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FRV *Alba na Mara*

Cruise 1009A

## **PROGRAMME**

22-28 June 2009

Diving Project Plan: 03/2009

Project: 10240 (FRDIV1)

### **Ports**

Loading: Fraserburgh, 17 June 2009

Departure: Fraserburgh, 22 June 2009

Arrival: Fraserburgh, 28 June 2009

Offloading: Fraserburgh, 29 June 2009

**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 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 Cruise Report, to I Gibb and the Cruise Summary Report (old ROSCOP form) to D Lichtman, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate.**

### **Objectives**

- Undertake "work up" dives and basic rescue training;
- Train personnel in the operation of the manned Towed Underwater Vehicle (TUV III) aboard the research vessel "FRV *Alba na Mara*"; and
- Test all TUV operational systems.

### **Personnel**

#### ***Alba na Mara***

|              |   |
|--------------|---|
| M Breen      | (Diving Officer, In Charge)                 |
| K Summerbell | (Equipment Officer)                         |
| M Burns      | (Diving Comms. Engineer)                    |
| M Stewart    | (Diving Comms. Engineer, 25 – 26 June 2009) |

## **Shore Based**

|             |  |
|-------------|--|
| M Harding   | (Assistant Equipment Officer, 22 – 25 June 2009) |
| J Mair      | (Assistant Equipment Officer - Boats)            |
| B O' Neill  | (Diver)  |
| M Harrald   | (Diver)  |
| P MacDonald | (Powerboat Coxswain, 24 – 27 June 2009)          |
| I Gibb      | (Ships' Liaison, Dates to be arranged)           |
| J McCormick | (HSE Diving Inspector, Dates to be arranged)     |

## **Diving Support Boat: *Digniy***

### **Diving Equipment (On Board):**

Towed Underwater Vehicle (TUV) & associated equipment;  
Hard-wire communications system;  
SCUBA Breathing Apparatus;  
Miscellaneous personal diving equipment;  
First Aid Equipment (Inc. Therapeutic Oxygen)  
Nitrox pumps (x2) and Gas Bank (Mobile Quad); and  
Underwater Photography and Video equipment.

### **Diving Equipment (Ashore):**

Mobile Air (Breathing ) Compressors (x1);  
SCUBA Breathing Apparatus;  
Miscellaneous personal diving equipment;  
First Aid Equipment (Inc. Stretcher)

## **Fishing Gear**

BT 158 – Bottom Trawl  
Trawl Doors (Modified Morgere Doors)  
Clump weight (2x100kg)(for towed reference marker)  
Scanmar – Door Spread (with floats), Wing Spread, Headline Height, Depth & Speed.

## **General Procedures**

These objectives will be undertaken with two different Diving Operations:

- A. Preliminary Training and Work-up Dives; and
- B. TUV Specific Training and Engineering Trials

Operation A will begin before the main cruise on 18 June 2009. It will be conducted in shallow water (<20m) off the Halliman and Covesea Skerries (Site 1), or alternatively in Spey Bay (Site 2) or Caple Rock, Cullen Bay (Site 3); depending on local conditions.

Operation B will be conducted on clean grounds between Burghead and Lossiemouth. This location provides a large area of shallow water in which the TUV training can take place where the maximum depth will not exceed 25m. Alternative sites are available in Spey Bay (Site 2) or Cullen Bay (Site 3); depending on environmental conditions and the presence of static fishing gears.

## **Loading & Transportation**

The *Alba na Mara* will be loaded in Fraserburgh on Wednesday 17 June with fishing gear, diving equipment, diving gas, TUV, cables and communications equipment in preparation for departure on Monday 22 June, 2009. On the same day, containerised equipment will be transported directly to Lossiemouth harbour and sited on the North Pier, as directed by the Harbour Master. A shore base, including secure containers and changing facilities will be established at the harbour.

The launching slip at Lossiemouth Harbour is currently being renovated, so the RIB will be launched at Burghead and sailed around to Lossiemouth. The Diving Team and equipment will travel from the Marine Laboratory on Thursday 18 June rendezvousing at Burghead Harbour at 1000. Burghead Harbour launching slip can be used at high tide  $\pm 3$  hours ( $\pm 4$  hours during neaps). The tides are neaps on 18/6/09 and HT is at 0757 BST, so launching must be completed by 1200.

## **Operation A: Preliminary Training Operations**

Preliminary training will begin on 18 June 2009 and will continue until all diving staff are considered fit to begin TUV operations. It will focus on boat handling with the new RIB ("*Dignity*"), which will include navigating to all three sites (Sites 1-3). This will also include a simulated evacuation of a casualty to Lossiemouth Harbour. Work up dives will initially take place off the Halliman and Covesea Skerries (Chart 1) and may continue as required in suitable areas in sites 1-3, weather permitting. This will include work-up dives and rescue training.

Staff will return home for the weekend of 20-21 June 2009: leaving Lossiemouth on 19 June 2009 pm and returning for 1000 on 22 June 2009

"Work-up dives" are for the purpose of re-familiarising the diver with using appropriate diving equipment at the anticipated working depth.

## **Operation B: TUV Training Operations**

Diving operations with FRV *Alba na Mara* will begin on Monday 22 June 2009. The *Alba na Mara* will rendezvous with the *Dignity* at ~1300 outside Lossiemouth Harbour.

The TUV and associated equipment will be prepared on board *Alba na Mara* prior to arriving at Lossiemouth. The *Dignity* will practice manoeuvres around the TUV, while the *Alba na Mara* practices deploying and recovering the TUV, clump weight and trawl gear (BT158). Manned TUV dives will commence once all staff are familiarised with launching, recovery and emergency procedures.

Operations will continue throughout the week with further training exercises using the TUV. These will initially consist of the vehicle alone, when the Diving Team will practice basic manoeuvring and emergency procedures. Training will progress to manoeuvring the TUV around a towed clump-weight and then onto full scale trawl gear.

If necessary, the *Alba na Mara* will berth in Buckie to permit the transfer of staff and equipment.

For general operation of the TUV please refer to the "TUV – Operation & Communications Protocols".

## **Demobilisation and Transportation**

Diving operations will end on Sunday 28 June, 2009. On 28 June 2009, high tide is at 1521 BST, so the recovery of the *Dignity* at Burghead Harbour must be completed between 1221 and 1821.

The shore-based staff will demobilise the shore-base in Lossiemouth and prepare it for transportation. The *Alba na Mara* will return to port by 0800 on 28 June then be demobilised and offloaded on Monday 29 June, 2009.

All staff and equipment will return to Aberdeen on Monday 29 June, 2009.

Submitted:

M Breen

11 June 2009.

Approved:

I Gibb

12 June 2009.