

Application for Consent to conduct
Marine Scientific Research

Date: 2016/11/16

1. General Information

1.1 Cruise name and/or number:
TREMOR 2

1.2 Sponsoring Institution(s):	
Name:	Laboratoire d'Océanologie et de Géosciences – LOG UMR 8187
Address:	Université de Lille 1 Bâtiment SN5 Cité Scientifique 59655 Villeneuve d'Ascq
Name of Director:	François Schmitt
Name:	BRGM DGR
Address:	3 avenue Claude Guillemin – 45000 ORLEANS / FRANCE
Name of Director:	Pierre Toulhoat

1.3 Scientist in charge of the Project:	
Name:	Gaullier Virginie
Country:	France
Affiliation:	LOG – Université de Lille 1
Address:	Université de Lille 1 Bâtiment SN5, Cité Scientifique 59655 Villeneuve d'Ascq
Telephone:	03 20 43 41 20
Fax:	03 20 43 49 10
Email:	virginie.gaullier@univ-lille1.fr
Website (for CV and photo):	http://log.cnrs.fr

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
The project TREMOR aims to improve the regional geological knowledge of the Cenozoic Hampshire-Dieppe basin and its surroundings in terms of stratigraphy, paleogeography, and structural history. These studies are inserted into the transversal axis "Manche Orientale" (Eastern Channel) of the Team 6 (Tectonique des marges et des bassins sédimentaires, head: V. Gaullier) of the LOG (Laboratory of Oceanology and Geosciences) – University of Lille 1 – University ULCO. The study area lies mostly over French waters but scientific questions can only be answered by studying UK waters (extension of specific tectonic structures, stratigraphic geometries).

2.2 If designated as part of a larger scale project, then provide the name of the project and the Organisation responsible for coordinating the project:

TREMOR project is associated with the RGF program (Référentiel Géologique de la France / French Geological Referential) coordinated by BRGM (French Geological Survey). This program aims to provide a revised and updated geological knowledge of the French territory with three-dimensional coherence and a complete information system to insure long term solution to store and deliver observations, data, and products. One task of this program is the production of new geological maps over the French territory, including its continental shelf.

2.3 Relevant previous or future research projects:

RGF - Continental Shelf project: Geological mapping project of the French continental shelf hosted in RGF program.

2.4 Previous publications relating to the projects:

- Gaullier V., et l'équipe scientifique TREMOR (Chanier F., Duperret A., Graveleau F., Le Roy P., Paquet F., Vendeville B., Dofal A., Petit A.), 2015. Analyse du remplissage sédimentaire et de la déformation récente en Manche Orientale (Bassin de Dieppe-Hampshire): Résultats préliminaires de la campagne « TREMOR ». 15^{ème} Congrès Français de Sédimentologie (ASF), 13-15 octobre 2015, Chambéry, Livres des résumés, Publ. ASF, Paris, sciencesconf.org :asf2015 :73395, p. 191.
- Jollivet-Castelot M., Gaullier V., Paquet F., Chanier F., Graveleau F., Thimon I., Lasseur E., Averbuch O., 2016. Structuration du Bassin de Dieppe-Hampshire (Manche Orientale) : Apport de nouvelles données sismiques. 25^{ème} Réunion des Sciences de la Terre, 24-28 octobre 2016, Caen, France, Livre des résumés, p. 173.
- Paquet F., Lasseur E., Thimon I., Coueffe R., Courgeon S., Pelote A., 2016. Offshore geological mapping from high-resolution datasets – a « new » way to investigate the evolution of the anglo-parisian basin. 35th IGC 2016, Cape Town.
- Thimon et al., 2008. Carte Géologique de la France à 1 / 250 000 de la marge continentale, Feuille Lorient. Editions BRGM-CNRS, Orléans.

3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in Latitude and longitude in decimal degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a separate excel spreadsheet.

English Channel – within the 10 nautical miles off the maritime boundary with France North : +50.90, South : +50.10 ; East : 1.30 ; West : -1.00 – see maps and spreadsheet for actual extent of the area of study.

Seismic profiles will be acquired in order to avoid dense maritime traffic in that area.

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical Areas of the intended work and, as far as practicable, the location and depth of sampling Stations, the tracks of survey lines, and the locations of installations and equipment.

