NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP FRV Walther Herwig III CRUISE NO. 403

2. **DATES OF CRUISE** from 23.01.2017 To 24.02.2017

3. **OPERATING AUTHORITY:** Bundesanstalt für Landwirtschaft und Ernährung

> (BLE) Referat 524 Haubachstraße 86 D-22765 Hamburg

TELEPHONE: +49 (0)40 30 68 60 - 534 +49 (0)40 30 68 60 - 555 **TELEFAX:** Fischereiforschung@ble.de e-Mail:

OWNER (if different from no. 3) Federal Republic of Germany 4.

5. **PARTICULARS OF SHIP:**

> Name: FRV Walther Herwig III

Nationality: Germany Overall length: (in metres) 63.18 Maximum draught: (in metres) 6.20 Net tonnage: 639 BRZ Propulsion e.g. diesel/steam: Diesel Electric

Call sign: DBFR

Registration port and number (if registered fishing vessel)

6. **CREW**

> Name of master: Hans-Otto Janssen or deputy

Number of crew: 22

7. SCIENTIFIC PERSONNEL

> Name and address of scientist in charge: Dr. Matthias Kloppmann

Thünen Institute of Sea Fisheries Palmaille 9

22767 Hamburg

Tel/telex/fax no.: +49 40 38905 196 fax: - 263

No. of scientists: 12

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE

> (with reference to latitude and longitude) Entire North Sea between 54° N to 61° N, particularly in those rectangles assigned to Germany by ICES (see attached map)

BRIEF DESCRIPTION OF PURPOSE OF CRUISE International Bottom Trawl Survey 9. (IBTS) 2017 Q1 under ICES coordination

10. DATES AND NAMES OF INTENDED PORTS OF CALL

 $\overline{36}$ hours in the time period of $\overline{08}$. -14.02.2017 in either Stavanger, Haugesund or Bergen, or none, depending on operational area at time of midterm break

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

none

NOTIFICATION OF PROPOSED RESEARCH CRUISE

- 1. PART B: DETAILS
- 1. NAME OF RESEARCH SHIP FRV Walther Herwig III CRUISE NO. 403
- **2. DATES OF CRUISE** From 23.01.2017 To 24.02.2017

3. a) PURPOSE OF RESEARCH

Participation in the ICES coordinated International Bottom Trawl Survey (IBTS) 2017 O1 in the North Sea.

- 1. Trawling
- 2. Biochemical investigations
- 3. Plankton investigations
- 4. Hydrographic investigations
- 5. Echo registration

b) <u>GENERAL OPERATIONAL METHODS</u> (including full description of any fish gear, trawl type, mesh size, etc.)

Fishing, Plankton net tows, CTD casts, water bottle sampling

Trawling – Standard IBTS fishing gear: Chalut au Grande Ouverture Verticale (GOV), codend mesh 20 mm

Plankton – Standard IBTS plankton net: 2 m ring trawl (modified Method Isaacs Kidd net – MIK) with 500 – 1600 µm mesh.

For details of both nets see attached drawings

4. <u>ATTACH CHART</u> showing (on an <u>appropriate</u> scale) the geographical area of intended work, positions

of intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be fished

5.

a) TYPES OF SAMPLES REQUIRED (e.g.,

geological/water/plankton/fish/radionuclide)

Fish-, plankton-, water samples

All North Sea fish stocks are being worked on according to the ICES manual. No fish is retained on board except for scientific samples.

Small amounts of fish are kept for direct consumption on board and limited amounts (max 4 kg/person) for crew's home consumption.

b) <u>METHODS OF OBTAINING SAMPLES</u> (e.g., dredging/coring/drilling/fishing, etc. When using fishing gear, indicate fish stocks being worked, quantity of each species required, and quantity of fish to be retained on board).

Fishing, Plankton net tows, CTD casts, water bottle sampling

6. DETAILS OF MOORED EQUIPMENT

<u>Dates Recovery Description Depth Latitude Longitude Laying none</u>

- 7. <u>ANY HAZARDOUS MATERIALS</u> (chemicals/explosives/gases/radioactives, etc.) (Use separate sheet if necessary) none
 - a) Type and trade name
 - b) Chemical content (and formula)
 - c) **IMO IMDG code** (reference and UN no.)
 - d) Quantity and method of storage on board
 - e) If explosives give dates of detonation
 - Method of detonation
 - Position of detonation
 - Position of detonation
 - Frequency of detonation
 - Depth of detonation
 - Size of explosive charge in kg.

8. DETAIL AND REFERENCE OF

a) Any relevant previous/future cruises

Cruise is part of a standard series coordinated by ICES since the mid 1960's

- b) Any previously published research data relating to the proposed cruise
 All data are stored at ICES DATRAS and published in the framework of reports of the respective ICES working group: e.g. ICES 2011: Report of the International Bottom Trawl Survey Working Group (IBTSWG), ICES CM 2011/SSGESST:06
- 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.

