

## NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP: "G.O.Sars" CRUISE NO. 2012118
  
2. DATES OF CRUISE      From: 1. July 2012      To: 21. July 2012
  
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: 7,30 metres  
  
Net tonnage: 4067 tonnes  
  
Propulsion: DC - Electric  
  
Call sign: LMEL  
  
Registration port and number  
(if registered fishing vessel)  
Bergen  
Telephone:                      +47 55906440  
Telefax::                        +47 55906441  
E-mail:                         GOSars@IMR.no
  
6. CREW                              Name of master: John Hugo Johnsen / Preben Vindenes  
  
Number of crew: 15

7. SCIENTIFIC PERSONNEL

Name and adress of  
scientist in charge: Leif Nøttestad  
Institute of Marine Research  
P.O.box 1870 Nordnes  
N-5024 BERGEN NORWAY

Tel/telex/fax no.: (47)55236822/(47)55235395

No. of scientists: 12

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

62°N - 73° N  
18°E - 25° W

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

International Ecosystem Summer Survey in the Norwegian Sea (IESSNS), coordinated by ICES. Major aims include estimate abundance, zonal distribution and feeding ecology of northeast Atlantic mackerel, Norwegian spring-spawning herring and blue whiting. Perform quantitative plankton samples, systematic whale observations and oceanographic measurements.

10. DATES AND NAMES OF INTENDED PORTS OF CALL

Only Norwegian ports (Tromsø 11<sup>th</sup> of July and Bergen 21<sup>st</sup> of July)

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

No.

NOTIFICATION OF PROPOSED RESEARCH CRUISEPART B: DETAIL

1. NAME OF RESEARCH SHIP: "G O Sars" CRUISE NO. 2012118
2. DATES OF CRUISE From 1. July 2012 To 21. July 2012

3. a) PURPOSE OF RESEARCH

Major aims onboard G.O.Sars include estimate abundance, zonal distribution and feeding ecology of northeast Atlantic mackerel, Norwegian spring-spawning herring and blue whiting. Perform quantitative plankton samples, systematic whale observations and oceanographic measurements.

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

Multipelt 832 pelagic sampling trawl and Egersund trawl 890 m diameter.

During the survey the following operations will be made:

1. Pelagic trawling 0-60 m for mackerel, herring and other pelagic species such as the survey based on both predetermined stations and opportunistic trawling based on acoustic registrations.
  2. Conductivity-Temperature-Depth (CTD) measurements with Seabird CTD measurements. In total 50-60 CTD casts are planned in the area.
  3. WP2 net casts for zooplankton sampling. Stipulated 60 zooplankton samples from 0-200 m.
  4. Marine mammal sightings from above the bridge during daylight hours.
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.

