Not to be cited without prior reference to the FRS Marine Laboratory, Aberdeen

FRV *Scotia*

Cruise 0508S

PROGRAMME

6–25 May 2008

Loading: Aberdeen
Unloading: Aberdeen
Port Call: Stornoway

Personnel

G Slesser	In charge
M Geldart	
D Lichtman	
B Berx	
M Rose	
D Watson	
J Dunn	(6-11 May)
N Collie	(5-16 May)
J Turriff	(17-25 May)
D Mayor	Aberdeen University
Visitor	Aberdeen University
J Beaton	SAMS (17-25 May)
T Sherwin	SAMS (17-25 May)

Out-turn days per project: 20 AE11R0

Gear

Sea-Bird CTD, ADCP and Current Meter Moorings, Thermosalinograph, Recovery Trawl, Maxi-corer.

Objectives

1. Perform hydrographic surveys along the JONSIS standard section in the northern North Sea.

2. Perform hydrographic surveys along the standard Faroe Shetland Channel sections.

3. Service two ADCP moorings in the Faroe Shetland Channel.

4. Recover two current meter moorings East of Shetland.

5. Perform a CTD survey East of Shetland.

6. Deploy two current meter moorings in the Fair Isle Channel.

7. Take core samples for benthic productivity in the Faroe-Shetland.

8. Perform CTD surveys along the Shelf Edge

9. Recover and redeploy a SAMS ADCP mooring at the Wyville - Thomson Ridge.

10. Perform a CTD survey at the SAMS ADCP position.

Procedure

On sailing from Aberdeen the *Scotia* will carry out trial CTD deployments. Thereafter, passage will be made to the start of the JONSIS standard line which will be surveyed using the CTD/rosette package. On completion of the JONSIS line two current meter moorings (59° 43.34'N 001° 41.53'W, 59° 28.35'N 002° 01.78'W) will be deployed in the Fair Isle Channel. Passage will then be made to east of Shetland Islands where the two East of Shetland moorings (60° 28.55'N 000° 7.92'W, 60° 34.42'N 000° 38.13'W) will be recovered. Three CTD lines east of the Shetland Islands will also be sampled either before or after the mooring work. At a convenient time after the completion of the above mooring work, scientific personnel will be disembarked at Lerwick.

The *Scotia* will then proceed with hydrographic survey work in the Faroe-Shetland Channel. The two standard lines, the Fair Isle - Munken and the Nolso - Flugga sections will be worked. This will be followed by the recovery, servicing and redeployment of two NWOCE ADCP moorings, NWSD (60° 26.97'N 004° 22.54'W) and NWSE (60° 16.62'N 004° 20.08'W). During the survey of the Nolso-Flugga section deep sea coring will take place at Nolso - Flugga station 4.

Folllowing this, if time allows, CTD stations will be sampled along the shelf edge prior to the half landing at Stornwoway.

During the half landing at Stornoway, exchange of FRS staff will take place and two SAMS personnel will join the ship.

On departing Stornoway Scotia will make passage to the Wyville -Thomson Ridge SAMS mooring position (60° 14.71'N 009° 07.61'W). This mooring will be recovered, serviced and redeployed by SAMS personnel. Following this, a CTD survey will take place in the area.

On completion of the above, CTD stations will surveyed along the shelf edge as time permits before returning to Aberdeen.

The thermosalinograph will be run throughout the cruise.

(NOTE: The survey will take *Scotia* into the Foinaven Development Area. This is now standard practice, and normal on-site communications will be established with the Foinaven co-ordinating officer).

Normal contacts will be maintained with the laboratory.

J A Morrison
10 April 2008

JONSIS Line

	Name	Latitude	Longitude	Depth	Spacing
01	JO 1	59 17.00' N	02 14.00' W	75 m	
02	JO 1A	59 17.00' N	02 5.00' W	90 m	8.5 km
03	JO 2	59 17.00' N	01 56.00' W	100 m	8.5 km
04	JO 3	59 17.00' N	01 48.00' W	80 m	7.6 km
05	JO 4	59 17.00' N	01 40.00' W	90 m	7.6 km
06	JO 5	59 17.00' N	01 30.00' W	95 m	9.5 km
07	JO 6	59 17.00' N	01 20.00' W	110 m	9.5 km
08	JO 6A	59 17.00' N	01 10.00' W	120 m	9.5 km
09	JO 7	59 17.00' N	01 0.00' W	125 m	9.5 km
10	JO 8	59 17.00' N	00 40.00' W	120 m	18.9 km
11	JO 9	59 17.00' N	00 20.00' W	140 m	18.9 km
12	JO10	59 17.00' N	00 0.00' W	135 m	18.9 km
			Totals	1180 m	126.9 km

Fair Isle - Munken (Ammended for presence of Foinaven oil platform)

	Name	Latitude	Longitude	Depth	Spacing
01	FIM-01	60 10.00' N	03 44.00' W	150 m	
02	SEFOS	60 13.00' N	03 51.50' W	170 m	8.9 km
03	FIM-02	60 16.00' N	03 59.00' W	200 m	8.9 km
04	SEFOS	60 18.00' N	04 04.50' W	330 m	6.3 km
05	*FIM-03*	*60 20.25' N*	*04 09.00' W*	*390 m*	*6.3 km*
06	FIM-04	60 25.00' N	04 19.00' W	655 m	12.4 km
07	FIM-05	60 29.00' N	04 26.00' W	995 m	9.8 km
08	FIM-06	60 35.00' N	04 45.00' W	1090 m	20.6 km
09	FIM-6a	60 38.00' N	04 54.00' W	1030 m	9.9 km
10	FIM-07	60 43.00' N	05 06.00' W	915 m	14.3 km
11	FIM-08	60 47.00' N	05 16.00' W	830 m	11.7 km
12	FIM-09	60 51.00' N	05 29.00' W	600 m	13.9 km
13	FIM-10	61 02.00' N	05 57.00' W	280 m	32.4 km
14	FIM-11	61 12.00' N	06 22.00' W	240 m	
			Totals	7,585.00	155.40

Nolso-Flugga

	Name	Latitude	Longitude	Depth	Spacing
01	NOL-01	60 56.00' N	01 00.00' W	110 m	
02	SEFOS	60 58.70' N	01 17.70' W	125 m	16.7 km
03	SEFOS	61 01.40' N	01 35.40' W	155 m	16.7 km
04	NOL-02	61 04.00' N	01 53.00' W	270 m	16.7 km
05	SEFOS	61 06.00' N	02 01.50' W	440 m	8.5 km
06	NOL-03	61 08.00' N	02 10.00' W	550 m	8.5 km
07	SEFOS	61 09.30' N	02 17.50' W	630 m	7.1 km
08	NOL-3a	61 11.00' N	02 25.00' W	730 m	7.4 km
09	NOL-04	61 14.00' N	02 40.00' W	1080 m	14.5 km
10	NOL-05	61 21.00' N	03 10.00' W	1370 m	29.6 km
11	NOL-06	61 28.00' N	03 42.00' W	1235 m	31.2 km
12	NOL-07	61 35.00' N	04 15.00' W	990 m	31.9 km
13	NOL-08	61 42.00' N	04 51.00' W	235 m	34.2 km
14	NOL-09	61 49.00' N	05 21.00' W	180 m	29.3 km
15	NOL-10	61 54.00' N	05 45.00' W	290 m	22.9 km
16	NOL-11	62 00.00' N	06 12.00' W	125 m	26.0 km
			Totals	8250 m	301.20 km