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N° : 751

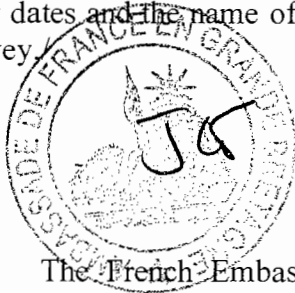
The French Embassy presents its compliments to the Foreign and Commonwealth Office, Protocol Division, and has the honour to forward to it an application for an authorization for the maritime scientific research ship "L'Atalante" of IFREMER, to operate in UK territorial waters (Celtic sea / Channel ; British Continental Shelf) from 03rd August 2009 to 13th September 2009.

This MOUTON 09/ERATO cruise was initially scheduled on the maritime scientific research ship "Pourquoi pas?" of IFREMER. Following the crash of Air France flight 447, the French government sent the ship "Pourquoi pas?" on the crash site. Consequently the MOUTON 09/ERATO cruise is now scheduled on the maritime scientific research ship "L'Atalante" and delayed by 4 days.

The aim of the research survey "MOUTON 09/ERATO" is to extend the ability of operational oceanic models from deep Ocean to coastal waters areas, to assess the environment associated to naval operations.

No harmful substances and explosives will be released. No drilling will be carried out. Data capture will be performed by sounding and in situ measurements.

The present note verbale is an update of the note n° 280 of the 16<sup>th</sup> March 2009, giving new dates and the name of a new maritime scientific research ship for the maritime research survey.



The French Embassy avails itself of this opportunity to express to Foreign and Commonwealth Office the assurance of its highest consideration.

London, 13 July 2009

Foreign and Commonwealth Office  
Protocol Division  
Old Admiralty Building  
Whitehall  
London SW1A 2AH

APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH  
IN AREAS UNDER NATIONAL JURISDICTION OF  
UNITED KINGDOM

Date : 2009, February 24<sup>th</sup>

Updated : 2009, July 07<sup>th</sup>

Updated : 2009, July 10<sup>th</sup>

**1 - GENERAL INFORMATION**

**1.1. Cruise name and/or number : MOUTON 09/ERATO on the research vessel  
N/O *L'Atalante***

This cruise was scheduled on R/V *Pourquoi pas ?* but the french government decided to send *Pourquoi pas ?* on the research of the french plane (flight AF 447) which is reported missing in the Atlantic ocean.

We have had to built a new scheduled for all the scientific cruises that's why MOUTON 09/ERATO cruise is now scheduled on R/V *L'Atalante*.

The initial large period for the realization is not changed but in 6.1, we have given more precision about the dates.

**1.2. Sponsoring institution :**

Name : Ifremer

Address : 155, rue Jean-Jacques Rousseau  
92138 Issy les Moulineaux - France

Phone : 33 (0)1.46.48.21.00

Fax : 33 (0)1.46.48.21.21

Director : Jean-Yves Perrot

**1.3. Scientist in charge of the project :**

Name : Morel Yves

Address : Centre Militaire d'Océanographie (site de Météo France)  
42 av Gaspard Coriolis, 31057 Toulouse, France

Phone : 33 5 61 43 35 25

Fax : 33 5 62 14 06 10

Email : [yves.morel@shom.fr](mailto:yves.morel@shom.fr)

**1.4. Scientist from United Kingdom involved in the planning of the project :**

None

**1.5. Submitting officer:**

Name : Jean-Xavier Castrec

Address : Ifremer Centre de Brest - Secteur Programmation Flotte  
B.P. 70 - 29280 Plouzané - France

Phone : 33 (0)2.98.22.44.53

Fax : 33 (0)2.98.22.44.55

Email : [jean.xavier.castrec@ifremer.fr](mailto:jean.xavier.castrec@ifremer.fr)

## **2 - DESCRIPTION OF THE PROJECT**

### **2.1. Nature and objectives of the project :**

The MOUTON research program (naval operations environment modeling), lead by SHOM, intends to extend the ability of operational oceanic models from deep ocean to coastal waters areas to assess the environment associated to naval operations.

