

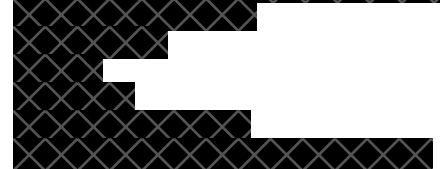
# Operation Sunrise

## Expedition Report



10-14<sup>th</sup> September 2009

By; **Andy Bennett**

  
[www.operationsunrise.co.uk](http://www.operationsunrise.co.uk)

## **Expedition Overview**

The expedition set out to take 13 divers of mixed ability (Minimum qualification – Sports Diver + BS-AC Advanced Nitrox (or equivalent) + 50 dives) and over a four day period undertake some of the more interesting & challenging diving in a remote location; the Island of Gigha. The dives ranged from shore dives to conduct marine life studies for the Sea Search organisation, diving on ship wrecks ranging in depth from 8m – 35m, and locating / diving on / authentication of a vessel that is believed to be the U-482, an uncharted German U-Boat believed lost in the area. The specific goals are;

- To undertake a 4 day diving expedition in a remote area – Isle of Gigha, with a group of divers of mixed ability
- To engage aspiring divers at an appropriate level in the expedition
- To locate, dive on, verify and if required update the information supplied by the Hydrographic Office on the following ship wrecks:
  - o HMS Riant – British Steam Drifter in 35m
  - o Ospray II – Trawler in 31m
  - o Moncoussu – British Steam Ship in 8m
  - o Kartli – Russian factory ship in 6m
  - o U482 – German submarine in 65m (For those qualified and experienced)
- Conduct marine surveys and feed back the information collected to SeaSearch

## **Expedition Planning**

The initial idea for the expedition started in July 2008, with an initial search which turned up the Isle of Gigha. Gigha was selected for its location; proximity to the Northern approaches of the WWII convoys, prevailing westerly winds would force stricken vessels into the area, reefs to the south of Gigha.

A search by the Hydrographic Office then turned up 37 shipwrecks (both charted / uncharted), and a visit to the Island of Gigha by myself (and my long suffering wife) confirmed that the Island could support the logistics (i.e accommodation, launching boats, access to beaches for shore diving, etc, etc), of such an expedition.

Meetings commenced, culminating with the creation of the final expedition plan which included day plans created by the individual Dive Managers and tasks also being assigned to team members. This would provide the back bone of the expedition and ensure that each team had a workable time table which would allow them to finish there daily activities at a reasonable time. (See appendix 1 for day plans).

## **Diving Methodology**

The group was be divided into 2 teams of equal abilities, rotated during the expedition so all members had the opportunity to conduct a mixture of shore dives and boat dives from RIB

Team member's roles within the team were rotated on each dive, therefore giving the opportunity for everybody to develop personal skills from dive planning to dive management through to the refilling of cylinders on the expedition's portable compressor(s).

All boat diving was be conducted from the expedition rib; 'Little Mo' – A 2006 7.2m Bombard Explorer / 150hp Yamaha 4-stroke engine. Little Mo is fitted with a full suite of electronic navigational, location, & communication equipment plus back up vhf radios and GPS equipment, Oxygen therapy equipment and safety equipment to SOLAS V regulations.

All diving was conducted within BS-AC's guidelines of 'safe diving practices'. Each diver carried sufficient gas for all stages of their dive, including any and all decompression. In addition to this each diver carried their own DSMB and back up surface location device, as well as line cutting equipment and strobes. To further add to the safety of the expedition, risk assessments were conducted on all dive sites prior to the dive commencing.

All gas blending was conducted by partial pressure mixing from gas (O2 & He) that were transported to the Island by the expedition team, and to supplement the expedition equipment divers were requested to bring their own gas analysers suitable for testing the range of the gases they will be using.

Buddy pairings were selected on the basis of equipment configuration, gas mixes being used (i.e. Tri-Mix, Nitrox, Air), the type of re-breather being used (i.e. semi-closed circuit / closed circuit) and personal interests.

### **Dive Boat – Little Mo**



### **Little Mo - Equipment**

7.2m Bombard Explorer / Yamaha 150hp 4-Stroke  
90 Litres fuel (internal tank), 50 Litres (external tank) – (70mile range – fully laden)  
Raymarine DX500 Digital Fish finder  
Fix mounted Garmin GPS System  
Hand held Lowerance GPS system  
Fixed mounted VHF radio (25w)  
Hand held VHF radio (6w)  
2 x Oxygen Therapy sets  
First aid kit  
Coastal Flare kit  
Radar Reflector  
Shot line(s) – various lengths

