

**13TH ERVO Meeting** 

**EUROPEAN RESEARCH VESSELS OPERATORS** 

## Oristano, Sarnidinia, Italy, May 10th-11th 2011



During the year 2010 the UTM-CSIC has operated as owner / operator, the technical management of Research Vessels García del Cid and Sarmiento de Gamboa, and achieved the technical and logistical support of the RV Hesperides, being two of them Large Scale Scientific Technology Facilities (ICT).

The marine operation has resulted in 542 days at sea, of which 89% are days of exploration in the Atlantic (Galicia Margin, Gulf of VIGO Cadiz, Canary Islands, South Atlantic, etc.), Mediterranean Sea (Tyrrhenian Balearic Islands), Weddell Sea (Antarctica), etc.

We have succeeded in supporting 32 research cruises of which

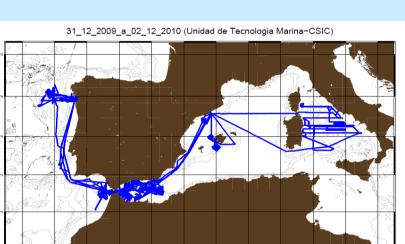
- 21 were from the National R & D Plan, of the Ministry of Science and Innovation, including a cruise for the last International Polar Year
- *3 cruises for European Union projects*
- 1 Consolider National Programme
- 1 project for the Xunta de Galicia
- 1 project for the Ministry of Foreign Affairs to the extension of the continental shelf
- 4 actions for commissioning and testing of scientific equipment, mainly seismic equipment and ROV's of Spanish Institute of Oceanography.



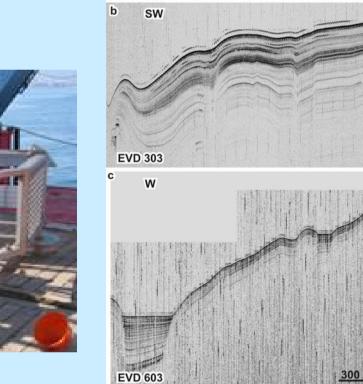
### **R/V Sarmiento de Gamboa**



**Ship Activity** days % over 365 162 Cruises 44.4 13.7 Test at sea (seismics + fish) 50 21.4 Harbour mob/demob 78 29 7.9 Transit Insatll/Maint. 46 12.6 365 TOTAL: 100

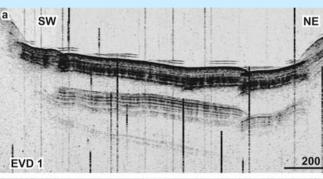


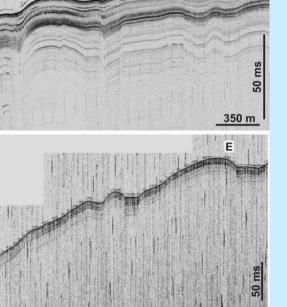
Sarmiento de Gamboa track during 2010



During the year 2010 the UTM-CSIC installed, tested and operated the new seismic scenario with a complete success. Also piston corer was implemented. The maximum length now is 7.5 m and will be increased to 15 m in the future.

One of the seismic compressors was installed on the engines room.



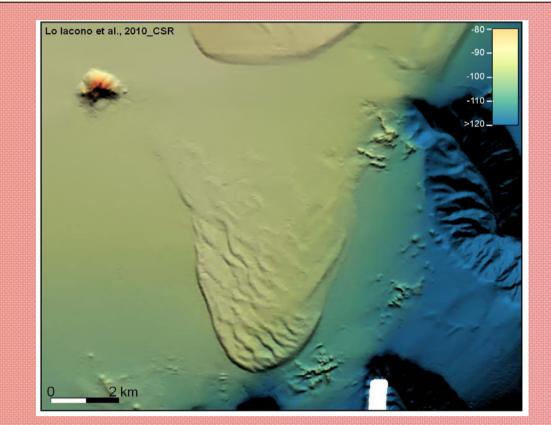


**ATLAS** Parasound parametric profiles across the Yussuf zone (a), the southern Alboran ridge zone (b) and the Adra basin zone (c). Faults reach up to the seafloor, confirming their present-day tectonic ac-EVENT tivity. Cruise

## **R/V García del Cid**



| Ship Activity       | Days | % over 208    |   |
|---------------------|------|---------------|---|
| Cruise days         | 112  | 52%           |   |
| Harbour + mob/demob | 73   | 34%           |   |
| Transit             | 20   | 9%            |   |
| Test                | 3    | 1%            |   |
|                     |      | JAGO operatio | n |



Multibeam image from R/V Garcia del Cid, ELAC Seabeam 1050D

During the year 2010 the B/O García del Cid was full contracted (7 months). Two cruises with JAGO submarine (IFM -GEOMAR) were carried in Cap de Creus and Menorca island within INDEMARES-LIFE EC project .



