

DATA ANNOUNCEMENT

06/10

Barents Sea Aeromagnetic Remapping 2008 (BASAR-08)



Example of aeromagnetic data from the BASAR-08 survey showing Carboniferous dykes, salt structures, faults and folded metasedimentary sequences within the basement.

Contact person:

Odleiv Olesen Team Leader, Continental Shelf Geophysics

E-mail: odleiv.olesen@ngu.no Tel: +47 73 90 44 56

NGU

Geological Survey of Norway NO-7491 Trondheim Norway Tel: +47 73 90 40 00 Fax: +47 73 92 16 20 www.ngu.no/continental_shelf_geophysics The Geological Survey of Norway (NGU) has acquired a new high-resolution aeromagnetic data in the southern Barents Sea between 24 and 29°E, and between the Finnmark coast and 74° 30'N (see map). The survey comprises an area of approx. 80.000 km² and covers the southern Nordkapp Basin and the Finnmark and Bjarmeland platforms. Profile and tie line spacing of the survey are 2 km and 5 km, respectively. The interpretation report was completed in April 2009.

The new BASAR-08 survey and a follow-up in 2009 constitute parts of an aeromagnetic remapping programme of the entire Norwegian continental shelf. Combined with NGU's BAS-06 and StatoilHydros HRAMS-97/98 surveys the

planned acquisition will provide a comprehensive and state of the art aeromagnetic data-set of the southern Norwegian Barents Sea. High-resolution aeromagnetic surveys are extremely useful for detecting and detailed mapping of faults, fracture systems, local intrusions, salt diapirs and depth to basement interpretations. This information provides a structural overview of the area and is valuable for further survey planning like seismic, gravity or CSEM data acquisition.

Integrated interpretation of seismic and potential field data produces a synergy that has been proven wherever these data sets overlap. The proximity of the Norwegian mainland provides an interesting setting for onshore-offshore investigation. The BAS-06 survey shows that a combined effort of aeromagnetic mapping of the southern Barents Sea area with participation from the petroleum industry contributes to improving our geological knowledge of the region.

> ORDERING: Price: 1.68 million NOK



Outline of the BASAR-08 aeromagnetic survey in the southwestern Barents Sea (yellow hatching). Acquisition of the remaining area to the west is scheduled for 2009.

DELIVERABLES

Maps

- Aeromagnetic total field data-sets
- Depth to magnetic sources
- Free air, Bouguer and isostatic gravity maps
- Filtered magnetic and gravity maps
- Combined interpretation maps
- Gravity and magnetic modelling along key transects
- Combined interpretation with seismic data
- 3D basement model
- Geodynamic and tectonic interpretations

Reports

- Processing reports
- Interpretation report

OFFSHORE SURVEY SPECIFICATIONS

Line/tie-line spacing	2 km / 5 km
Sensor elevation:	approx. 230 m
Area coverage:	85.000 km ²
Total flying distance:	58.000 km
Aeroplane:	Piper Chieftain
Magnetometer:	Scintrex Cesium Vapour MEP410
Noise envelope:	±0.1 nT
Sensor:	CS-3 mounted in towed bird
Navigation:	Real time differential GPS
Navigation accuracy:	< 5 m
Base of operation:	Lakselv
Base magnetometers:	Scintrex Envi-mag