NOTIFICATION OF PROPOSED RESEARCH

PART A : GENERAL

1. NAME OF RESEARCH SHIP: *TRIDENS* CRUISE NO: wk. 26-29/14

2. DATES OF CRUISE FROM *23-06-2014* TO *18-7-2014*

3. OPERATING AUTHORITY

*J.W. Groen*
*Head of Department Midden*
*Rijkswaterstaat Dienst Noordzee / RijksRederij*
*Visitors adress: Lange Kleiweg 34, 2288 GK Rijswijk*
*Postal adress: Postbus 5807, 2280 HV Rijswijk*

TELEPHONE *+31 - 70 - 3366 303* TELEX

FACSIMILE E-MAIl Wim.Groen@rws.nl

4. OWNER
(If different from Para 3)

5. PARTICULARS OF SHIP

| | | |
|---|---|---|
| NAME | *TRIDENS* | |
| NATIONALITY | *Dutch* | |
| OVERALL LENGTH | *73,5* | METRES |
| MAXIMUM DRAUGHT | *5,20* | METRES |
| NETT TONNAGE | *659* | |
| POPULSION | DIESEL | |
| CALL SIGN | *PBVO* | |
| REGISTRATION PORT & NUMBER (if registered fishing vessel) | | |

6. CREW

| | |
|---|---|
| NAME OF MASTER | *K. Reichgeld* |
| NUMBER OF CREW | *15* |

7. SCIENTIFIC PERSONNEL

| | |
|---|---|
| NAME AND ADDRESS OF SCIENTIST IN CHARGE | *S.M.M. Fässler*<br>*IMARES (formely "Netherlands Inst. For Fish. Research)*<br>*P.O. Box 68, IJmuiden* |
| TEL/FAX NO | *0317-480900/0317-487074* |
| NO: OF SCIENTISTS | 5 |

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference in Latitude & Longitude)
*52°00 - 62°00 N and 004°30 W - 008°30 E*

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE: *North Sea hydro acoustic survey for herring and sprat*

10. DATES AND NAMES OF INTEND PORTS OF CALL: *Aberdeen:*
*28-06-2014 - 30-06-2014*

*Aberdeen:*
*05-07-2014 - 07-07-2014*
*Newcastle:*
*12-07-2014 - 14-07-2014*

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL: *None*

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART B : GENERAL

1. NAME OF RESEARCH SHIP: *TRIDENS* CRUISE NO: wk. 26-29/14

2. DATES OF CRUISE FROM *23-06-2013* TO *18-7-2013*

3. a) PURPOSE OF RESEARCH *To carry out an hydro acoustic survey defining the abundance of herring and sprat in the North Sea, in co-operation with the institutes of Norway, Scotland, Denmark and Germany. Calibration of the echosounder in a sheltered area, preferably in Scapa Flow, Orkneys 58°56'71 N - 003°00'57 W, Loch Eriboll 58°30N - 4°41W, or Stavanger fjord 59°05N - 005°36.*

b) GENERAL OPRATIONAL METHODS (including full description of any fishing geartrawl type, mesh size etc:)
*A pelagic trawl (2000 meshes), fitted out with an inner codend of 20 mm meshes, will be used for identifying the traces.*

*For the calibration the ship has to be anchored in a sheltered location, and the 38 kHz transducer will be calibrated with the aid of a small copper sphere that is lowered below the keel of the ship. For the calibration of a second 38 kHz- and a 200 kHz transducer which is build in a towed body, the towed body (2,5 x 1 m; 300 kg; stainless steel) has be lowered a few meters below the surface. The entire operation will take approximately 8 hours. A CTD profile will be taken at the calibration site. No fishing will be conducted, and no other electronic instruments than echosounder with the normal 38 kHz, 120 kHz and 200 kHZ transducer and the CTD will be operated.*

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: *Chart included.*

5. a) TYPES OF SAMPLES REQUIRED eg Geological/Water/Plankton/Fish/Radionuclide:

*Samples of pelagic fishes for biological research will be retained on board. CTD profiles.*

b) METHODS OF OBTAINING SAMPLES (eg dredging/coring/drilling/fishing etc) (When using fishing gear indicate fish stocks being worked, quantity of each species require, quantity of fish to be retained on board)

*Samples of pelagic fishes will be collected by fishing*
*CTD profiles will be taken by lowering a CTD probe as deep as 5 m above the bottom.*

6. DETAILS OF MOORED EQUIPMENT: *none*

| DATES | | | | | |
|---|---|---|---|---|---|
| Laying | Recovery | Description | Depth | Latitude | Longitude |

7. ANY HAZERDOUS MATERIAL: (Chemicals/Explosives/Gases/Raioactive etc)

(Use separate sheet if necessary) *none*

a) TYPE AND TRADE NAME

b) CHEMICAL CONTENT (& Formula)

c) IMO IMDG CODE Reference & UN Number

d) QUANTITY & METHOD OF STOWAGE ON BOARD

e) IF EXPLOSIVES give date(s) of detonation

- 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:

