

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

Date : 2007, december 17th

1 - GENERAL INFORMATION

1.1. Cruise name and/or number : MOUTON 2008 on the research vessel *Pourquoi pas ?*

1.2. Sponsoring institution :

Name : Ifremer
Address : 155, rue Jean-Jacques Rousseau
92138 Issy les Moulineaux
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 Toulon, France
Phone : 33 5 61 43 35 25 Fax : 33 5 62 14 06 10
Email : 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
Phone : 33 (0)2.98.22.44.53 Fax : 33 (0)2.98.22.44.55
Email : 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 and 2007. For 2008, 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, 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 : 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 : *Pourquoi pas ?*

Nationality: French

Owner : Ifremer

Opérateur : Genavir

Overall length : 107.6 m

Gross tonnage : 7854 UMS

Propulsion : Propulsion : Diesel electric, together with DP2 dynamic positioning allowing position holding and lane following.

Cruise speed : 11 Nds

Call sign : FMCY

Method and capability of communication (including telex, frequencies) :

- *Inmarsat Fleet 77* : 00-870-7-643-367-38 - *Fax* : 00-870-7-643367-50

- *Portable* : 06-85-7663-78 - *ou* 06-82-84-11-60

- *Telex Inmarsat C* : 058x-4-228-207-61 *ou* 058x-228-207-62

(*Codes: Atlantic Est* : 0581 - *Atlantic West* : 0584 - *Pacific* : 0582 -

Indian Ocean: 0581)

- *Email* : PP.Commandant@pourquoipas.ifremer.fr

Name of master : Philippe Guillemet

Number of crew : 18 to 33

Number of scientists on board : 40

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

None

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 2008, 11th

Date of end : October 2008, 4th

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	36°N to 44°30'N
continental shelf	and
(for information, outside UK	12°W à 8°W
waters)	
Plateau des Landes	43°15'N to 46°N
(for information, outside UK	and
waters)	001°20'W to 006°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 :

(see attached chart)

6 - DATES

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

entry date : August 11th 2008

departure date : October 4th 2008

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 .

Dates and places of stopover are not defined yet and will be communicated later.

7.2. Any special logistical requirements at ports of call :

Water and fuel replenishment, telephone, food supply.
Requirements letters defining the accurate needs will be written later before the cruise.

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 partenerships between SHOM and these laboratories.

Survey area : Channel and Iroise sea.

