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MRV *Alba na Mara*

Survey 1222A

## **PROGRAMME**

19 August – 03 September 2022

### **Ports**

**Loading:** Fraserburgh, 16 August 2022

**Sailing:** Fraserburgh, 19 August 2022

**Unloading:** Fraserburgh, 03 September 2022

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.

**Project:** 20724 (16 days)

### **Gear**

80 mm prawn trawl BT 201

Towed TV sledge

2 x umbilical towing cable and cameras

Prawn sorting table

### **Objectives**

- To obtain estimates of the distribution and abundance of *Nephrops* burrows in the Moray Firth, North Minch and South Minch using underwater cameras.
- To use the TV footage to record the occurrence of other benthic fauna and evidence of commercial trawling activity.
- To collect sediment samples at each UWTV station.
- If time permits, collect trawl caught samples of *Nephrops* for comparison of reproductive condition and morphometrics in each of the different survey areas.
- If trawling occurs, record and retain marine litter obtained from trawling as part of the MSFD.

### **Procedure**

Where possible, a random stratified approach will be adopted to investigate *Nephrops* burrow density in different regions of the study areas. In certain areas, mainly the North Minch, the stations are in a fixed position or assigned using VMS data.

A list of proposed stations for the survey will be made available to the ship prior to sailing.

**1. TV Observations:**

At each station a video camera mounted on the TV sledge will be towed across the seabed, into the tide and for approximately ten minutes at approximately one knot. *Nephrops* burrow abundance, other benthic fauna and signs of anthropogenic activity will be recorded on to DVD. Distance traveled by the sledge, the depth at which the sledge is at and camera height from the seabed will be monitored and recorded automatically

**2. Sediment Sample:**

Obtaining sediment samples will be attempted using a van Veen sampler mounted on the sledge, to be deployed at the end of each sledge run. Samples will be frozen and no chemicals will be involved. A Day Grab will be available for sampling if the van Veen fails on a regular basis and if time allows

**3. Trawling:**

Fishing trawls of approximately 60 minutes duration will be made within each sediment type and within each survey area. A range of biological and morphometric data will be collected on *Nephrops* caught.

**General**

TV work will normally take place during daylight hours and stay within WTR guidelines.

There may be a requirement for trawling to take place in the evening. On days where trawling will take place, work patterns will be arranged so not to exceed WTR recommendations.

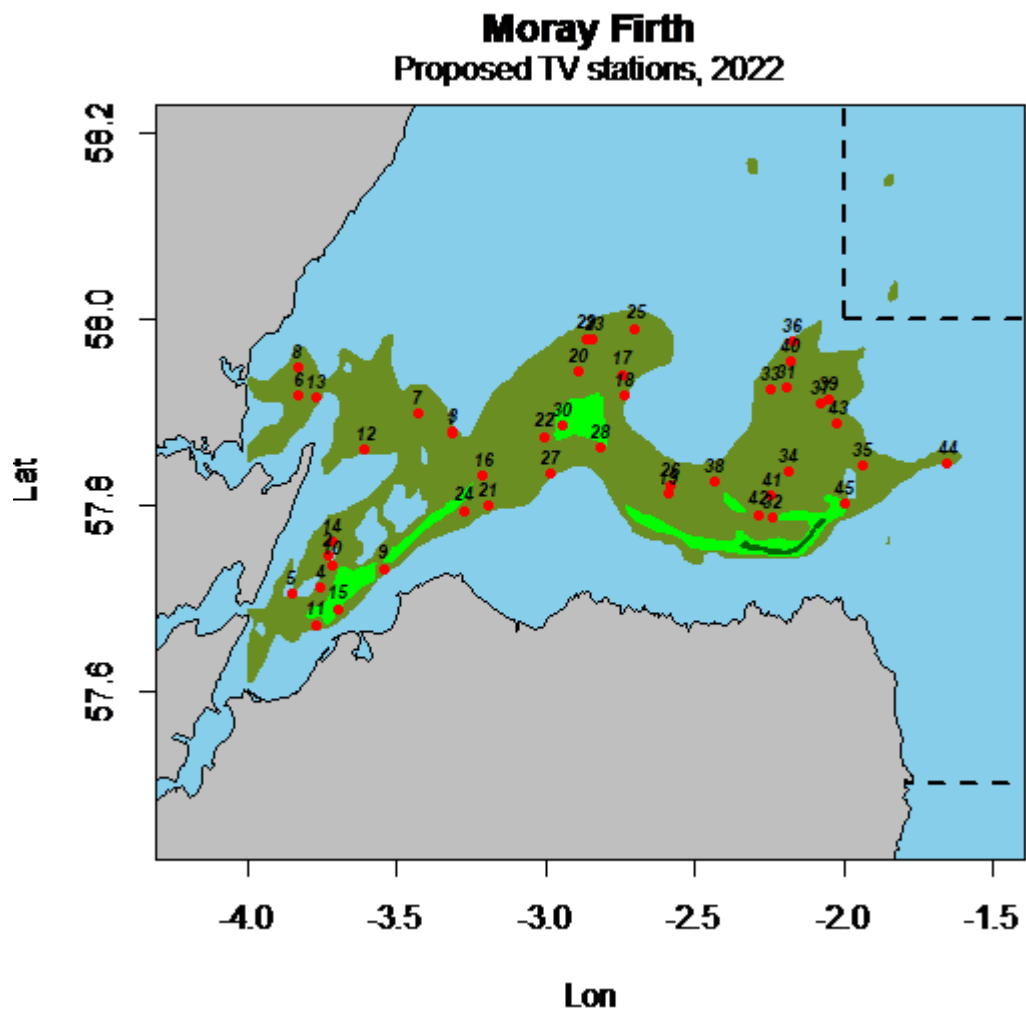
It is proposed that work will initially commence in the Moray Firth and then the west to North and South Minch.

