

APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC
RESEARCH IN AREAS UNDER NATIONAL JURISDICTION OF
(UNITED KINGDOM)

Date: 16/06/2005

1. General information

1.1 Cruise name and/or number: Small Cetaceans in the European Atlantic and North Sea (SCANS-II)

1.2 Sponsoring institution:

Name: European Commission – Life Nature programme (and 12 European Governments)

Address: B-1049 Bruxelles, Belgium

Name of director: Mr Bruno Julien

1.3 Scientist in charge of the project:

Name: Prof. Phil Hammond

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1.4 Scientist(s) from UK informed of the planning of the project

Name(s): Mr. Mark Tasker

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Name: Christine Rumble

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Name: Dr Peter Evans

Address: Sea Watch Foundation/European Cetacean Society, 11 Jersey Road, Oxford, OX4 4RT

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1.5 Submitting officer:

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2. Description of project (Attach additional pages as necessary)

2.1 Nature of objectives of the project:

IN BRIEF: The principal objective is to estimate small cetacean (primarily harbour porpoise and common dolphin) abundance in European Atlantic continental shelf waters. Shipboard observation surveys are required to collect data to allow estimation of population sizes that can be used to assess and manage cetacean bycatch in fisheries.

FURTHER DETAIL:

Small Cetaceans in the European Atlantic and North Seas (SCANS-II)

Objective: The principal objective is to estimate small cetacean abundance in European Atlantic continental shelf waters, allowing the assessment and management of bycatch and other anthropogenic threats, through the development of improved methods for monitoring and a robust management framework, thus defining a clear course of action to allow populations to recover to and maintain favourable conservation status.

Actions and means involved: The core actions of the project (SCANS-II) are surveys to determine the absolute abundance of small cetacean populations, particularly of harbour porpoise (*Phocoena phocoena*), bottlenose dolphin (*Tursiops truncatus*) and common dolphin (*Delphinus delphis*) inhabiting shelf waters of the Atlantic margin, the North Sea and adjacent waters. This work follows from the SCANS survey conducted in 1994 (LIFE 92-2/UK/027). The information on abundance is essential to assess the impact of bycatch in fishing gear, and other anthropogenic threats, and as input to management actions to ensure the favourable conservation status of these species. The project will develop a management framework (currently lacking) to use abundance and other data to enable conservation objectives to be met in the short and long term. An essential part of this long-term management (also currently lacking) is a robust cost-effective means of monitoring abundance between major decadal SCANS-type surveys; the project will develop and test potential methods, and recommend a suite of monitoring protocols tailored by species and area.

In summer 2005, waters of the North Sea, adjacent waters in the Skagerrak, Kattegat, western and southern Baltic, and continental shelf waters of the Atlantic margin from 62°N to 36°N will be surveyed using ships and aircraft to collect line transect data on *P. phocoena*, *T. truncatus*, *D. delphis* and other species, as encountered. Data from these surveys will be analysed to estimate abundance using the developed methods for shipboard and aerial line transect surveys.

Expected results: On completion of the project, member states will have the means to ensure favourable conservation status for the two cetacean species on Annex II and one species on Annex IV of the Habitats Directive. They will have:

- a management framework to ensure that levels of removals through bycatch or other activities can be set to allow populations to recover to or remain at healthy levels;
- up to date, robust estimates of absolute abundance to assess the impact of bycatch and other anthropogenic activities and to feed into the management framework;
- well-developed protocols for monitoring abundance between major decadal surveys that will allow abundance trends to be assessed at fine temporal and spatial scales; and
- trained personnel and equipment that can be used to provide essential information for management in the future.

These results are essential for the full implementation of the Habitat's Directive for *P. phocoena*, *T. truncatus*, *D. delphis* and other cetacean species. Defra (UK) will take the lead in promoting the results and recommendations of the project in the international arena. This will be achieved through networking with the project coordinators and with other Member

States, and presenting the scientific results to ASCOBANS, the EU and the North Sea Conference and with the aim of getting the scientific results of the project taken up at policy level. In addition, a conference for Member States and the Commission will be organised to disseminate the main results and to discuss the way in which they can be implemented to enable the objectives of the Habitats Directive to be fully met.

2.2 Relevant previous or future research cruises:

Small Cetacean Abundance in the North Sea and adjacent waters (SCANS) was carried out in July 1994 to assess the population abundance of harbour porpoises.

