

Enclosure 1:

Acquisition of multichannel seismic data off the Faroe Islands

Technical requirements

1. Survey vessel

Use of a large seismic surveying vessel will be required. The identity and complete operational and technical details of this vessel must be fully stated in the tender.

2. Source array

A fully functioning air gun array of a minimum size of preferably 3000 cubic inches will be required, having:

- Good primary to bubble characteristics
- Strong peak-to-power output
- A basically flat spectrum within the recording band
- Suitable geometry for the area – state ability for wide tow

Evidence of system performance must be fully documented and supplied with the tender. Monitoring capabilities and drop out specifications must also be specified. The system will further be operated with:

- 25 m shot point interval
- Appropriate gun depth as to be determined from signature characteristics (e.g. 4 to 6 m).

3. Seismic streamer

A digital seismic streamer of a make suitable for the hydrography of the survey area should be used. In addition, this streamer cable should preferably have a minimum length of 4800 active metres. Complete streamer and hydrophone specifications must be stated. Further operational parameters are:

- 12.5 m group length
- 8 m cable depth

It should be noted that cable depth, feather angle and noise parameters are of primary importance and will be strictly controlled.

4. Recording system

Technical documentation for the corresponding recording system must also be given. Minimum requirements are:

- 1-2 msec. sample rate as appropriate for selected high-cut filter

- 10 second record length for CDP data; longer record lengths MAY be required for sonobuoy recording
- Low-cut filter: 3.5 Hz/out

5. Onboard processing system

An onboard processing system has to be in operation and utilised in full during the survey. Details, including examples, shall be supplied.

6. Sonobuoy Data Acquisition

A receiver and aerial system suitable for use with AN/SSQ-53D (2) or similar sonobuoys are required; sonobuoy data acquisition and recording is an integral part of this survey. Multiple recording of sonobuoy channels may be required (up to 3). Additionally, a suitable monitor and display system must be used. Crew will be required to deploy sonobuoys at the direction of Client. Client will supply sonobuoys.

7. Gravity Data Acquisition

Gravity data shall be acquired during the seismic survey

8. Navigation

The primary navigation for the survey shall be DGPS. The applicant should demonstrate that the complete system configuration proposed, including in-the-water location systems, is appropriate and sufficient for the survey areas.

Navigation tapes must be supplied in the appropriate UKOOA format on both IBM 3590 cartridges, 8 mm Exabyte tapes and CD ROMs.

Paper and film plots of navigation data must be supplied at a specified scale and projection.

9. Tape formats

SEG and UKOOA tape formats shall be produced at all stages. Cost uplift for dual tape production shall also be given; onboard copying is acceptable. IBM 3590 cartridges will be preferred as media for recording of field data.

10. Acquisition periods

Autumn and wintertime periods are considered unsuitable for data acquisition within the survey area. Therefore acquisition must be carried out in the period from May to September.

11. Survey programme

Minimum data acquisition programme within the two survey areas will be approximately 3000 km excluding line change and transit between areas. The survey will be located inside the areas shown on the attached maps Figure 1.

12. Quality control

The tender must include complete internal survey quality control parameters to be used for this project, with the appropriate quality assurance manuals and procedures. GEUS will have an onboard quality assurance representative to monitor and approve programme performance.

13. Final acquisition report

An acquisition report (“Final Report”) shall be supplied not later than 2 weeks after completion of the survey. The report shall summarise the work, focusing on data quality and problems encountered and must include recommendations to improve data quality. Details on the content of the report will be given in the draft acquisition contract.

14. Price quotations

The tenderer shall use the format below to give a price quotation for the seismic acquisition, based on the scope of services given above. Bids not complying with this format may be rejected.

Fixed prices:

Mobilisation/Demobilisation.

Lump Sum DKK

Acquisition of approximately 3000 km seismic data offshore Faroe Islands

DKK/Km

Line change

DKK/Km

Transit between areas

DKK/Km

Day rate:

Mobilisation/Demobilisation.

Lump Sum DKK

Acquisition of approximately 3000 km seismic data offshore the Faroe Islands

DKK/Day

Line change

DKK/H

Transit between areas

DKK/H

Gravity data acquisition pricing schedule:

Mob-/Demobilisation to the area of operations.

Lump Sum DKK

Acquisition rate

DKK/day

Sonobuoy data acquisition pricing schedule:

Mob-/Demobilisation to the area of operations.

