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

MRV *Alba na Mara*

Survey 0914A

PROGRAMME

30 May – 2 June 2014

Loading: Fraserburgh, Wednesday 28 May 2014
Unloading: Fraserburgh, Monday 2 June 2014

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 cruise 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 Iain Gibb and the Survey Summary Report (old ROSCOP form) to Matt Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Personnel

C Hall	(SIC)
J Hunter	
I Gibb	30 May 2014
F Mackay	30 May 2014
Savante Ltd (2)	01 June 2014 (TBC)

Out-turn days per project: FRPRM9 (20040) - 4 days

Equipment

300m armoured cable
TV drop frame and calibration grid
Over-side transducer pole
SubC1 HD cameras
Video Ray ROV & Dyneema recovery line
PUP pop-up recovery system
Track-point USBL location system
OCEAN plankton sampler
Scanmar depth sensor

Objectives

1) To test and compare a variety of TV & HD cameras and associated lights.

2) To test methods of reducing vibration in the over-side transducer pole.

3) To test the deployment, recovery and efficiency of short-base-line acoustic positioning systems and a PUP ("pop-up") recovery marker.

4) To calibrate plankton-sampler flow-meters.

5) Staff training in the deployment, operation and recovery of a VideoRay ROV, including comparison of micro-USBL systems.

6) To assess a commercial 3-D laser imaging system (Savante Ltd).

Procedure

Scientific equipment will be transported to Fraserburgh on 28 May. The TV cable will be loaded onto the winch and lab equipment installed. If necessary, set-up will be completed when staff join *Alba na Mara* during the morning of 30 May, after which ROV trials will start in the Moray Firth in areas of sandy sea-bed and 30 m depth. *Alba na Mara* will return to Fraserburgh at the end of each day during the survey to exchange staff and to review data.

A new PUP ("pop-up") recovery marker will be attached to the drop-frame to assess its suitability as an aid to recovering lost equipment. A separate recovery line will be attached to the frame in the event that the PUP fails. Assuming success, the PUP will be delivered to SCOTIA in time for 0714S. Other instrumentation will be tested on the drop-frame as conditions permit, including various laser projectors to calibrate and verify the beam orientation, and HD cameras.

Trials of the OCEAN plankton sampler will proceed as weather permits, with the sampler being towed from the centre trawl warp. A self-recording load-cell will be attached to the sampler to determine maximum towing loads, to enable selection of an alternate tow-wire for 1314A.

The port-side transducer-pole will be fitted with a variety of vortex shedders in an attempt to reduce vibration while towing. A self-recording accelerometer will be attached to the base of the pole to monitor the levels of vibration.

The Trackpoint USBL will be tested to confirm reliable operation of a range of beacons

Staff training in the deployment and use of the Video Ray ROV will be undertaken while the vessel is at anchor.

On 1 June two engineers from Savante Ltd will test a commercial 3-D laser imaging system to assess its suitability for benthic impact studies.

After the trials, *Alba na Mara* will un-load equipment in Fraserburgh on 2 June

Normal contacts will be maintained with the laboratory.

Submitted
C Hall
16 April 2014

Approved:
I Gibb
22 May 2014