The program validation requires the acquisition of data (in situ or by satellite) in order to establish comparisons between models and measurements.

In situ measurements being an essential part of the model validation process, several surveys were realized in 2004, 2005, 2006, 2007 and 2008. For 2009, the acquisition of new data is planned, in order to complete existing data bases, and to validate model results.

In 2004, 2005, surveys were mainly dedicated to measurements on the french continental shelf (Celtic sea and Landes shelf) and on the Portuguese continental slope.

In 2006, measurements were, done to improve internal tide propagation models between French and Spanish continental shelves.

In 2007 and 2008, measurements have been done in Iroise Sea and Channel during the first leg (may) and offshore Spain and Portugal during the second leg (august).

### **2.2. Relevant previous or future research cruises :**

MOUTON 2004 and 2005 : measurements on the french continental shelf (Celtic sea and Landes shelf) and on the Portuguese continental slope.

MOUTON 2006 : internal tide propagation study between French and Spanish continental shelves in july 2006.

MOUTON 2007 and 2008 : internal tide propagation study in shallow waters in Iroise Sea and Channel - internal tide propagation and upwelling on the west Portugal continental slope.

### **2.3. Previously published research data relating to the project :**

Internal SHOM reports have been published.

### 3 - METHODS AND MEANS TO BE USED

#### 3.1. Particular of vessel

Name : *L'Atalante*  
Nationality : French  
Owner : Ifremer  
Operator : Genavir  
Load displacement : 3 550 t  
Overall length : 84,60 m  
Maximum draught : 5,1 m  
Gross tonnage : 3 559 UMS  
Propulsion : Diesel electric  
Average operating cruising speed and survey speed: 11 knots  
Call sign : FNCM  
Method and capability of communication (including telex, frequencies) :  
**GSM** : 33.6.82.81.38.16 (bridge) - 06.82.81.37.89 (captain) -  
Fax : 33.6.29.36.97.41  
**Inmarsat** : Tel : 00.870.773.160.305 or 00.870.3.227.222.52 (std. auto)  
Fax : 00.870.783.180.644 (bridge) or 00.870.3.227.222.60  
**Vsat** : Tel : 33.2.29.00.85.70  
Fax : 33.2.29.00.85.71  
**Telex** : *Inmarsat C1* : 058x.4.227.222.14 - *Inmarsat C2* : 058x.3.227.222.15  
(Atlantic East : 0581 ; Atlantic West : 0584 ; Pacific : 0582 ; Indian ocean : 0583)  
**Email** : [AT.Commandant@atalante.ifremer.fr](mailto:AT.Commandant@atalante.ifremer.fr)  
**Email Telex C1** : [AtalanteC1@skyfile-c.com](mailto:AtalanteC1@skyfile-c.com)  
**Email Telex C2** : [AtalanteC2@skyfile-c.com](mailto:AtalanteC2@skyfile-c.com)  
Name of master : Thierry Alix  
Number of crew : 30  
Number of scientists on board : 33

#### 3.2. Aircraft or other craft to be used in the project :

No

### 3.3. Particulars of methods and scientific instruments :

Types of samples and data	Methods to be used	Instruments to be used
Bathymetry	Acoustical sounding	Multibeam echo sounder
Backscatter	Acoustical sounding	Multibeam echo sounder
Currents	In situ measurements	Vessel mounted ADCP, Lowered ADCP, currentmeters moorings. Drifting buoys and floaters.
conductivity, temperature	In situ measurements	CTD stations, Sea soar CTD tow fish, XBT – XCTD expandable probes.
Meteorological measurements	On board the ship	Wind and temperature sensors. Sea state observation.
Sunlight measurements	On board the ship	PAR sensor
Lighting measurements	Station measurements	Water reflectance sensor.
Chemical analysis	Water sampling	Chemical analysis of the samples
Biological analysis	Water sampling – In situ measurements	Fluorimeter – Transmissiometer – SPAR sensor – dissolved oxygen sensor – freezing for office analysis.
Geophysical measurements	Offshore	KSS31 gravimeter Towed SMMII magnetometer
	Onshore	Gravimètre portable Scintrex

