## NOTIFICATION OF PROPOSED RESEARCH CRUISE

## PART A: GENERAL

1. NAME OF RESEARCH SHIP: "EROS" CRUISE NO. 2013826

2. <u>DATES OF CRUISE</u> From: 4. July 2013 To: 31. July 2013

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

4. OWNER (if different from no. 3)

EROS AS, v/Per Magne Eggesbø, 6017 Ålesund, Norway

5. PARTICULARS OF SHIP: Name: M/V "EROS"

Nationality: Norwegian

Overall length: 77.5 metres

Maximum draught: 7.5 metres

Net tonnage: 1208

Propulsion: Diesel, 4000 kW v/600 rpm

Call sign: LCNG

Registration port and number

(if registered fishing vessel), IMO 9617973

6. <u>CREW</u> Name of master: Pål Cato Reite

Number of crew: 10

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7. SCIENTIFIC PERSONNEL

Name and address of

Leif Nøttestad (project leader) Kjell Rong Utne (cruise leader)

scientist in charge: Tel/telex/fax no.:

As in #3 above

(47)55238611 (47)55236867

No. of scientists:

2 scientists and 6 technicians and

engineers

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

North Sea, Norwegian Sea and surrounding areas including: EEZ EU, EEZ Iceland and EEZ Faroe Islands

56°N - 74° N 17°E- 20° W

#### 9. <u>BRIEF DESCRIPTION OF PURPOSE OF CRUISE</u>

Ecosystem cruise with abundance estimation and biological sampling of NEA mackerel, NSS herring, and blue whiting. Oceanography measurements with CTD casts. Zooplankton sampling with WP2 vertical net hauls. Acoustic mapping of pelagic fish and plankton with multi-frequency echosounder and multibeam sonars. Current measurements with ADCP.

#### 10. <u>DATES AND NAMES OF INTENDED PORTS OF CALL</u>

Bergen, Norway 4. July 2013 Tromsø, Norway 19. July 2013 Bergen, Norway 31. July 2013

#### 11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

No.

#### NOTIFICATION OF PROPOSED RESEARCH CRUISE

#### PART B: DETAIL

1. NAME OF RESEARCH SHIP: M/V "EROS"

**CRUISE NO. 2013826** 

2. <u>DATES OF CRUISE</u>

From:

4. July 2013

To:

31. July 2013

#### 3. a) PURPOSE OF RESEARCH

Abundance estimation of NEA mackerel, NSS herring and blue whiting with swept area methodology and acoustic mapping with echosounders and sonars. Better understand the North Sea and Norwegian Sea ecosystem and especially the distribution, migration, feeding and spatial overlap of important pelagic planktivorous species (mackerel, herring and blue whiting) in relation to hydrography, zooplankton and top predators.

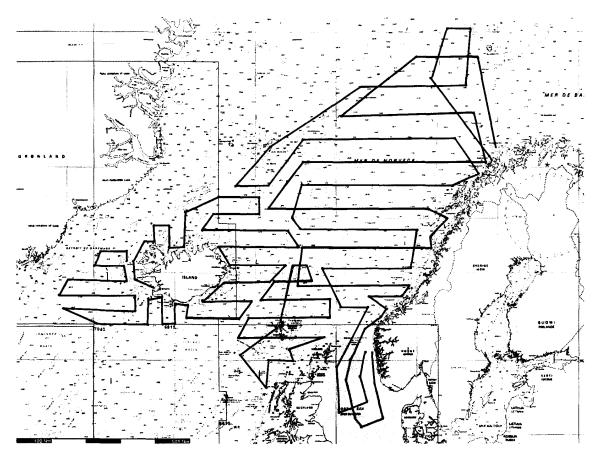
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b) <u>GENERAL OPERATIONAL METHODS</u> (including full description of any fish gear, trawl type, mesh size, etc.)

Multpelt 832 m pelagic sampling trawl

During the cruise the following operations will be made:

- 1. Pelagic trawling 0-40 m for mackerel, herring and Atlantic salmon. Pelagic trawling 100-300 m depth for blue whiting. There will be about 90 trawl stations during the survey from predetermined stations.
- 2. Conductivity-Temperature-Depth (CTD) measurements with SAIV CTD measurements. In total 90 CTD casts are planned in the area.
- 3. WP2 net casts for zooplankton sampling. Stipulated 90 zooplankton samples from 0-200 m depth.
- 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.



**Figure 1.** Planned survey tracks for four vessels: Light blue solid line indicate survey track for the Norwegian chartered vessel M/V "Eros". Blue solid line indicate survey track for the Norwegian chartered vessel M/V "Libas" Black solid line indicate survey track for the Icelandic research vessel R/V "Arni Fridriksson". Red solid line indicate survey track for a chartered vessel from Faroe Islands.

