

Rédigé le 18 juin 2013

**CAMPAGNE OCEANOGRAPHIQUE / OCEANOGRAPHIC CRUISE
IBTS(International Bottom Trawl Survey) 2014
ON R/V THALASSA**

***Demande d'autorisation de travaux de recherche scientifique dans la zone
économique exclusive sous juridiction du Royaume Uni***

***Application for consent to conduct marine scientific research in the UNITED
KINGDOM exclusive economic zone under national***

**Le chef de mission doit adresser ce document :
The chief scientist must send this application to:**

prog-ums@flotteoceanographique.fr

Les quatre opérateurs français de flotte (CNRS, Ifremer, IPEV, IRD), sous la tutelle du ministère chargé de la Recherche, ont décidé de créer le 1^{er} janvier 2011, une **unité mixte de service** intitulée **UMS FOF** (Flotte océanographique française).

Cette structure opérationnelle a principalement pour vocation à :

- élaborer et à mettre en oeuvre la programmation intégrée des navires et des équipements lourds,
- assurer la prospective, la définition et la coordination du plan d'évolution de la flotte, en prenant en compte les besoins des opérateurs nationaux publics non membres de l'UMS (TAAF, Marine nationale),
- coordonner leurs politiques d'investissement.

A la panoplie complète de navires hauturiers et d'engins sous-marins qui permettent l'accès à tous les océans et mers du globe (océan Atlantique, mer Méditerranée, océan Pacifique, océan Indien sud, océan Austral, hors zone polaire) s'ajoutent des navires côtiers et de stations permettant d'assurer un continuum avec les zones côtières et littorales.

Four French research vessel operators (CNRS, IFREMER, IPEV, IRD), under the supervision of the National Research and Education Ministry, have created on the 1st March 2011, a single fleet administration entity in a form of a Unité Mixte de Service (Combined Unit Service - UMS). The UMS has been created on March 03rd 2011.

This operational entity aims at:

- *Create and implement the integrated programming of the fleet vessels and equipments*
- *Elaborate a prospective work, fix and coordinate a fleet evolution scheme on a national level*
- *Coordinate the institutes fleet investment policy*

The fleet gathers ocean going vessels and their associated major mobile equipment (all ocean but ice covered) together with coastal vessels and station vessel, for a continuous investigation capacity from shore to offshore.

INFORMATION GÉNÉRALE GENERAL INFORMATION

Institution responsable / *Institution in charge*

Nom / *Name*: IFREMER
Adresse / *Address*: Siège social : Technopolis 40
155, rue Jean-Jacques Rousseau - 92138 Issy les Moulineaux -
France
Téléphone / *Phone*: 33 (0)1.46.48.21.00
Fax: 33 (0)1.46.48.22.48
Directeur / *Director*: Jean-Yves Perrot

Personne en charge de cette demande / *Person in charge of the project*

Nom / *Name*: Jean-Xavier Castrec.
Organisme / *Organism*: IFREMER
Adresse / *Address*: Centre Ifremer de Brest - Secteur Programmation de la Flotte
B.P. 70 - 29280 Plouzané
Téléphone / *Phone*: 33 (0)2.98.22.44.53
Fax: 33(0)2.98.22.44.55
Email: jean.xavier.castrec@ifremer.fr

Scientifique en charge du projet / *Scientist in charge of the project*

Nom / *Name*: Yves VERIN
Adresse / *Address*: Ifremer - Centre de Boulogne-sur-Mer
150, quai Gambetta - BP 699 - 62321 BOULOGNE/MER - FRANCE
Téléphone / *Phone*: 33 (0)3.21.99.56.00
Fax: 33 (0)3.21.99.56.01
Email: Yves.Verin@ifremer.fr

Collaboration avec le pays concerné / *Collaboration with relevant country*

Nom / <i>Name</i> :	Finlay BURNS	Brian HARLEY
Adresse / <i>Address</i> :	SOAFD Marine Laboratory P.O. Box 101 Victoria Road Aberdeen AB9 8DB	MAFF, Fisheries Laboratory Lowestoft Suffolk NR33 OHT
Téléphone / <i>Phone</i> :	+44 1224876544	+44 1224 295507
Fax:	+44 1224295376	+44 1224 295511
Email:	F.Burns@marlab.ac.uk	brian.harley@cefas.co.uk

DESCRIPTION DU PROJET PROJECT DESCRIPTION

Nature et objectifs du projet / *Nature and objectives of the project*

The knowledge of the state of fish stocks is necessary to define management measures. Analyses carried out during the IBTS (International Bottom Trawl Survey) cruise are essential to elaborate the propositions by the ICES working groups (International Council for the Exploration of the Sea). Then, these propositions are examined by the European Union which defines management of fish stocks.

