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Mal søki conduct	Standard				
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# Application for Consent to conduct Marine Scientific Research

Marine Scientific Research					
Date: 5/7 – 21/8 2017					
Date3// - 21/0 2017					
General Information					
1.1 Cruise name and/or number:	O				
Utsira West – Aberdeen – Hanstholm (DK).	Survey (IBTS) q3 and Hydrographic cross-section:				
1.2 Sponsoring Institution(s):					
Name:	Institute of Marine Research				
Address:	P.O Box 1870 Nordnes, 5817 Bergen,				
Name of Directors	Norway.				
Name of Director:	Sissel Rogne				
1.3 Scientist in charge of the Project:					
Name:	Jennifer Devine				
Country:	Norway				
Affiliation:	Project leader IBTS Norway				
Address:	P.O. Box 1870 Nordnes, 5817 Bergen, Norway				
Telephone:	+47 90259201				
Fax:					
Email:	Jennifer.devine@imr.no				
Website (for CV and photo):	www.imr.no				
1.4 Entity(ies)/Participant(s) from coastal State	involved in the planning of the project:				
Name:					
Affiliation:					
Address:					
Telephone:					
Fax:					
Email:					
Website (for CV and photo):					
2. Description of Project					
2.1 Nature and objectives of the project:					
International Bottom Trawling Survey that is a c	coneration between several nations (e.g.				

International Bottom Trawling Survey that is a cooperation between several nations (e.g Scotland, England, Germany, Sweden, Netherlands and Denmark) coordinated by ICES and IBTS working group. It maps 15 demersal and 3 pelagic fish species to be used in ICES stock assessment programmes. Other species living at or near the bottom, including benthos, sampling from hydrographic data as well as litter is registered. Norway has been allocated certain areas.

The Utsira W —Hanstholm - Aberdeen hydrographic cross — section surveying climate and plankton in the north Sea and Skarreak area. It samples Hydrographic data from regular hydrographical cross-sections as well as water chemistry, plankton, fish eggs and fish larvae as weel as microplastic from Utsira West (starting point), Hanstholm (Denmark) to Aberdeen.



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2.2 If designated as part of a larger scale project, then provide the name of the project and the Organisation responsible for coordinating the project:

IBTS – International Bottom Trawl Survey, coordinated by ICES – International Council for the Exploration of the Sea. The cross – section is 3 of 4 planned successive years for Institute of Marine Research, Norway.

2.3 Relevant previous or future research projects:

IBTS will continue a yearly basis. The cross section will continue for 1 more year.

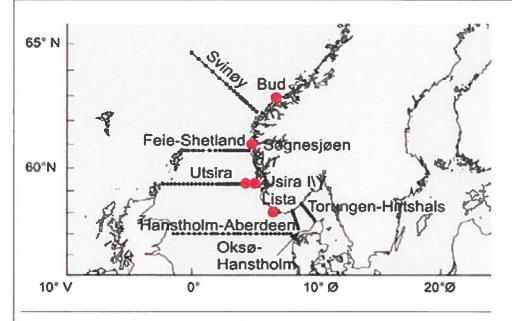
2.4 Previous publications relating to the project:

http://www.ices.dk/community/groups/Pages/IBTSWG.aspx

#### 3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in Latitude and longitude in decimal degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a separate excel spreadsheet. The whole area to be covered is within 57°N - 62°N, -3°W-8°E. For the IBTS part of the survey, there is one (1) 30 min haul to be carried out in each square (49 squares). The coordinates of these tows are supposed to be randomized according to IBTS protocol, and predetermined coordinates would therefore breach with the scientific means of the survey. For the cross sections, there are predetermined stations, and these are attached in two separate excel sheets, one for each cross section.

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical Areas of the intended work and, as far as practicable, the location and depth of sampling Stations, the tracks of survey lines, and the locations of installations and equipment.



Only the two lower lines (Hanstholm – Aberdeen and Utsira) are to be covered by this survey.



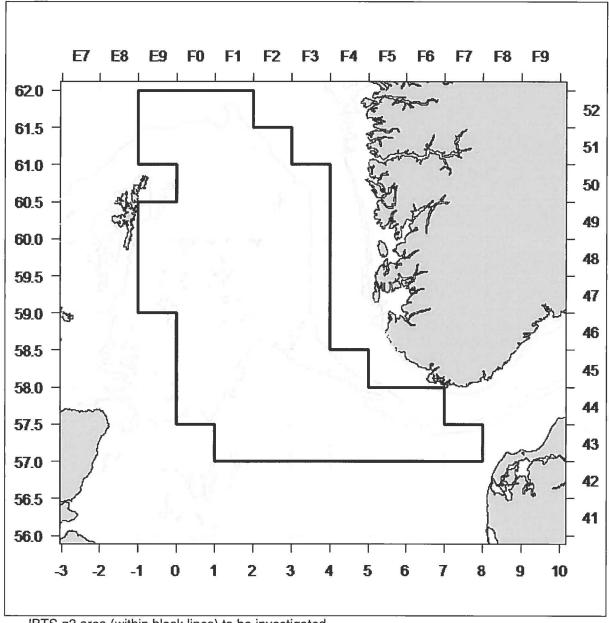
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IBTS q3 area (within black lines) to be investigated.