Plan to submit a proposal for offshore surveys of cetaceans for summer 2007.

2.3 Previously published research data relating to the project:

The surveys will be conducted between 27th June 2005 and 29th July 2005. All data will be collected during this period.

Overview of the project was presented in:

Hammond, P., Macleod, K. 2004. Abundance, Monitoring and Management of European Small Cetaceans: the SCANS-II project. Paper SC/56/SM4 presented to the Scientific Committee of the International Whaling Commission.

Other related:

Gillespie, D. and Chappell, O. 2002. An automatic system for detecting and classifying the vocalisations of harbour porpoises. Bioacoustics 13:37-61.

Publications relating to SCANS 1994:

Hammond, P.S., Berggren, P., Benke, H., Borchers, D.L., Collet, A., Heide-Jørgensen, M.P., Heimlich, S., Hiby, A.R., Leopold, M.F. and Øien, N. 2002. Abundance of harbour porpoises and other cetaceans in the North Sea and adjacent waters. Journal of Applied Ecology 39: 361-376.

3. Methods and means to be used

3.1 Particulars of vessel

Name: Zirfaea

Nationality: Dutch

Owner: North Sea Directorate, PO Box 5807, 2280 HV Rijswijk, The Netherlands

Operator: North Sea Directorate, The Netherlands

Overall Length: 63 m

Maximum draught: 3.85 m

Net tonnage: 378

Gross tonnage: 1261

Propulsion: Diesel Electric

Cruising Speed: 10 knots

Maximum speed: 12 knots

Call sign: PBZV
 Method of capability of communication (including telex, frequencies):
 Mobile: +31 (0)6 – 51188384 Telex: +31 (0)6 – 20957052 Satellite phone: 00 – 871 – 1301733
 Name of Master:
 Number of Crew:
 Number of Scientists on board: 10

3.2 Aircraft or other craft to be used in the project:

Three partenavia aircraft.

3.3 Particulars of methods and scientific instruments

Types of samples and data	Methods to be used	Instruments to be used
Visual sightings data	Visual searches by observers whilst ship steams at 10 knots along transect lines.	Binoculars, cameras, laptop
Passive acoustic data	Passive acoustic array to be towed astern	Hydrophone on 200m cable

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):

N/A

5. Geographical areas

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

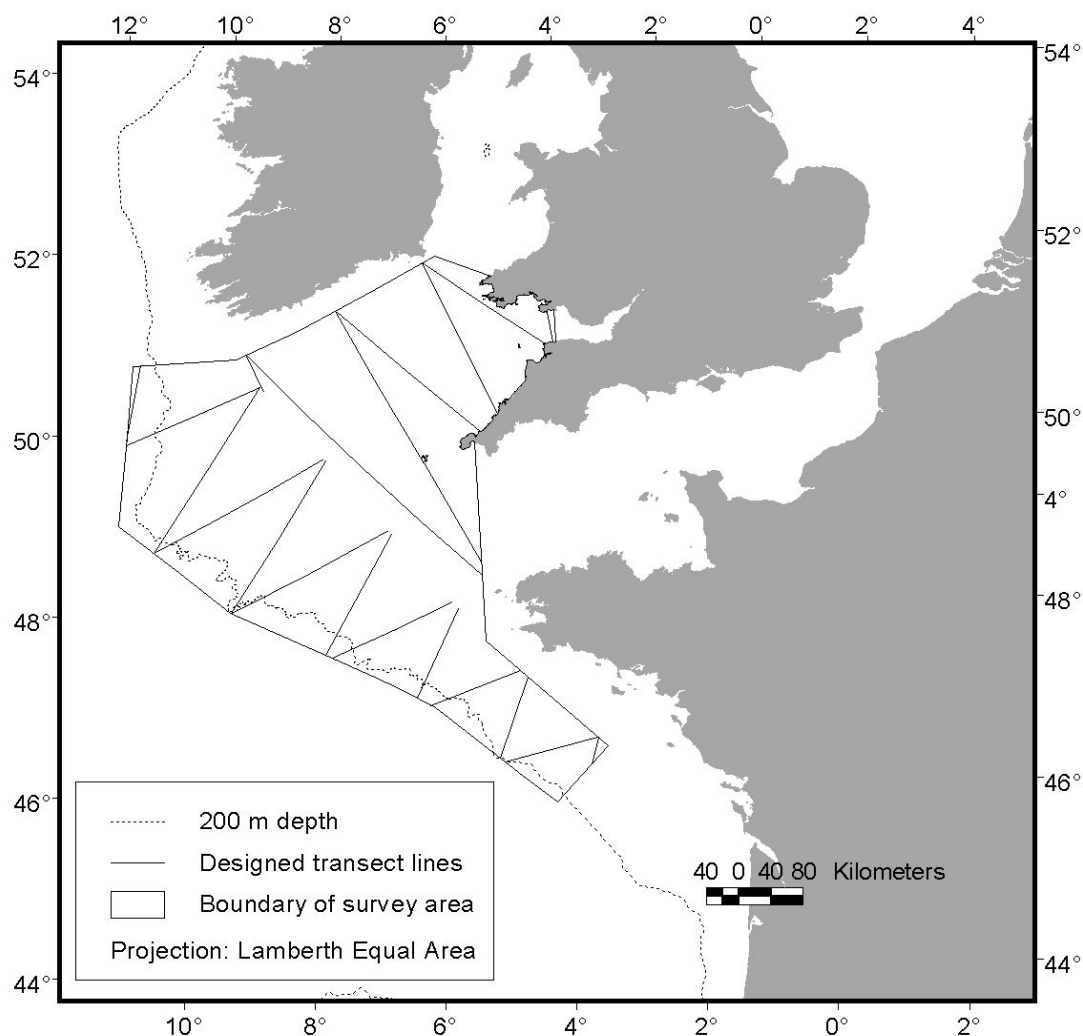
Entire SCANS-II area is 62° – 36°N, 14°E-12°W. To be surveyed by 7 ships in different regions.

