

PART B : GENERAL

1. NAME OF RESEARCH SHIP: **TRIDENS** CRUISE NO: **wk 15-18**
2. DATES OF CRUISE FROM **11-04-2016** TO **06-05-2016**
3. a) PURPOSE OF RESEARCH **Biomass estimation of mackerel and horse mackerel stock. To collect data of the distribution of mackerel and horse mackerel eggs, to collect data on fecundity of female mackerel and horse mackerel and to obtain hydrographical data.**

b) GENERAL OPERATIONAL METHODS (including full description of any fishing gear/ trawl type, mesh size etc:)
Mackerel and horse mackerel eggs will be collected with a Gulf VII plankton sampler. Mackerel and horse mackerel samples will be collected with a pelagic trawl.
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:
See maps.
5. a) TYPES OF SAMPLES REQUIRED eg Geological/Water/Plankton/Fish/Radionuclide:
Approximately 150 plankton samples for analysing mackerel and horse mackerel eggs. The sampler is dragged behind the vessel, while it is lowered down to approximately 5 meters above the bottom (or 200m depth maximum) and up again. The plankton sampler is clearly NOT a bottom gear. Approximately 25 hauls with a pelagic trawl to collect spawning mackerel and horse mackerel.

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)
Gulf VII sampler mounted with a CTD on top for fishing on eggs and pelagic trawl for taking biological fish samples.
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>
---------------	-----------------	--------------------	--------------	-----------------	------------------

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:
2013 mackerel/horse mackerel egg survey

b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE:
Planning of this 2016 Mackerel/Horse Mackerel Egg Survey is given in: ICES 2015. First Interim Report of the Working Group on Mackerel and Horse Mackerel Egg Surveys (WGMEGS. ICES CM 2015/SSGIEOM:09. Results of the 2013 Mackerel/Horse Mackerel Egg Survey are given in: ICES 2014. Report of the Working Group on Mackerel and Horse Mackerel Egg Surveys (WGMEGS). ICES CM 2014/SSGESST:14.

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:
See Annex 1.

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 THE PORTS FOR EMBARKATION/DISEMBARKATION
Arrangements via IMARES, IJmuiden

c) WHEN RESEARCH DATA FROM THE INTENDED CRUISE IS LIKELY TO BE MADE AVAILABLE TO THE COASTAL STATE AND BY WHAT MEANS
Cruise report and results of this survey will be published in 2017 in the ICES Mackerel and horse mackerel egg survey report.

PART C: SCIENTIFIC EQUIPMENT

COASTAL STATE

UK, France and Ireland

COMPLETE THE FOLLOWING TABLE -
SEPERATE PAGE FOR EACH COASTAL STATE

PORT CALL

DATES

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			
Gulf VII plankton sampler	YES, but no sediment sampling	YES	NO	YES	YES	NO
CTD-recorder	YES, but no sediment sampling	YES	NO	YES	YES	NO