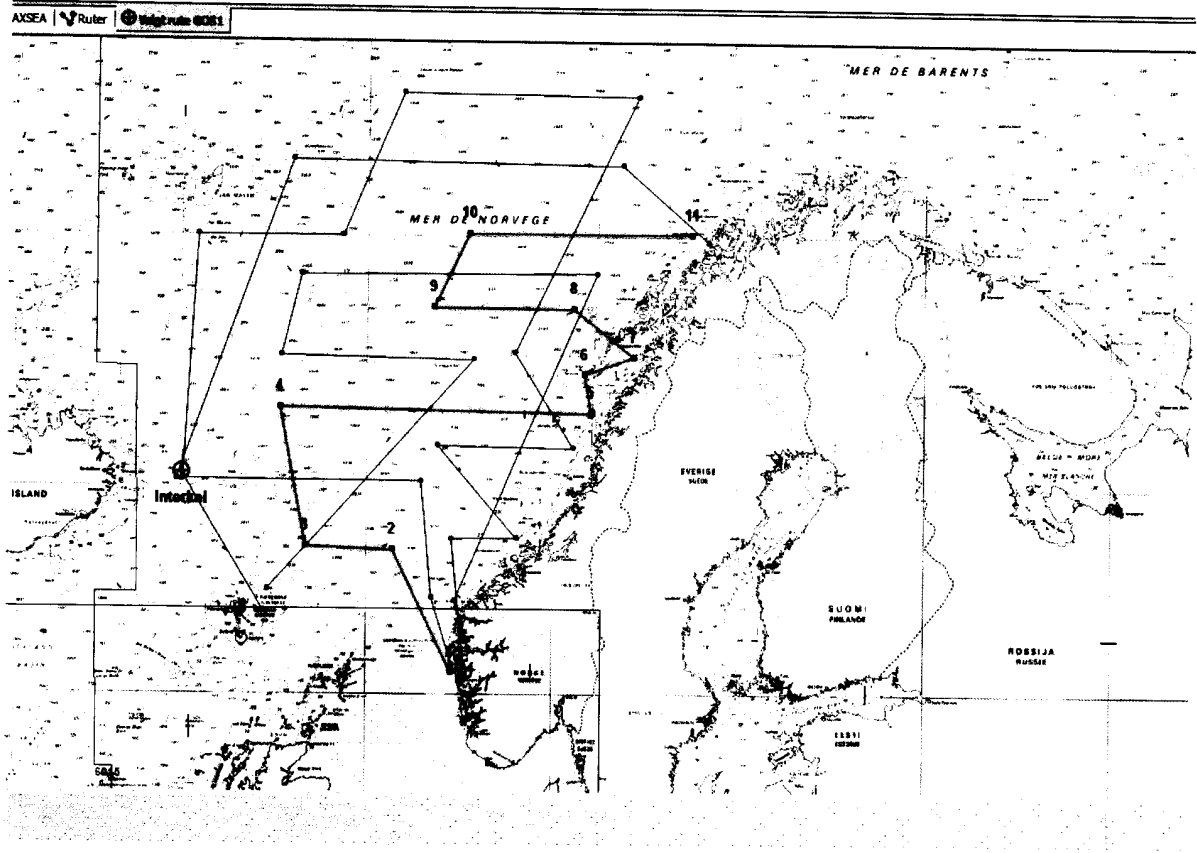


Chart of survey lines for G.O.Sars during the first leg from 1. July to 11. July 2012.

