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MRV *Scotia*

Survey 0615S

PROGRAMME

11 May– 31 May 2015

Loading: Aberdeen
Change-overs: Aberdeen
Unloading: Aberdeen

In setting the survey 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 Marine Scotland's Working Time Policy (Lab Notice 34/03). In addition, the Scientist-in-Charge must formally review the risk assessments for the survey with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the survey report, to I Gibb and the survey summary report (old ROSCOP form) to M Geldart, within four weeks of a survey ending. In the case of the survey summary report a nil return is required, if appropriate.

Personnel

Survey Number	Staff Name	Group	Cabin	Dates
0615S	P. Hayes	OEEA	SIC	11 - 31 May
0615S	M. Robertson	OEEA	H	11 - 27 May
0615S	R. Watret	OEEA	D	11 - 19 May
0615S	A. Kafas	OEEA	E	11 - 19 May
0615S	P. Copland	Marine Ecosystems	B	11 - 31 May
0615S	E. Armstrong	Marine Ecosystems	C	11 - 27 May
0615S	P. Stainer	OEEA	G	19 - 27 May
0615S	J. Heron	OEEA	G	11 - 19 May
0615S	R. Duncan	OEEA	D	19 - 27 May
0615S	L. Anderson	OEEA	E	19 - 27 May
0615S	J. Hunter	Engineering Services	J	11 - 31 May
0615S	C. Hall	Engineering Services	C	27 - 31 May
0615S	R. Kynoch	Coastal and Offshore Fisheries	H	27 - 31 May
0615S	M. Kinghorn	Coastal and Offshore Fisheries	D	27 - 31 May
0615S	R. Gardiner	Renewables Advice Group	G	27 - 31 May
0615S	I. Gibb	Science Operations	E	27 - 31 May
0615S	Reson Rep (TBC)	Reson	-	11 May

Fishing gear:

Day grabs; TV drop frame with lasers (including rectangular footprint); armoured cable; Swathe multibeam echosounder system; RoxAnn system; Scout System; sidescan sonar; and smolt trawl.

Objectives

1. To undertake bathymetric, side scan sonar and groundtruthing survey work in connection with offshore oil and gas pipelines and elevated demersal fishing activities in UK and Norwegian waters of the North sea.

2. To undertake trials of the smolt trawl in the Moray Firth.

Estimated Days per Project: 21 days

Procedure

MRV Scotia will depart from Aberdeen Harbour at 09:00 (BST) on 11 May. Before making passage to the pipeline stations, Scotia will calibrate the multibeam system off Stonehaven. Once this is completed a small boat transfer will be necessary to return the RESON representative back to Stonehaven Harbour. The nature of the work will be heavily dependant on the prevailing weather conditions encountered. The proposed survey is very similar to the work undertaken for previous renewable energy surveys in the Pentland Firth (2009), west of Lewis and Fair Isle (2010) and north coast of Scotland (2011). The survey work sites are annotated in Figure 1. The bathymetric survey work will involve a series of transects collecting multibeam, side scan sonar and RoxAnn data. Sound velocity profiles will be recorded on a daily basis. Multibeam data will be collected along the pipeline sections. On completion of one tow over the entire pipeline section, further transects will be run deploying both the multibeam and the sidescan sonar simultaneously. The output from the transects will guide the stations for the TV tows which in turn will determine the sites for the deployment of the day grab. On completion of the pipeline survey work, *MRV Scotia* will relocate to the Moray Firth to undertake trials using the recently commissioned Smolt trawl.

A video trawl net for use pelagically close to the surface for the enumeration of salmon and sea trout smolts as they emigrate through near coastal waters in spring has been recently commercially manufactured for MSS. The key purpose for the days allocated on Scotia to test the net will be to ensure that the net itself can be deployed and function correctly, particularly in view of this being a type of net new to the Scotia crew, and establish protocols for shooting and retrieving the net and accompanying equipment as a prelude to more extensive work during the smolt run of 2016 in the Moray Firth. The net is designed to operate close to the surface with entrained fish directed through a detachable camera and PIT detector frame at its end. Although the first deployments may be without the frame in place, it is intended to test the deployment and operation of the camera set up and PIT detector arrangements at an early stage in the testing.