4. Methods and means to be used

4.1 Particulars of vessel:

Name:	RV THALIA
Type/Class:	Research Vessel
Nationality (Flag State):	France [FR]
Identification Number (IMO/Lloyds No.):	7700013
Owner:	IFREMER
Operator:	GENAVIR
Overall length (meters):	24.52
Maximum draught:	3.6

Displacement/Gross Tonnage:	238 t
Propulsion:	2 motors Poyand A 12150M de 265 kW
Cruising & maximum speed:	10
Call sign:	FPCS
INMARSAT number and method and capability of communication (including emergency frequencies):	INMARSAT num : 00 870 7 624 855 77 GSM num : 00 33 685 318 783 TH.Commandant@genavir.fr
Name of Master:	Régis Dumas
Number of Crew:	6
Number of Scientists on board:	6

4.2 Particulars of Aircraft: N/A	
Name:	
Make/Model:	
Nationality (flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall Length (meters):	
Propulsion:	
Cruising & Maximum speed:	
Registration No.:	
Call Sign:	
Method and capability of communication (including emergency frequencies):	
Name of Pilot:	
Number of crew:	
Number of scientists on board:	
Details of sensor packages:	
Other relevant information:	

4.3 Particulars of Autonomous Underwater Vehicle (AUV): N/A	
Name:	
Manufacturer and make/model:	
Nationality (Flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall length (meters):	
Displacement/Gross tonnage:	
Cruising & Maximum speed:	
Range/Endurance:	
Method and capability of communication (including emergency frequencies):	
Details of sensor packages:	
Other relevant information:	

4.4 other craft in the project, including its use:
N/A

4.5 Particulars of methods and full description of scientific instruments to be used (for fishing gear specify type and dimension)		
Types of samples and Measurements:	Methods to be used:	Instruments to be used:
Marine seismic reflection	Sparker 50J monochannel	SIG Pulse S1, Sparker, Monochannel streamer
Geological samples	Gravity rock and sediment corers	CNEXO-Ville rock corer Kullenberg corer
Bathymetric soundings*	Multibeam bathymetry*	Reson SB 8101 or Kongsberg EM 3002*

* if available and feasible regarding technical issues

4.6 Indicate nature and quantity of substances to be released into the marine environment:
N/A

4.7 Indicate whether drilling will be carried out. If yes, please specify:
N/A

4.8 Indicate whether explosives will be used. If yes, please specify type and trade name, Chemical content, depth of trade class and stowage, size, depth of detonation, frequency of Detonation, and position in latitude and longitude:
N/A

5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and Anticipated timeframe for recover, as far as possible exact locations and depth, and Measurements):
N/A

6. Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:
Between 2017/05/20 to 2017/06/09
6.2 Indicate if multiple entries are expected:
No multiple entries unless required for safety reasons (marine traffic, weather conditions)

7. Port Calls

7.1 Dates and Names of intended ports of call:
From 2017/05/20 to 2017/06/09 at Dieppe [FR]
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 of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research Project:
8.2 Proposed dates and ports for embarkation/disembarkation:

9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary report, which should include The expected dates of submission of the data and research results:

6 months after end of survey

9.2 Anticipated dates of submission to the coastal State of the final report:

12 months after end of survey

9.3 Proposed means for access by coastal State to data (including format) and samples:

Seismic data :

- Raw segy format + corrected navigation

Geological samples :

- Archive part will be sent if mandatory/requested.
- Metadata on samples (description, analyses) will be stored in national database (BRGM), shared with national UK database (NERC-BGS), and made publicly available through Infoterre, Geo-Seas and European Geological Data Infrastructure (EGDI) portals

9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:

Will be provided by BRGM upon request by coastal State

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:

Will be provided by BRGM upon request by coastal State

9.6 Proposed means of making results internationally available:

Publications in peer-reviewed journals, Ph.D. Thesis memoir and communications in international congresses.