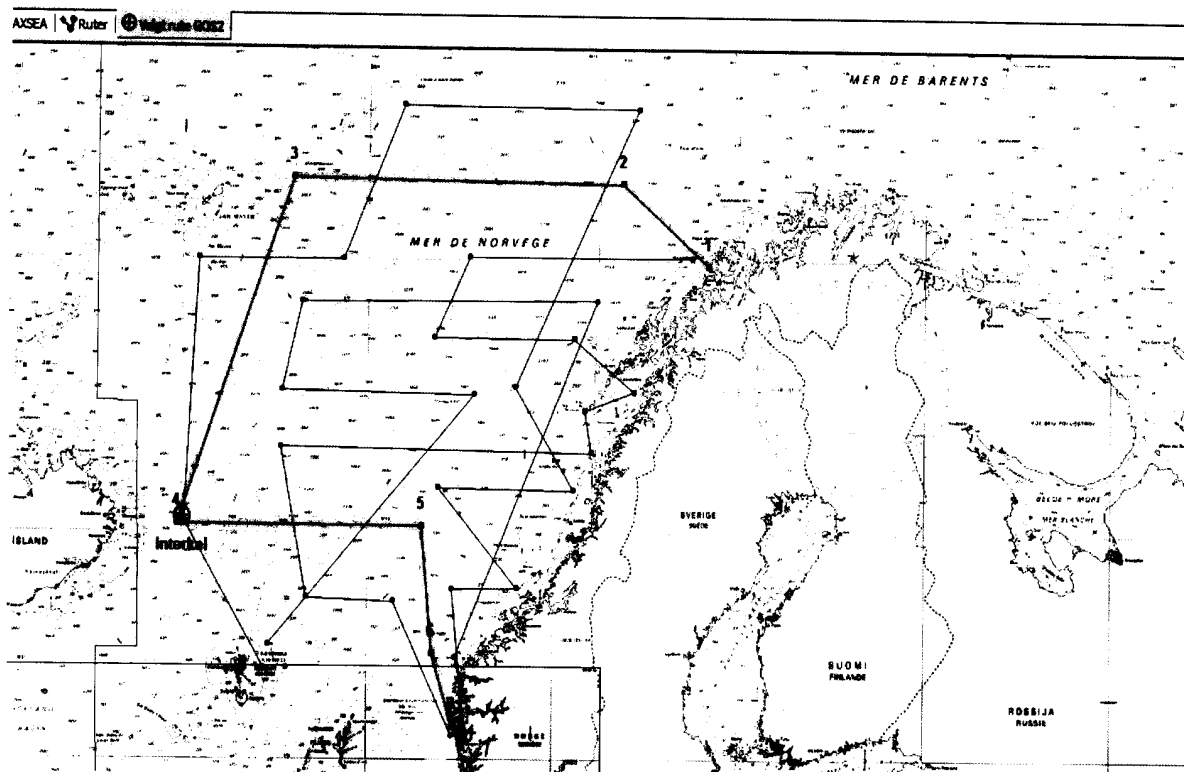


Chart of survey lines for G.O.Sars during the second leg from 11. July to 21. July 2012.

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

Fish, plankton, water

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

Trawling with Mulpelt 832 and Egersund trawl. WP2 net samples of zooplankton. Fishing with pelagic trawl upon mackerel, herring, blue whiting and salmon, of which approx. 100 individuals/haul are required. Quantity of fish to be retained on board: up to 200 tonnes of mackerel, horse mackerel, herring, blue whiting and salmon due to catch needed for biological research. Other species: nil.

6. DETAILS OF MOORED EQUIPMENT

No moored equipment will be deployed during the survey

<u>Dates</u>	<u>Laying</u>	<u>Recovery</u>	<u>Description</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
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7. ANY HAZARDOUS MATERIALS (chemicals/explosives/gases/radioactives, etc.)  
(Use separate sheet if necessary)

- a) Type and trade name NIL
- 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

The cruise has been undertaken since middle of the 1990's.

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

- ICES. 2010. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 28 August - 3 September 2010, Vigo, Spain. ICES CM 2010/ACOM:15: 612 pp.
- ICES. 2011. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 23 - 29 August 2011, ICES Headquarters, Copenhagen, Denmark. ICES CM 2011/ACOM:15. 642 pp.
- Langøy H, Nøttestad L, Fernø A, Broms C, Skaret G.(2012). Overlap in distribution and diets of Atlantic mackerel (*Scomber scombrus*), Norwegian spring-spawning herring (*Clupea harengus*) and blue whiting (*Micromesistius poutassou*) in the Norwegian Sea during late summer. Marine Biology Research (in press).
- Nøttestad L. and J.A. Jacobsen 2009. Coordinated Norwegian-Faroese ecosystem survey with M/V "Libas", M/V "Eros", and M/V "Finnur Fríði" in the Norwegian Sea, 15 July – 6 August 2009. Working Document to WGWIDE, ICES 2-8 Sept. 2009. 32 p.
- Nøttestad, L., Jacobsen, J.A., Sveinbjørnsson S. et al. 2010. Cruise report from the coordinated ecosystem survey with M/V "Libas" and M/V "Brennholm", M/V "Finnur Fridi" and R/V "Arni Fridriksson" in the Norwegian Sea and surrounding waters, 9 July – 20 August 2011. Working document to Working Group on Widely Distributed Species (WGWIDE), Vigo, Spain 28. August – 3. September 2010. 48 p.
- Nøttestad, L. Oskarsson G.J., Jacobsen, J.A. et al. 2011. "Cruise report from the coordinated ecosystem survey (IESSNS) with M/V "Libas, M/V "Finnur Fridi" and R/V "Arni Fridriksson" in the Norwegian Sea and surrounding waters 18. July – 31 August 2011". Working document to working group on Northeast Atlantic Pelagic Ecosystem Surveys (WGNAPES) ICES HQ, Copenhagen 31 p.
- Sveinbjørnsson, S. Nøttestad, L., Jacobsen J.A. et al. 2010. Addendum to: WGWIDE 2010 WD. Cruise report from the coordinated ecosystem survey with M/V "Libas" and M/V "Brennholm", M/V "Finnur Fridi" and R/V "Arni Fridriksson" in the Norwegian Sea and surrounding waters, 9 July- 20 August 2010. 7 p.
- Utne K.R., Huse G., Ottersen G., Holst J.C., Zabavnikov V., Jacobsen J.A., Nøttestad L. 2012. Horizontal distribution and overlap of planktivorous fish in the Norwegian Sea during summer 1995-2006, related to water temperature. Marine Biology Research (in press).

