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ICES-Sø	knadskjema	Standard			
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# ICES søknadsskjema

## NOTIFICATION OF PROPOSED RESEARCH CRUISE

#### PART A: GENERAL

1. NAME OF RESEARCH SHIP "Kristine Bonnevie"

CRUISE NO. 2018614

2. DATES OF CRUISE

From: 25 May 2018

To: 12 June 2018

3. <u>OPERATING AUTHORITY:</u> Institute of Marine Research

P.O.Box 1870 Nordnes N-5817 BERGEN NORWAY TELEPHONE: 47-55238500 TELEFAX: 47-55238531 TELEX: 42297 OCEAN N E-MAIL: post@imr.no

4. <u>OWNER</u> (if different from no. 3)

5. PARTICULARS OF SHIP: Name: "Kristine Bonnevie"

Nationality: Norwegian Overall length: 57 metres Maximum draught: 6.6 metres

Net tonnage: 1444

Propulsion: Diesel

oll sign: I CWC

Call sign: LGWS

Registration port and number (if registered fishing vessel)

6. <u>CREW</u>

Name of master: Tom Ole Drange

Number of crew: 14

7. <u>SCIENTIFIC PERSONNEL</u>

Name and address of scientist in charge:

Kjetil Våge

University of Bergen, Geophysical Institute

P.O.Box 7803

N-5020 Bergen, Norway

Tel/telex/fax no.: +47 55582605

No. of scientists: 8

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

Norwegian, Greenland, and Iceland Seas (60-75° N, 25W-15E). (See also the chart at the end of the document)

## 9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

The cruise is part of a research project with the objective to investigate water masses and ocean currents in the Greenland and Iceland Seas and the exchange between these basins. On this cruise we will recover 2 subsurface moorings in the Iceland EEZ, 1 subsurface mooring and 1 surface meteorological buoy deployed at the same location in the Greenland EEZ, 1 surface meteorological buoy in international waters, and 2 ocean gliders near the mooring location in the Greenland EEZ. In addition we will do hydrographic measurements, ocean current measurements with ship-mounted acoustic Doppler current profiler (ADCP) and lowered ADCP along and close to the courses indicated at the map included at the end of the document.

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#### 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 "Kristine Bonnevie" CRUISE NO. . 2018614

2. <u>DATES OF CRUISE</u> From: 25 May 2018 To: 12 June 2018

## 3. a) PURPOSE OF RESEARCH

The cruise is part of a research project where the aim is to investigate the water masses and ocean currents in the Greenland, Iceland and Norwegian Seas. In the project Norwegian and Icelandic scientists collaborate. The studies include hydrographic measurements and ocean current measurements with ship-mounted ADCP, lowered ADCP, moored instruments, and autonomous ocean gliders.

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

Conductivity-temperature-depth (CTD) probe with multi water-sampler

Lowered ADCP mounted on CTD

Ship-mounted ADCP current measurements

Recovery of sub-surface current meter moorings

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

A chart showing the planned cruise track is included at the end of the document.

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

Seawater samples for salinity calibration and chemical analysis.

b) <u>METHODS OF OBTAINING SAMPLES</u> (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).

CTD multi water sampler.

## 6. <u>DETAILS OF MOORED EQUIPMENT</u>

Two sub-surface current meter moorings were deployed in the Iceland EEZ in 2016. These moorings will be recovered on this cruise. The moorings are equipped with an acoustic release that will be activated at recovery.

<u>Dates</u>				
Recovery	<u>Description</u>	Depth	Latitude	<b>Longitude</b>
25 May – 12 June 2018	Measure ocean currents	730 m	67.5 N	16.1 W
25 May – 12 June 2018	Measure ocean currents	840 m	67.6 N	16.1 W

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## ICES-Søknadskjema

- 7. <u>ANY HAZARDOUS MATERIALS</u> (chemicals/explosives/gases/radioactives, etc. (Use separate sheet if necessary)
  - a) Type and trade name
  - b) Chemical content (and formula)
  - c) IMO IMDG code (reference and UN no.)
  - d) Quantity and method of storage 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 kg.

## 8. <u>DETAIL AND REFERENCE OF</u>

a) Any relevant previous/future cruises

Several research cruises to this region have been performed in the period 2012-2016. On the research cruise in 2012 current meter moorings were deployed. In 2013 sound source moorings, subsurface floats, and surface drifter were deployed, and the current meter moorings deployed in 2012 were serviced. In 2014 the current meter moorings were recovered. In 2015 the current meter moorings were redeployed, then serviced and redeployed in 2016. The moorings will be recovered on this cruise to conclude the measurement program in this region.

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

Several manuscripts are in preparation for or have been submitted for publication, but as of yet none have been published.

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

Hedinn Valdimarsson, Skulagata 4, 121 Reykjavik, Iceland, tel: 354-5752000, 354-5752063 (direct) Steingrimur Jonsson, University of Akureyri, Borgir v/Norðurslóð, 600 Akureyri, Iceland

## 10. <u>STATE</u>

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
- When research data from the intended cruise is likely to be made available to the coastal state and by what means

The data will go into international databases such as ICES and will therefore be available to all scientists.



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PART C. SCIENTIFIC EQUIPMENT

Complete the following table

Coastal state: Iceland

Port call: No

Dates:

Indicate "YES or "NO"

				Distance from coast		
List scientific work by function  e.g. Magnetometry Gravity Diving Seismics Seabed sampling Bathymetry Trawling Echo sounding Water sampling U/W TV Moored instr. Towed instr.	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 4 nm	Between 4-12 nm	Between 12 and 200 nm
CTD	Yes	No	No	No	No	Yes
Rosette	Yes	No	No	No	No	Yes
Underway systems	Yes	No	No	No	No	Yes
Echo sounding	Yes	No	No	No	No	Yes
Water sampling	Yes	No	No	No	No	Yes
Towed Instrument	No	No	No	No	No	No
Trawling	No	No	No	No	No	No
Moored Instruments	Yes	No	No	No	No	Yes
Surface drifters	No	No	No	No	No	No

Kjetil Våge (Principal Scientist)

Date: 29 January 2018

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.

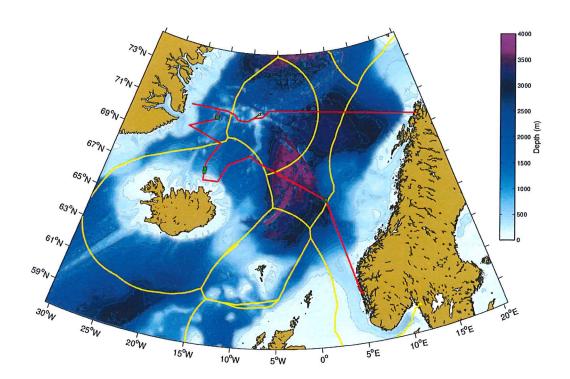


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Schematic view of the planned cruise track (red line) and mooring recoveries (green squares). The yellow lines indicate borders of exclusive economic zones.