Jennifer Devine, Irene Huse, Richard Nash, IMR, Bergen-Nordnes

- 10. STATE
 - a) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable (Yes/No)

yes

b) Participation of an observer from the coastal state for any part of the cruise together with the dates and the ports for embarkation and disembarkation yes

c) When research data from the intended cruise are likely to be made available to the coastal state and by what means

Generally, all data will be uploaded directly to ICES-DATRAS for further treatment about 4 weeks after the cruise.

http://www.ices.dk/marine-data/data-portals/Pages/DATRAS.aspx http://www.ices.dk/marine-data/data-portals/Pages/ocean.aspx

Furthermore:

1. Cruise summary report through official channels; English summary will be available about 4 weeks after the cruise from BSH website

http://seadata.bsh.de/csr/retrieve/dod index.html

- 2. Short report latest at the end of March 2017
- 3. ICES IBTS working group report, end of April 2017

PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for each coastal state

Coastal state: Norway
Port of call: Stavanger, Haugesund, Bergen
Dates: 36 hours within 08. – 14.02.2017

Indicate "YES" or "NO"

DISTANCE FROM COAST

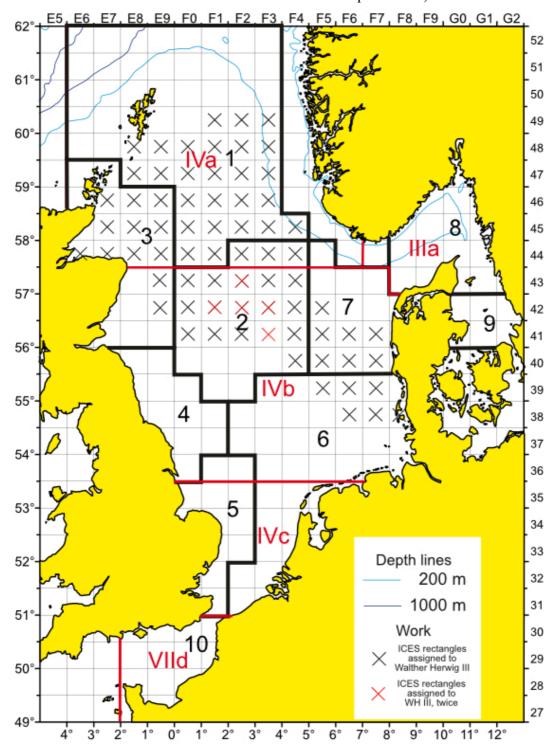
List scientific work by function e.g.	Water column including sediment sampling of the seabed	Fisheries research within fishing limits	Research concerning the natural resources of the continental shelf or its physical characteristics	Within 4 nm	Between 4-12 nm	Between 12-200 nm
Trawling	Yes	Yes	No	No	Yes	Yes
Plankton	Yes	Yes	No	No	Yes	Yes
Water samples	Yes	Yes	No	No	Yes	Yes
CTD casts	Yes	Yes	No	No	Yes	Yes
Echo sounding	Yes	Yes	No	No	Yes	Yes

Matthias Rhyphain	
	Dated 22 June 2016
(On behalf of the Principal Scientist)	

NB 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

IBTS 2017(I)

ICES rectangles assigned to WALTHER HERWIG III (marked with X, rectangles marked with red X should be sampled twice)





polyamide twine/braided

kc = k ik = i tpa = p bpa = p

v - 4 meshes gathered at quarters

198 238 120

w - 200x - 240y - 138

u - Gussets 8025rtex

Method of join used, sewing. Type of knot, weavers knot.

Joining position for Liner

GOV standard fishing gear (trawl construction)

Join 1 1/1 3/4 23 23 5 5 AB 2.0 59 65 AB 8.5U 1N4B 50.5U 62 1N1B 75.5U 1N1B 155.5U 1N1B 25.5U 400.5U LOWER 1801 138 240 120 148 200 26 1N1B 25.5U 1N1B 155.5U 1N1B 75.5U 1N4B 50.5U 8.5U 20 05 5 9/9 9/9 9/9 9/9 9/9 9/9 9/9 20.0 13.3 1.7 1.3 6.5 6.1 6.0 2500 2500 (bpa) 5500 3700 2500 8025 5500 50DY/kc 200kc 200kc 200kc 160kc 120kc Mesh mm kc/ik 80kc 50kc 1 mesh 50mm 590 1/2 (laced) NB Liner with with only one selvedge shown CODEND LINER ¥8 590 55 Join 7 4/5 3/4 23 23 Ξ 1 2 Q 20mm ik 600 rtex tpa 8.0m 6 knots in sel. 1N2B 36.5L 1N4B 1N4B 27.5U 10.5U σ 74 1N4B 50.5U 400.5U 180 200 228 UPPER 138 150 120 148 134 56 1N1B 25.5U 400.5U 1N1B 155.5U 1N1B 75.5U 1N4B 50.5U 74 O.5U 1N4B 27.5U 3.0 3.0 1N2B 36.5L Knots selvedge per side 9/9 7 9/9 9/9 9/9 9/9 6/1 9/9 9/9 9/9 9/9 20.0 6.0 1.3 6.5 6.1 8.5 7.3 5.5 2.1 (pba) 3700 2800 2500 2500 2500 3700 8025 3700 3700 50DY/kc 120kc 200kc 200kc 200kc 50kc 160kc 80kc

