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

FRV Scotia

Cruise 1405S

PROGRAMME

26 September – 10 October 2005

Ports

Loading: Aberdeen Unloading: Aberdeen Port Call: Torshavn

*In setting the cruise programme and specific objectives, etc the Scientist-in-Charge needs to be aware of the restrictions on working hours and the need to build in adequate rest days and rest breaks as set out in FRS' Working Time Policy (which is published on the Intranet). In addition, the Scientist-in-Charge must formally review the risk assessments for the cruise with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the Cruise Report, to John Morrison and the Cruise Summary Report (old ROSCOP form) to Dougal Lichtman, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate.

Personnel

*G Slesser In charge

S Hughes J Beaton D Lichtman N Collie M Rose

C Embling University of St Andrews T Gridley University of Aberdeen

Gear

Sea-Bird CTD=s, ADCP and Current Meter Moorings, Towed Hydrophone, Sonobuoys, Thermosalinograph, Recovery Trawl.

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 the Shetland Islands.
- 5. Carry out CTD hydrographic surveys in the Wyville-Thomson Ridge and Rosemary Bank areas.
- 6. To recover a current meter mooring from Anton Dohrn Sea Mount.
- 7. To perform ad-hoc towed array acoustic recordings for cetaceans and deployment of sonobuoys.

Procedure

On sailing from Aberdeen the *Scotia* will carry out a trial CTD deployment. Thereafter, passage will be made to the start of the JONSIS standard line which will be surveyed using the CTD/rosette package. The *Scotia* will then sail to East of Shetland where two current meter moorings (60°28.63'N 000°07.75'W, 60°34.50'N 000°38.08'W) will be recovered. Prior to the recovery of each mooring, hydrographic stations will be worked through the mooring positions. Passage will then be made to West of Shetland where some time will be given to searching for the remaining part of the West of Shetland mooring (60°58.83'N 001°27.12'W) damaged by a survey vessel early in the year.

The *Scotia* will then proceed with hydrographic survey work in the Faroe-Shetland Channel area. The two standard lines, the Fair Isle - Munken and the Nolso-Flugga sections will be worked. This will be followed by the recovery and servicing of two NWOCE ADCP moorings, NWSD (60°26.99'N 004°22.48'W) and NWSE (60°16.58'N 004°19.89'W). During this time a port call maybe required to Torshavn to return a Faroese ADCP instrument.

Following this, CTD hydrographic survey work will be carried out in the Wyville-Thomson Ridge/Rosemary Bank and Anton Dohrn Sea Mount areas. Prior to returning to Aberdeen a current meter mooring scheduled for deployment on the Anton Dohrn Sea Mount during *Scotia* Cruise 12 will be recovered.

Through out the cruise, a towed hydrophone will be deployed on passage and at times between hydrographic stations.

(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 5 August 2005

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		