The work in the South Minch will target remaining stations which were unable to be undertaken during survey 0722S.

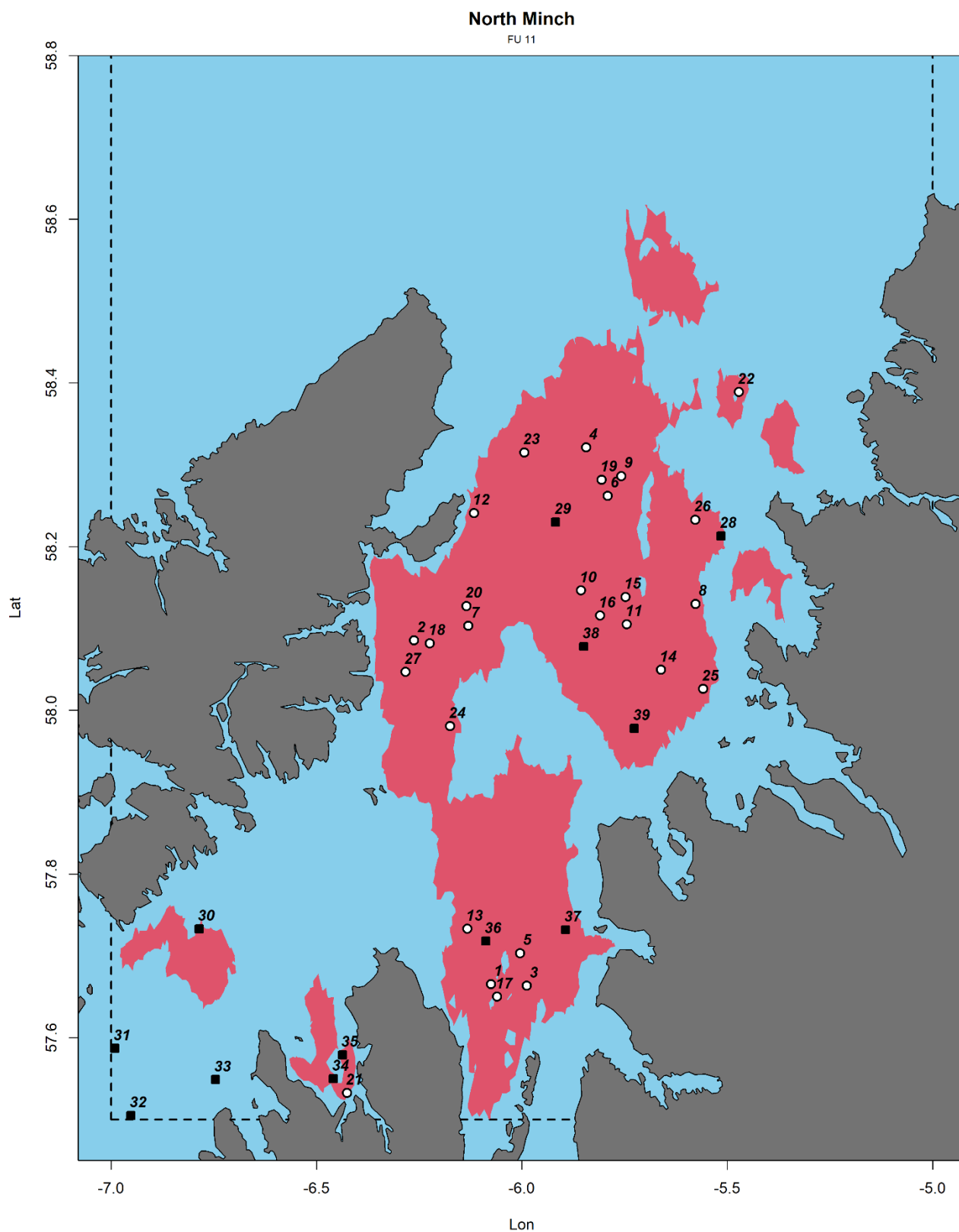
Normal contact will be maintained with the Laboratory.