### 3.4. Indicates whether harmful substances will be used :

NO

### 3.5. Indicate whether drilling will be carried out :

NO

### 3.6. Indicate whether explosives will be used :

NO

## 4 - INSTALLATIONS AND EQUIPMENTS

### Details of installations and equipments (dates of laying, servicing, recovery, exact locations and depth)

Date of start : August 2009, 03<sup>th</sup>

Date of end : September 2009, 13<sup>th</sup>

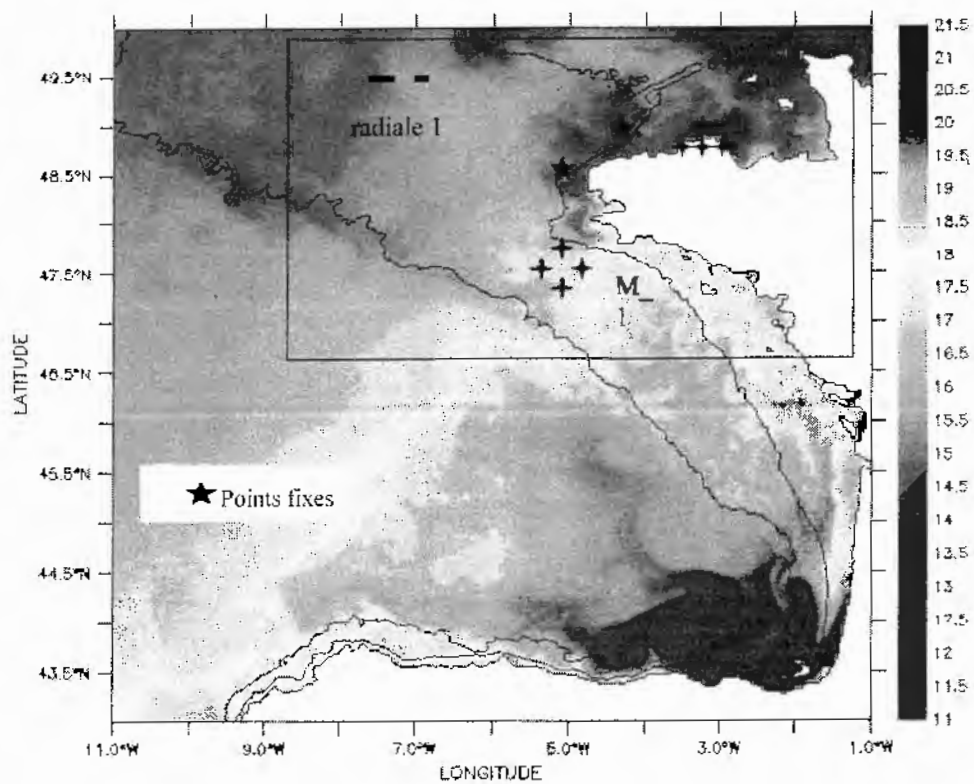
It is not planned to settle low frequency acoustical moorings during the cruise. Nevertheless, in case of emergency (pre-existent moorings line breaks or acoustical source failures), pre-existent moorings may be replaced.

