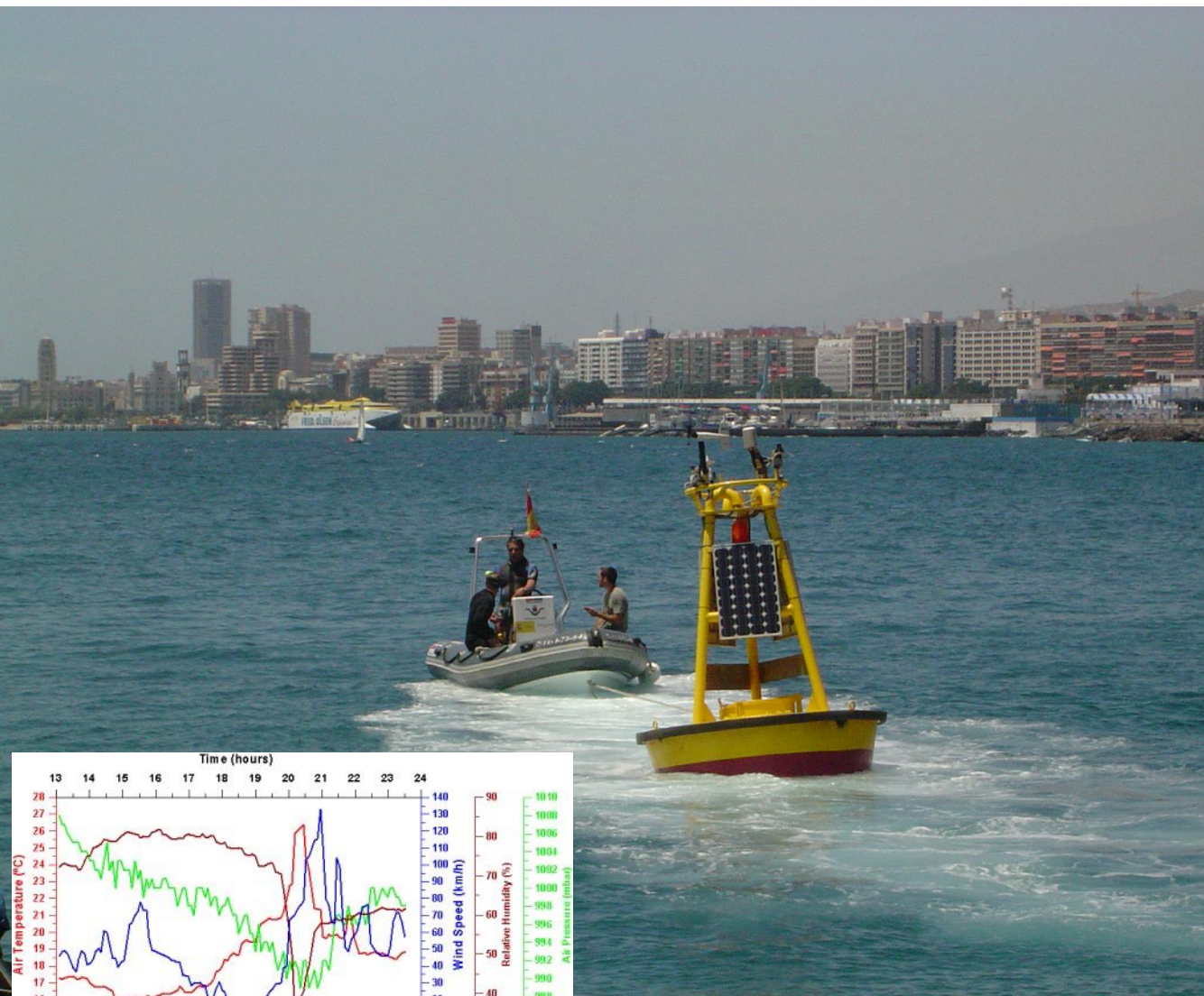


# R<sub>3</sub>M: “MAC” PROJECTS and MAIN ACTIONS





# R<sub>3</sub>M: LOCATIONS





# R<sub>3</sub>M: LOCATIONS



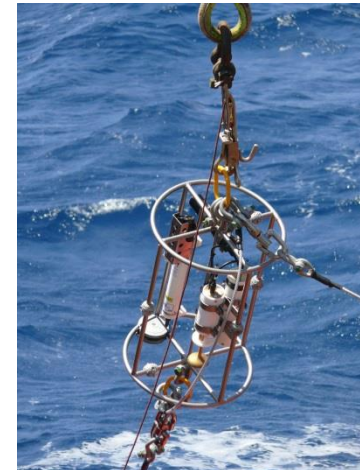
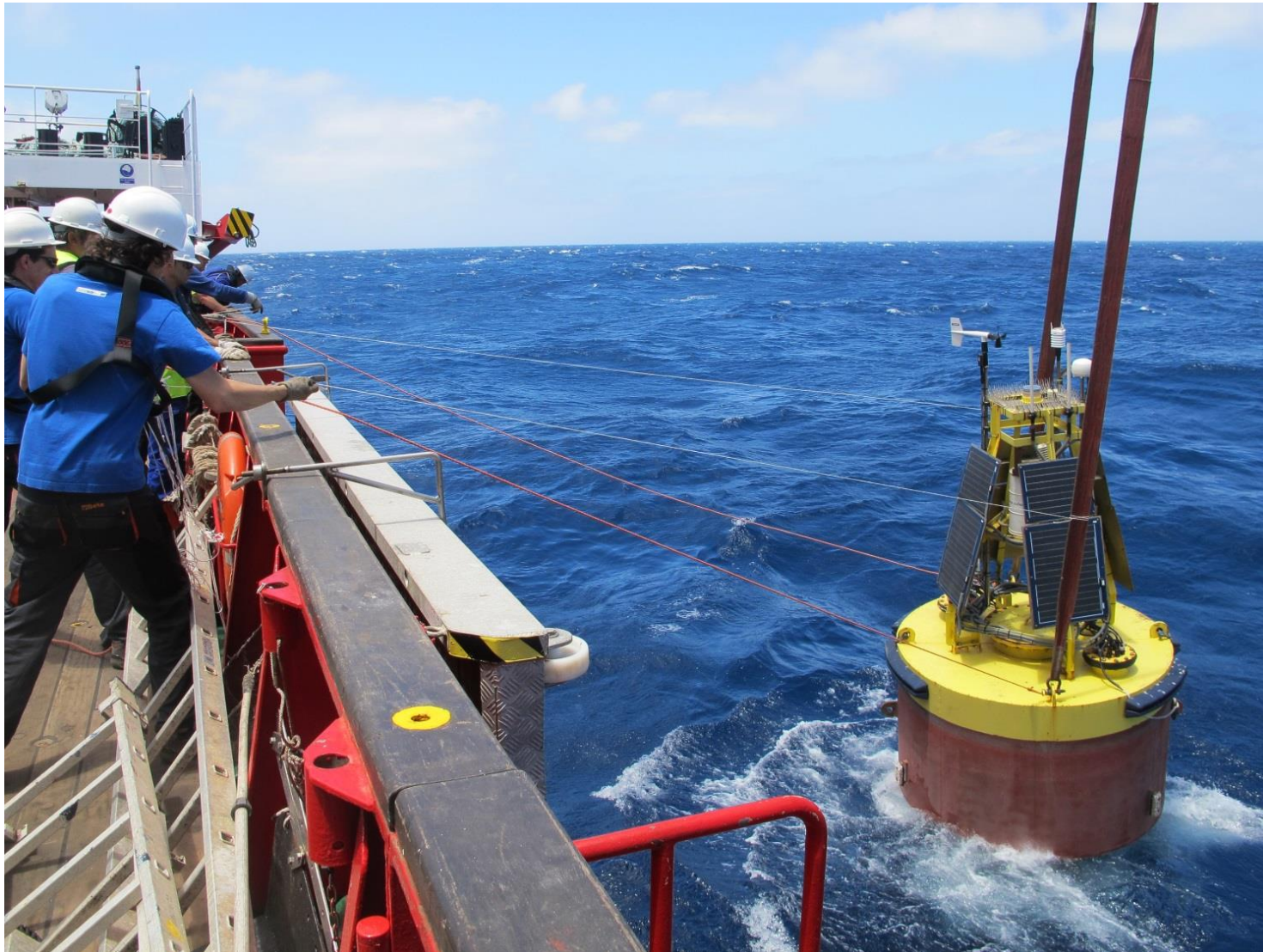


# R<sub>3</sub>M: LOCATIONS





# R<sub>3</sub>M: LOCATIONS



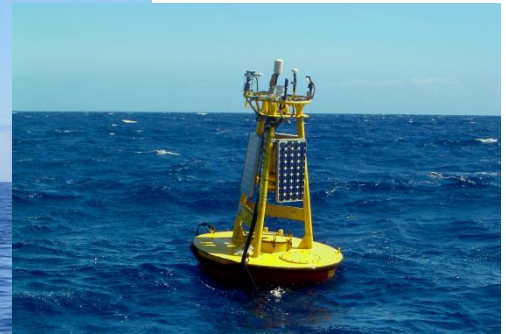


# R<sub>3</sub>M: LOCATIONS





# R<sub>3</sub>M: LOCATIONS





# R<sub>3</sub>M: LOCATIONS



PLOCAN



# OCEAN OBSERVING PLATFORMS





# OBSERVATIONS IN THE MACARONESIA



Estación Tafira

Estación Pico de la Gorra

**Datos actualizados a 9:50 del 05 de Abril de 2014**

## Datos Generales

Actualización	05/04/14
Temperatura	14.5°C
Humedad	85%
Punto de rocío	12.0°C
Viento	10 km/hr, del NE
Barómetro	1021.9mb (Rising Slowly)
Lluvia hoy	0.0mm