10. Other permits Submitted

10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):

N/A

11. List of Supporting Documentation

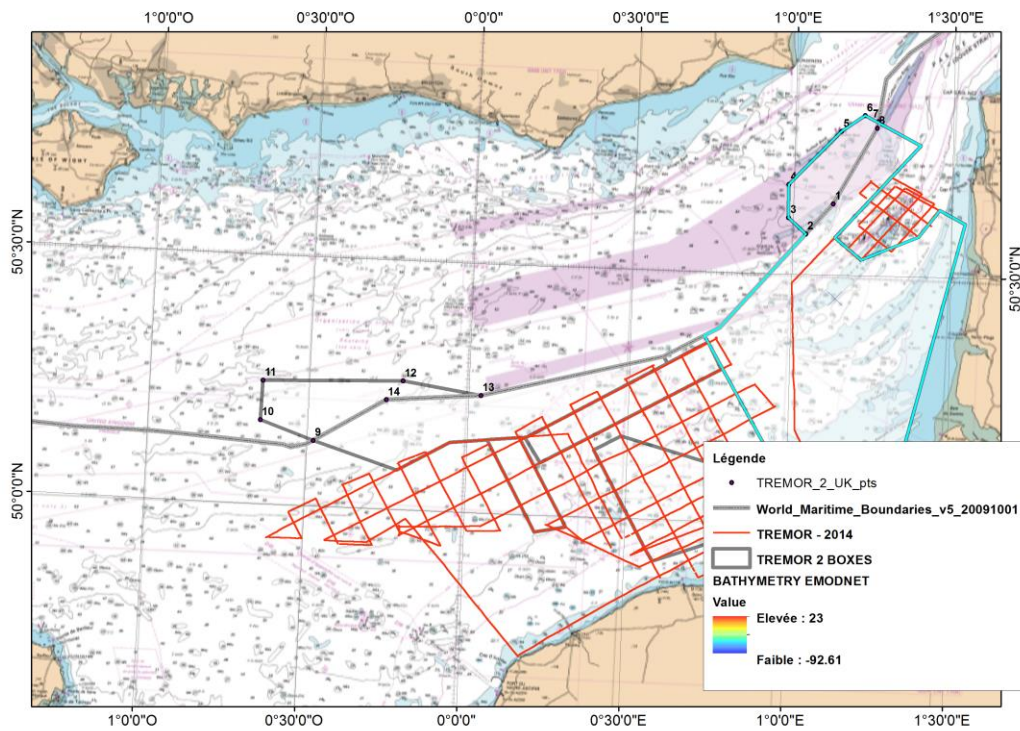
11.1 List of attachments, such as additional forms required by the coastal State, etc.:

Signature: 	Contact information of the focal point: Name: Virginie Gaullier Country: France Affiliation: Université de Lille - Sciences et Technologies	virginie.gaullier@univ-lille1.fr Laboratoire d'Océanologie et de Géosciences UMR LOG 8187 CNRS-Lille1-ULCO UFR Sciences de la Terre - Bât. SN5, F59655 Villeneuve d'Ascq Tél. +33 (0)3 20 43 41 20
---	--	--

