NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP
R/V Skagerak

CRUISE NO.

2. DATES OF CRUISE From: 2025-07-15 To: 2025-08-02

3. OPERATING AUTHORITY:
Northern Offshore Services
Saltholmsgatan 44
SE-426 76 Västra Frölunda
Sweden

TELEPHONE:
+46 31-3100200

TELEFAX:

TELEX:

4. OWNER (if different from no. 3)
Department of Marine Sciences
University of Gothenburg (UGOT)
Box 461, SE-405 30 Gothenburg
Sweden

5. PARTICULARS OF SHIP:

Name:	**R/V Skagerak**
Nationality:	**Swedish**
Overall length: (in metres)	**49,10 m**
Maximum draught: (in metres)	**3,90 m**
Net tonnage:	**117**
Propulsion e.g. diesel/steam:	**Diesel/Electric**
Call sign:	**SEYD**
Registration port and number (if registered fishing vessel)	

6. CREW

Name of master:
Joakim Edvardsson /
Richard Olsson

Number of crew:
8 persons

7. SCIENTIFIC PERSONNEL

Name and address of scientist in charge:
Nuncio Murukesh
Ocean Atmosphere Interaction,Arctic Division
National Centre for Polar and Ocean Research
Goa, India
Email: nuncio@ncpor.res.in

Tel/telex/fax no.: Tel. 08322525679, mob: 9890357423

No. of scientists: 10

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference to latitude and longitude)
Greeland Sea, Denmark Strait – 65N to 70N and 30 W TO 20W

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

The purpose of the expedition is to understand the Ocean and atmospheric characteristics of the region w.r.t the climate. The CTD sampling locations are spaced at about 17 km approximately to capture the mesoscale dynamics. Physical, biological, and geological sampling will be carried out along the track.The sampling along the transect will also be carried out based on the features identified using satellite images as well. This will help to target oceanic mesoscale and submesoscale characteristics.

- Heat and salt budget in the sampling area
- Mesoscale and sub mesoscale variability in the East Greenland Sea shelf.
- Mechanisms of nutrient supply into the East Greenland Sea Shelf.
- Phytoplankton, zooplankton and microbial characteristics w.r.t water masses.
- Organic matter composition, abundance and reactivity
- Past climate and oceanography of the region in relation to the AMOC.
- Aerosol measurements in relation to the biological activity

Apart from the equipment on board, additional equipments viz, **underway CTD**, ferrybox, multicorer/box corer and a gravity corer will also be used. Also, XCTD will be deployed wherever necessary to compliment the CTD observations. The observational effort will be supplemented by simulations using a Regional Ocean model (ROMS).

10. DATES AND NAMES OF INTENDED PORTS OF CALL
Reykjavik 15-16 July and 2-5 August

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

NOTIFICATION OF PROPOSED RESEARCH CRUISE

1. PART B: DETAILS

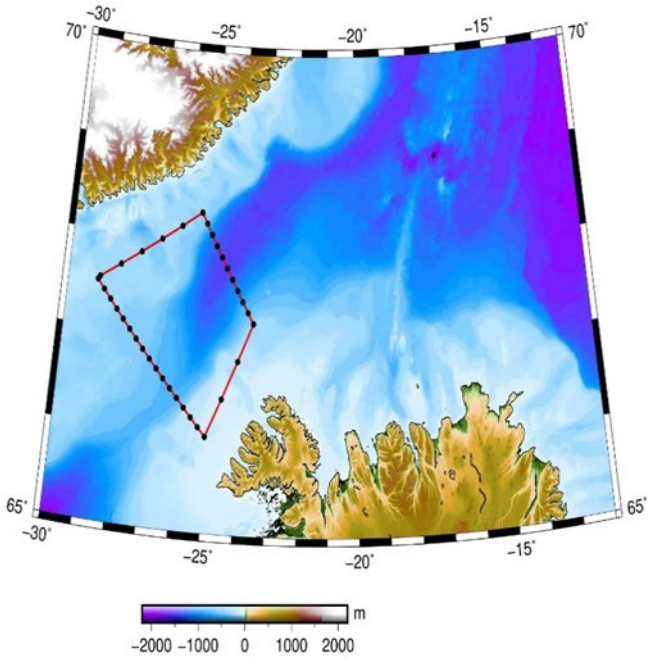
1. NAME OF RESEARCH SHIP: **R/V Skagerak** — CRUISE NO.: 2315

2. DATES OF CRUISE — From: 2025-07-15 — To: 2025-08-02

3. a) PURPOSE OF RESEARCH
To study the Oceanographi processes in relation to the freshwater discharge and transport through Denmark Strait, East Greenland sea region.

b) GENERAL OPERATIONAL METHODS (including full description of any fish gear, trawl type, mesh size, etc.)
Operations will be conducted along the track as well as at sampling locations as in the Diagram attached. Depending on the availability of time and based on oceanic features, one or two time series will also be collected for atleast a day at 3 hourly intervals. The opearations include, CTD uCTD, ADCP, Weather stations, Aerosol monitoring, Water sampling for phytoplankton, zooplankton, Nutrients, Microbiology and sediments. Along the track, Expendable CTD will also be deployed

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



5. a) TYPES OF SAMPLES REQUIRED (e.g., geological/water/plankton(phyto/zoo)/geochemical)

Seawater (surface and bottom) and shallow sediment samples (up to 50 cm penetration into sediments). Water samples also for natural geochemical tracers, nutrients, carbon, and heavy metals.

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).
Water sampling using a CTD-Rosette sampler and ferrybox and pumps available on the vessel including the engine cooling pump).
Sediment sampling using multiple corer, box-corer and/or GEMAX corer.
Deployment of benthic chamber landers to determine sediment-water exchange in situ.

6. DETAILS OF MOORED EQUIPMENT

Dates Laying	Recovery	Description	Depth	Latitude	Longitude
None X					

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

a) Type and trade name
No hazardous material or chemicals will be used.

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 dates of detonation
- Method of detonation
- Position 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

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

Please see separate sheet attached

9. NAMES 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)

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

c) When research data from the intended cruise are likely to be made available to the coastal state and by what means

PART C. SCIENTIFIC EQUIPMENT

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

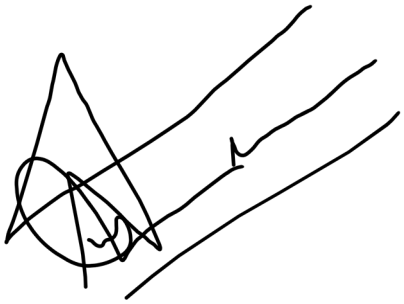
Coastal state:

Port of call:

Dates:

Indicate "YES" or "NO"

				DISTANCE FROM COAST		
List scientific work by function e.g.	Water column including sediment sampling of the seabed	Fisheries research within fishing limits	Research concerning the natural resources of the conti-nental shelf or its physical characteris-tics	Within 3 nm	Between 3-12 nm	Between 12-200 nm
Magnetometry						
Gravity						
Diving						
Seismics						
Seabed sampling	Yes	No	No	No	No	Yes
Bathymetry						
Trawling						
Echo sounding						
Water sampling	Yes	No	No	No	No	Yes
U/W TV						
Moored instr.						
Towed instr.						



24/01/25

_____ Dated

(On behalf of the Principal Scientist)

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