Lluvia promedio	0.0mm/hr
Tormenta total	0.0mm
Lluvia mensual	0.3mm
Lluvia anual	118.6mm
Sensación térmica	14.5°C
Índice THW	14.4°C
Índice de calor	14.4°C
UV	1.3 index
Radiación solar	390W/m <sup>2</sup>

## Máximas y mínimas del día

### Temperaturas

Máxima: 14.6°C a las 9:42  
Mínima: 12.2°C a las 5:18

### Humedad

Máxima: 87% a las 2:07  
Mínima: 73% a las 8:03

### Punto de rocío

Máxima: 12.2°C a las 9:32  
Mínima: 7.8°C a las 8:03

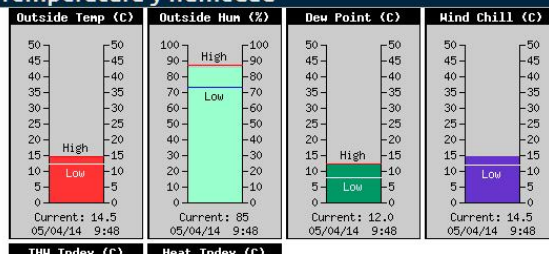
### Barómetro

Máxima: 1023.9 mb a las 0:00  
Mínima: 1020.7 mb a las 6:08

### Datos generales

Lluvia Máxima: 0.0 mm/hr a las ----  
Sensación térmica Mínima: 11.7°C a las 7:08  
Índice de calor Máxima: 14.4°C a las 9:23  
Índice UV Máxima: 1.3 index a las 9:46  
Radiación solar Máxima: 390 W/m<sup>2</sup> a las 9:48