### **Project Equipment**

1 x Rigid Hulled Inflatable Boats “Little Mo (As equipped & described above)  
1 x Long wheel base (high roof) transit van.  
1 x L&W 245 portable compressor (8.4 cfm – 245 L/min)  
1 x Nardi Atlantic G portable compressor (3.5 cfm – 100 L/min)  
Spare filter cartridges for compressor (2-off per compressor)  
Spare oil for compressor (5 Litres)  
Fuel  
3 x ‘J’ size cylinders of Diving grade Oxygen  
1 x ‘J’ size cylinder of Diving grade Helium  
1 x 2m Blending wip with gauge  
1 x Secondary Filter (rated to 10cfm)  
1 x Secondary Filter (rated to 3.5cfm)  
1 x Gas purity test kit  
1 x Vandergraph mixed gas analyser  
3 x Lift bags (various sizes)  
1 x 22L Jerry Cans  
3 x 20L Jerry Cans  
Charts  
Decompression tables  
Decompression Software (V Planner)  
Dive managers kit (dive slates, risk assessments, emergency contacts & procedures)  
Laptop  
1 x Proton Magnetometer  
1 x Digital camera + underwater housing (rated to 40m)  
1 x Video Camera + underwater housing (rated to 100m)  
(Additional to equipment)  
2 x Oxygen Therapy Sets  
2 x First Aid Kits  
2 x Hand held VHF radios (5w)  
2 x Hand held GPS units  
1 x Coastal Flare kits

## **Roles and Responsibilities**

Expedition Leader - Andrew Bennett - Overall responsibility for organisational safety, local liaison, co-ordination, diving etc.

The team members were split into 2 groups with an equal mix of abilities; each group being a self managing entity with an overall purpose for the days diving. The day-to-day management of the duties was delegated amongst the divers to ensure full participation and equal task loading for all team members. Specific duties included:

Dive Marshal - Diving operations, record keeping, safety co-ordination (O2 equipment, emergency co-ordination, evacuation procedures, etc), obtaining weather forecasts, buddy pairings, liaison with skipper.

Assistant Dive Marshal - As necessary, to assist the dive marshal with all of the above. To assume the role of dive marshal when the appointed dive marshal is diving.

Boat marshal - Assist the Skipper as necessary with the day to day operational function of the boat, this will include, organise the loading / unloading of diving equipment, anchoring & mooring, organising the deployment and recovery of shot line and decompression trapeze, ensuring safe access at all times is available throughout the boat.

Food manager - Organise the procurement of food and supplies (in liaison with all team members). To ensure a rota for cooking, washing up and preparation of packed lunches.

Gas manager - Liaising with the dive marshal and ensuring the adequate supply of diving gas (Air, Nitrox or Tri-Mix) is available to the team for the following days diving. This may also include interaction with the filling station regarding out of normal hours use of their compressor and arranging transportation of cylinders to / from the filling station.

## **Expedition Leader's Report – By Andy Bennett**

The planning for Operation Sunrise started in earnest in January 2009, with team meetings being held approximately every 6 weeks to discuss / resolve any issues that may arise during the expedition / draught day plans / assign team roles. And it was through such precise planning that the running of the expedition went like clockwork with everybody knowing what tasks they had to perform, and when they needed to be completed by, leaving my role whilst we on the expedition as that of a facilitator; ensuring that the team leaders followed the day plans, and helping to resolve any minor issues. The only technical difficulty we experienced was the main GPS on Little Mo failed on day 1 of the expedition, leaving us to run on the backup units we had taken along.

The diving itself went well, especially locating and diving on the wrecks of the Riant, Osprey II, Moncoussu & Kartli, with information being collected on the exact positions - which we have confirmed are all within 50m of the information given by the Hydrographic Office and tidal offsets have also been confirmed at LW / HW Straight of Gigha + 2Hrs. All of the diving went to plan with only one pair of divers over running the allotted dive time. (And they were "re-educated" to the error of their ways).

The shore diving went equally as smoothly, on the north, east and south shores of the island. As it turned out all of the shore dives highlighted an interesting array of marine life, but the shore dives which turned up the most marine life was at the south of the island around the pier.

Unfortunately the dive on the U-482 didn't quite run as smoothly. We managed to locate an object underwater in the expected location, correct depth and trace on Little Mo's sonar resembled that of a submarine. With the co-ordinates logged we ensured that we could repeatedly locate the wreck, but when we deployed the shot line, it was deployed just away from the wreck. The dive itself was executed perfectly with run times & gas switches being precisely made, but due to the underwater conditions we were unable to locate the U-482. That said we did locate what we believe to be a lifeboat canister carried by some German U-Boats. However the discovery of the canister was made during the latter stages of the dive, and we didn't have time to continue the search.

