Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen.

MRV Scotia

Survey 1018S

SURVEY PROGRAMME

21-25 July 2018

Ports

Loading: Aberdeen, 25 June 2018 Departure: Scrabster, 21 July 2018 Unloading: Aberdeen, 25 July 2018

Personnel

A Tait	MSS (SIC)	20-25 June
R Culloch	MSS `	20-25 June
D Copland	MSS	20-25 June
T Evans	MSS	20-25 June
B Scott	Abdn Uni.	20-25 June
B Williamson	Abdn Uni.	20-25 June
J Mcillveny	Abdn Uni.	20-25 June
S Fenn	Abdn Uni.	20-25 June
D Hunter	Abdn Uni.	20-25 June
A Couto	Abdn Uni.	20-25 June
J Chapman	Abdn Uni.	20-25 June

Project: MASTS – 5 days

Objectives

- 1. To deploy an AVU/drone from Scotia to monitor turbulence in the Pentland Firth over the Meygen site, at the South end of Stroma.
- 2. To record distribution of seabirds/mammals.
- 3. To record multi-frequency acoustic data using the on board EK60.
- 4. To record data using the on board ADCP.
- 5. To run the thermosalinograph, taking water and chlorophyll samples throughout the trip for calibration purposes.

Route

It is expected that the route will approximately follow that of the 2016 survey (see Figure 1), with any amendments in accord with navigational requirements at the time.

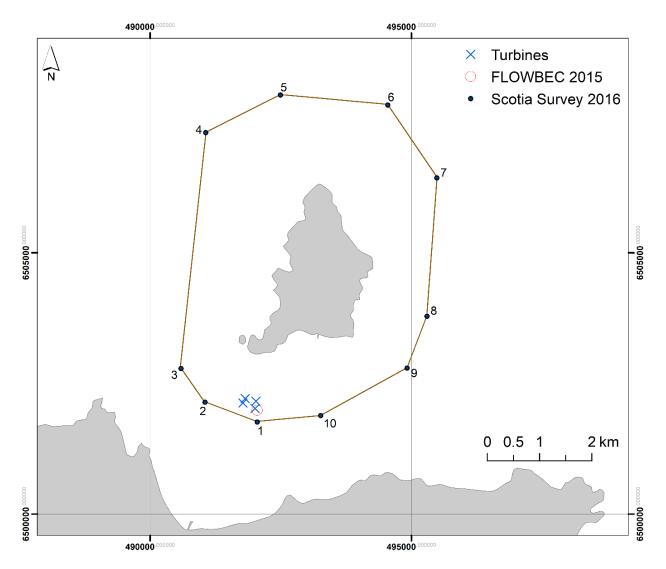


Figure 1: Scotia survey 2016 route.

Procedure

Personnel will join the vessel, on 20 July. The vessel will depart on the morning of 21 July, and make way to the Pentland Firth.

The AVU will be deployed along a fixed transect between Stroma and the mainland, against the prevailing tide. *Scotia* will follow the drone as near as practicable. At the end of the transect the drone will be recovered and *Scotia* will proceed round the north of Stroma to repeat the transect. Data will be recorded on the EK60/ADCP to monitor changes in water movements/turbulence.

The "bird boxes" will be used to record bird/mammal sightings.

This survey has previously taken place in June 2016. During that survey self-recording listening devices (drifting Sea Ears) were deployed, tracked and recovered across the Meygen site from the fast boat based on *Scotia*. This year, work relating to the drifting Sea Ears will be shore

based. During the survey, passage over turbine number two (the South Westerly turbine at the Meygen site) will be given consideration prior to its removal. If safe to do so, at least one passage will be made over the turbine whilst running the ADCP and EK60.

The survey will end on the morning of 25 July in Aberdeen, when the vessel will be in port by 08:00hrs for unloading.

Submitted: A Tait 17 July 2018

Approved: I Gibb 18 July 2018