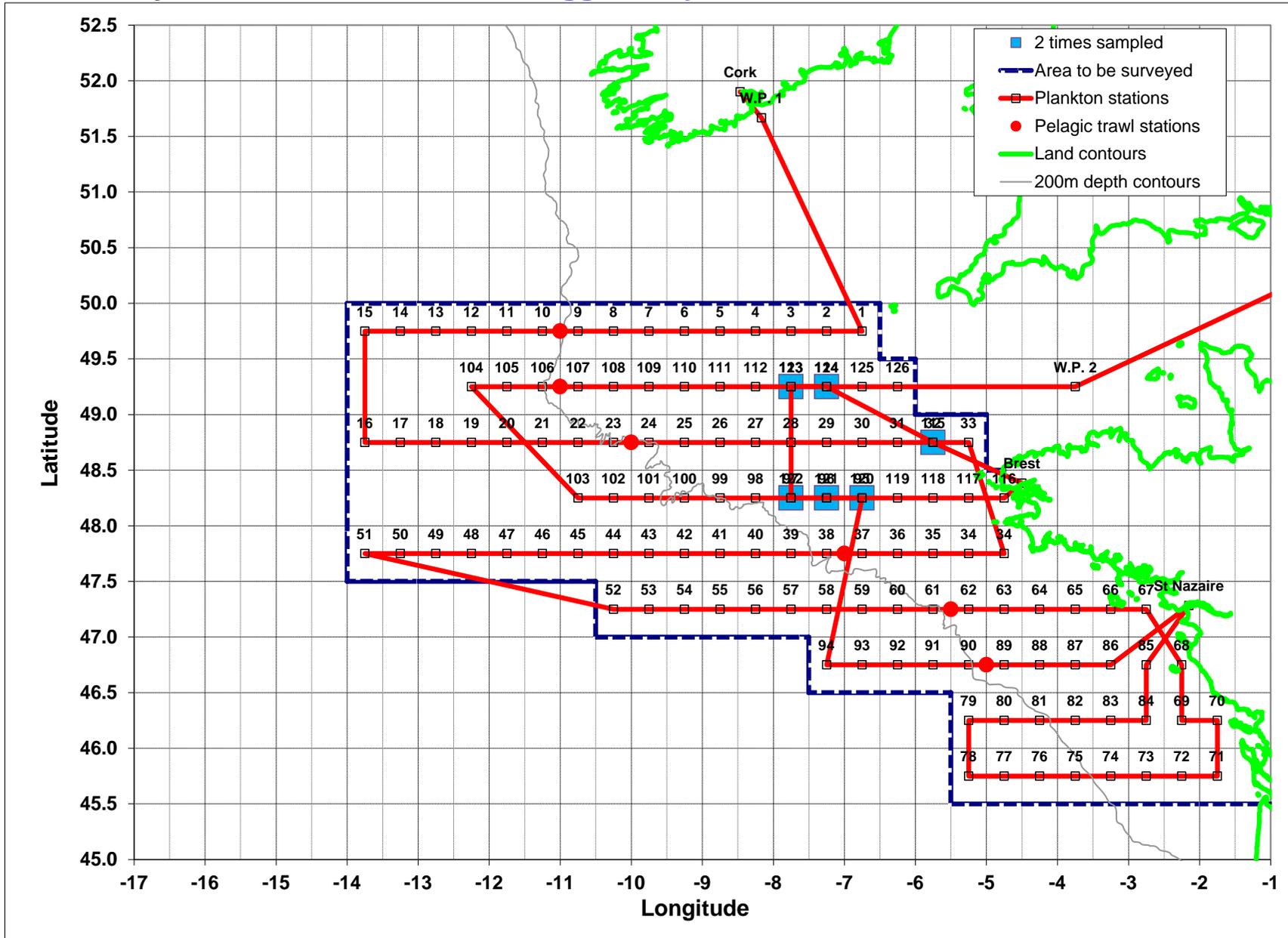
L. Cornelissen-Schaap

(On behalf to the Principal Scientist)

Dated **20 October 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.

Survey: Mackerel Horse Mackerel Egg Survey 2016 week 15-18 Period 4



Proposed sampling grid weeks 15-18 2016

Annex 1: Participants of the mackerel and horse mackerel egg surveys in 2016

SURNAME	NAME	INSTITUTION	E-MAIL	Country
Ulleweit	Jens	TI-SF	jens.ulleweit@ti.bund.de	Germany
O'Hea	Brendan	Marine Institute of Ireland	brendan.ohea@marine.ie	Ireland
Thorsen	Anders	IMR	anders.thorsen@imr.no	Norway
Van Damme	Cindy	IMARES	cindy.vandamme@wur.nl	Netherlands
Angelico	Maria Manuel	IPIMAR	angelico@ipimar.pt	Portugal
Diaz	Paz	IEO	paz.diaz@vi.ieo.es	Spain
Alvarez	Paula	AZTI	palvarez@azti.es	Spain (Basque country)
Payne	Mark	DTU-AQUA	mpay@aqua.dtu.dk	
Burns	Finlay	MSS	F.Burns@marlab.ac.uk	U.K. (Scotland)