## Temperatura y humedad





# OBSERVATIONS IN THE MACARONESIA

Puertos del Estado



Acceso usuarios



Bienvenido | Benvingut | Ongi etorri | Benvido | Welcome

[Inicio](#) | [Sala de prensa](#) | [Suscripciones](#) | [Sede Electrónica](#) | [Mapa Web](#) | [Contacto](#) |

[Inicio](#) >> [Información específica](#) >> [Oceanografía y meteorología](#) >> [Redes de Medida](#)

14:48:29 GMT | Regiones ▾

+

-

0

Satélite

Mapa

GOBIERNO DE ESPAÑA

MINISTERIO DE FOMENTO

Puertos del Estado

Imágenes ©2014 TerraMetrics | Términos de uso

Predicciones

☐ Oleaje Atlántico

☐ Oleaje Medit.

☐ Viento

☐ Nivel del Mar

☐ Corrientes

☐ Temp. del Agua

☐ Salinidad

Datos en Tiempo Real

☒ Oleaje

☒ Nivel del Mar

☐ Onda Larga

☐ Agitación

☒ Viento

☒ Presión Atm.

☒ Temp. del Agua

☒ Temp. del Aire

☐ Corrientes

☐ Salinidad

Datos Historicos

☐ Oleaje

☐ Viento

☐ Temp. del Agua

☐ Corrientes

☐ Salinidad



# OBSERVATIONS IN THE MACARONESIA

## CMMG

centro do clima, meteorologia e mudanças globais da universidade dos açores

União Europeia  
**FEDER**

Investimos no seu futuro

**ESTRAMAR**

CLIMAAT e CLIMACOST  
INTERREG I I I I I I  
Açores, Madeira e Canárias  
MAC / 2-3 / 4-5  
OS / MAC / 3-5 / 4-5  
OS / MAC / 2-3 / 4-5

**MacSimar**

PROGRAMA  
MAC 2007 - 2013  
Cooperação Transfronteiriça

**AZORES.GOV.PT**  
Governo dos Açores

coordenação: Eduardo B. de Azevedo

**PROJECTO**

**PARCEIROS / COLABORADORES**

**PRODUTOS CLIMAAT**

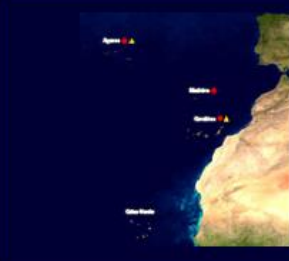

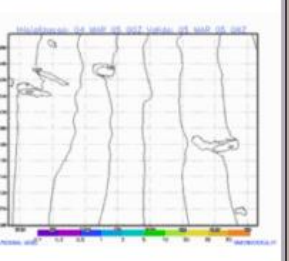
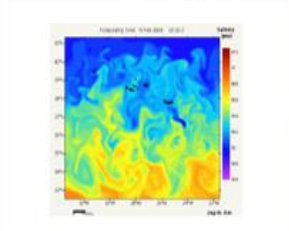
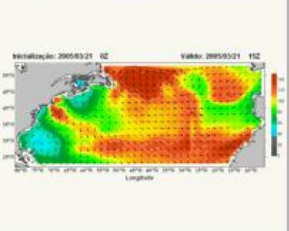

**DADOS ON - LINE**

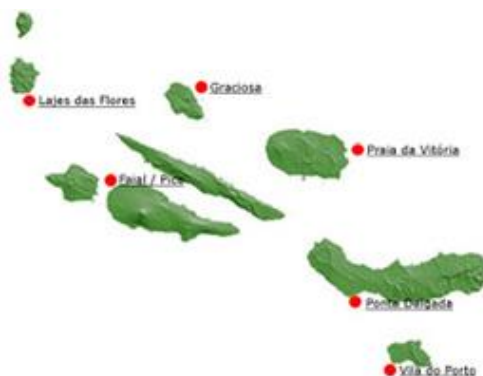
**EQUIPAMENTOS**

**COOPERAÇÃO**


**CONTACTOS**

**NOTÍCIAS e EVENTOS**

Portal da Agitação Marít. (Ondógrafo)	Estações Meteorológicas Automáticas	Previsão do Estado do Tempo
		
Previsão Oceanográfica	Previsão do Estado do Mar (Açores)	WeatherCams
		



**Praia da Vitória - Bóia Bond 1**



<b>Bóia:</b>	<b>Praia da Vitória</b>
<b>Posição:</b>	<b>38_45.04N/027_00.60W</b>
<b>Dia Hora Fuso 0(TU):</b>	<b>20-09-2013 5:40</b>
<b>Dia Hora Local:</b>	<b>20-09-2013 5:40</b>
<b>Altura Significativa (Hz):</b>	<b>0,81 m</b>
<b>Altura máxima (Hmax):</b>	<b>1,38 m</b>
<b>Período Médio:</b>	<b>5,8 s</b>
<b>Período Máximo Observado:</b>	<b>12,5 s</b>
<b>Período Onda de Altura Máx.:</b>	<b>10,9 s</b>
<b>Direcção da Agitação:</b>	<b>39 °</b>
<b>Temperatura da água à superfície:</b>	<b>21,3 °C</b>