Thus, a real-time diagnosis on the targeted populations is obtained through IBTS surveys. For that, working methods were defined by all countries involved in this programme : for example, the use of a standard bottom trawl and the sampling of all the areas by two different research ships. In order to determine indices of herring and sprat larvae (0 groups), each participating vessel operates with a MIK net during the night (Methot Isaac Kidd).

For 20 years, the southern part of the North sea has been allocated to the French Research Vessel and since 2007, the Eastern Channel has been integrated the whole sampled area. As interactions and migrations of stock between these two areas are important, Eastern Channel is often associated the North Sea for stock assessment. Herring for example which is exploited all the year in the North sea comes into the Channel during November and December for reproduction. More precise information on larvae indices are obtained when this area is sampled.

In addition to the works done for the IBTS program, other works are implemented onboard Research Vessel Thalassa :

- an acoustic prospection in the Channel,
- a study on fish spawning areas, using the Continuous Underwater Fish Eggs Sampler device (CUFES),
- a species-specific winter abundance and distribution of the winter planctonic community (phyto and zoo plancton)
- a monitoring study on the structure and distribution of the benthic macro invertebrates communities.

Campagne(s) antérieure(s) ou future(s) sur un sujet similaire / *Relevant previous or future research cruises*

France participate to this cruise since 1976 every year during the first quarter. Between 1992 and 1996, a survey was carried out during the third quarter.

Travaux de recherches déjà publiés par l'équipe scientifique sur ce sujet / *Previously published research data related to the project*

Publications and report are listed Annex 1.

- After each survey, a descriptive report of the cruise is done by France and an annual report is produced by the members of the International Bottom Trawl Survey Working Group.
- A large number of ICES International Working Groups use these data :
 - Herring Assessment Working Group for the area South of 62° N
 - Working Group on the assessment of demersal stocks in the North Sea and Skagerrak.
 - International Bottom Trawl Survey Working Group.
 - Working Group on Fish Ecology
 - Working Group on Methods of Fish Stock Assessments
 - Working Group on Oceanic Hydrography
 - Study group on Stock Identity and Management Units of Whiting

- Study Group on Risk Assessment and Management Advice
- Study Group on Survey Trawl Standardisation
- Study Group on the North Sea Benthos Project 2000
- Regional Ecosystem Study Group for the North Sea
- Report of the ICES/IOC Steering Group on GOOS (SGGOOS)
- Planning Group on North Sea Pilot Project NORSEPP (PGNSP)
- Planning Group on North Sea Cod and Plaice Egg Surveys in the North Sea

Préciser le niveau d'implication du pays concerné dans la présente demande
Please indicate the level of implication of the concerned country in this request

United Kingdom is involved in the IBTS programme and the RV Endeavour participates annually to the survey during the 3rd quarter.

DESCRIPTIF DU NAVIRE DESCRIPTIVE OF THE VESSEL

Sera remplie par l'opérateur (IFREMER, INSU, IPEV, IRD)

Will be fill in by operator ((IFREMER, INSU, IPEV, IRD)

Name : ***Thalassa***

Nationality : French

Owner : Ifremer

Operator : Genavir

Overall length : 74,5 m

Maximum draught : 6,10 m

Gross tonnage : 2 803 UMS

Propulsion : Diesel Electric

Average operating cruising speed and survey speed : 11 knots

Call sign : FNFP

Method and capability of communication (including telex, frequencies) :

- GSM : 33.6.07.32.44.87 (bridge) - 33.6.16.87.10.69 (captain)

