		Ref.id.: KS & SMS. 5.4-03			
	nad Britiske I Marine Scier	Standard			
Version:	Opprettet:	Skrevet av:	Godkjent av:	Gjelder Fra:	Sidenr:
1.02	11.12.2013	BTC	KRR	11.12.2013	1 av 6

Application for Co Marine Sc	ensent to conduct ientific Research
Date: March 11th, 2019	
General Information	
1.1 Cruise name and/or number: 2019114	
1.2 Sponsoring Institution(s):	
Name:	Department of Biological Sciences, University
Address:	of Bergen Thormøhlensgt. 53B, N-5020 Bergen
Name of Director:	Ørjan Totland
Traine of Biroctor.	Sijan rottana
1.3 Scientist in charge of the Project:	
Name:	Katja Enberg
Country:	Norway
Affiliation:	Department of Biological Sciences, University of Bergen
Address:	Thormøhlensgt. 53B,
	N-5020 Bergen, Norway
Telephone:	+47 41006368
Fax:	+47 55584450
Email:	Katja.enberg@uib.no
Website (for CV and photo):	https://www.uib.no/en/persons/Katja.Enberg
1.4 Entity (ies)/Participant (s) from coastal State	e involved in the planning of the project
Name:	a involved in the planning of the project.
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	
Description of Project	

2.1 Nature and objectives of the projectives	ot:
Education and training of marine fishe	ries scientists and students
(cruise integrated in a subject (BIO Bergen).	325 — Ocean Science) provided by the University in



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2.3 Relevant previous or future research projects:

Similar cruise has been performed annually in the North Sea since 1998.

2.4 Previous publications relating to the project:

Student cruise reports

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 cruise study area is the northern North Sea, limited by 58 — 62°N and 05°W — 09°E (See also Figure 1).

Positions of trawling stations will be selected according to fish distribution.

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.

See attached Figure 1 with planned cruise period

4. Methods and means to be used

4.1 Particulars of vessel:				
Name:	G.O. Sars			
Type/Class:	Research vessel			
Nationality (Flag State):	Norwegian			
Identification Number (IMO/Lloyds No.):	9260316			
Owner:	Institute of marine research/University of Bergen			
Operator:	Institute of marine research, P. O. Box 1870 Nordnes, N-5024 Bergen			
Overall length (meters):	77,5			
Maximum draft:	7,30			
Displacement/Gross Tonnage:	4067			
Propulsion:	DC-Electric			
Cruising & maximum speed:	10-11 knots, 17 knots LMEL Telephone: +47 55906440			
Call sign:				
INMARSAT number and method and				
capability of communication (including emergency frequencies):	Telefax: +47 55906441 email: GOSars@hi.no			
Name of Master:	Svein-Roger Fredheim og John Gerhard Aasen			
Number of Crew:	15			
Number of Scientists on board:	Max. 20			

4.2 Particulars of Aircraft:	
Name:	
Make/Model:	
Nationality (flag State):	
Website for diagram & Specifications:	
Owner:	



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Operator:	
Overall Length (meters):	
Propulsion:	
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):	
Mahaita fan dia mana 8 Caraifia tiana	

4.5 Farticulars of Autonomous Officerwater ve	THEIC (ACV):
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 samples and Measurements:	Methods to be used:	Instruments to be used:			
Water characteristics	Underwater unit with sensor for conductivity, temperature, pressure and oxygen	911 plus CTD system			
Fish trawling	"Harstad" pelagic trawl (1600 meshesx100mm) with Multisampler device	th			
	Campelen 1800 bottom trawl (1800 meshes x 60 mm)				
	MIK juvenile trawl (2 m opening diameter)				
Echo surveying	Echo sounders (multibeam, keel mounted)	SIMRAD echosounders			

4.6 Indicate nature and quantity of substances to be released into the marine environment:
None

4.7 Indicate whether drilling will be carried out. If yes, please s	specify:	please specify:	/es. p	. If v	out.	carried	will be	drilling	whether	Indicate	4.7
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No

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:

No

5. Installations and Equipment

to conduct Marine Scientific Research

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

- 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:

Dates for first entry and final departure planned at 19 September 2019 and 27 September 2019, respectively.

6.2 Indicate if multiple entries are expected:

Multiple entries within the period 20.-27. September 2019 may be expected.

- 7. Port Calls
- 7.1 Dates and Names of intended ports of call:

A port call is planned within the time period 20.-26. September 2019 at Lerwick port.

7.2 Any special logistical requirements at ports of call:

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

No plans

- 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:

Preliminary student report expected at 1. December 2019.



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9.2 Anticipated dates of submission to the coastal State of the final report: Final report expected within 3 months after end of cruise.

9.3 Proposed means for access by coastal State to data (including format) and samples: Access to data and samples through Institute of marine research database.

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:

Available to the international scientific community through Institute of marine research.

10. Other permits Submitted

10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):

NA

11. List of Supporting Documentation

11.1 List of attachments, such as additional forms required by the coastal State, etc.:

Figure 1 — Planned study area

Signature:

Contact information of the focal point:

Name: Katja Enberg Country: Norway

Affiliation: Department of Biological Sciences, University of Bergen

Address: Dept. Biological Sciences, Univ. Bergen

Telephone: +47 41006368 Fax: +47 55584450 Email: katja.enberg@uib.no



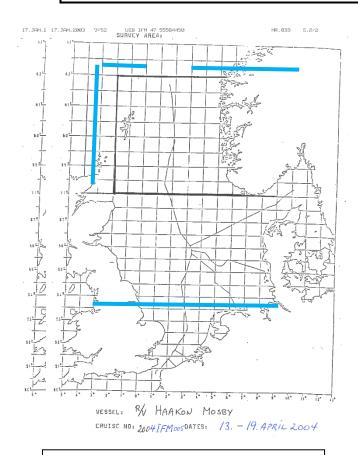
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Vessel: RV "G. O. Sars"

Cruise no. 2019114

Dates: 18. September — 4. October 2019