# OBSERVATIONS IN THE MACARONESIA



- Loja do Navegante
- Página inicial
- O Instituto
- Contactos
- Qualidade
- Portefólio IH

Tradição automática:

Qual é a tua Onda? Wave & Surf forecast

Previsões disponíveis

**na Agitação marítima**

na agitação marítima  
Wave forecast  
[+ Ver mais](#)

**na Navegação de recreio**

na navegação de recreio  
Wave forecast for sailing  
[+ Ver mais](#)

**no Surf**

no surf para Portugal e Angola  
Wave & surf forecast for Portugal and Angola  
[+ Ver surf para Portugal](#)  
[+ Ver surf para Angola](#)

**na arte-xávega**

de Espinho à Praia da Vieira  
de Costa de Caparica ao Espichel

na "arte-xávega"  
Wave forecast for arte-xávega boats  
[+ Ver de Espinho à Praia da Vieira](#)  
[+ Ver da Costa de Caparica ao Espichel](#)

Rede de Bóias Ondógrafo

Bóia de **Leixões** Último registo: **2014-04-08 15:20 (UTC +1)** Hora Legal de Verão

Altura significativa	1.76 m	Latitude	41-19-00N
Altura máxima	2.8 m	Longitude	008-59-00W
Período médio	6.4 s	Profundidade	83 m
Período máximo	11.7 s		
Direcção média (de pico)	WNW		
Temperatura da água	14 °C		

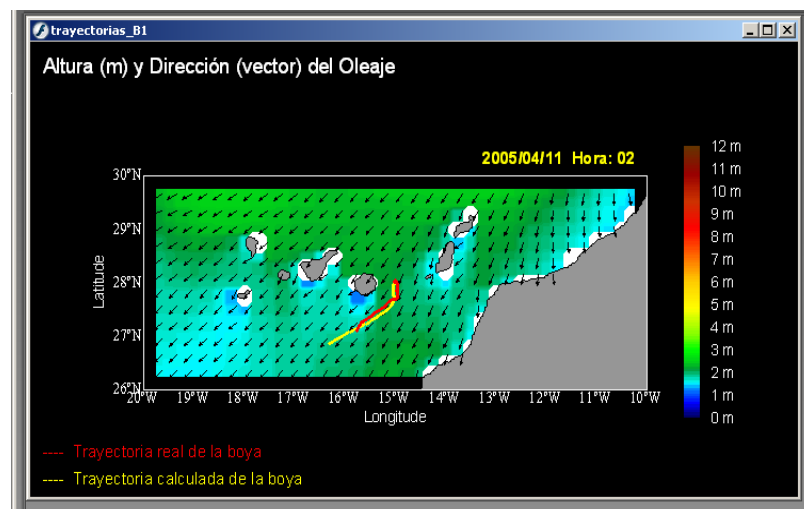
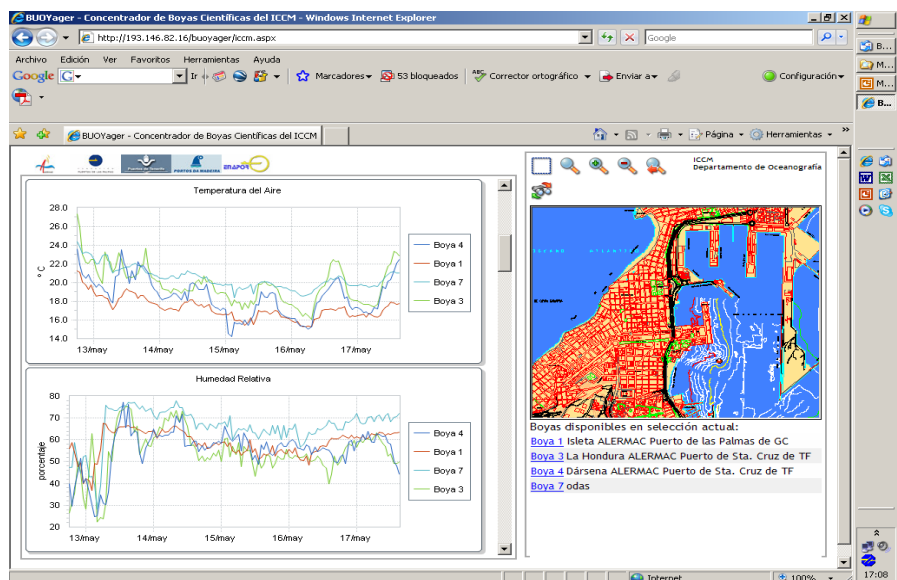
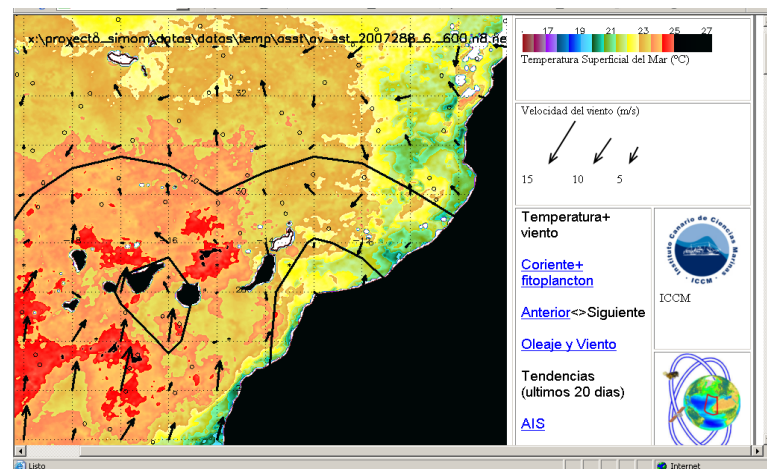
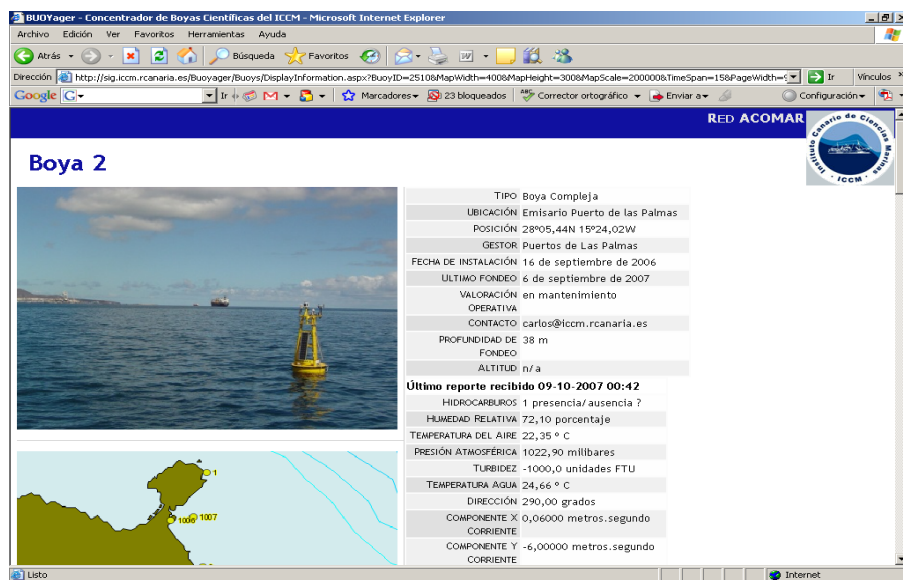
AAAA-MM-DD - Dados atualizados  
Data no servidor: 2014-04-08 15:44 +0100