Zirfaea will survey Celtic Shelf region: 52°-46°N, 5.4° -11.5°W

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

Area of operation for the Zirfaea.



6. Dates

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

Zirfaea will be in survey block from 30th June 2005 - 26th July 2005

6.2 Indicate if multiple entry is expected:

None

7. Port calls

7.1 Dates and names of intended ports of call in UK

No UK port calls planned

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 UK will be enabled to participate or to be represented in the research project:

The University of St. Andrews, UK is coordinating SCANS-II and UK Defra is the biggest European funder of the 12 governments contributing after the European Commission.

Nine UK scientists are directly involved with the SCANS-II project as partners, subcontractors or advisors. A further 10 UK residents will be employed as observers.

One UK observer will be onboard the Zirfaea.

8.2 Proposed dates and ports for embarkation/disembarkation:

Ship's port of embarkation: Scheveningen, The Netherlands, 27th June 2005

Ship's port of disembarkation: Scheveningen, The Netherlands, 29th July 2005

9. Access to data, samples and research results

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

Non-technical and final report due June 2006.

9.2 Proposed means for access by UK to data and samples:

The SCANS-II data will become public access after the completion of the project in December 2006. The Sea Mammal Research Unit, University of St. Andrews will hold & manage the dataset.

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

All data will be analysed at the University of St. Andrews and results publicized in non-technical report, final report and scientific journals.

Website will also be updated to make results and interpretation accessible.

9.4 Proposed means of making research results internationally available:

As above

10. COMPLETE THE FOLLOWING TABLE - SEPARATE PAGE FOR EACH COASTAL STATE:

COASTAL STATE: UK

PORT CALL: NONE PLANNED

DATES:

SCIENTIFIC EQUIPMENT		INDICATE "YES" OR "NO"			
List Scientific Work by Function e.g.: Magnetometry Gravity, Diving, Seismic, Bathymetry, Seabed Sampling, Trawling, Echo Sounding, Water Sampling U/W T.V.: Moored and Towed instrument	Water Column Incl. Sediment Sampling on the Seabed	Fisheries Research within Fishing Limits	Research Concerning the Natural Resources* of the Continental Shelf or its Physical Characteristics	Distance from Coast Between	
				Within 12 NM	12 - 200 NM
Visual observations	Surface	NO	NO	Coast	Continental shelf edge
Deployment of passive acoustic towed array	Water column	NO	NO	Coast	Continental shelf edge

* As the UK does not harvest marine mammals, I do not consider them as "resources".

Dr. K. Macleod, Assistant Coordinator for SCANS-II
(On behalf of the Principal Scientist)