Fax : 33.6.20.18.50.20

Inmarsat :Tel : 00.870.7.731.600.16 (bridge) - Fax : 00.870.7.831.600.57

- Vsat : Tel : 33.2.98.22.48.05 (bridge) - Fax : 33.2.98.22.48.06

- Telex Inmarsat C1 : 058x.4.227.297.10 - Telex Inmarsat C2 : 058x.4.227.297.11

(Codes: East Atlantic: 0581 - West Atlantic: 0584 - Pacific : 0582 -

Indian Ocean: 0581)

email : TL.Commandant@thalassa.ifremer.fr

Email Telex C1 : ThalassaC1@skyfile-c.com

Email Telex C2 : ThalassaC2@skyfile-c.com

Name of master : Xavier Guilcher

Number of crew : 25

Number of scientists on board : 25

MÉTHODES ET MOYENS UTILISÉS METHODS AND INSTRUMENTS USED

Engin aérien ou autre appareil utilisé dans le projet / Aircraft or other craft to be used in the project

NO

Particularités des méthodes utilisées et instruments scientifiques / Particulars of methods and scientific instruments

There is no trawling stations or any other scientific work within the 3 nautical miles, but some stations are planne between 3 and 12 nautical miles from the coasts. The chart below shows the positions of the stations scheduled during the survey

Types d'échantillons et de données <i>Types of samples and data</i>	Méthodes utilisées <i>Methods to be used</i>	Instruments utilisés <i>Instruments to be used</i>
Samples of various fishes by bottom trawl (see chart)	A Bottom trawl is deployed during 30 mn (speed 4 knots)	GOV 36/47 (Grande Ouverture Verticale) with a double codent in 20 mm meshsize (stretched)
Samples of herring and sprat larvae in the Southern North Sea	A larval net is deployed at night between the surface and 5 meter upper the bottom. The haul duration is at least 10 minutes and the speed is 3 knots	MIK net (Methot Isaac Kidd) 13 meter long.
Temperature and salinity measurements	A CTD is deployed after each trawl and net station.	CTD (Seabird SBE 19)
Samples of fish eggs to know eggs areas in the Southern North Sea	Sea water is pumped at 3 meters under water surface (internal pump) and filtered in order to sort fish eggs	Continuous Underway Fish Eggs Sampler (CUFES)
Samples of zooplankton and phytoplankton	Vertical samples during the night with a vertical net	A vertical net WP2
Acoustic records	With an echosounder, acoustic data are recorded during hauls and during transects	Sounder : ER 60 and Multibeam echosounder ME 70
Sub marine video	In the English Channel and southern part of the North sea a camera will be towed after hauls to determinate benthic fauna	Details on the device used are available at : http://www.ifremer.fr/ezprod/index.php/dyneco/moyens_outils/instrumentation_in_situ/laboratoire_benthos

Indiquer s'il est prévu d'utiliser des substances toxiques / Indicates whether harmful substances will be used

Harmful substances below will be used during the survey. These substances will be handle and stored cautiously. Security rules will be observed.

- Formol
- Méthanol
- Ammonium
- Potassium dichromate

Other no harmful substances will be used

Indiquer s'il est prévu de réaliser des forages / *Indicate whether drilling will be carried out*

NO

Détail des installations et équipements (dates de mise en place, de services, de dépose, localisations exactes, avec la profondeur) / *Details of installations and equipments (dates of laying, servicing, recovery, exact locations and depth)*

NO

ACCÈS AUX DONNÉES, ÉCHANTILLONS ET RÉSULTATS ACCESS TO DATA, SAMPLES AND RESEARCH RESULTS

Dates prévues pour la remise aux responsables du PAYS_CONCERNE du rapport préliminaire, qui devrait inclure les dates prévues de remise des résultats définitifs

Expected dates of submission to relevant country of preliminary reports which should include the expected dates of submission of the final results

After the survey, data will be sent to ICES and firstly used for the herring assessment working group in March 2014. The report for this group will be available in May.

A cruise report will be sent in May 2014

Moyens proposés pour assurer l'accès aux données par les scientifiques du PAYS_CONCERNE.

Proposed means for access by national scientists to data and samples

All data and reports are available to ICES (Copenhagen) generally 6 months after the survey at <http://datras.ices.dk/Home/Default.aspx>

Moyens proposés pour la diffusion internationale des résultats de la recherche

Proposed means of making research internationally available

The IBTS is an International programme and **United Kingdom** participates to it.