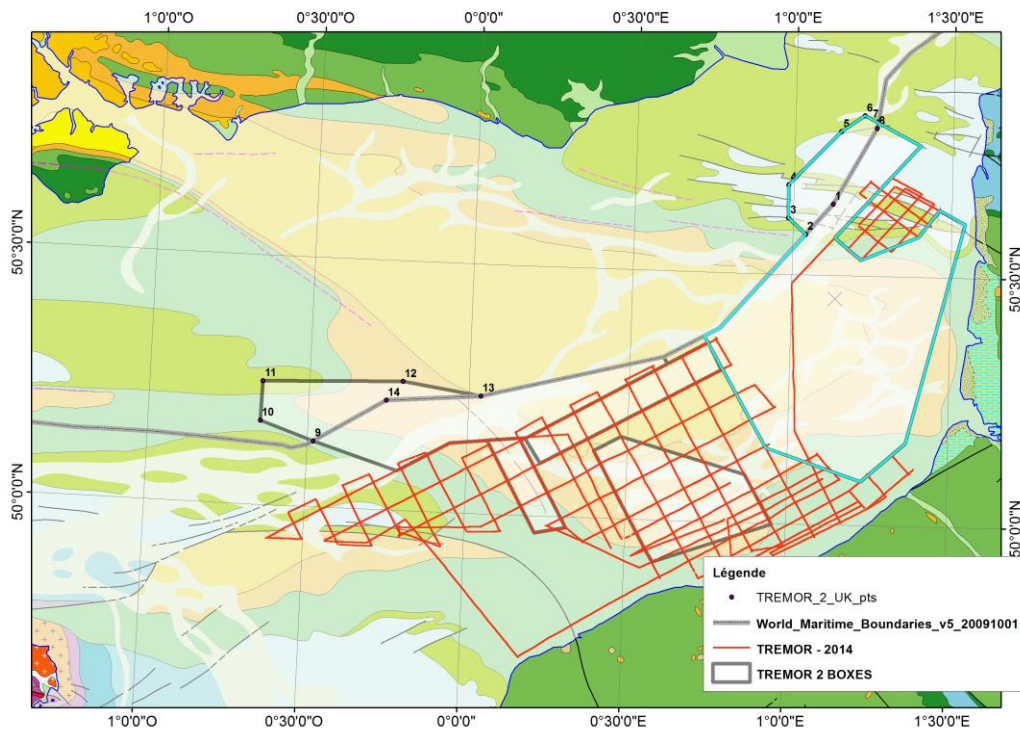
ANNEX I

Works Maps

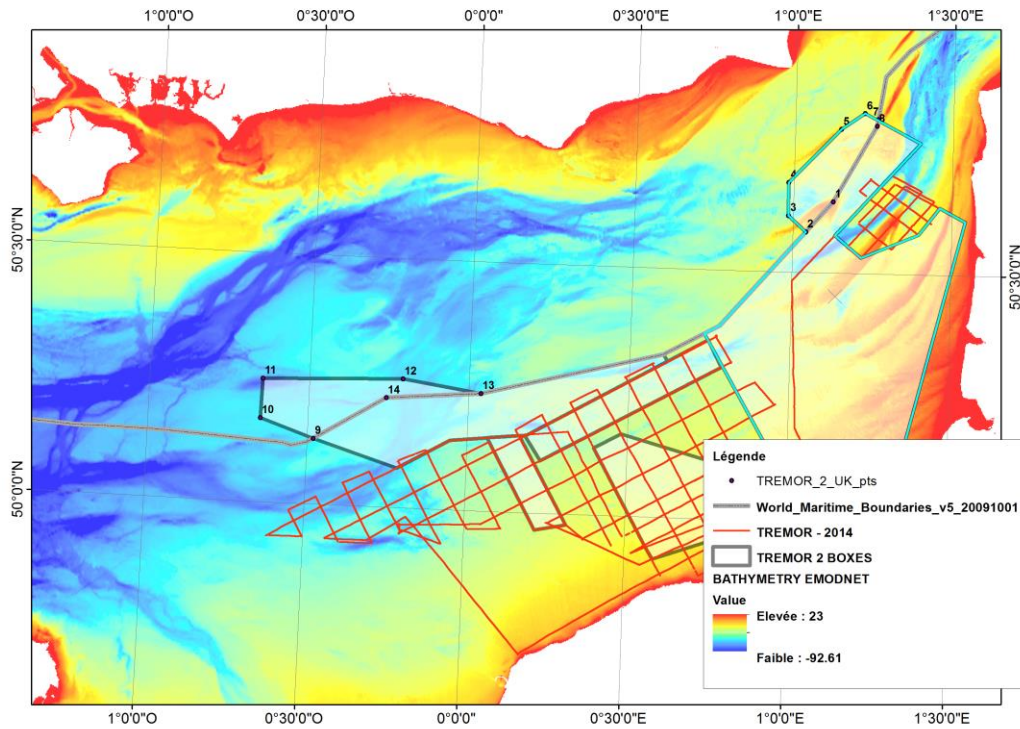
1) Navigation



2) Geology



3) Bathymetry EMODNET



ANNEX II

Works positions TREMOR2

BOXES	POINTS	X_LONG_DD	Y_LAT_DD
A	0	1,12	50,64
A	1	1,04	50,58
A	2	0,98	50,61
A	3	0,98	50,68
A	4	1,14	50,79
A	5	1,22	50,82
A	6	1,26	50,81
B	7	1,26	50,8
B	8	-0,48	50,13
B	9	-0,65	50,17
B	10	-0,65	50,25
B	11	-0,2	50,26
B	12	0,04	50,24
B	13	-0,26	50,22

DD -
WGS84