*From 24-06-96 to 19-07-96: North Sea hydro acoustic survey*
*From 16-06-97 to 18-07-97: North Sea hydro acoustic survey*
*From 22-06-98 to 17-07-98: North Sea hydro acoustic survey*
*From 21-06-99 to 16-07-99: North Sea hydro acoustic survey*
*From 19-06-00 to 14-07-00: North Sea hydro acoustic survey*
*From 25-06-01 to 20-07-01: North Sea hydro acoustic survey*
*From 24-06-02 to 19-07-02: North Sea hydro acoustic survey*
*From 28-06-04 to 21-07-04: North Sea hydro acoustic survey*
*From 27-06-05 to 22-07-05: North Sea hydro acoustic survey*
*From 26-06-06 to 21-07-06: North Sea hydro acoustic survey*
*From 25-06-07 to 20-07-07: North Sea hydro acoustic survey*
*From 23-06-08 to 17-07-08: North Sea hydro acoustic survey*
*From 29-06-09 to 24-07-09: North Sea hydro acoustic survey*
*From 23-06-10 to 28-07-10: North Sea hydro acoustic survey*
*From 27-06-11 to 22-07-11: North Sea hydro acoustic survey*
*From 25-06-12 to 20-07-12: North Sea hydro acoustic survey*
*From 24-06-13 to 19-07-13: North Sea hydro acoustic survey*

b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE:

*See reports of ICES expert group PGHERS (till 2008)*
*PGIPS (2009)*
*WGIPS (2010 onwards)*

*http://www.ices.dk/workinggroups/ViewWorkingGroup.aspx?ID=429*

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:

*Reidar Toresen, Inst. of Mar. Res., PO Box 1870 Nordnes, N-5024 Bergen, Norway*

*Phil Copland, FRS Mar. Lab., PO Box 101, Victoria Road, AB11 9DB Aberdeen, Scotland*

*Jens Ulleweit, Institut für Seefischerei (ISH) Bundesforschungsanstalt für Fischerei, Palmaille 9, D-22767 Hamburg, Germany*

*Karl-Johan Staehr, Danish Institute for Fisheries Research (DTU Aqua - former DIFRES), North Sea Centre, P.O.Box 101, DK-9850 Hirtshals, Denmark*

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 STATEFOR ANY PART OF THE CRUISE TOGETHER WITH THE DATES AND THE PORTS FOR EMBARKATION/DISEMBARKATION

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

***Survey report as annex in the ICES expert group report: http://www.ices.dk/workinggroups/ViewWorkingGroup.aspx?ID=429***

PART C: SCIENTIFIC EQUIPMENT

COMPLETE THE FOLLOWING TABLE -
SEPERATE PAGE FOR EACH COASTAL STATE

COASTAL STATE *United Kingdom/ Scotland /*

PORT CALL *Aberdeen & Newcastle*

DATES 23 June/18 July 2014

INDICATE "YES" OR "NO"

| LIST SCIENTIFIC WORK BY FUNCTION<br><br>eg:<br>MAGNETOMETRY :<br>GRAVITY<br>DIVING :<br>SEISMICS :<br>BATHYMETRY<br>SEABED SAMPLING<br>TRAWLING<br>ECHO SOUNDING :<br>WATER SAMPLING<br>U/W T.V. :<br>MOORED INSTRUMENTS :<br>TOWED INSTRUMENTS | WATER COLUMN INCLUDING SEDIMENT SAMPLING OF THE SEABED | FISHERIES RESEARCH WITHIN FISHING LIMITS | RESEARCH CONCERNING THE NATURAL RESOURCES OF THE CONTINENTAL SHELF OR ITS PHYSICAL CHARACTERISTICS | DISTANCE FROM COAST | | |
|---|---|---|---|---|---|---|
| | | | | WITHIN 12 NMS | BETWEEN 12-200 NM | (CONTINENTAL SHELF WORK ONLY)<br><br>BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN |
| | *YES* | *YES* | *NO* | *YES* | *YES* | *YES* |