All data stored and reported to ICES within 3 months.

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

WGNAPES and WGWIDE involved scientists from European countries.

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

Report within 6 months.

PART C. SCIENTIFIC EQUIPMENT

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


Coastal state: Faroe Islands (Færøylene)

Port call: NO

Dates: Between 3-19 July 2012

				Distance from coast		
<u>List scientific work by function</u>						
e.g. Magnetometry Gravity Diving Seismics Seabed sampling Bathymetry Trawling Echo sounding Water sampling	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 characteris-	Within 0-4 nm	Between 4-12 nm	Between 12-200 nm

U/W TV Moored instr. Towed instr.			tics			
Trawling	0-300 m	Yes	No	No	No	Yes
Echo sounding	0-500 m	Yes	No	No	No	Yes
Water sampling	0-500 m				Yes	Yes

  
 Operations Officer: Tom Ole Grange  
 (On behalf of Principal Scientist)

Dated 2012.30.03

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.



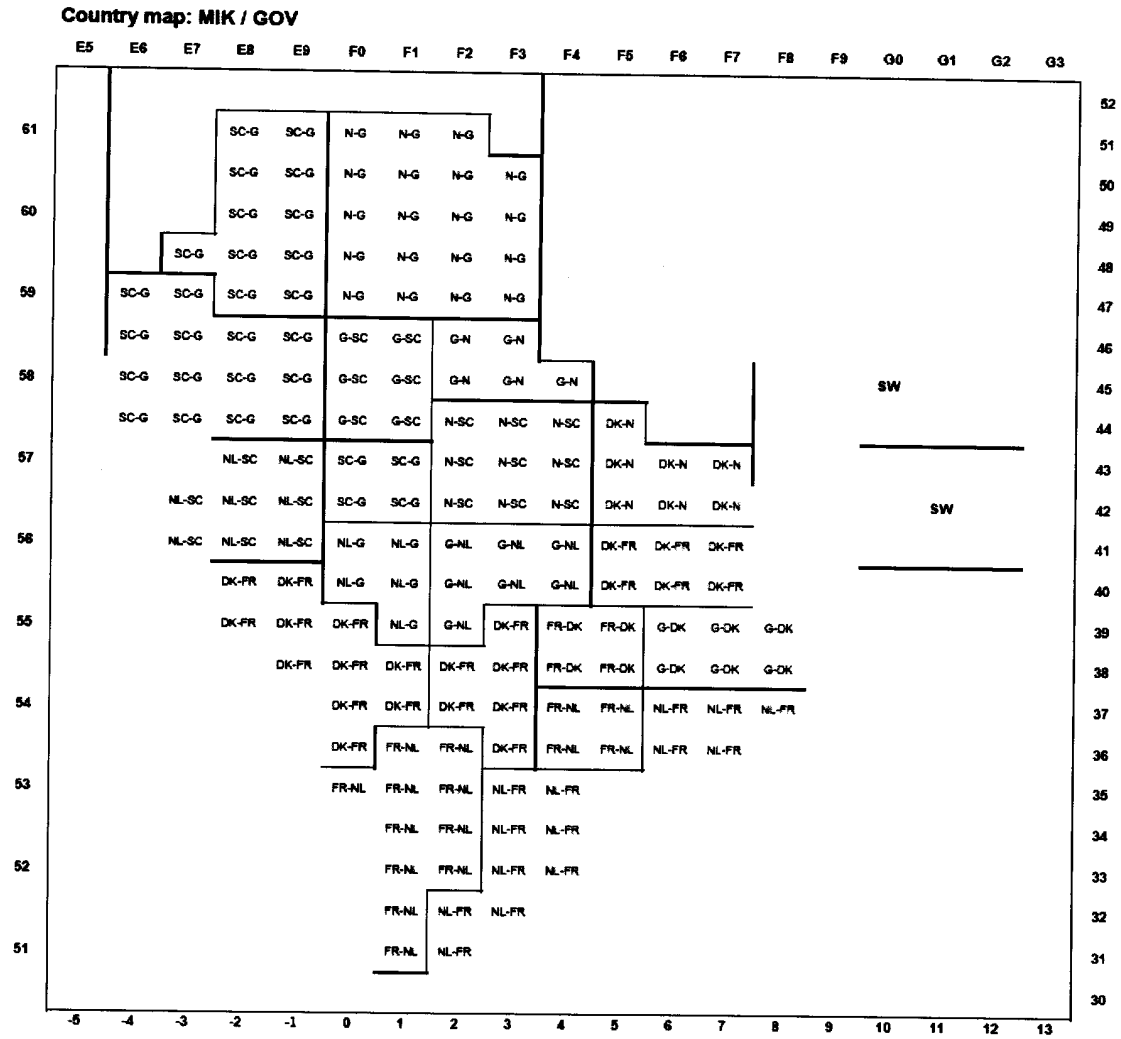


Figure 1. "G.O. Sars" will work rectangles marked with N-G, G-N, N-SC and DK-N. In addition the hydrographical sections Fedje-Shetland and Utsira-Start Point will be taken. In addition, 2 stations will be taken for egg and larva feeding process-studies. See Figure 2.

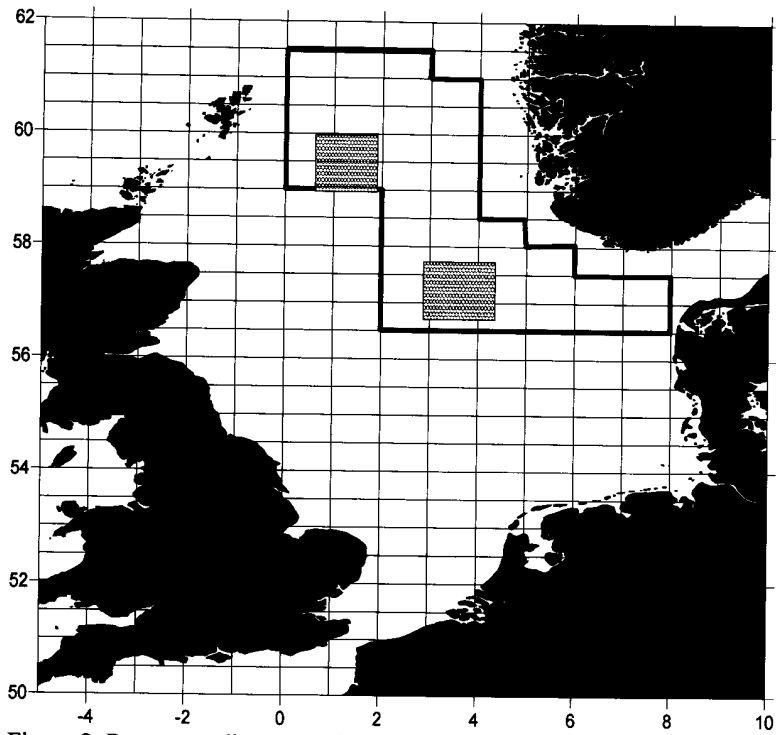


Figure 2. Process studies. Potential process study stations are indicated by the green cross-hatch areas. Both process study areas are within the standard MIK survey areas undertaken by IMR. The standard IBTS survey coverage is shown by the red outline.

## NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP: "BRENNHOLM" CRUISE NO. 2012825
2. DATES OF CRUISE From: 6. July 2012 To: 27. July 2012
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  
Brennholm A/S  
v/Lars Einar Sandtorv  
Eikeneset 40  
5259 Hjellestad, Norway
5. PARTICULARS OF SHIP: Name: "Brennholm"  
Nationality: Norwegian  
Overall length: 75,4 metres  
Maximum draught: 9 metres  
Net tonnage: 799  
Propulsion: CAT 3616TA, 5060 kW (6870 hp) @ 900 RPM  
Call sign: LIWG  
Registration port and number  
(if registered fishing vessel) IMO 9269655  
Bergen  
Telephone: +47 55191999  
Telefax:: +47 55221110  
E-mail: lareina@online.no
6. CREW Name of master: -----  
Number of crew: 9

7. SCIENTIFIC PERSONNEL

Name and address of  
 scientist in charge: Leif Nøttestad (project leader)  
 Kjell Rong Utne (cruise leader)  
 Institute of Marine Research  
 P.O. box 1870 Nordnes  
 N-5024 BERGEN NORWAY

Tel/telex/fax no.: (47)55236993/(47)55238687

No. of scientists: 10

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

62°N – 73° N  
 18°E - 20° W

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

International Ecosystem Summer Survey in the Norwegian Sea (IESSNS), coordinated by ICES. Major aims include estimate abundance, zonal distribution and feeding ecology of northeast Atlantic mackerel, Norwegian spring-spawning herring and blue whiting. Perform quantitative plankton samples, systematic whale observations and oceanographic measurements.

10. DATES AND NAMES OF INTENDED PORTS OF CALL

About the 18<sup>th</sup> of July at Thorshavn – Faroe Islands

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

No.

NOTIFICATION OF PROPOSED RESEARCH CRUISEPART B: DETAIL

1. NAME OF RESEARCH SHIP: "Brennholm" CRUISE NO. 2012825

2. DATES OF CRUISE From 6. July.-2012 To 27. July.-2012

3. a) PURPOSE OF RESEARCH

Major aims onboard Brennholm include estimate abundance, zonal distribution and feeding ecology of northeast Atlantic mackerel, Norwegian spring-spawning herring and blue whiting. Perform quantitative plankton samples, systematic whale observations and oceanographic measurements.

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

Multipelt 832 pelagic sampling trawl and Egersund trawl 890 m diameter.

During the survey the following operations will be made:

1. Pelagic trawling 0-60 m for mackerel, herring and other pelagic species such horse mackerel. Pelagic trawling 100-300 m depth for blue whiting. There will be about 60 trawl stations during the survey based on both predetermined stations and opportunistic trawling based on acoustic registrations.
  2. Conductivity-Temperature-Depth (CTD) measurements with SAIV CTD measurements. In total 50-60 CTD casts are planned in the area.
  3. WP2 net casts for zooplankton sampling. Stipulated 60 zooplankton samples from 0-200 m.
  4. Marine mammal sightings from above the bridge during daylight hours.
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.