Lump Sum DKK

Acquisition rate

DKK/day

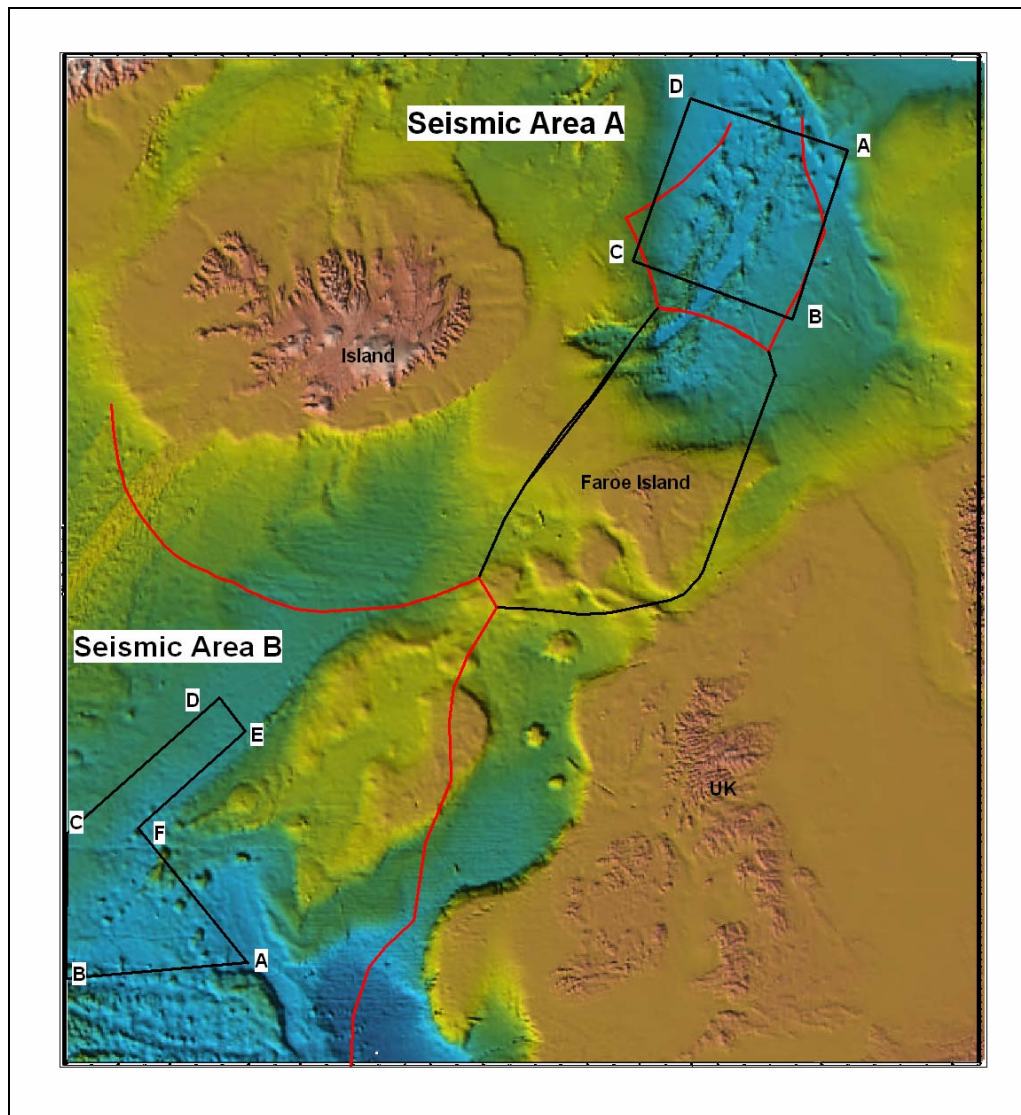


Figure 1 Area for seismic acquisition

Area A			Area B	
A	5° 27' 38,1"E	67° 47' 34,7"N	A	21° 28' 03,7"W 53° 03' 20,4"N
B	0° 47' 59,1"E	64° 53' 47,3"N	B	27° 22' 11,1"W 52° 21' 11,0"N
C	6° 30' 53,7"W	66° 41' 08,0"N	C	28° 21' 42,7"W 55° 05' 44,7"N
D	2° 20' 53,4"W	69° 38' 36,0"N	D	23° 49' 26,0"W 58° 07' 40,3"N
			E	22° 39' 06,8"W 57° 32' 51,7"N
			F	25° 56' 37,7"W 55° 25' 57,0"N