Subscreva esta Feed:



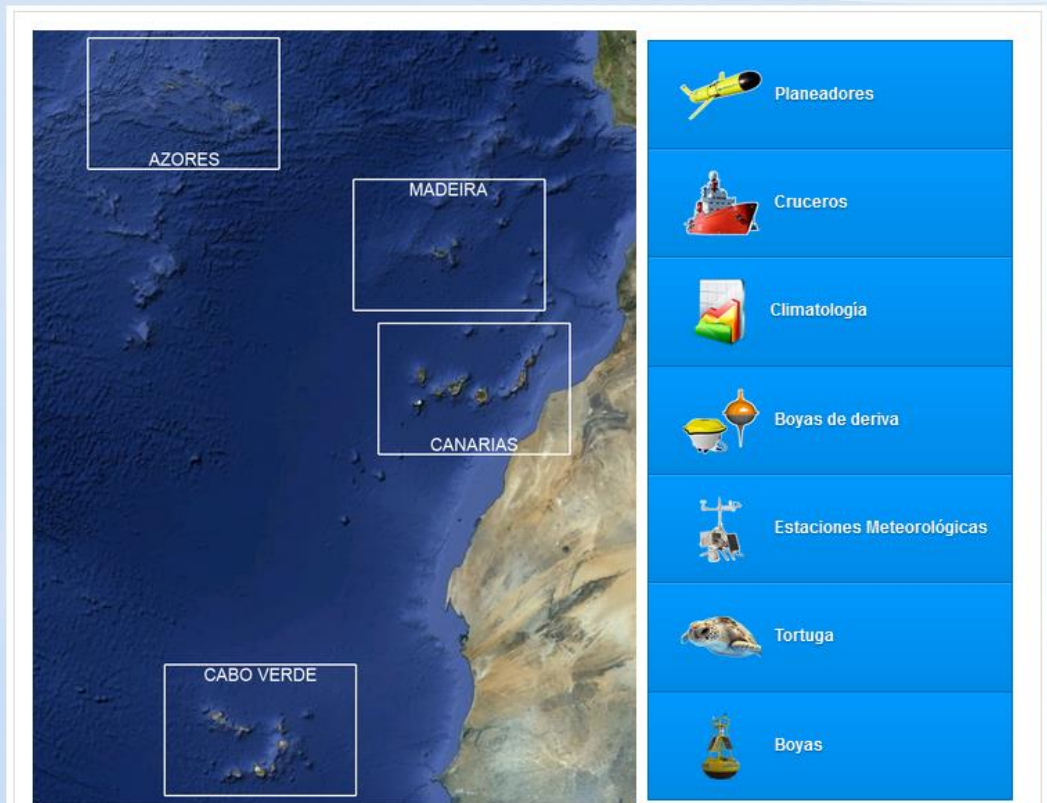


# R3M WEB PORTAL





# R3M WEB PORTAL

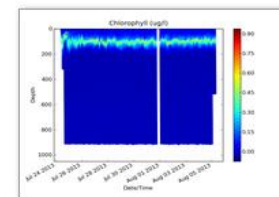
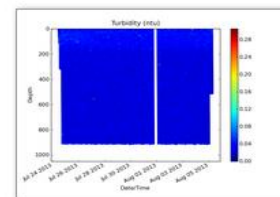
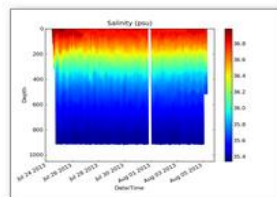