Construction of the 36/47 GOV trawl (adapted from drawings of the Institute des Peches Maritimes, Boulogne/Mer)

Fishingline: 47.20m (21.10 + 5.00 + 21.10) × 22mm ϕ combination wire 6 strand/steel core 54.6kg/100m). Winglines: Upper 8.2m, Lower 8.2m × 20mm ϕ combination wire (6 strand/steel core 54.6kg /100m) Headline: $36m (15.50 + 5.00 + 15.50) \times 14mm \phi$ wire (f/c) served (6/19 - 12/6/1 65.8kg/100m).

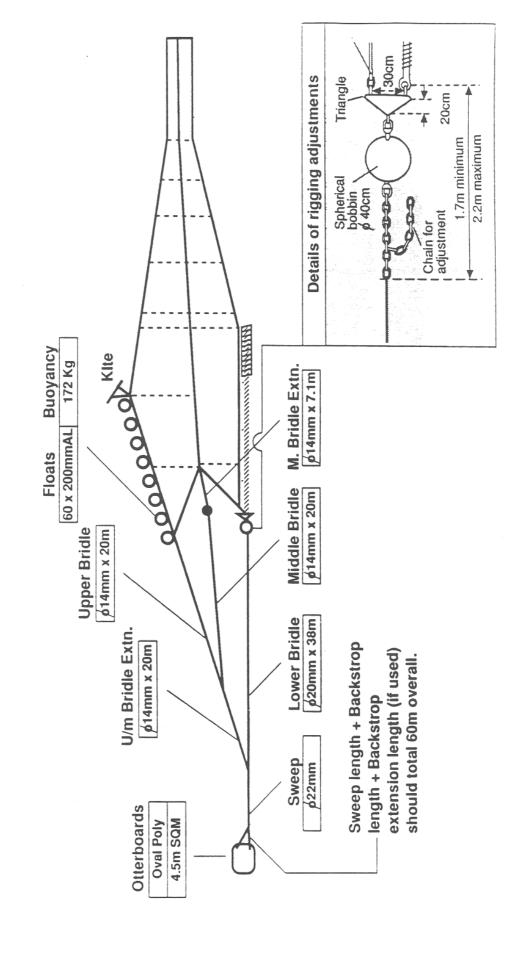
a - 7.1m x 14mm b wire (6/19 - 12/6/1 - 65.8kg/100m)

b - 6.7m x 20mm \$\phi\$ combination wire (6 strand/steel core - 54.4kg/100m)

c - 5.55m x 20mm \dot{p} combination wire (6 strand/steel core - 54.4kg/100m) d - length for length x 22mm \dot{p} nylon (3 strand - 26kg/100m)

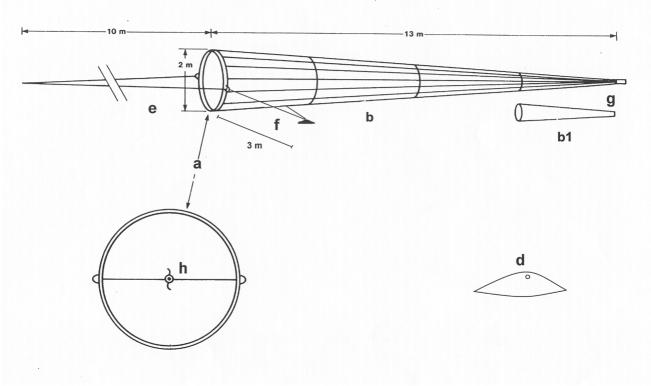
The numbers of meshes shown for netting panel widths do NOT include selvedge meshes. Five meshes (six knots) per selvedge must be added where indicated. Conversely to obtain panel depths one row (1/2 mesh) must be subtracted from each panel are set out in GOV 36/47 Groundfish Survey Trawl Checklist (Page 2 of 5)

GOV standard fishing gear (rigging)



GOV 36/47 GROUND FISH SURVEY TRAWL: Overall rigging diagram

Construction and rigging of the MIK plankton net



- a) Ring of 2 meter diameter.
- b) Black net of 1.6 mm pore, 13 meter long, strengthened by nylon or canvas straps. In the last metre of the net a 500 µm net is inserted (b1)
- d) Saddle shaped weight or depressor.
- e) Pair of 10 meter long bridles to the gear.
- f) Pair of 3.0 meter long bridles to the weight or depressor.
- g) Cod-end bucket (Ø 11 cm), netting of 500 µm
- h) Flow meter mounted on a string crossing the ring, positioned in the center of the ring.