 Havforskningsinstituttet					Ref.id.: KS&SMS.5.4-02
ICES-Søknadskjema					Standard
Versjon: 1.02	Opprettet: 04.10.2012	Skrevet av: TOD	Godkjent av: PWN	Gjelder fra: 04.10.2012	Sidenr: 1 av 5

ICES søknadsskjema

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP: **G.O. Sars** CRUISE NO. **2016112**

2. DATES OF CRUISE From: 16.08.2016 To: 05.09.2016

3. OPERATING AUTHORITY: Institute of Marine Research
P.O.Box 1870 Nordnes
N-5024 BERGEN, NORWAY

TELEPHONE: +47 55238500

TELEFAX : +47 55238531

TELEX: 42297 OCEAN N

4. OWNER
(if different from no. 3)

5. PARTICULARS OF SHIP: Name: **G.O. Sars**

Nationality: Norwegian

Overall length: 77.5 metres

Maximum draught: 5.8 metres

Net tonnage: 4067 brt

Propulsion: Diesel

Call sign: LMEL

Registration port and number
(if registered fishing vessel)

6. CREW Name of master:

Number of crew: 15

7. SCIENTIFIC PERSONNEL Name and address of
scientist in charge:
Trond Martin Dokken
Uni Research Climate
Allégaten 55
5007 Bergen, Norway
Tel/telex/fax no.: +47 55583216

No. of scientists: 15

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference to latitude and longitude)

The continental margin west of Iceland, from shelf area down to ca 2500 m water depth. See attached map.

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

Sampling of marine sediments and shells for paleoclimate studies.



10. DATES AND NAMES OF INTENDED PORTS OF CALL

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART B: DETAIL

1. NAME OF RESEARCH SHIP G.O. Sars CRUISE NO. 2015112

2. DATES OF CRUISE From: 16.08.2016 To: 05.09.2016

3. a) PURPOSE OF RESEARCH

Sediment sampling for paleoclimatic studies. We will retrieve sediments from the continental margin, down to ca 2500 m. The operation of coring will be performed in the area shown in figure 1 (see end of document). The sediments samples will subsequently be analyzed in order to reconstruct the temperature and salinity of the water masses in the past.

Biological sampling (shelf areas) for paleoclimatic studies. We will try to recover live and fossil specimens of the mollusc *Arctica islandica* from the shelf of Iceland, with the purpose of studying bivalve growth history in relationship to climate. Sampling will mostly be focussed on shallow shelf areas between 30-200 meter water depths.

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

Sediments will be collected using four different types of coring devices, calypso-corer, gravity-corer, multi-corer and box-corer. The main difference is the length of the tube lowered to the seafloor, spanning from 40 cm to 21 m.

Multibeam echo sounder for bottom mapping before sediment coring will be performed, possibly also TOPAS bottom profiling and side-scan sonar. CTD measurements and water sampling will also be performed on selected localities.

4. ATTACH CHART showing (on an appropriate scale) the geographical area of intended work, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be fished

Map is attached at the end of the document.

5. a) TYPES OF SAMPLES REQUIRED (e.g., geological/water/plankton/fish/radionuclide.)

Marine sediments from the sea floor on the continental shelf.
Live-collected and sub-fossil specimens of the bivalve species.

b) METHODS OF OBTAINING SAMPLES (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).

Sampling will be performed by coring and dredging.

6. DETAILS OF MOORED EQUIPMENT

<u>Dates</u>	<u>Recovery</u>	<u>Description</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
<u>Laying</u>					

7. ANY HAZARDOUS MATERIALS (chemicals/explosives/gases/radioactives, etc.)
(Use separate sheet if necessary)



No hazardous materials will be used on board.

a) Type and trade name

b) Chemical content (and formula) NIL

c) IMO IMDG code (reference and UN no.) NIL

d) Quantity and method of storage on board NIL

e) If explosives give date(s) of detonation NIL

- Method 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

R/V *Bjarni Sæmundson* B997 (June/July 1997)

R/V *Marion Dufresne* 114 IMAGES-V (June/July 1999)

b) Any previously published research data relating to the proposed cruise

9. NAME AND ADDRESSES OF SCIENTISTS OF THE COASTAL STATE(S) IN WHOSE WATERS THE PROPOSED CRUISE TAKES PLACE WITH WHOM PREVIOUS CONTACT HAS BEEN MADE

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 is likely to be made available to the coastal state and by what means
All site surveying data will be available in electronic format to the Danish authorities shortly after the cruise.



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PART C. SCIENTIFIC EQUIPMENT

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

Coastal state: **Iceland**

Port call:

Dates: 16.08.2016-05.09.2016

Indicate "YES or "NO"

DISTANCE FROM COAST						
List scientific work by function	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	Between	Between
				4 nm	4-12 nm	12-200 nm
e.g.						
Magnetometry	no	no	no	no	no	no
Gravity	yes	no	no	yes	yes	yes
Diving	no	no	no	no	no	no
Seismics	no	no	no	yes	yes	yes
Seabed sampling: (Dredging)	yes	no	no	yes	yes	yes
Bathymetry	no	no	no	no	no	no
Trawling	no	no	no	no	no	no
Echo sounding	yes	no	no	yes	yes	yes
Water sampling	yes	no	no	yes	yes	yes
U/W TV	no	no	no	no	no	no
Moored instr.	no	no	no	no	no	no
Towed instr.	yes	no	no	yes	yes	yes

Jørund R. Strømseth

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(On behalf of the Principal Scientist)

Date 20.02.2015

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.

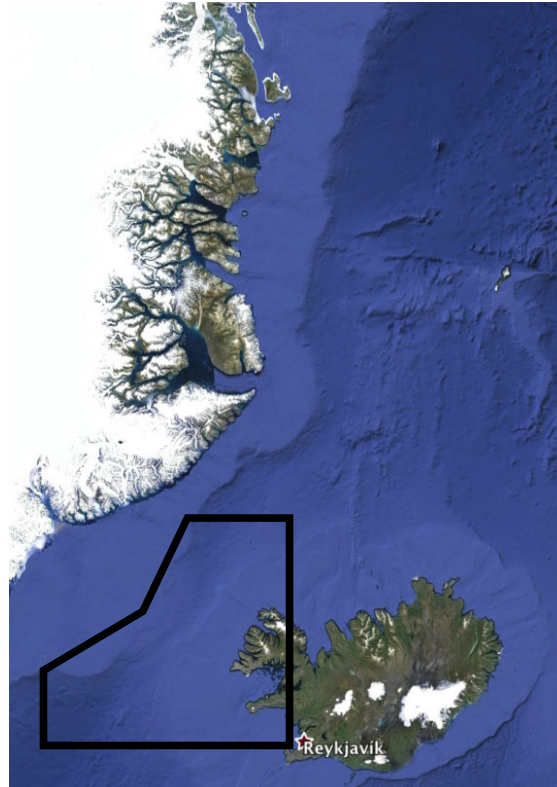


Figure 1. Map showing the shelf area of Iceland on which the coring and dredging will be performed. The operations will primarily be executed west and north-west of Iceland.