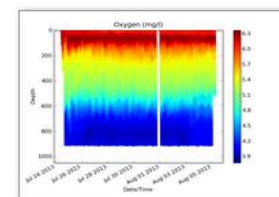
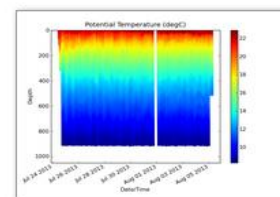
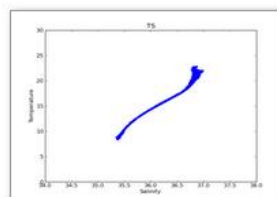
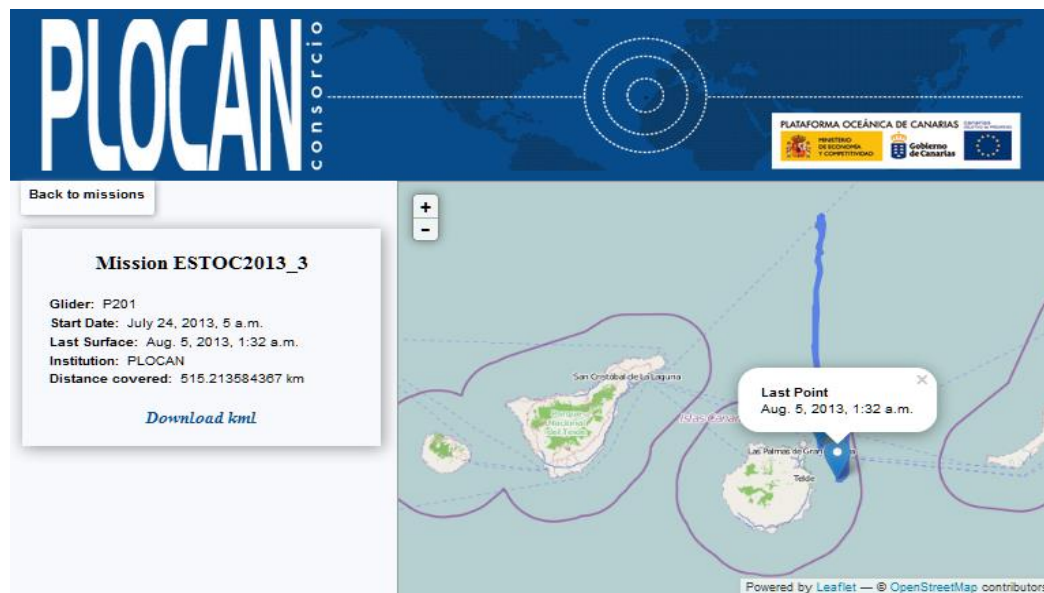
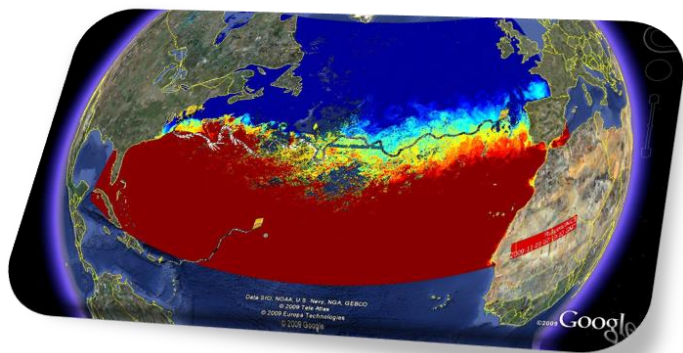
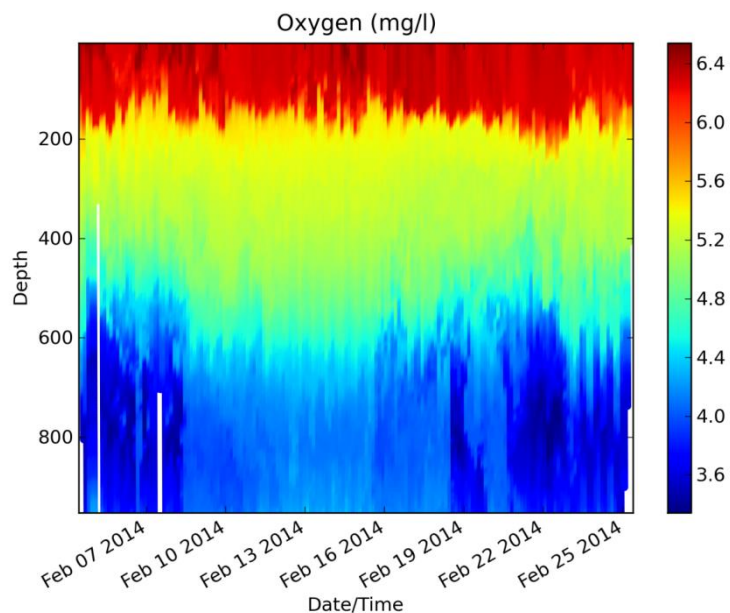