Submitted:  
G McAllister  
10 August 2022

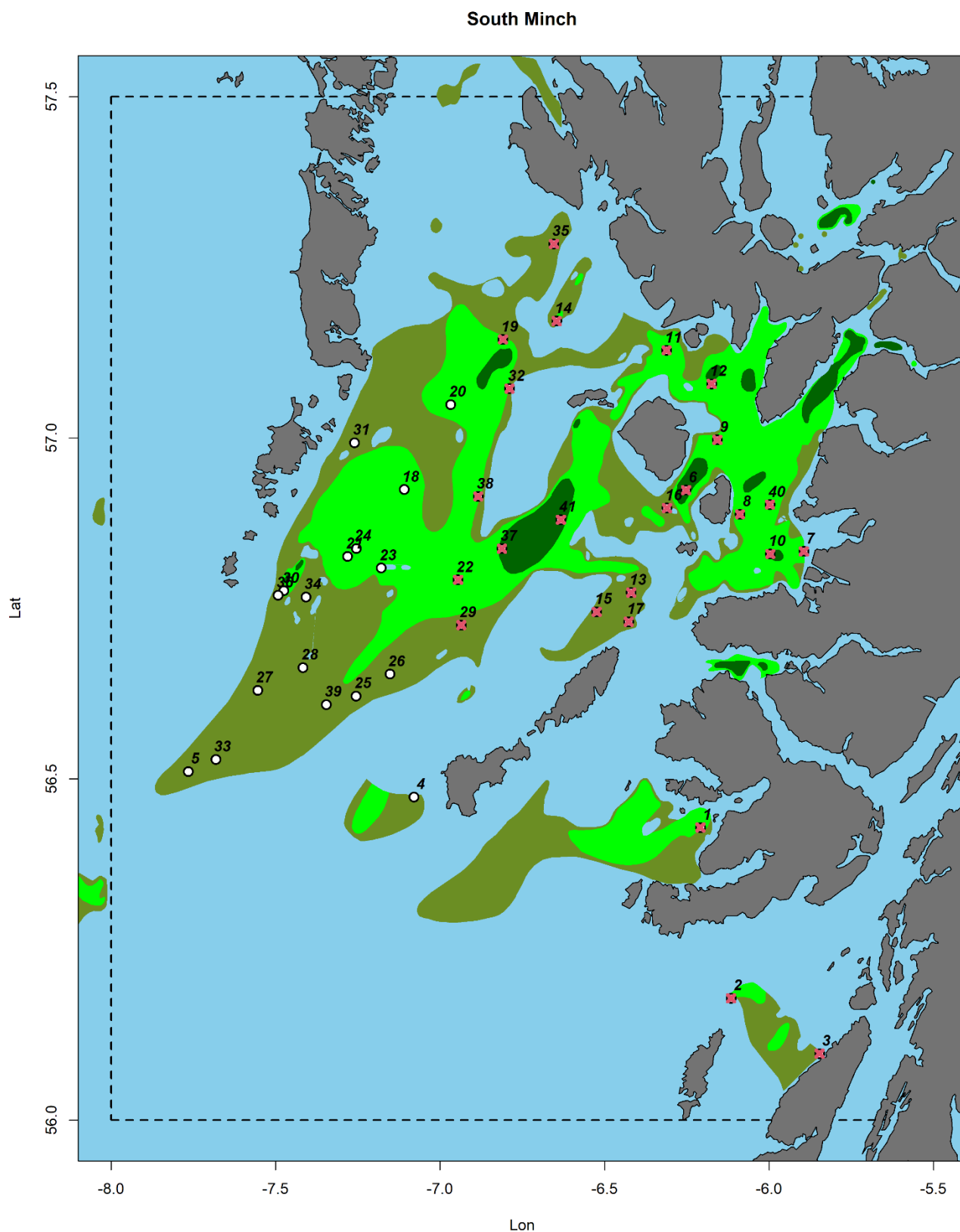
Approved:  
I Gibb  
11 August 2022



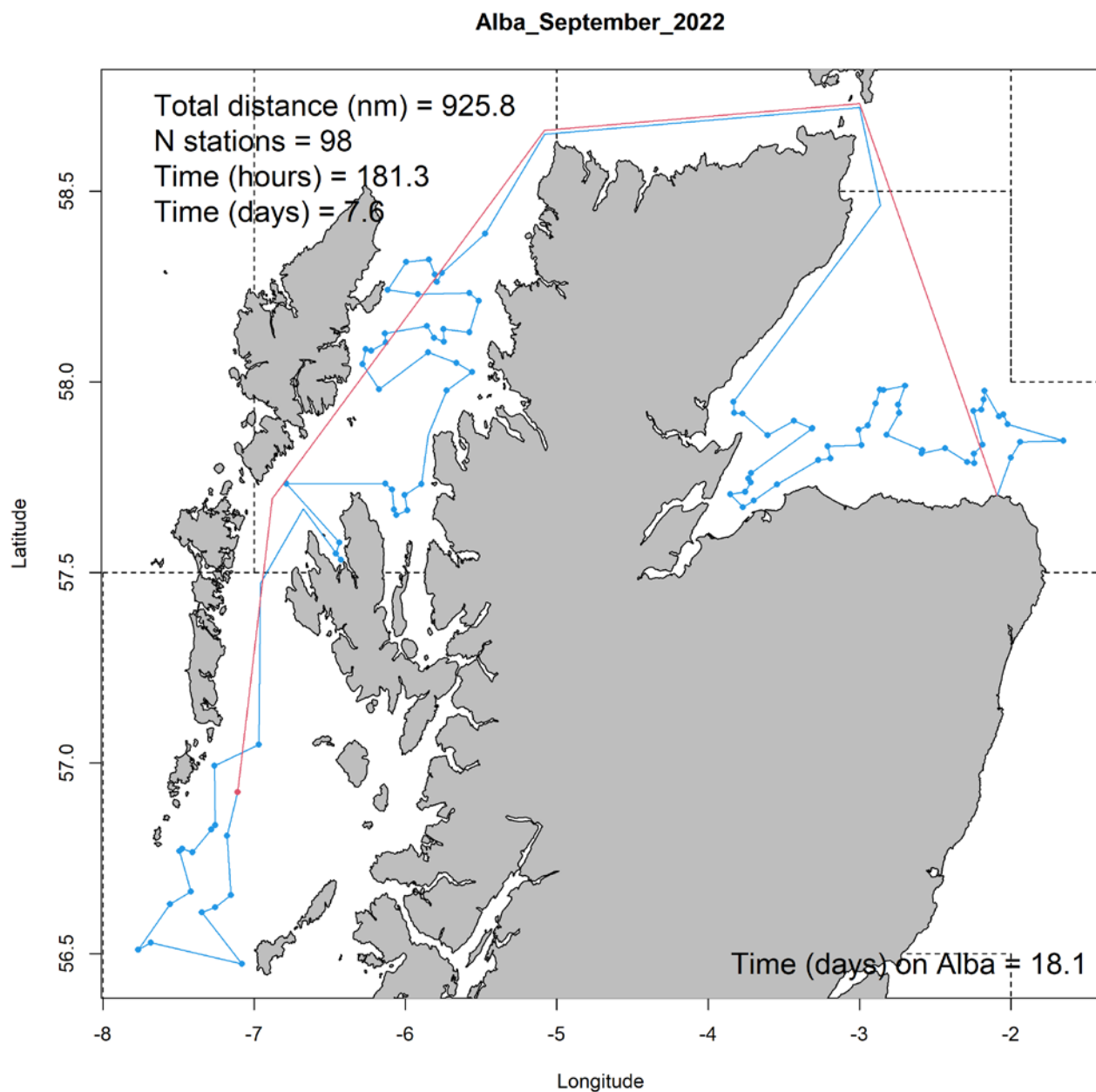
**Figure 1:** Proposed Moray Firth 2022 underwater TV (UWTV) stations for survey 1222A.



**Figure 2:** Proposed North Minch 2022 underwater TV (UWTV) stations for survey 1222A.



**Figure 3:** Proposed South Minch 2022 underwater TV (UWTV) stations for survey 1222A



**Figure 4:** Proposed route for 1222A