Data can be freely used in various projects

ZONES GÉOGRAPHIQUES GEOGRAPHICAL AERAS

Indiquer les zones géographiques dans lesquelles le projet doit être conduit (avec référence aux latitudes, longitudes et sondes) / Indicate geographical areas in which the project is to be conducted (with indication of latitude and longitude and water depth)

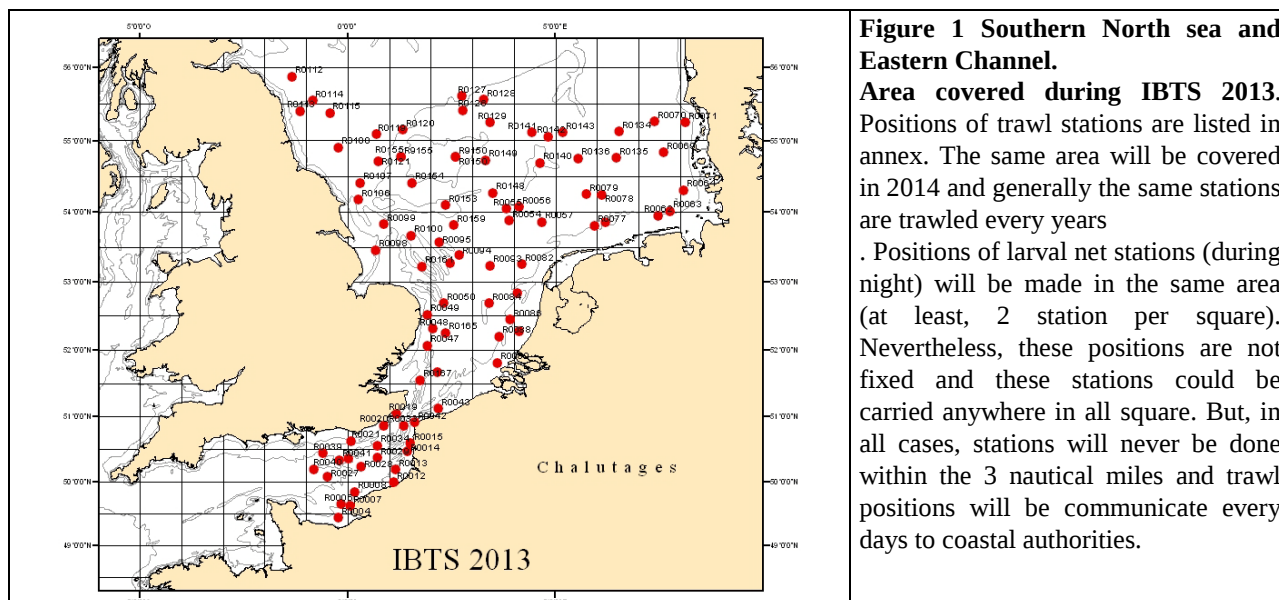
Operations	Latitude	Longitude	Profondeur Water depth
English Channel	Between 49°00/51°N	Between 5°W/2° E	Between 15 and 75 meters
South of North Sea	Between 51°N/56°30N	Between 3°W/9°E	Between 15 and 75 meters

Annexer une (des) carte(s) à une échelle appropriée montrant les zones géographiques du travail proposé et, autant que possible, la position des stations prévues, le tracé des profils et la localisation des mouillages et observatoires éventuels (préciser la durée)

Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, if possible, the positions of intended stations, the line tracks and locations of moorings and possible observatories (indicate the duration)

Each year, Thalassa samples the Southern part of the North Sea. (Figure 1). In 2014, the same area will be covered during the survey as it is shown figure 1. In each square 1° X 30'), at least one GOV haul and 2 MIK stations will be made in the area between 51° and 56°30' N.

The English Channel is partly covered since 2007 (Eastern part). In 2014, the same coverage will be done as it is shown figure 2 at the beginning of the survey.