Shooting the net may require a depth of 50m, although it is expected that once the net is underway and the doors have lifted that it will be able to operate in water shallower that this.

The initial testing is planned to take place in the Southern Trench of the Moray Firth, and if the initial test deployments go well to move to other locations in the Moray Firth.

MRV Scotia will complete half landings at Aberdeen on 19 and 27 of May to exchange scientific staff. The second half landing will be followed by the relocation of the survey work into the Moray Firth. On completion of the survey work *MRV Scotia* will return to unload at Aberdeen Harbour on 31 May.

Normal contacts will be maintained with the Laboratory.

Submitted:
P. Hayes
01 May 2015

Approved:
I Gibb
01 May 2015

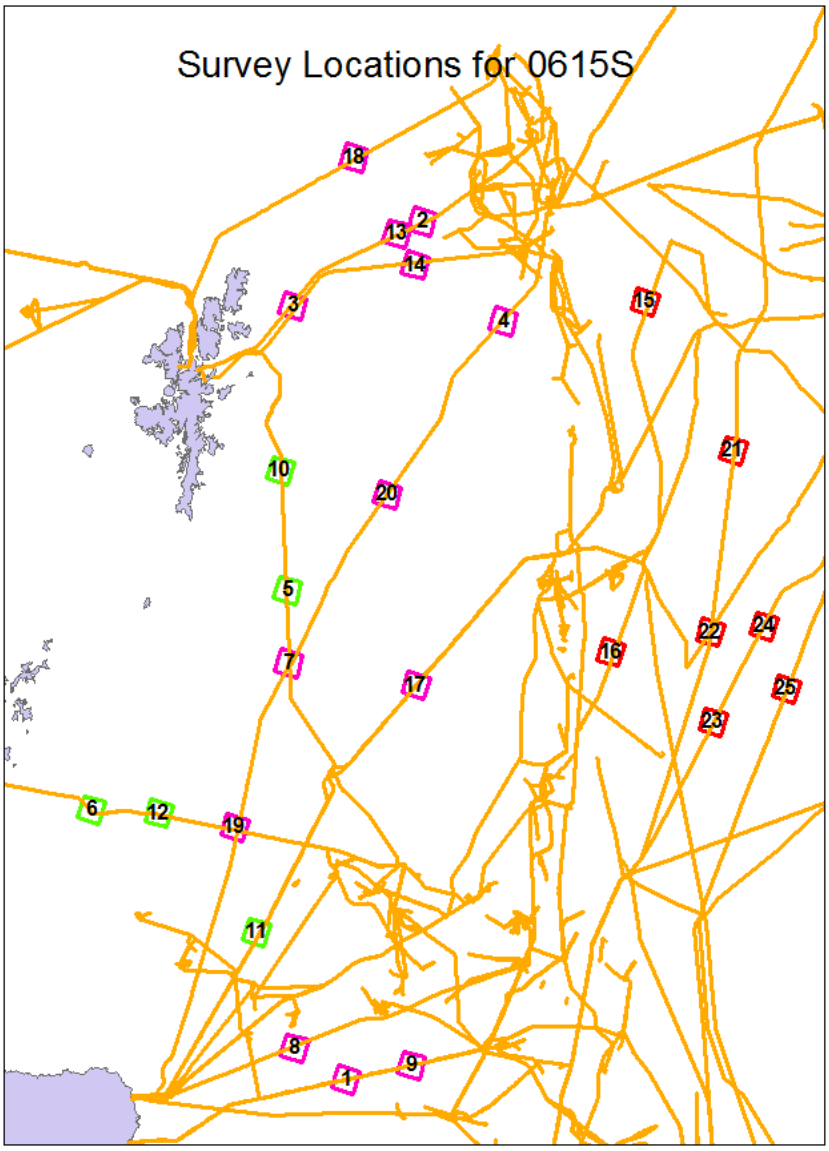

Figure 1 shows the pipeline survey locations for survey 0615S. Symbols in pink and red indicate priority areas. Red symbols are located in Norwegian waters. The green symbols indicate contingency locations if we are not granted survey access to Norwegian waters.