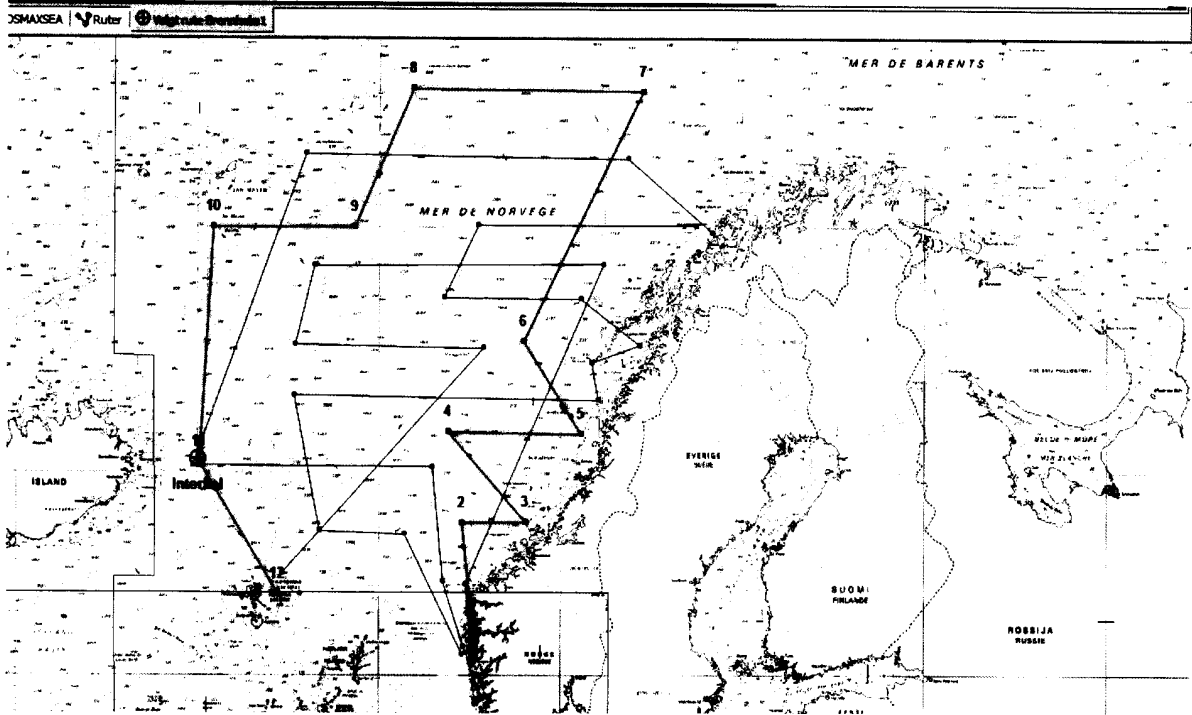
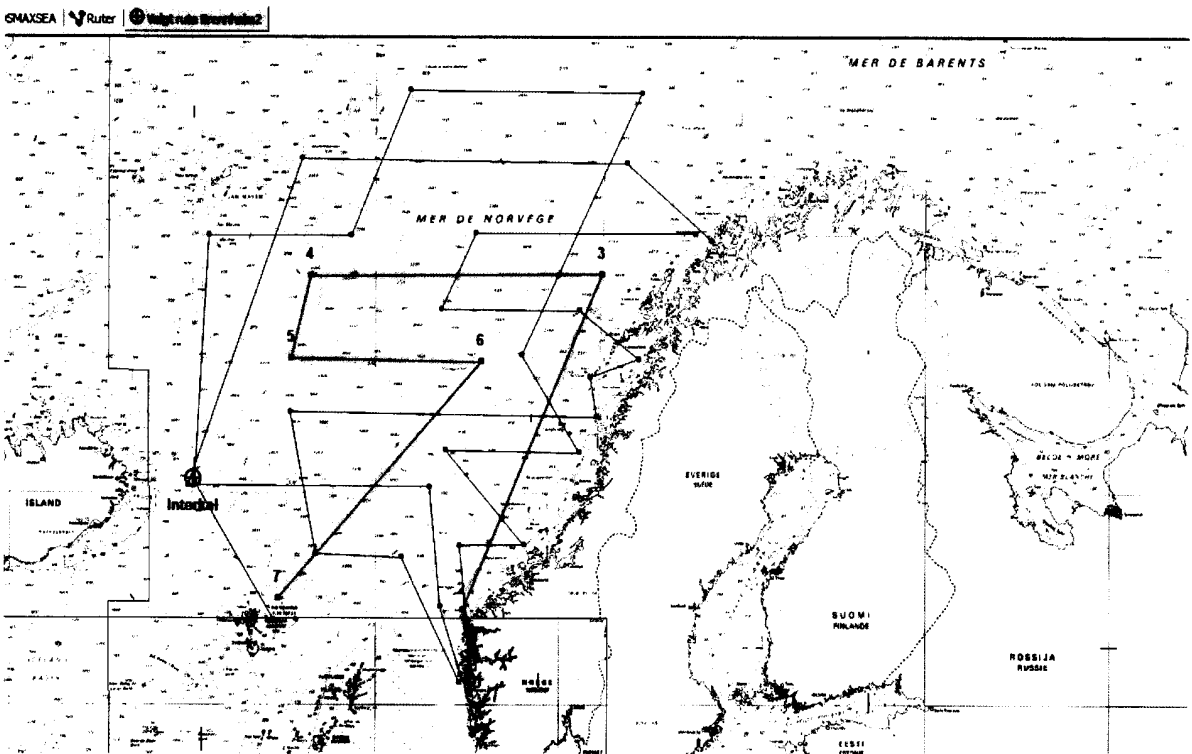