#### 4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	«Kristine Bonnevie»
Type/Class:	Research vessel
Nationality (Flag State):	Norway
Identification Number (IMO/Lloyds No.):	IMO: 9062934
Owner:	Institute of Marine Research
Operator:	Institute of Marine Research
Overall length (meters):	56,75 m
Maximum draught:	7,9 m
Displacement/Gross Tonnage:	BT = 1444
Propulsion:	Diesel
Cruising & maximum speed:	10/14 knots



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LGWS
+47 55 90 64 20
Iridium: 00 881 631 413 517
Mobile (when in range): +47 99 54 85 48
Tom Ole Drange/ Kjell Ove Sandøy
14
17 for entire survey

4.2 Particulars of Aircraft:	
Name:	
Make/Model:	
Nationality (flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall Length (meters):	
Propulsion:	300 To 100 To 10
Cruising & Maximum speed:	
Registration No.:	
Call Sign:	
Method and capability of communication	
(including emergency frequencies):	
Name of Pilot:	
Number of crew:	
Number of scientists on board:	
Details of sensor packages:	
Other relevant information:	
4.3 Particulars of Autonomous Underwater Veh	icle (AUV):
Name:	
Manufacturer and make/model:	
Nationality (Flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall length (meters):	
Displacement/Gross tonnage:	
Cruising & Maximum speed:	
Range/Endurance:	
Method and capability of communication	
(including emergency frequencies):	
Details of sensor packages:	
Other relevant information:	

# 4.4 other craft in the project, including its use:

4.5 Particulars of methods and full description of scientific instruments to be used(for fishing gear				
specify type and	dimension)			
Types of	Methods	Instruments to be used:		
samples and	to be			
Measurements:	used:			
Demersal fish	Bottom	GOV (Grande Overture Verticale) bottom trawl.		
and other	trawling	http://www.sciencedirect.com/science/article/pii/S0165783612000525		
species,				



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benthos and litter		
Fish larvae	Trawling in water column	MIK (Methot Isaac Kidd) 2 m net opening, 13 m length
Vertical distribution of Plankton	Trawling in water column	Mocness (Multiple Opening/Closing Net and Environmental sensing system) Wiebe (1976) and Wiebe et al. (1985)
Plankton	Trawling in water column	WP 2 and WP3 (plankton net) 56 and 113 cm in diameter respectively.

4.6 Indicate nature and quantity of substances to be released into the marine environment:

Buffered formalin 4%

Ethanol 96%

4.7 Indicate whether drilling will be carried out. If yes, please specify:

Not applicable

4.8 Indicate whether explosives will be used. If yes, please specify type and trade name, Chemical content, depth of trade class and stowage, size, depth of detonation, frequency of Detonation, and position in latitude and longitude:

Not applicable

#### 5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and Anticipated timeframe for recover, as far as possible exact locations and depth, and Measurements):

Not applicable

#### 6. Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:

5/7 2017 - 21/8 2017

6.2 Indicate if multiple entries are expected:

Yes- multiple entries are expected.

#### 7. Port Calls

## 7.1 Dates and Names of intended ports of call:

Lerwick or Aberdeen in the period of 5/7 - 15/7 2017 in case of bad weather, and Lerwick between 17/7 - 21/8 2017 for bunkering or in the case of bad weather conditions. We are not able to set any specific dates for this unfortunately.

7.2 P	Any s	pecial	logistical	requirements	at	ports of	call:

None



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7.3 Name/Address/Telephone of shipping agent (if available):

Institute of Marine Research,

- 8. Participation of the representative of the coastal State
- 8.1 Modalities of the participation of the representative of the coastal State in the research Project:
- 8.2 Proposed dates and ports for embarkation/disembarkation:
  - 9. Access to Data, Samples and Research Results
- 9.1 Expected dates of submission to coastal State of preliminary report, which should include The expected dates of submission of the data and research results:

  Survey report to be finished 6 months after survey are finished (20th February 2018)
- 9.2 Anticipated dates of submission to the coastal State of the final report:

  Survey report to be finished 6 months after survey are finished (20th February 2018)
- 9.3 Proposed means for access by coastal State to data (including format) and samples:

Data to be uploaded to Datras (ICES database) by 25th sept. Data available from then.

- 9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:
- 9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:
- 9.6 Proposed means of making results internationally available:

Avaiable through ICES from 25th sept.

- Other permits Submitted
- 10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):
  - 11. List of Supporting Documentation
- 11.1 List of attachments, such as additional forms required by the coastal State, etc.:

Attachment 1: coordinates of stations in Cross-section Hanstholm - Aberdeen

Attachment 2: coordinates of stations on the Utsira W cross-section

Mhe layer

Signature:

Contact information of the focal point:



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Name:Trine Haugen Country:Norway Affiliation:Institute of Marine Research AddressP.O. Box 1870, 5817 Bergen, Norway Telephone:+47 92609099 Fax:

Email:trineh@imr.no