

**APPLICATION FOR CONSENT TO CONDUCT MARINE  
SCIENTIFIC RESEARCH IN AREAS UNDER NATIONAL  
JURISDICTION OF ICELAND**

**Date:** 08.04.2022

***1. General Information***

- 1.1 Ship and cruise number:** Jákup Sverri, Cruise 2222
- 1.2 Sponsoring institution:**
- Name:** Havstovan  
**Address:** PO Box 3051, Nóatún, FO-110 Tórshavn  
Faroe Islands  
**Name of director:** Marita Rasmussen
- 1.3 Scientist in charge of project:**
- Name:** Hjálmar Hátún  
**Address:** Havstovan  
PO Box 3051, Nóatún  
FO-110 Tórshavn  
Faroe Islands  
**Telephone:** +298 353900  
**Email:** hjalmarh@hav.fo
- 1.4 Scientist from Iceland with knowledge of the project:**
- Name:** Andreas Macrander  
**Address:** Hafrannsóknarstofnun  
Fornubúðum 5  
220 Hafnafjørður, Iceland
- 1.5 Submitting officer:**
- Name:** Hjálmar Hátún  
**Address:** Havstovan  
PO Box 3051, Nóatún 1  
FO-110 Tórshavn  
Faroe Islands  
**Telephone:** +298 353900  
**Email:** hjalmarh@hav.fo

## ***2. Description of Project***

### **2.1 Nature and objectives of the project:**

The aim of the project is to:

- Occupy CTD (Conductivity, Temperature, Depth) sections on the Iceland-Faroe Ridge. Planned sections are indicated in the attached chart.
- Deploy an Acoustic Doppler Current Profiler (ADCP) bottom frame at positions 63°43'N 011°30'W. Bottom depth at the location is 400 m.

The mooring and CTD observations are part of a study to investigate overflow across the Iceland-Faroe Ridge.

### **2.2 Relevant previous or future research cruises:**

Cruise 2122 by R/V Jákup Sverri in May 2021. On this cruise CTD sections were occupied in the Western Valley and two ADCP moorings were recovered.

Cruise 2126 by R/V Jákup Sverri. On this cruise an ADCP frame was deployed in Icelandic waters on the central part of the Ridge (see attached Chart).

Cruise 2218 by R/V Jákup Sverri (to be completed). On this cruise attempts will be made to recover an ADCP frame, which was deployed in Icelandic waters on the central part of the Ridge (see attached Chart).

### **2.3 Previously published research data relating to the project:**

Hansen, B., Larsen, K. M. H., Olsen, S. M., Quadfasel, D., Jochumsen, K., and Østerhus, S., 2018. Overflow of cold water across the Iceland–Faroe Ridge through the Western Valley, *Ocean Sci.*, 14, 871–885, <https://doi.org/10.5194/os-14-871-2018>

Olsen, S.M., Hansen, B., Østerhus, S., Quadfasel, D., Valdimarsson, H., 2016. Biased thermohaline exchanges with the Arctic across the Iceland-Faroe Ridge in ocean climate models. *Ocean Sci.* 12, 545–560. doi:10.5194/os-12-545-2016

### 3. Methods and Means to be Used

#### 3.1 Particulars of vessel:

**Name:** Jákup Sverri **Nationality:** Faroese  
**Owner:** Føroya Landsstýri (The Local Faroese Government)  
**Operator:** Havstovan  
**Overall length:** 54.1 m **Maximum draught:** 6.4 m  
**Net tonnage:** 600 t **Gross tonnage:** 1900 t  
**Propulsion:** Diesel-electric  
**Cruising speed:** 11 kn **Maximum speed:** 14 kn  
**Call sign:** XPZO  
**Registered port and number:** Tórshavn (cargovessel)  
**Method and capability of communication:**  
(Satellite) Phone no: + 298 66 39 00  
Email: jsbridge@hav.fo  
MMSI no: 231 854 000  
**Name of master:** Martin í Grund  
**Number of crew:** 9-13  
**Number of scientists on board:** 3-12

3.2 **Aircraft or other craft to be used in the project:** N/A

#### 3.3 Particulars of methods and scientific instruments:

Types of samples and data	Methods to be used	Instruments to be used
Water	CTD + bottle sample	CTD + Rosette
Mooring recovery	Acoustic release	Oceano command unit

3.4 **Indicate whether harmful substances will be used:** NO

3.5 **Indicate whether drilling will be carried out:** NO

3.6 **Indicate whether explosives will be used:** NO

#### ***4. Installations and Equipment***

**Details of installations and equipment** (dates of laying, servicing, recovery; exact locations and depth):

Deployments of ADCP frame at position 63°43'N 011°30'W. Bottom depth at the location is 400 m.

#### ***5. Geographical Areas***

**5.1 Indicate geographical areas in which the project is to be conducted** (with reference in latitude and longitude):

CTD sections and moorings are within the area whose corners are located at:

(64°00'N, 12°00'W) and (63°00'N, 10°00'W)

See chart for more details.

**5.2 Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment.**

Attached

#### ***6. Dates***

**6.1 Expected dates of first entry into and final departure from the research area of the research vessel:**

Depending on the weather conditions, the ship will enter Icelandic waters, occupy CTD sections, recover the frame, and depart some time in the period:

Entry: 01.06.2022

Exit: 08.06.2022

**6.2 Indicate if multiple entry is expected:**

No

## *7. Port Calls*

**7.1 Dates and names of intended ports of call in Iceland:**

No intended port call

**7.2 Any special logistical requirements at ports of call:**

N/A

**7.3 Name/address/telephone of shipping agent (if available):**

N/A

## *8. Participation*

**8.1 Extent to which Iceland will be enabled to participate or to be represented in the research project:**

Observers are welcome aboard.

