

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. *NAME OF RESEARCH SHIP* RV Pelagia *CRUISE NO.* MOMAP-2
2. *DATES OF CRUISE* From: 08/07/2003 To: 21/07/2003
- 3a *OPERATING AUTHORITY* Royal Netherlands Institute for Sea Research (NIOZ)
Telephone: +31 (0) 222 369300
Facsimile: +31 (0) 222 319674
- 3b *OPERATING AGENT* Royal Netherlands Institute for Sea Research (NIOZ)
Telephone: +31 (0) 222 369300
Facsimile: +31 (0) 222 319674
Fleet operations Manager: Th. C.J. Buisman
4. *OWNER* Royal Netherlands Institute for Sea Research (NIOZ)
Post Box 59, 1790 AB Den Burg, Texel, The Netherlands
5. *PARTICULARS OF SHIP*
- | | |
|-------------------------|--|
| <i>NAME:</i> | Pelagia |
| <i>NATIONALITY:</i> | Netherlands (Dutch flag) |
| <i>OVERALL LENGTH:</i> | 66.00 metres |
| <i>MAXIMUM DRAUGHT:</i> | 4.00 metres |
| <i>GROSS TONNAGE:</i> | 1615 |
| <i>PROPULSION:</i> | 2 diesel electric Elliot White Gill
Bow Truster |
| <i>CALL SIGN:</i> | P G R Q |
6. *CREW*
- | | |
|------------------------|---------------------|
| <i>NAME OF MASTER:</i> | J.H. Groot/J. Ellen |
| <i>NO. OF CREW:</i> | 10 |
7. *SCIENTIFIC PERSONNEL*
- | | |
|---|--|
| <i>NAME AND ADDRESS OF SCIENTIST IN CHARGE:</i> | Dr. C. Brussaard,
Dept. Biological Oceanography,
Institute for Sea Research (NIOZ),
P.O. Box 59,
1790 AB Den Burg,
Texel,
The Netherlands. |
| <i>TELEPHONE:</i> | +31 222 369300/513 |
| <i>FAX:</i> | +31 222 319674 |
| <i>EMAIL:</i> | corina.brussaard@nioz.nl |
8. *GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE*
(with reference to latitude and longitude)
North Sea 50deg N to 61deg N; 04deg E to 09deg W (see attached chart in Annex 1)
9. *BRIEF DESCRIPTION OF PURPOSE OF CRUISE*
The cruise program is part of a fundamental study of cell mortality of phytoplankton in ecosystems with contrasting trophic status. There are two cruises planned for the North Sea, of which the first one was executed last year. The second cruise is planned for Summer 2003 and will cover the Summer situation (in contrast to the cruise of 2002 that covered the Spring situation).

Focus during the cruise will be on the role of viral lysis of unicellular algae. The importance of this form of cell mortality will be assessed for a summer situation, when essential nutrients are only present in very low abundances and the water column is likely stratified; /

A few of the stations will be comparable to last year. On the main stations a drifting buoy will be released, to allow us to study for 24-32 hours the same water mass. Depth profiles will be studied for phytoplankton, bacteria, viruses, nutrients and various growth and loss factors. At the end of the specific station, the buoy will be retrieved from the water.

The program is funded by the Netherlands Organisation for Scientific Research (NWO) and the NIOZ.

10. *DATES AND NAMES OF INTENDED PORTS OF CALL*

None

11. *ANY SPECIAL REQUIREMENTS AT PORTS OF CALL*

N/A

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PART B: DETAIL

1. *NAME OF RESEARCH SHIP* RV Pelagia *CRUISE NO.* MOMAP-2

2. *DATES OF CRUISE* From: 08/07/2003 To: 21/07/2003

3. *PURPOSE OF RESEARCH AND GENERAL OPERATIONAL METHODS*

Time series measurements of variables in the water column during our stay on several stations and main stations (near a drifting buoy)

4. *ATTACH CHART*

(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, areas to be fished)

The goal is to study growth and especially mortality rates of natural phytoplankton during a summer situation in the North Sea. At least a few of the main stations examined during last year's cruise will be examined also during this year's cruise, representing Oysterground/Doggerbank water and Central North Sea water (54:42N, 4:40E and 55:50N, 2:36E). Furthermore, main stations to represent Northern North Sea water (appr. 59N, 0E), Skagerrak water (appr. 58N8E) will be sampled. N-Atlantic water will be sampled at appr. 60:30N, 4W). Along the transect between the station, water may be sampled but no drift stations will be employed.

Considering the results of the cruise of 2002, sampling may even take place in the coastal zone of the coastal state. Depending on the time and the weather, extra stations might be added in the Southern North Sea. Some stations are also planned within the exclusive economical zone (EEZ) of the Netherlands.