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

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Fishing with pelagic trawl upon NEA mackerel, NSS 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 present cruise.

Date Laying	<u>Recovery</u>	Description	<u>Depth</u>	<u>Latitude</u>	Longitude
7.	ANY HAZARDOUS MATE (Use separate sheet if necess a) Type and trade name b) Chemical content (and for c) IMO IMDG code (reference d) Quantity and method of see e) If explosives give date(s)  - Method of detone - Position of detone - Frequency of det - Depth of detonat - Size of explosives	rmula)  nce and UN no.)  torage on board  of detonation  ation ation onation ion	ols/explosives/gases/f NIL NIL NIL NIL NIL	adioactives, etc.	

- 8. <u>DETAIL AND REFERENCE OF</u>
  - a) Any relevant previous/future cruises
  - b) Any previously published research data relating to the proposed cruise

    The results will also be summarized in the report of ICES WGWIDE, which will meet in late August 2013.
- 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

WGWIDE and WGIPS involved scientists from European countries

- 10. <u>STATE</u>
  - a) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable (Yes/No)

No port call will be made.

b) <u>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</u>

No arrangements were made for an observer.

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

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## PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for

Coastal state:

Denmark incl Faeroe Islands

each coastal state

Port call:

NO

<u>Dates:</u> 4. July – 31. July 2013

Indicate "YES or "NO"

					Distance from	m 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 0-4 nm	Between 4-12 nm	Between 12-200 nm
Echo sounding	0-400m	No	No	No	No	Yes
Water sampling	0-500 m	No	No	No	No	Yes
Moored Instrument	n.a.	No	No	No	No	Yes

Date:

16.04.2013

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# PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for

Coastal state:

UK

each coastal state

Port call:

NO

Indicate "YES or "NO"

<u>Dates:</u> 4. July – 31. July 2013

					Distance from	m 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 0-4 nm	Between 4-12 nm	Between 12-200 nm
Echo sounding	0-400m	No	No	No	No	Yes
Water sampling	0-500 m	No	No	No	No	Yes
Moored Instrument	n.a.	No	No	No	No	Yes

Date:

16.04.2013

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## PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for

Coastal state:

Iceland

each coastal state

Port call:

NO

<u>Dates:</u> 4. July – 31. July 2013

Indicate "YES or "NO"

					Distance from	m 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 0-4 nm	Between 4-12 nm	Between 12-200 nm
Echo sounding	0-400m	No	No	No	No	Yes
Water sampling	0-500 m	No	No	No	No	Yes
Moored Instrument	n.a.	No	No	No	No	Yes

Date:

16.04.2013

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## NOTIFICATION OF PROPOSED RESEARCH CRUISE

## PART A: GENERAL

1. NAME OF RESEARCH SHIP: M/V "LIBAS" CRUISE NO. 2013827

2. <u>DATES OF CRUISE</u> From: 4. July 2013 To: 31. July 2013

3. OPERATING AUTHORITY: Institute of Marine Research P.O. Box 1870 Nordnes

N-5817 BERGEN, NORWAY

 TELEPHONE:
 47-55238500

 TELEFAX:
 47-55238531

 TELEX:
 42297 OCEAN N

4. <u>OWNER</u> (if different from no. 3) Libas AS, Lie-gruppen AS, 5353 Straume, Norway

5. <u>PARTICULARS OF SHIP:</u> Name: M/V "LIBAS"

Nationality: Norwegian

Overall length: 94 metres

Maximum draught: 6 metres

Net tonnage: 1313

Propulsion: Diesel, 8046 Hp

Call sign: LMQI

Registration port and number

(if registered fishing vessel), IMO 9617973

6. <u>CREW</u> Name of master: Ole Christer Lie

Number of crew: 9

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7. <u>SCIENTIFIC PERSONNEL</u>

Name and address of scientist in charge:

Leif Nøttestad (project leader) Leif Nøttestad (cruise leader)

Tel/telex/fax no.:

As in # 3 above

(47)55238611 (47)55236867

No. of scientists:

2 scientists and 6 technicians and

engineers

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

North Sea, Norwegian Sea and surrounding areas including: EEZ EU, EEZ Iceland and EEZ Faroe Islands

56°N - 74° N 17°E- 20° W

#### 9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

Ecosystem cruise with abundance estimation and biological sampling of NEA mackerel, NSS herring, and blue whiting. Oceanography measurements with CTD casts. Zooplankton sampling with WP2 vertical net hauls. Acoustic mapping of pelagic fish and plankton with multi-frequency echosounder and multibeam sonars. Current measurements with ADCP.

#### 10. <u>DATES AND NAMES OF INTENDED PORTS OF CALL</u>

Bergen, Norway 4. July 2013 Bodø, Norway 17. July 2013 Bergen, Norway 31. July 2013

### 11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

No.