Havstovan collaborates with Andreas Macrander (oceanographer at Hafrannsóknarstofnun) on Greenland-Scotland Ridge exchanges.

**8.2 Proposed dates and ports for embarkation/diseembarkation:**

Tórshavn, Faroe Islands at beginning and end of cruise.

## *9. Access to Data, Samples and Research Results*

**9.1 Expected dates of submission to Iceland of preliminary reports which should include the expected dates of submission of the final results:**

Six months from conclusion of cruise.

**9.2 Proposed means for access by Iceland to data and samples:**

By cruise report

**9.3 Proposed means to provide Iceland with assessment of data, samples and research results or provide assistance in their assessment or interpretation:**

By individual communication. Data will also be accessible on [www.envofar.fo](http://www.envofar.fo)

**9.4 Proposed means of making research results internationally available:**

In scientific journals. Technical reports will be published on [www.hav.fo](http://www.hav.fo).

### *10. Scientific Equipment*

**Coastal State**    Iceland

**Port Call**            No

*Indicate "Yes" or "No"*

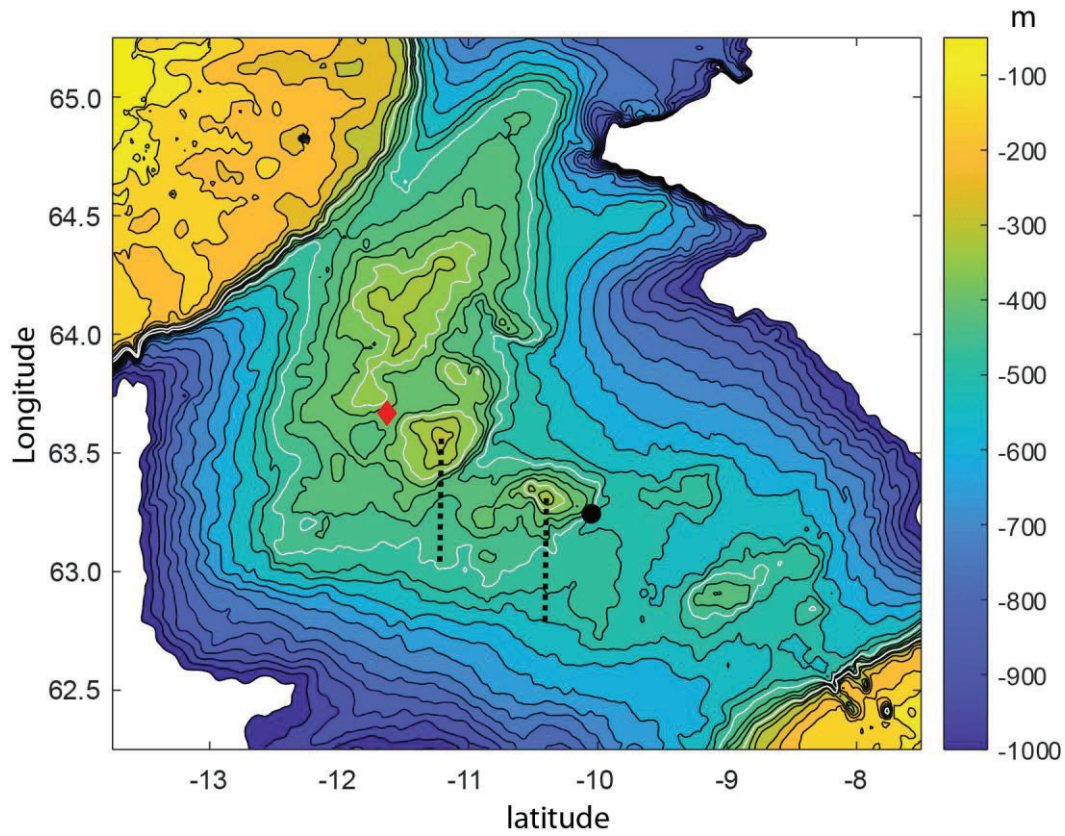
**Dates**                N/A

<u>LIST SCIENTIFIC WORK BY FUNCTION</u> eg: magnetometry, gravity, diving, seismics, bathymetry, sea bed sampling, trawling, echo sounding, water sampling, u/w TV, moored instruments, towed instruments	Water column including sediment sampling of the sea bed	Fisheries research within fishing limits	Research concerning the natural resources of the Continental Shelf or its physical characteristics	Distance from coast within 12 nms	Distance from coast between 12-200 nm	(Continental Shelf work only)  Beyond 200 nm but within the Continental margin
Mooring recovery	Yes	No	No	No	Yes	No
Water sampling	Yes	No	No	No	Yes	No

*Hjálmar Hátún*

Dated 8. April 2022

**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**



Chart, showing the location of the ADCP frame in Icelandic water (red diamond) and an ADCP mooring in Faroese water (black circle). Two planned CTD sections in Icelandic and Faroese waters are indicated by black dotted lines (approx location). Additional CTD sections might be occupied if awaiting sufficient weather for ADCP frame recovery.