

Annex A
Camp gns 06/11

INTERNATIONAL AFFAIRS / SURVEY / BNS BELGICA / UK EZ and TTW/ 29/05 - 29/06 / 06.

1. A. Participating naval unit: BNS BELGICA (A 962)
B. Ship's characteristics: length 51m / beam 10m / draught 4.6m / masthead height 3.6m / Displacement 1200 T
2. Waters to be passed: UK TTW (Working area between 46 N and 51N, and 4 W : id 12 W)
3. Waters :
A. Entrance UK EZ : 28 May AM near DOVER
B. Leaving UK EZ : 29 Jun AM near DOVER
4. Anchorage in UK TW: In case of adverse weather or technical problems
5. Visit to harbour (harbour / period / character): nihil
6. Commanding officer: LTCDR Lieven GOUSSAERT (Sep 03)
7. Crew:
A. Total crew: 30
B. Officers: 2
C. Crew: 13
D. Civilian scientists: 15
8. Reason for visit: nil
Reason for stay in EZ : MONITORING / SAMPLING - WATER AND BOTTOM/ DEEPWATER VIDEO RECORDINGS WITH ROV
9. Communication requirements :
A.1. Frequencies: 2461K3, 4158K8, 6239K0, 8330k4
A.2. Frequencies: 2072k1, 4113k9, 8752k2
B.1. Transmission mode: F1B
B.2. Transmission mode: J3E
C. Effective output: 400 Watt
D. International call sign: OSCAR ROMEO GOLF QUEBEC
E. Receiver station: OSN
10. Organic aircraft: nil
11. Logistic requirements: nil
12. Summary of survey: See para 9 of NPRC (annexe B)

NOTIFICATION OF PROPOSED RESEARCH CRUISE

GENERAL ORGANISATION PART A

- 01 Name of research ship : **BELGIC A** Cruise N° : **2006/11**
- 02 Dates of cruise : From **29 May** to **10 June 2006**
- 03 Operation authority **Belgian Navy under contract for Belgian Ministry of Science Policy
Management Unit of the North Sea
Mathematical Model "M.U.M.M.",
3° & 23° Linleregimentsplein, 8400 Oostende
Telephone 32(0)59 70 01 31, Facsimile : 32(0)59
70 49 35
Email : bmmost@mumm.ac.be**
- 04 Owner **Belgian state represented by Minister for Science Policy**
- 05 Particulars of ship
- | | |
|-----------------|---------------------------|
| Name | Belgica |
| Nationality | Belgian |
| Overall length | 51 meters |
| Maximum draught | 4,5 meters |
| Net tonnage | 232 NRT |
| Propulsion | Diesel |
| Call sign | ORGQ |
| Telephone | INMAR 00870 76 218 |
| | SAT 73 27 |
| Facsimile | INMAR 00870 32 052 |
| | SAT 18 12 |
| E-mail | belgica@mumm.ac.be |
- 06 Crew
- Name of master **L. GOUSSAERT,**
LTZ 1st Class
- Number of crew **15**
- 07 Scientific personnel
- Name and address of scientist in charge

Prof. Lei Chou
Université Libre de Bruxelles
Laboratoire d'Océanographie Chimique et
Géochimie des Eaux
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Boulevard du Triomphe
B-1050 Bruxelles, BELGIUM
Tel : +32-2-650 52 37, Fax : +32-2-650 52 11, e-
mail : lei.chou@ulb.ac.be

Number of 15
scientists :

*(a nominal roll of all personnel other than nationals of the applicant
(flag) state is required)*

- 08 Geographical area in which ship will operate (with reference in latitude
and longitude).

French, UK and Irish continental Shelf and slope

Between 46°N – 51°N, 2°W – 12°W

- 09 Brief description of purpose of cruise

**The PEACE project takes place in the framework of the program
"Science for a sustainable development" theme Climate and
atmosphere' 1st call, of the Belgian Federal Science Policy Office.**

**The overall objective of the PEACE project is to evaluate the role in
climate regulation of calcification, primary production and export
processes during coccolithophoroid blooms. We will use a
transdisciplinary approach that combines process-oriented field
investigations with laboratory experiments and modelling tools.**

- 10 Port of Call. Dates. Reasons.

Zeebrugg	29/05	Start of campaign 11a
e		
Brest	03/06 (pm) -	Relaxation of crew and scientists
	05/06 (am)	
Brest	05/06 (am)	Start of campaign 11b
Brest	10/06 (pm) -	End of campaign, disembarkation of
	(12/06)	scientists and relaxation of crew Belgica

- 11 Any special logistic requirements at ports of call (other
than water, fuel provisions, etc.)

N.A.