Chart of survey route by Brennholm during the first leg of the cruise from 6-18 July 2012.



**Chart of survey route by Brennholm during the second leg of the cruise from 18.-27. July 2012.**

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

Fish, plankton, water

- 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

Trawling with Mulpelt 832 and Egersund trawl. WP2 net samples of zooplankton. Fishing with pelagic trawl upon mackerel, herring, blue whiting and salmon, of which approx. 100 individuals/haul are required. Quantity of fish to be retained on board: up to 200 tonnes of mackerel, horse mackerel, herring, blue whiting and salmon due to catch needed for biological research. Other species: nil.

6. DETAILS OF MOORED EQUIPMENT

No moored equipment will be deployed during the survey

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

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

- a) Type and trade name NIL
- 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

The cruise has been undertaken since middle of the 1990's.

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

- ICES. 2010. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 28 August - 3 September 2010, Vigo, Spain. ICES CM 2010/ACOM:15: 612 pp.
- ICES. 2011. Report of the Working Group on Widely Distributed Stocks (WGWIDE), 23 - 29 August 2011, ICES Headquarters, Copenhagen, Denmark. ICES CM 2011/ACOM:15. 642 pp.
- Langøy H, Nøttestad L, Fernø A, Broms C, Skaret G.(2012). Overlap in distribution and diets of Atlantic mackerel (*Scomber scombrus*), Norwegian spring-spawning herring (*Clupea harengus*) and blue whiting (*Micromesistius poutassou*) in the Norwegian Sea during late summer. Marine Biology Research (in press).
- Nøttestad L. and J.A. Jacobsen 2009. Coordinated Norwegian-Faroese ecosystem survey with M/V "Libas", M/V "Eros", and M/V "Finnur Friði" in the Norwegian Sea, 15 July – 6 August 2009. Working Document to WGWIDE, ICES 2-8 Sept. 2009. 32 p.
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- Sveinbjørnsson, S. Nøttestad, L., Jacobsen J.A. et al. 2010. Addendum to: WGWIDE 2010 WD. Cruise report from the coordinated ecosystem survey with M/V "Libas" and M/V "Brennholm", M/V "Finnur Fridi" and R/V "Arni Fridriksson" in the Norwegian Sea and surrounding waters, 9 July- 20 August 2010. 7 p.
- Utne K.R., Huse G., Ottersen G., Holst J.C., Zabavnikov V., Jacobsen J.A., Nøttestad L. 2012. Horizontal distribution and overlap of planktivorous fish in the Norwegian Sea during summer 1995-2006, related to water temperature. Marine Biology Research (in press).

All data from the survey will be stored and reported to ICES WGNAPES within 3 months.

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

WGNAPES and WGWIDE involved scientists from European countries.

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

Report within 6 months.



**PART C. SCIENTIFIC EQUIPMENT**

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


Coastal state: Iceland

Port call: NO

Dates: Around 12<sup>th</sup> - 18<sup>th</sup> of July 2012

Indicate "YES or "NO"

<u>List scientific work by function</u>				Distance from coast		
				Within 0-4 nm	Between 4-12 nm	Between 12-200 nm
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			
Trawling	0-300 m	Yes	No	No	No	Yes
Echo sounding	0-500 m	Yes	No	No	No	Yes
Water sampling	0-500 m				Yes	Yes

  
Operations officer: Tom Ole Orange  
(On behalf of Principal Scientist)

Dated 2012.30.03

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.