#### NOTIFICATION OF PROPOSED RESEARCH CRUISE

# PART B: DETAIL

1. <u>NAME OF RESEARCH SHIP:</u> M/V "LIBAS"

CRUISE NO. 2013827

2. <u>DATES OF CRUISE</u>

From: 4. July 2013

To:

31. July 2013

# a) PURPOSE OF RESEARCH

Abundance estimation of NEA mackerel, NSS herring and blue whiting with swept area methodology and acoustic mapping with echosounders and sonars. Better understand the North Sea and Norwegian Sea ecosystem and especially the distribution, migration, feeding and spatial overlap of important pelagic planktivorous species (mackerel, herring and blue whiting) in relation to hydrography, zooplankton and top predators.

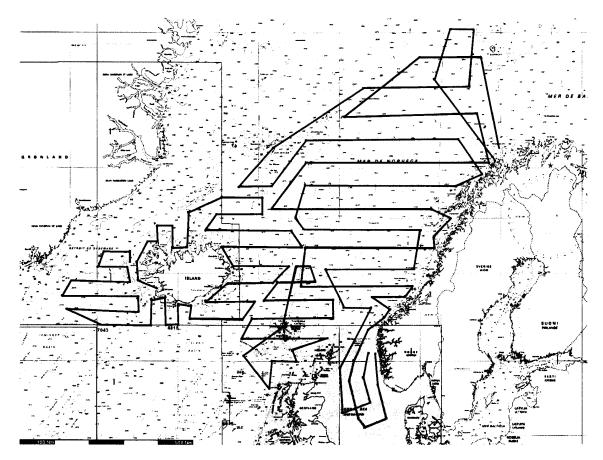
. .....

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

Multpelt 832 m pelagic sampling trawl

During the cruise the following operations will be made:

- 1. Pelagic trawling 0-40 m for mackerel, herring and Atlantic salmon. Pelagic trawling 100-300 m depth for blue whiting. There will be about 90 trawl stations during the survey from predetermined stations.
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  of intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be
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- 5. a) TYPES OF SAMPLES REQUIRED (e.g., geological/water/plankton/fish/radionuclide.
  - 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 onboard

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Fishing with pelagic trawl upon NEA mackerel, NSS herring, blue whiting and Atlantic 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. <u>DETAILS OF MOORED EQUIPMENT</u>

No moored equipment will be deployed during the present cruise.

Date Laying	Recovery	Description	<u>Depth</u>	<u>Latitude</u>	Longitude
7.	ANY HAZARDOUS MAT (Use separate sheet if neces a) Type and trade name		ils/explosives/gase	es/radioactives, etc.	
	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		
	<ul> <li>Method of deton</li> <li>Position of detor</li> <li>Frequency of det</li> <li>Depth of detonat</li> <li>Size of explosive</li> </ul>	nation onation ion			

- 8. <u>DETAIL AND REFERENCE</u> OF
  - a) Any relevant previous/future cruises
  - b) Any previously published research data relating to the proposed cruise

    The results will also be summarized in the report of ICES WGWIDE, which will meet in late August 2013.
- 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

WGWIDE and WGIPS 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)

No port call will be made.

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

No arrangements were made for an observer.

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

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## PART C. SCIENTIFIC EQUIPMENT

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

Coastal state:

Denmark incl Faeroe Islands

te Port call:

NO

<u>Dates:</u> 4. July – 31. July 2013

Indicate "YES or "NO"

					Distance from	m 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 0-4 nm	Between 4-12 nm	Between 12-200 nm
Echo sounding	0-400m	No	No	No	No	Yes
Water sampling	0-500 m	No	No	No	No	Yes
Moored Instrument	n.a.	No	No	No	No	Yes

Date:

16.04.2013

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# PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for

Coastal state:

UK

each coastal state

Port call:

NO

<u>Dates:</u> 4. July – 31. July 2013

Indicate "YES or "NO"

					Distance from	m 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 0-4 nm	Between 4-12 nm	Between 12-200 nm
Echo sounding	0-400m	No	No	No	No	Yes
Water sampling	0-500 m	No	No	No	No	Yes
Moored Instrument	n.a.	No	No	No	No	Yes

Date:

16.04.2013

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## PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for

Coastal state:

**ICELAND** 

each coastal state

Port call:

NO

<u>Dates:</u> 4. July – 31. July 2013

Indicate "YES or "NO"

Indicate TES OF THE					Distance from	m 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 0-4 nm	Between 4-12 nm	Between 12-200 nm
Echo sounding	0-400m	No	No	No	No	Yes
Water sampling	0-500 m	No	No	No	No	Yes
Moored Instrument	n.a.	No	No	No	No	Yes

Date:

16.04.2013

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