5. a) *TYPES OF SAMPLES REQUIRED*

(e.g. Geological/Water/Plankton/Fish/Radionuclide)

Water samples for nutrients and plankton. Continuous registration of hydrographic parameters (temperature, salinity, fluorescence and turbidity) in the surface waters.

Note: no benthic sampling or seismic survey will be performed.

b) *METHODS OF OBTAINING SAMPLES*

(e.g. dredging/coring/drilling/fishing, etc.)

(When using fishing gear, indicate fish stocks being worked, quantity of each species required, quantify of fish to be retained on board)

Continuous registration: Aquaflow pump system of the ship

Perhaps occasional registration using Scan Fish

Water column sampling: CTD rosette sampler and water box

6. *DETAILS OF MOORED EQUIPMENT*

DATES: None

<u>Laying</u>	<u>Recovery</u>	<u>Description</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
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7. *ANY HAZARDOUS MATERIALS*

(Chemicals, Explosives, Gases, Radioactive etc)
(use separate sheet, if necessary)

None

- a) *TYPE AND TRADE NAME*
- b) *CHEMICAL CONTENT (& FORMULA)*
- c) *IMO IMDG CODE REFERENCE & UN. NO.*
- d) *QUANTITY & METHOD OF STOWAGE ON BOARD*
- e) *IF EXPLOSIVES GIVE DATE(S) OF DETONATION* None
 - *Method of detonation*
 - *Position of detonation*
 - *Frequency of detonation*
 - *Depth of detonation*
 - *Size of explosive charge in Kgs*

8. *DETAIL & REFERENCE OF*

a) *ANY RELEVANT PREVIOUS/FUTURE CRUISES*

There was a cruise executed during Spring 2002 to the North Sea, as part of the same project.

b) *ANY PREVIOUSLY PUBLISHED DATA RELATING TO THE PROPOSED CRUISE*

See Reference list Annex 2

9. *NAMES AND ADDRESSES OF SCIENTISTS OF THE COASTAL STATE(S) IN WHOSE WATERS THE PROPOSED CRUISE TAKES PLACE WITH WHOM PREVIOUS CONTACT HAS BEEN MADE*

Dr. W. Wilson, Mar. Biol. Ass., The Laboratory, Citadel Hill, Plymouth, PL1 2PB, UK

Prof. G. Bratbak, Univ. Bergen, Jahebakken 5, N5020-Bergen, Norway

Dr. U. Bathman, Alfred Wegener Institut, PO Box 120161, D-27570 Bremerhaven, Germany

Prof. C. Lancelot, GMMA, Univ. Brussels, Campus de la Plaine, CP 221, Boulevard du Triomphe, B-1050 Brussels, Belgium

10. STATE

a) *WHETHER VISITS TO THE SHIP IN PORT BY SCIENTISTS OF THE COASTAL STATE CONCERNED WILL BE ACCEPTABLE*

Yes

b) *PARTICIPATION OF AN OBSERVER FROM THE COASTAL STATE FOR ANY PART OF THE CRUISE TOGETHER WITH THE DATES AND PORTS FOR EMBARKATION/DISEMBARKATION*

Would be acceptable but, as it stands now, we will have full filling of the ship.

c) *WHEN RESEARCH DATA FROM THE INTENDED CRUISE IS LIKELY TO BE MADE AVAILABLE TO THE COASTAL STATE AND BY WHAT MEANS*

The data evaluation will be performed by NIOZ. The NIOZ will maintain the program data base, through which the data will be accessible for participants of the program at any time. The final data set will be available to the funding agency, ICES, and to the public at the end of the project and in the form of scientific publications in international journals.

PART C: SCIENTIFIC EQUIPMENT

COASTAL STATE: United Kingdom

PORT CALL:

DATES:

11. COMPLETE THE FOLLOWING TABLE - SEPARATE PAGE FOR EACH COASTAL STATE
(indicate "Yes" or "No")

MARINE SCIENTIFIC EQUIPMENT USED	WATER DEPTH (m)	FISHERIES RESEARCH	DISTANCE OF RESEARCH TO COAST IN NAUTICAL MILES <3	DISTANCE FROM COAST		
				3-12	12-50	50-200
CTD rosette	all	No	Yes	Yes	Yes	Yes
Aquaflow pump	5m	No	Yes	Yes	Yes	Yes
Plankton net	all	No	Yes	Yes	Yes	Yes
Multinets	all	No	Yes	Yes	Yes	Yes

(On behalf of the Principal Scientist)

Dated

N.B. IF ANY DETAILS ARE MATERIALLY CHANGED REGARDING DATES/AREA OF OPERATION AFTER THIS FORM HAS BEEN SUBMITTED, THE COASTAL STATE AUTHORITIES MUST BE NOTIFIED IMMEDIATELY.