#### NOTIFICATION OF PROPOSED RESEARCH

### PART A : GENERAL

1. NAME OF RESEARCH SHIP: Tridens CRUISE NO: wk.4 t/m 7

2. DATES OF CRUISE FROM 21-1-2019 TO 22-2-2019

3. OPERATING AUTHORITY Ministry of infrastructure and environment

Rijkswaterstaat Dienst Noordzee Postbus 5807, 2280 HV Rijswijk

TELEPHONE +31 (0) 70 - 3366 303 TELEX

FACSIMILE

4. OWNER

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 21

. SCIENTIFIC PERSONNEL NAME AND ADDRESS OF R. van Hal

SCIENTIST IN CHARGE Wageningen Marine Research

P.O. Box 68, IJmuiden

TEL/FAX NO 0317-487088/0317-487326

NO: OF SCIENTISTS 7

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference in Latitude & Longitude)

Southern and Central North Sea (South of 57°N)

- 9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE: To participate in the ICES coordinated International Bottom Trawl Survey
- 10. DATES AND NAMES OF INTEND PORTS OF CALL:
- UK: Leith or Newcastle (3-4 February 2017), in case of major changes due to weather another English port;

Germany: Depending on weather conditions or malfunctioning of the

vessel: Hamburg or Bremen

Denmark: Depending on weather conditions or malfunctioning of the

vessel: Esjberg.

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL:

#### NOTIFICATION OF PROPOSED RESEARCH CRUISE

#### PART B : GENERAL

1. NAME OF RESEARCH SHIP: Tridens CRUISE NO: wk. 4 t/m 7

2. DATES OF CRUISE FROM 21-1-2019 TO 22-2-2019

- a) PURPOSE OF RESEARCH The IBTS is designed to acquire recruitment indices and tuning data for several finfish species. The recruitment indices are used in ICES assessment working groups (herring, North Sea demersal fish, mackerel) and ACOM. Data on spatial and temporal distribution of fish species are used for ecosystem studies. Furthermore to obtain hydrographical data (CTD-stations).
  - b) GENERAL OPRATIONAL METHODS (including full description of any fishing geartrawl type, mesh size etc.)

    In each ICES-rectangle visited a haul will be made with a GOV- Bottom trawl (Grand Ouverture Verticale) with 20 mm cod-end;

In each ICES-rectangle visited, two hauls with a MIK- plankton net (Method Isaac Kitt) will be made;

At each station a downcast with a Seabird- CTD-sonde for hydrographical data will be made.

During the cruise water samples will be taken.

- 4. ATTACH CHART showing (on an appropriate scale) the geographical area of the intended work, positions od intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be fished:
- 5. a) TYPES OF SAMPLES REQUIRED eg Geological/Water/Plankton/Fish/Radionuclide:

Fish and benthos samples (GOV) for analysing the fish and benthos community Plankton samples (MIK) for analysing herring larvae. Water samples

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)

Each GOV station will be fish for 30 minutes with the semi-pelagic GOV bottom trawl.

Each MIK station consists of an oblique vertical pelagic haul.

6. DETAILS OF MOORED EQUIPMENT: none

DATES

Laying Recovery Description Depth Latitude Longitude

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

(Use separate sheet if necessary)

- 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:

Yearly, since 1965

- b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE: Reports of ICES International Bottom Trawl Survey Working Group (IBTSWG). Data is used in many assessments and ecological studies of fish species and -communities. See www.ices.dk
- 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:

Staff members of the Fisheries Laboratories at Lowestoft (UK, CEFAS), Aberdeen (UK, Marine Scotland), Boulogne sur Mer (F, Ifremer), Hamburg (G, vTI-SF) and Charlottenlund (DM, DTU-aqua).

Mr. Jim Ellis

Mr. Arnaud Auber

CEFAS

TEREMER

Victoria Road

150, Quai Gambetta

Suffolk England

Boulogne-sur-Mer France

Mrs. Anne Sell

Johann Heinrich von Thünen-Institute

Palmaille 9 Hamburg Germany

Mr. Kai Ulrich Wieland Mr. Finlay Burns

DTU Aqua

Marine Scotland

Science Park

375 Victoria Road

Hirtshals Denmark

Aberdeen Scotland

## 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

YES

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

Data will be submitted to the Database at the ICES-secretariat in Copenhagen, where they are available to all participating countries.

COASTAL STATE

UK

COMPLETE THE FOLLOWING TABLE - SEPERATE PAGE FOR EACH COASTAL STATE

PORT CALL

Leith or NewCastle, possibly other port

DATES

1-2 February 2019

INDICATE "YES" OR "NO"

LIST SCIENTIFIC		20	123	DISTANCE FROM COAST			
WORK BY							
FUNCTION	WATER COLUMN	FISHERIES RESEARCH	RESEARCH CONCERNING THE	WITHIN 3 NMS	WITHIN 12 NMS	BETWEEN 12-200NM	(CONTINENTA
eg:	INCLUDING	WITHIN	NATURAL	S INIIS	12 NM3	12-200NM	WORK ONLY)
MAGNETOMETRY	SEDIMENT SAMPLING	FISHING LIMITS	RESOURCES OF THE CONTINENTAL				BEYOND 200
GRAVITY	OF THE		SHELF OR ITS				NM BUT
DIVING SEISMICS	SEABED		PHYSICAL				WITHIN
BATHYMETRY			CHARACTERISTICS				CONTINENTAL
SEABED SAMPLING							MARGIN
TRAWLING							
ECHO SOUNDING							
WATER SAMPLING							
U/W T.V.							
INSTRUMENTS TOWED							
INSTRUMENTS							
GOV bottom	yes	yes	yes	no	no	yes	yes/no
trawl			****	-Annala		1000000	-warman.
MIK-	yes	yes	Yes	no	yes	yes	no
Planktonsampler							ľ
CTD-recorder	yes	yes	Yes	no	yes	ves	no

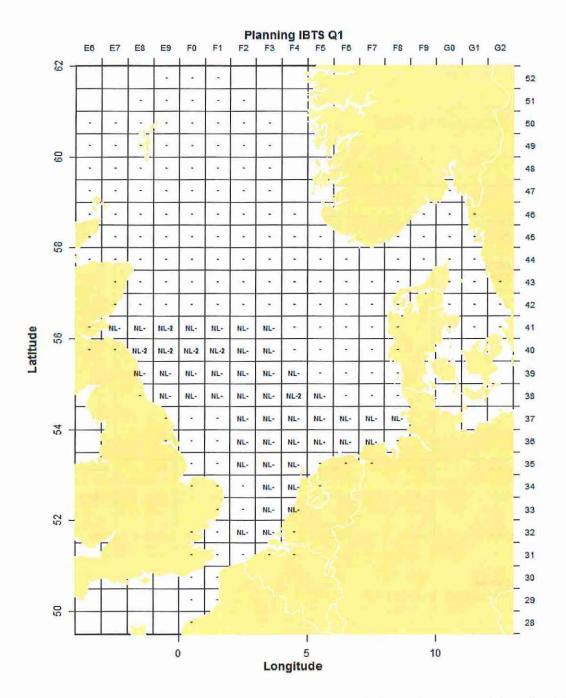
# A.J. Cornelissen

(On behalf to the Principal Scientist)

Dated

31 August 2018

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.



The exact trawl locations are unknown prior to the activities, these are determined based on the local weather conditions and nautical restriction in place at time. The guideline states GOV hauls and MIK hauls have to be done by rectangle. Each rectangle including NL-: one GOV haul and two MIK hauls, NL-2: two GOV hauls and four MIK hauls.