NOTIFICATION OF PROPOSED RESEARCH CRUISE

DETAIL PART B

01 Name of research **BELGICA** Cruise N° **2006/11**
ship :

02 Dates of cruise : **11a** from **29 May** to **10 June 2006**
in

03 Purpose of research and general methods.

(If the research work is being taken on behalf of a research institution of a third state, it is the responsibility of that state to obtain prior permission; it is essential that written confirmation that this has been done is obtained and quoted in this application)

The overall objective of the **PEACE** project is to evaluate the role in climate regulation of calcification, primary production and export processes during coccolithophorid blooms. We will use a transdisciplinary approach that combines process-oriented field investigations with laboratory experiments and modelling tools. Specific objectives are

- 1) to study the net ecosystem dynamics during coccolithophorid blooms,
- 2) to unravel the link between the bacterial community, grazing, TEP dynamics, carbon export and DMS cycling during coccolithophorid blooms,
- 3) to assess the effects of ocean acidification on coccolithophorid metabolism and TEP production, and
- 4) to model coccolithophorid dynamics and their impact on ocean dissolved inorganic carbon (DIC) chemistry.

(Project Internet Site: <http://www.ulg.ac.be/oceanblo/co2/peace/>)

04 Attach chart(s) showing (on an appropriate scale) the geographical area of the intended work, positions of intended stations, tracks of survey lines, positions of moored / seabed equipment.

See chart in annex

05 Types of samples required, e.g. Geological / Water / Plankton / Fish / Radioactivity / Isotope

water ; sediment ; suspended matter ; plankton

and methods by which samples will be obtained (including dredging/coring/drilling).

**Niskin & Go-FLO bottles, in situ measurements (SCTD, ...); Van Veen grab, Reineck corer, multicorer B&C, NIOZ box corer; net-
toxic sea water circuit and on board centrifuge; plankton net;
underway measurements**

06 Details of moored equipment : **N.A.**

Dates		Description	Latitude	Longitude
Laying	Recovery			

07 Explosives : **N.A.**

- | | |
|--|-----------------------------|
| (a) Type and Trade Name | (b) chemical content |
| (c) Depth of trade class and stowage | (d) Size |
| (e) Depth of detonation | (f) Frequency of detonation |
| (g) Position in longitude and latitude | (h) Dates of detonation |

08 Details and reference of

(a) any relevant previous/future cruises

CCCC BELGICA 2002/11 : 22.04.2002 – 11.05.2002

CCCC BELGICA 2003/12 : 28.04.2003 - 16.05.2003

CCCC BELGICA 2004/13 : 01.06.2004 - 17.06.2004

(b any previous published research data relating to the proposed cruise
) (attach separate sheet if necessary)

See Annex 1

- 09 Names and addresses of scientist of the coastal state in whose waters the proposed cruise takes place with whom previous contact has been made.

Prof. Patrick Buat-Ménard, University de Bordeaux I Département de Géologie et d'Océanographie, Av. des Facultés, F-33405 Talence Cédex, France

Prof. Peter Liss, University of East Anglia, School of Environmental Sciences Norwich NR4 7TJ UK

Dr. Daniel Cossa, IFREMER, DEL/PC, BP 21105, F-44311 NANTES Cedex 03, France

- 10 State :

- (a whether visits to the ship in port by scientists of the coastal state concerned will be acceptable
YES

- (b whether it will be acceptable to carry on board an observer from the coastal state for any part of the cruise and dates and ports of embarkation / disembarkation

YES, cfr. part A § 10

- (c when research data from intended cruise is likely to be made available to the coastal state and if so by what means. (If the final report is likely to be delayed beyond 12 months, interim progress reports are required.

- Cruise report available within 2 months by request to the chief scientist

- see 8b above

NOTIFICATION OF PROPOSED RESEARCH CRUISE

SCIENTIFIC
EQUIPMENT
PART C

COASTAL STATE : UNITED KINGDOM

Complete the following table - separate page for each coastal state:
Indicate "Yes or
No"

LIST SCIENTIFIC WORK BY FUNCTION	Water column n includi ng sedim ent sampli ng of the seabe d	Fisheri es resea rch within fishing limits	Resear ch concern ing the natural resourc es of the contine ntal shelf or its physical charact eristics	Distance from coast		(CONTIN ENTAL SHELF WORK ONLY) BEYOND 200 NM UT WITHIN THE CONTINE NTAL MARGIN
				WITHIN 12 NMS	BETW EEN 12-200 NMS	
e.g. Magnetometry : Gravity Diving : Seismics: Bathymetry seabed sampling Trawling Echo sounding : Water sampling UW TV : Moored Instruments: towed instruments:						
Niskin and Go Flo bottles	Yes	No	No	Yes	Yes	Yes
in situ measurements with SCTD-system	Yes	No	No	Yes	Yes	Yes
In-situ pumping of water at various depths	Yes	No	No	Yes	Yes	Yes
Plankton net	Yes	No	No	Yes	Yes	Yes
Van Veen grab	Yes	No	No	Yes	Yes	Yes
Reineck corer	Yes	No	No	Yes	Yes	Yes

Multicorer B & C	Yes	No	No	Yes	Yes	es
NIOZ box corer	Yes	No	No	Yes	Yes	es
vessel's non toxic sea water intake and on board centrifuge	Yes	No	No	Yes	Yes	es
continuous measurements	Yes	No	No	Yes	Yes	es

Belgica campaign 06/11a-b : Chart

The provisional transects are indicated by the blue lines. The exact positions of the stations along each transect will be determined later depending on the remote sensing data received before and during the cruise.