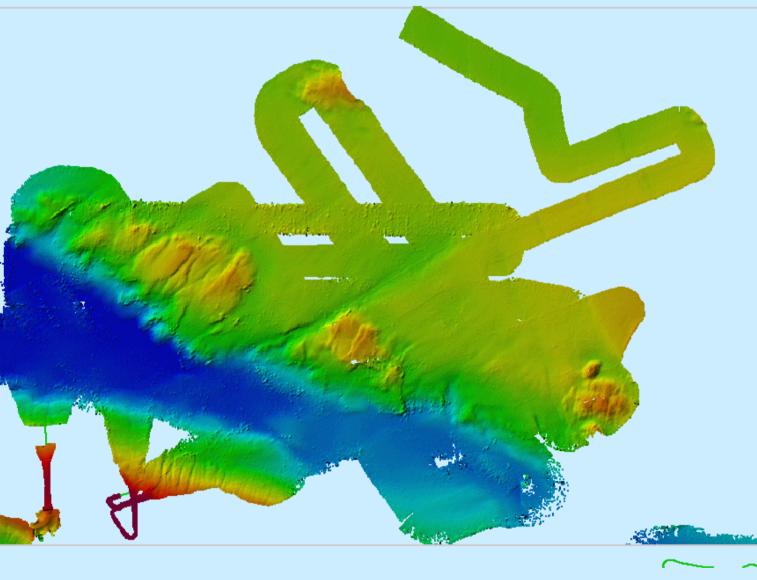
**OBSEA** 

Malaspina expedition started in Dec 15th 2010 R

GEOSTAR



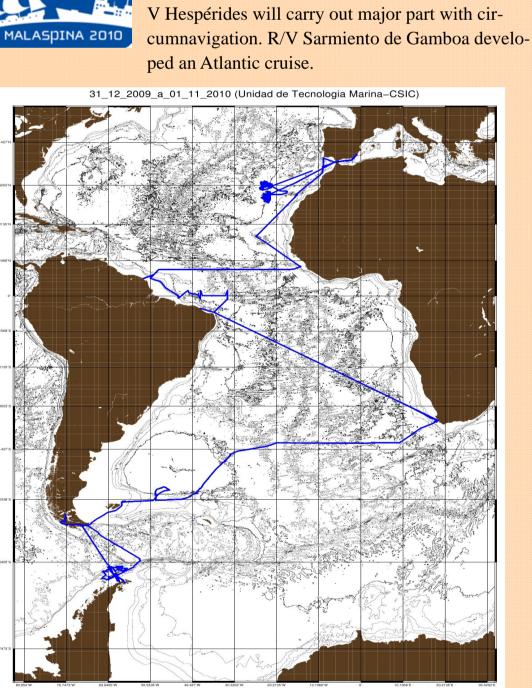
**MOVE Recovery. NIOZ Bartering agreement** 



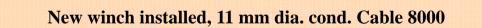
Bathymetric chart of the of the faulted Adra Ridge and Alboran Channel. ATLAS DS, EVENT Cruise

% over 365 Ship Activity days Cruise 38.9 142 Harbour+ mob/ 23 6.3 demob Transit 6 1.6 Enlistment 89 24.4 Test 2.7 10 Programmed Stop 17.8 65 EEZ cruise 30 8.2 Total 365 100.0

**R/V Hesperides** 



**R/V Hesperides 2010 track** 



**EEZ Extension cruise** 

#### **Porriño Facilities**



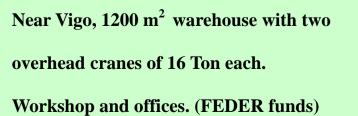
#### **New Equipment**







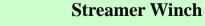
Antarctic stations services . With 105 days service and transportation of 108 researchers in 2009-2010





Air Guns structure (UTM)

New AUVs: image + side scan sonar (100 m) and water quality (200 m)









**Piston Corer on Hesperides** 

# **WWW.UTM.CSIC.ES**

Arturo Castellón arturoc@cmima.csic.es

Juan José Dañobeitia jjdanobeitia@cmima.csic.es

Luis Ansorena ansorena@cmima.csic.es



Pg. Maritim de la Barceloneta 37-49 08003 - Barcelona, Spain Tel. +34 93 230 95 00 Fax. +34 93 230 95 55 www.utm.csic.es

UNIDAD DE TECNOLOGÍA MARINA