<http://r3m.estramar.eu>



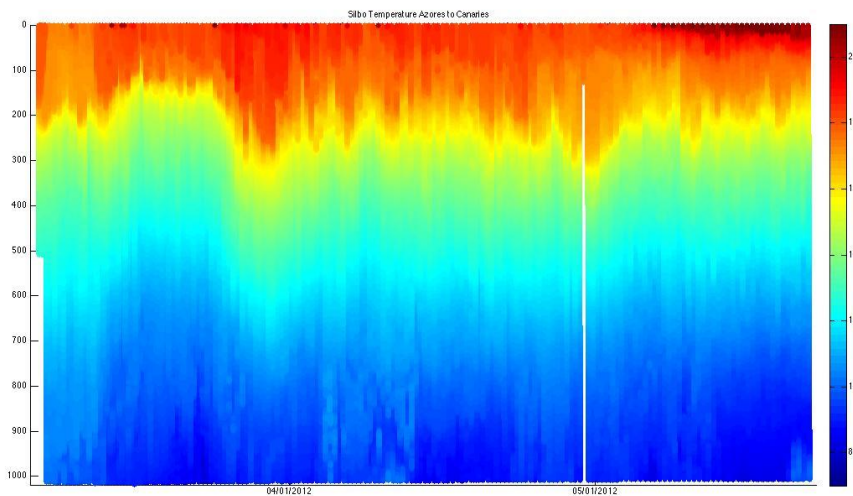
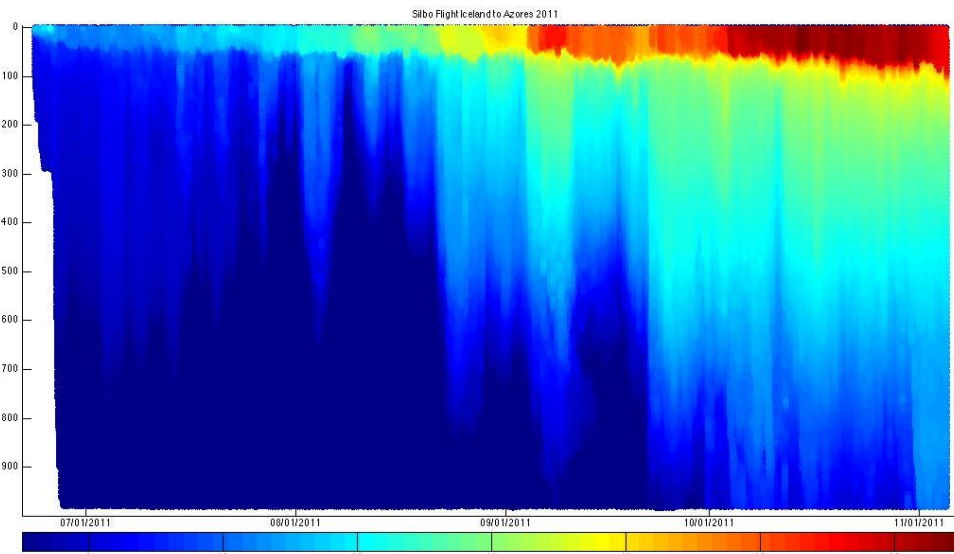
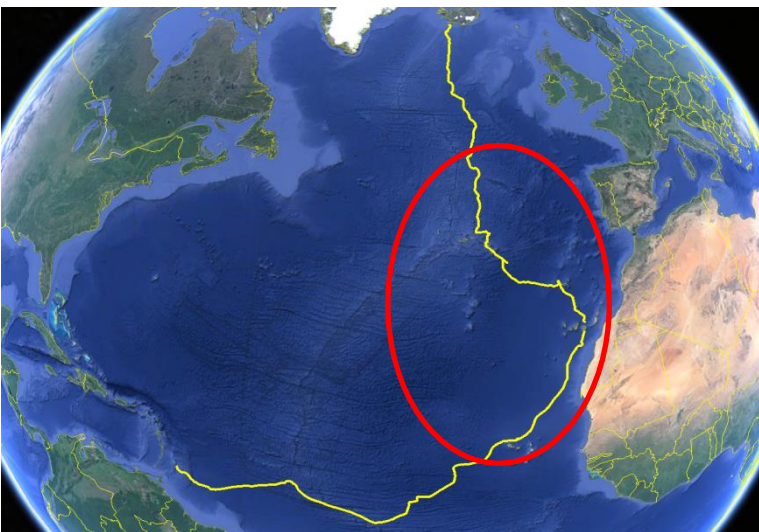


# R<sub>3</sub>M WEB PORTAL





# OCEAN OBSERVING PLATFORMS





**PLOCAN consorcio**

PLATAFORMA OCEÁNICA DE CANARIAS

GOBIERNO DE CANARIAS

EUROPEAN UNION

**Canarias - PLOCAN**

- Pico de La Gorra
- Tallarte
- Canteras
- Banco de ensayos
- Campus de Tafira
- La Garita
- PLOCAN
- ESTOC