## 5 - GEOGRAPHICAL AERAS

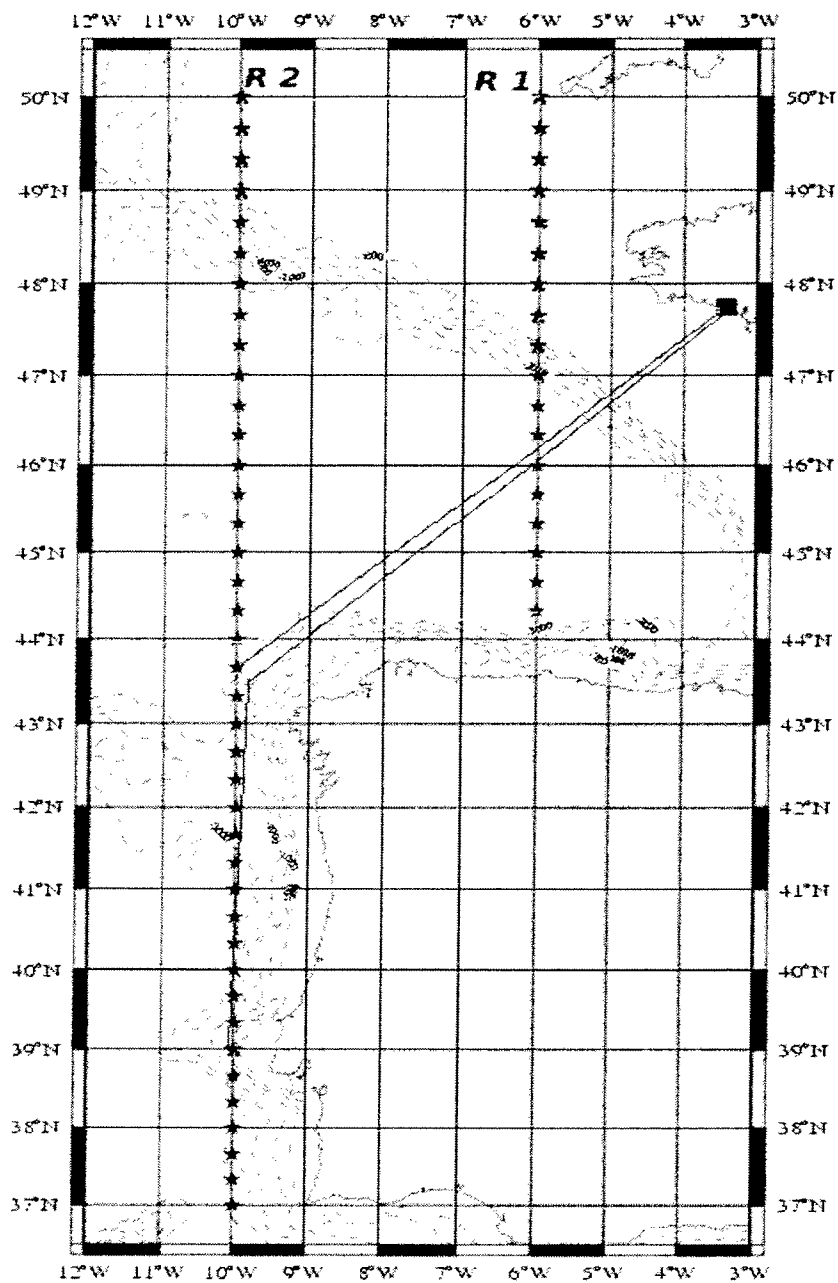
### 5.1. Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude) :

Celtic sea / Channel	47°N to 50°30'N and 9°W à 1°W
Spanish+Portuguese continental shelf (for information, outside UK waters)	39°N to 46°N and 005° W to 012°W
Plateau des Landes (for information, outside UK waters)	45°N to 49°N and 7°W to 1°W
British continental Shelf	48°N to 51°N and 004°W to 12°W

### 5.2. Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment :



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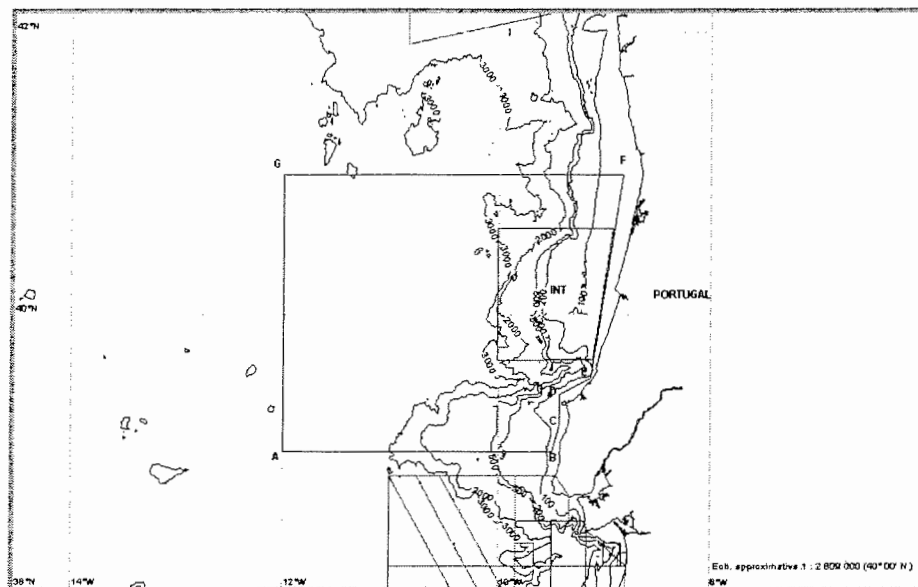


