

Groupe Hydrographique et Océanographique de
l'Atlantique

Followed by IETA Gabin Sogorb

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- Object** : Results and conclusions : 22.06.2016, 10.08.-20.10.2016, Jnr. 16/8443 -
NARVAL 2016 hydrographic and oceanographic cruise onboard R/V
Beautemps-Beaupré
- Reference** : a) Note Verbale 16/8443 from the Directorate of Fisheries in date of the
08 august 2016 ;
b) License for Scientific Exploration – NPD 16/570 /HeHa from the
Norwegian Petroleum Directorate in date of the 04 august 2016.
- Attachment** : 1 appendix.

1 TASK

This report presents the oceanographic and bathymetric activities conducted from 8th September to 15th September 2016 by « Groupe Hydrographique et Océanographique de l'Atlantique », part of Shom (French Hydrographic and Oceanographic Office) onboard R/V Beautemps-Beaupré in the Norwegian EEZ during NARVAL 2016.

2 REFERENCES

All data are referenced to WGS84 datum, in geographical coordinates.
Vertical reference is the lowest astronomical tide level.

3 OCEANOGRAPHIC DATA

The localization of measurements is given in appendix 1. The configuration for each recorded data is available in log files or in the header of each data file.

Along track data was acquired using:

- an hull mounted thermosalinometer at 2 meters depth ;
- a sub-bottom profiler Kongsberg SBP120.

4 HYDROGRAPHIC DATA

4.1 DATA ACQUISITION

The survey was conducted with an EM122 Kongsberg multibeam echosounder and an EM1002 Kongsberg multibeam echosounder. Survey localization is given in appendix 1.

4.2 DATA CORRECTIONS

Processing was done using CARIS HIPS&SIPS 7.1

4.2.1 Sound velocity correction

Sound velocity profiles were regularly done (at least each 6 hours) using:

- XBT probes

Data were corrected from sound velocity profile effects.

4.2.2 Localization and attitude

Positioning and attitude was supplied by an inertial navigation system POSMV5 combined with GNSS system receiving correction from MarineSTAR system and an inertial navigation system HYDRINS combined with GNSS system receiving correction from EGNOS system.

Precision of the ship localization is estimated better than 3.00m at 95%.

4.2.3 Tide correction

Predicted tide at position listed below was used to correct the tide effect:

- 60°24,0'N 005°18,0'E

4.2.4 Lever arms

Data has been corrected from the lever arms of all the sensors.

4.3 ACCURACY

The sounding accuracy in meter at 95% is (where D = depth in meter) for EM1002:

Horizontal: 3 m + 2.27 % D

Vertical: $\sqrt{(2.01^2 + (1.16\% \times D)^2)}$

The sounding accuracy in meter at 95% is (where D = depth in meter) for EM122:

Horizontal: 3 m + 1.35 % D

Vertical: $\sqrt{(2.01^2 + (1.16\% \times D)^2)}$

5 DATA PROVIDED

- The present report
- Oceanographic data :
 - XBT probes in EDF format
 - Seismic data in SEG-Y format (readable by freeware Kogeo <http://www.kogeo.de/>)
- Bathymetric data :
 - Soundings in ASCII files (latitude, longitude, depth)

Chief scientist Pierre-Yves Dupuy,
Director of groupe hydrographique et océanographique de l'Atlantique,
Signé : ICETA DUPUY

APPENDIX: SURVEYED AREA

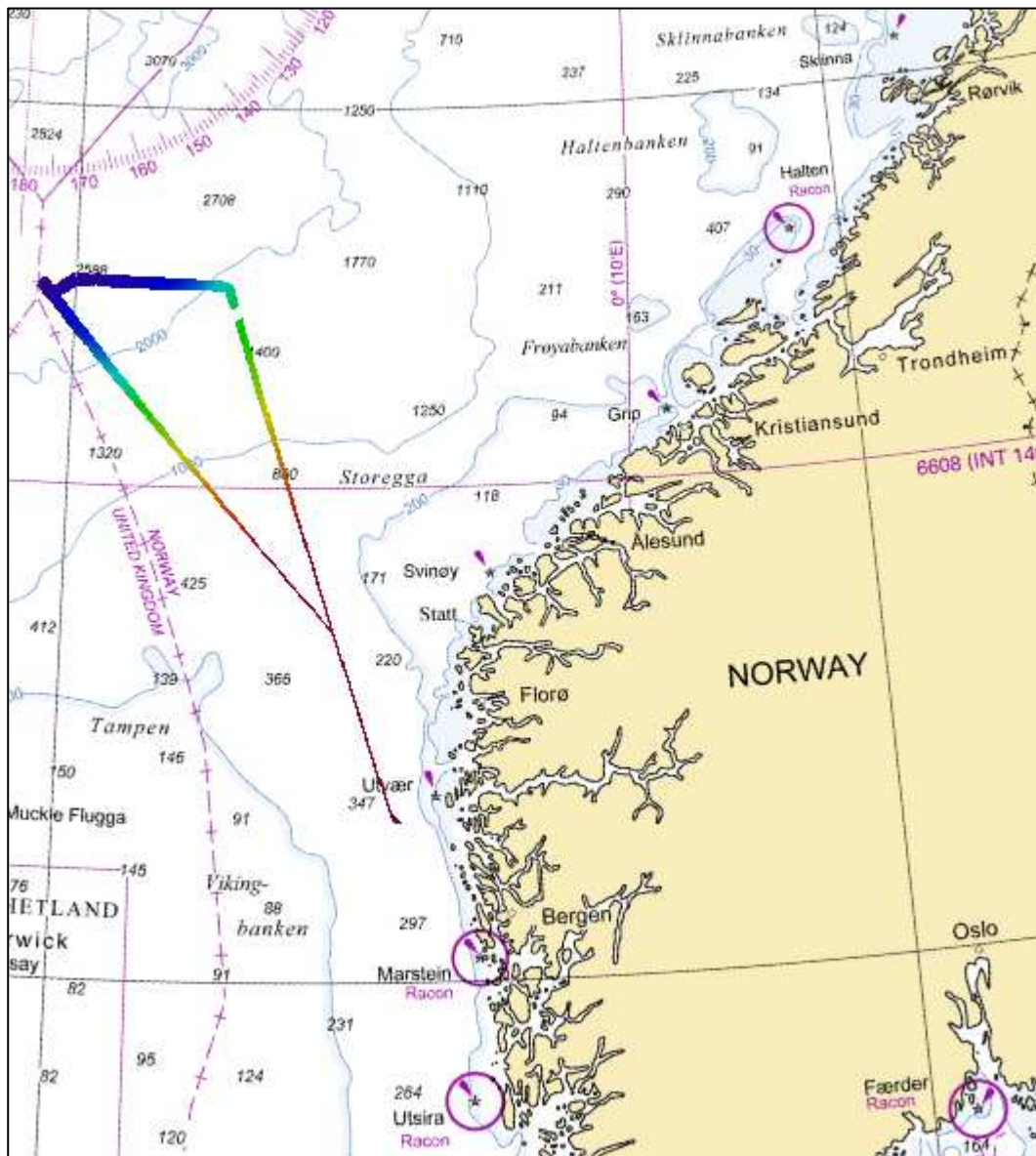


Figure 1 : Bathymetric data acquired during NARVAL 2016 based on marine chart FR6727

Destinataire(s) : - Directorate of Fisheries (Postboks 185 Sentrum 5804
BERGENNORWAY) : info@fiskeridir.no –
- Norwegian Petroleum Directorate (Prof. Olav Hanssensvei 10
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