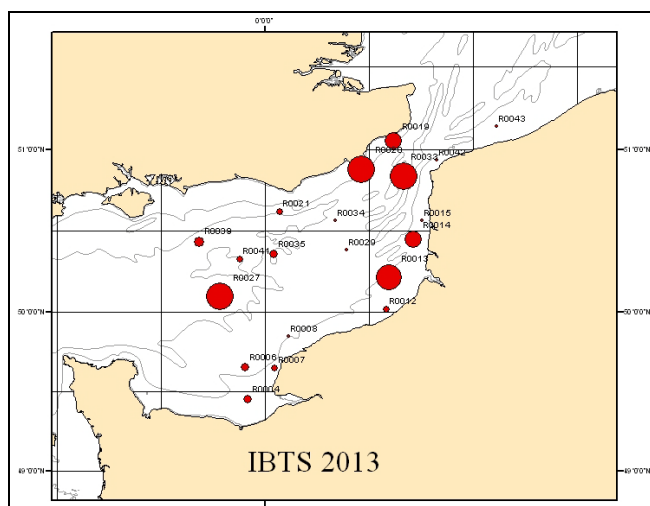


Figure 2 : Western Channel. Area covered during IBTS 2013. The same works will be carried out in 2014
At the beginning of the survey, some hydrological stations are planned on the way to the Channel. Then, some GOV trawls and MIK stations will be made in the bay of Seine and in the eastern Channel. Acoustic transects, trawls and MIK stations in are planned in this area.

DATES

Chronologie de la campagne, dont escales / *chronology of the cruise, including port calls*

Jour day	Port Embarquement/Débarquement/Escale <i>Embarking/Disembarking/Call</i>	Date de départ <i>Date of departure</i>	Date d'arrivée <i>Date of arrival</i>
J1	Brest	16 th January 2014	
J2 to J10	Works in the Eastern Channel (trawling, acoustic, hydrological stations)	17 th to 22 th January	22th January 2014
J10	Boulogne	22/01/ 18:00 PM	22/01/ 13 21:00 PM
J10 to J18	Works in the Eastern and central part of the North sea	22 th January	29 th of January 2013
J19 to J20	Schevenningen	29 th January	31rd of February
J21 to J31	Western and central part of the North sea	31 February	15 th February
J 32	Boulogne		16 th February

Dates prévues pour la première entrée et du départ final de la zone de recherche par le navire océanographique / Expected dates of first entry into and final departure from the studied area of the research vessel

Date d'entrée / Date of entry	17 January 2014
Date de sortie / Date of departure	16 February 2014

Indiquer si des entrées multiples sont prévues / *Indicate if multiple entry is expected*

Two weeks or more are necessary to do the work in this area. But it is impossible to planned exactly when the vessel is in the area. During all the survey period more than one entry is possible.

PORTS D'ESCALE PORTS CALLS

Pour chaque port d'escale du pays concerné préciser / For each port-call of concerned country please indicate

Nom du port <i>Name of the port</i>	Demande logistique faite à ce port <i>Any special logistical requirements at port of call</i>
Schevenningen	Aucune. Embarquement de scientifiques «Nationalité» et d'éventuels observateurs. <i>None – «Nationalité» scientists boarding and eventually observers.</i>

Coordonnées de l'agent maritime / *Contact of the Maritime Agent*

PARTICIPATION

Niveau d'implication du pays concerné dans la participation ou la représentation dans le projet de recherche / Extent of which the country will be enabled to participate or to be represented in the research project

NB : Sur demande des autorités du « pays concerné » un observateur pourra être embarqué pendant la durée des travaux

NB: On request of the concerned authorities, a observer will be embark on board during the cruise.

This country takes part in the IBTS program as ICES member (International Council for the Exploration of the Sea)

EQUIPE SCIENTIFIQUE ET TECHNIQUE*
SCIENTIFIC AND TECHNICAL STAFF

Nom <i>Surname</i>	Prénom <i>First name</i>	Nationalité <i>Nationality</i>	Fonction <i>Position</i>	Organisme <i>Organism</i>
VERIN	Yves	French	Chief scientist	IFREMER
LE ROY	Didier		Scientist	
DELPECH	Jean-Paul			
VERMARD	Youen			
VAZ	Sandrine			
TRAVERS-TROLET	Morgane			
LOOTS	Christophe			
ANTAJAN	Elvire			
QUINQUIS	Jérôme			

*liste connue à ce jour et pouvant évoluer
The list will be updated 2 months prior the cruise.

The scientist team will be made up at least 22 persons for each part.

ANNEXE

REFERENCES

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