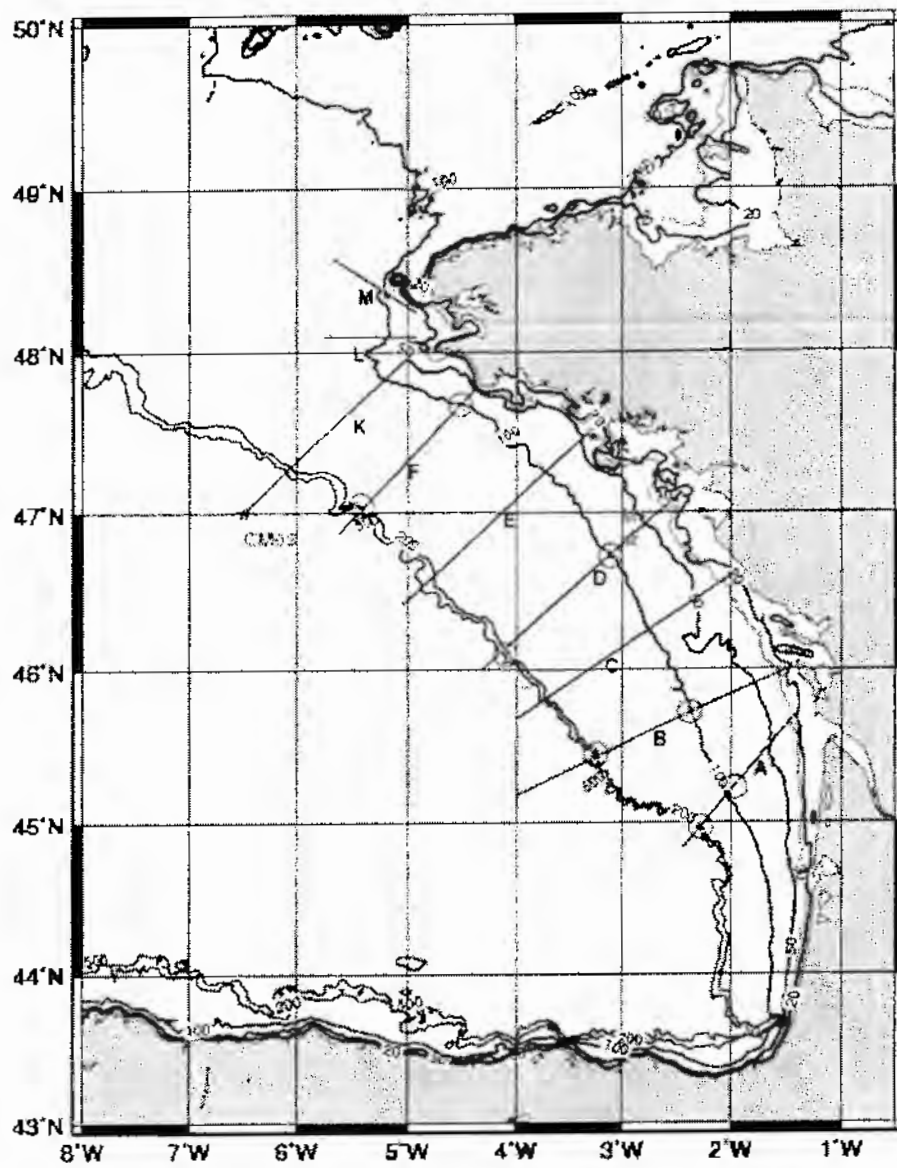
Survey area

Network of measures AXBT

Legend: Sounds AXBT in points (red stars and blue stars )







## **6 - DATES**

**6.1 Expected dates of first entry into and final departure from the research area of the research vessel :**

**entry**      date : 2009/08/03

**departure**      date : 2009/09/13

**6.2 Indicate if multiple entry is expected :**

Yes.