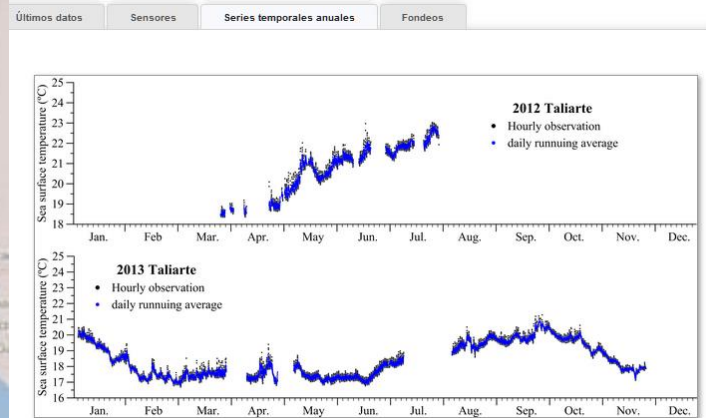
**Madeira - APRAM**

- Porto Santo
- Funchal
- Canical

**Cabo Verde - INDP**

- Mindelo

**Estaciones Meteorológicas AEMET (Canarias)**





# R3M WEB PORTAL

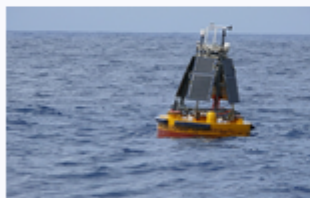


<http://siboy.plocan.eu/map>

Volver al mapa

## ESTOC

Institución: PLOCAN  
Localización: Canarias  
Coordenadas: 29.12 / -15.6  
Tipo: Boya ODAS  
Identificador del dispositivo: 35932  
Sistema de comunicación: ARGOS  
Frecuencia de comunicación: 1 hr (dim)  
Estado: Activo



Último registro:  
2014-06-26 21:10:00 GMT

Tension (V): 12.8  
Direcc. viento (grados): 107  
Velocidad Viento (m/s): 08.4  
Temp. Aire Valsala (C): 20.9  
Humedad relativa Valsala (%): 73.3  
Presion atmosferica Valsala (mBar): 1021.2  
Lluvia Acum (mm): 00  
Lluvia Instant (mm/h): 06.8  
pH: 08.0301  
Error pH: 00.0035  
Temperatura sensor pH (C): 21.499  
Salinidad sensor pH (psu): 36.6026  
Cuentas blanco CO2: 51557  
CO2 (uatm): 397.14  
Presion CO2 (mBar): 1047

Último registro:  
2014-06-26 22:20:00 GMT

Powered by Leaflet — Tiles © Esri — Source: [unintelligible]

Últimos datos

Sensores

Fondeos



Control WebSite



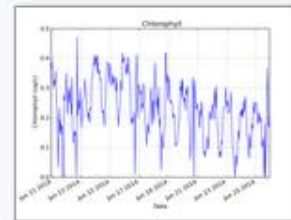
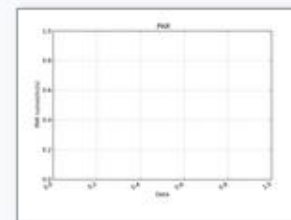
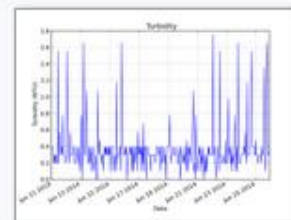
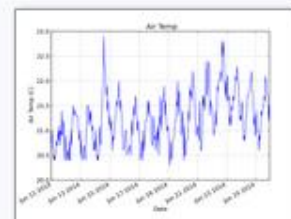
Real-Time Monitoring Site

Creación Fichero Web a las (hora Servidor): 2014-06-26 06:35:56.520112  
Creación Fichero Web a las (hora UTC): 2014-06-26 06:35:56.520143  
Última Trama Leída a las (hora UTC): 2014-06-26 06:29:50.746015

Los ficheros de las tramas recibidas se procesan periódicamente cada 5 minutos. Si la posición GPS es 0.0, la fecha y hora de la trama se monitorizan por la hora UTC del servidor.

Tasa en cuenta la diferencia horaria debido al horario de verano (UTC+1)

DETECTOR	Fecha y Hora Trama Recibida (UTC)	Cat	FFFF	ID_BOYA	Fecha	Hora (UTC)	Tension	Hidroxcarburo	Temp_Agua_1	Temp_Agua_2	Latitud_GPS	Longitud_GPS	WD corregido	WS m	WS young	WD young	Humedad	Temp_Air	Presion	Turbidez	Compas	Six	Six	Clerofita	Par	Conductividad	Oxígeno O <sub>2</sub>
GPS	2014-06-26 06:29:50.746045	09	65533	1019	2014-06-26	06:29:35	12.8	0.0	22.41	0.0	27.990075	-15.388893	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GPS	2014-06-26 06:27:50.652821	08	65535	581	2014-06-26	06:27:30	12.9	0.0	0.0	0.0	28.148282	-15.432233	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GPS	2014-06-26 06:17:50.287914	07	65535	581	2014-06-26	06:17:30	12.9	0.0	0.0	0.0	28.148284	-15.432157	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GPS	2014-06-26 06:11:50.051483	06	65535	1015	2009-02-15	00:03:04	12.6	0.0	24.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GPS	2014-06-26 06:09:49.895926	65	65533	1017	2014-06-26	06:07:54	12.8	1.0	46.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GPS	2014-06-26 06:07:49.881072	64	65533	351	2014-06-26	06:07:30	12.9	0.0	0.0	0.0	28.148312	-15.432167	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
GPS	2014-06-26 05:57:49.449152	63	65535	361	2014-06-26	05:57:31	12.9	0.0	0.0	0.0	28.148333	-15.432208	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	





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