*L. Cornelissen*
(On behalf ~~of the Principal Scientist~~)
I/o Birgitta Clement

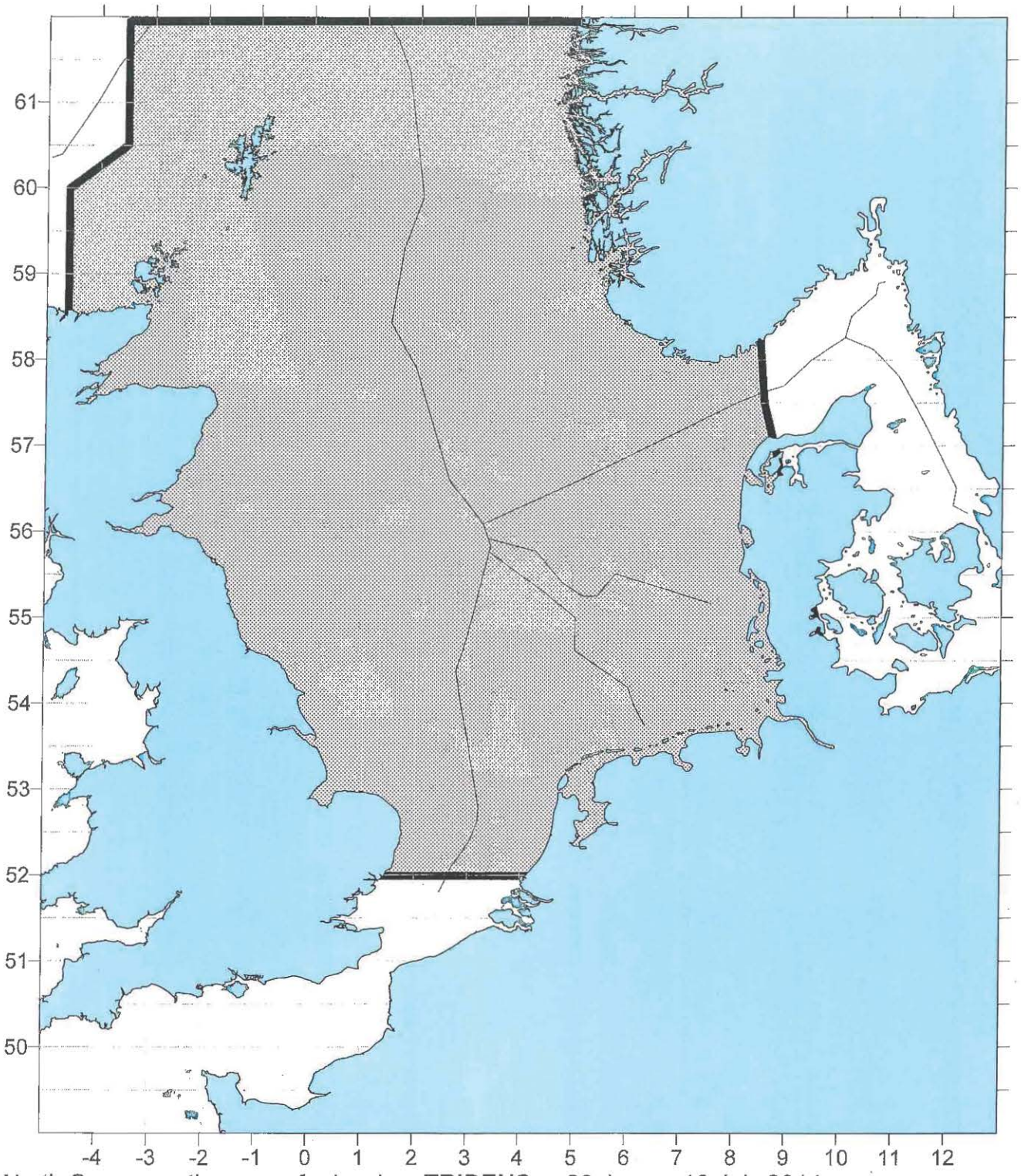
Dated *29 April 2014*

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

Calibration of SIMRAD EK-60 echo sounder on board RV "Tridens"

In June/July 2014 the RV Tridens will participate in the annual international herring acoustic survey in the North Sea. During this survey, the transducers of the SIMRAD EK-60 has to be calibrated, in order to make sure that the results of Tridens are comparable to those of other research vessels.

Calibration of this equipment, according to the manufacturer, has to take place in a sheltered area without currents, with water of about the same temperature and salinity as the water in the survey area, and a minimum depth of about 25 meters.
The calibration of the Tridens acoustic system is scheduled in week 26 (24 June - 28 June 2013) in Kristiansand, Norway. However, the procedure may have to be conducted at another site, preferably in Scapa Flow, Scotland, UK another time during the survey depending on weather conditions.
The ship has to be anchored in a sheltered location, and the hull-mounted 38 kHz transducer will be calibrated with the aid of a small copper sphere that is lowered below the keel of the ship. For the calibration of a second 38 kHz transducer, the 200 kHz and a 333 kHz transducer which are build in a towed body, the towed body (2,5 x 1 m; 300 kg; stainless steel) has be lowered at the site a few meters below the surface. The entire operation will take approximately 6 hours. A CTD profile will be taken at the calibration site. No fishing will be conducted, and no other electronic instruments than the echosounder with the normal 38 KHz and 200 kHz transducers and the CTD will be operated.




North Sea acoustic survey for herring, TRIDENS 23 June – 18 July 2014
The outer border of the survey area is indicated in black.