## **7 - PORTS CALLS**

**7.1. Dates and names of intended ports of call in United Kingdom .**

No call in United Kingdom harbour

**7.2. Any special logistical requirements at ports of call :**

**7.3. Name/Address/Telephone of shipping agent (if available)**

## **8 - PARTICIPATION**

**8.1. Extent of which United Kingdom will be enabled to participate or to be represented in the research project :**

An official representative will be allowed to come onboard during the cruise.

**8.2. Proposed dates and ports for embarkation/disembarkation :**

According to places and dates of stopover to be defined later.

## **9 - ACCESS TO DATA, SAMPLES AND RESEARCH RESULTS**

### **9.1. Expected dates of submission to United Kingdom of preliminary reports which should include the expected dates of submission of the final results :**

Cruise reports will be written in a 3 months period following the end of the survey and will be transmitted as soon as possible to the English authorities concerned by the project, by the survey unit in charge of the cruise.

### **9.2. Proposed means for access by United Kingdom to data and samples :**

Data and samples collected into the areas under national jurisdiction of United Kingdom will be made available not after 1 year after the end of the cruise, with the associated reports, on demand of the UK authorities.

### **9.3. Proposed means of making research internationally available :**

Papers in international scientific reviews and conferences.

# ANNEX

## List of the scientific team

The scientific team will be constituted of –at most- 30 scientists from SHOM and french public laboratories, whose name will be communicated later.

In complement to SHOM staff, Scientists from French or European laboratories may participate to the cruise, in the scope of partnerships between SHOM and these laboratories.

First name, Name	Country	Laboratory	Leg		
			1	2	3
Vincent Lamarre	France	SHOM/GOA	X		
Raymond Guillou	France	SHOM/GOA		X	X
Yves Morel	France	SHOM	X		X
Stéphanie Louazel	France	SHOM		X	
Yann Stephan	France	SHOM			X
Stéphane Beurret	France	SHOM			X
Cyril Lathuiliere	France	SHOM	X		
Observer portuguese	Portugal				X
Basile Kinda	Burkina Faso	ENSIETA			X
Nicolas Josso	France	GIPSA-LAB			X
Philippe Billand	France	ALTRAN			X
Lucia Pineau-Guillou	France	SHOM	X		
Séverine Mattio	France	SHOM	X	X	
Solenn Fercocq	France	SHOM	X	X	
Bernard Croguennoc	France	SHOM	X	X	
André Lusven	France	SHOM	X	X	
Florent Lyart	France	CNRS/LEGOS	X		
Gaëlle Herbert	France	CNRS/LEGOS	X		
Guillaume Charria	France	IFREMER		X	
Sébastien Thépaut	France	SHOM/GOA	X	X	X
Etienne Cordiez	France	SHOM/GOA	X	X	X
Laurent Riaud	France	SHOM/GOA	X	X	X
Siham Souak	France	SHOM/GOA	X	X	X
Thomas Fromont	France	SHOM/GOA	X	X	X
Ludivine Devaux	France	SHOM/GOA	X	X	X
Pierre Brevini	France	SHOM/GOA	X	X	X
Mikael Frémont	France	SHOM/GOA	X	X	X
Erwann Herpe	France	SHOM/GOA	X	X	X
Anthony Ben Lashène	France	SHOM/GOA	X	X	X
Cyril Lucia	France	SHOM/GOA	X	X	X
Thierry Kervarec	France	SHOM/GOA		X	X
Eric Le Coz	France	SHOM/GOA	X	X	
Claude Roche	France	SHOM/GOA			X

