

UK.

NOTIFICATION OF PROPOSED RESEARCH

PART A : GENERAL

1. NAME OF RESEARCH SHIP: TRIDENS CRUISE NO: wk. 26-29/15

2. DATES OF CRUISE FROM 22-06-2015 TO 17-7-2015

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
IMARES (formely "Netherlands Inst. For Fish.
Research)
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:
27-06-2015 - 29-06-2015
Aberdeen:
04-07-2015 - 06-07-2015
Newcastle:
11-07-2015 - 13-07-2015

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 *22-06-2015* TO *17-7-2015*
3. a) PURPOSE OF RESEARCH *To carry out an hydro acoustic survey monitoring the pelagic ecosystem and estimating 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 OPERATIONAL 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 all the EK80 echosounder transducers (18,38,70,120,200,333 kHz) and ME70 multibeam echosounder (operating from 70-120 kHz) will be calibrated with the aid of small copper spheres that are lowered below the keel of the ship. For the calibration the drop keel housing the echosounder transducers will be lowered ~3 meters below the ship keel. The entire operation will take approximately 16 hours. A CTD profile will be taken at the calibration site. No fishing will be conducted, and no other electronic instruments other than the acoustic system 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

<u>Laying</u>	<u>Recovery</u>	<u>Description</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
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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

PART C: SCIENTIFIC EQUIPMENT

COASTAL STATE *United Kingdom/
Scotland /*

COMPLETE THE FOLLOWING TABLE -
SEPERATE PAGE FOR EACH COASTAL STATE

PORT CALL *Aberdeen & Newcastle*

DATES *22 June/17 July 2015*

INDICATE "YES" OR "NO"

<u>LIST SCIENTIFIC WORK BY FUNCTION</u>				<u>DISTANCE FROM COAST</u>		
				<u>WITHIN 12 NMS</u>	<u>BETWEEN 12-200 NM</u>	<u>(CONTINENTAL SHELF WORK ONLY) BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN</u>
eg: MAGNETOMETRY : GRAVITY DIVING : SEISMICS : BATHYMETRY SEABED SAMPLING TRAWLING ECHO SOUNDING : WATER SAMPLING U/W T.V. : MOORED INSTRUMENTS : 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			
	<i>YES</i>	<i>YES</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>	<i>YES</i>

L. Cornelissen
(On behalf to the Principal Scientist)



Dated *12 January 2015*

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.

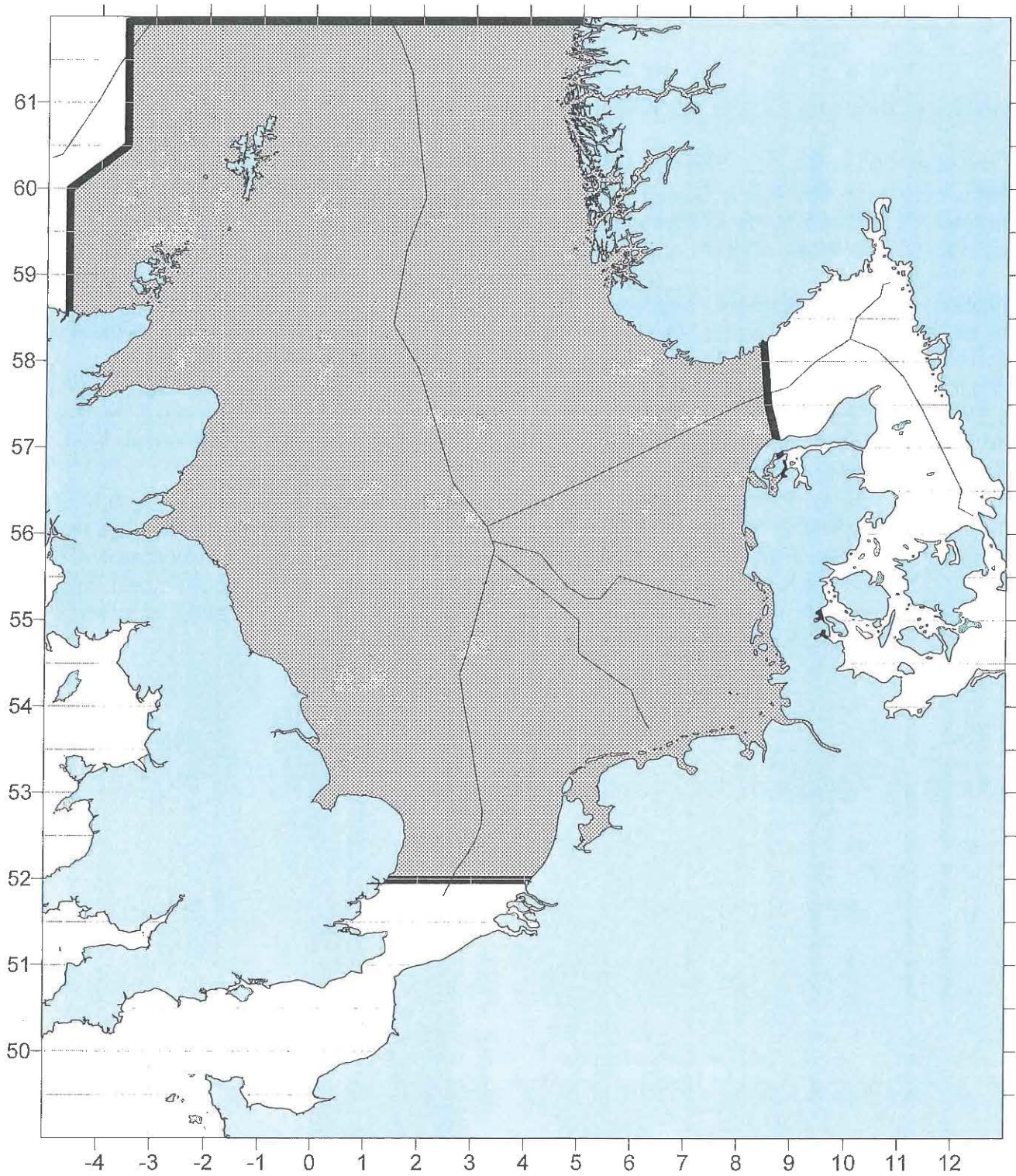
Calibration of SIMRAD EK and ME echosounders on board RV "Tridens"

In June/July 2015 the RV Tridens will participate in the annual international herring acoustic survey in the North Sea. During this survey, the transducers of the SIMRAD EK80 and ME70 have 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 (22 June - 26 June 2015) in Scapa Flow, Scotland, UK. However, the procedure may have to be conducted at another site (for example in Loch Eriboll, Scotland, UK) or another time during the survey depending on weather conditions.

The ship has to be anchored in a sheltered location, and the transducers in the drop keel will be calibrated with the aid of small tungsten carbide spheres that are lowered below the drop keel of the ship. For the calibration The entire operation will take approximately 16 hours. A CTD profile will be taken at the calibration site. No fishing will be conducted, and no other electronic instruments than the echosounders transducers (operating at several frequencies between 18 and 333 kHz) and the CTD will be operated.



North Sea acoustic survey for herring, TRIDENS 22 June – 17 July 2015
The outer border of the survey area is indicated in black.