However, plans are already afoot to return to Gigha in 2010, and one of the objectives is to locate and dive upon the U-482. And as the position of the wreck is now precisely known and easy to find, the shot line used will also have a Jackstay line attached which will be deployed from the boat over the top of the U-482. Thus enabling the divers to quickly locate and dive upon the U-482.

All of the people who took part in Operation Sunrise worked well together for the expedition as a whole, and as part of their respective teams, but this can be attributed to the 'Day Plans' (See appendix 1) that I was so insistent the respective team leaders created during the planning phase of the project.

On the whole I believe Operation Sunrise was a successful expedition as; all of the objectives were met (apart from the U-482.... but there is a plan to achieve that goal), all of the dives ran like clockwork, everybody had a fantastic time, and everybody wishes to return in 2010.

### **Seasearch Report – By Mark Weeks**

Initially it was the intention to organise a Seasearch 'Observers course' for all of the team members taking part in Operation Sunrise. But due to the commitments of the team members and the availability of Seasearch Observer courses it proved impossible to co-ordinate. Thankfully myself and Operation Sunrise team member Sophie Dyhouse have attended the Observers course and are both BS-AC Instructors plus we both actively supply information to Seasearch following our dives. Because of that, and after discussions with the Seasearch local co-ordinator Owen Paisley we were able to ascertain that the Seasearch Organisation are particularly interested in Pink Sea Fans, their size, density, and general condition around that area. Therefore we held a session prior to the expedition to brief the team members on what to look for and how to complete the Seasearch report forms.

The Seasearch Observer forms were filled in by team members after each dive, with both myself and Sophie overseeing the completion of the forms.

Unfortunately no Pink Sea Fans were spotted during any of the dives, however it would be fair to say that there is a great diversity of marine life around the Island of Gigha. Examples of the completed SeaSearch forms can be found in Appendix 3, but a brief synopsis of the marine life would be;

➤ Common marine life sightings around Port Mor (North coast of Gigha)

Kelp  
Sand Gobies  
Tompot Blennys  
Sand Blennys  
Juvenile Pollock  
Brown Shrimp  
Green Shore Crabs  
Velvet Swimming Crabs  
Hermit Crabs  
Snake Loch Anemones (many dead)

➤ Occasional / rare marine life sightings around Port Mor (North coast of Gigha)

Scorpion Fish  
Shrimp  
Sea Urchines

➤ Common marine life sightings around Ardminish Bay (East Gigha)

Kelp  
Two Spot Gobbies  
Common Shore Crabs  
Burrowing Anemones  
Brown Shrimp  
Snake Loch Anemones (many dead)

➤ Occasional / rare marine life sightings around Ardminish Bay (East Gigha)

Dog Fish  
Hermit Crabs  
Spider Crabs  
Juvenile Pollock  
Dab

➤ Common marine life sightings around Caolas Point – under pier (South Gigha)

Long Clawed Squat Lobsters  
Velvet Swimming Crabs  
Shore Crabs  
Spider Crabs  
King Scallops  
Plumrose Anemones  
Dead Mans Fingers  
Wet Sand Eels  
Thornback Rays

➤ Occasional / rare marine life sightings around Caolas Point – under pier (South Gigha)

Leachis Spider Crabs  
Edible Crabs  
Dab  
Dahua Anemones

➤ Common marine life sightings on the wrecks of the Osprey II

Bib  
Sea Urchins  
Dead Mans Fingers

➤ Occasional / rare marine life sightings on the wrecks of the Osprey II

Common Lobster

Edible Crabs  
Ballen Wrasse

- Common marine life sightings on the wrecks of the Mancuso

Ballen Wrasse  
Sand Gobblers  
Dead Mans Fingers  
Urchins  
Plumrose Anemones  
Tall Sea Pens  
Kelp

- Occasional / rare marine life sightings on the wrecks of the Mancuso

King Scallop  
Conger Eel  
Common Sunstar

- Common marine life sightings on the wrecks of the Kartli

Kelp  
Hermit Crab  
Plumrose Anemones  
Dead Mans Fingers

- Occasional / rare marine life sightings on the wrecks of the Kartli

Lions Mane Jelly Fish  
Edible Crab  
Velvet Swimming Crab  
Urchins

### **Research Report – By Ann Miller (Chief Researcher – Operation Sunrise)**

Way back in the summer of 2008 the Expedition Leader for Operation Sunrise sat across a table from me with what looked like a report type document from the Hydrographic Office. This document was slid across the table from one to the other several times during a conversation were Andy Bennett eventually convinced me to do some research on shipwrecks around the small Isle of Gigha in the Inner Hebrides of Scotland.

The shipwrecks included the Aska, Riant, Kartli, Moncousu, Osprey II, Englishman and Staffa II among others. The most interesting of which was the possibility of confirming the identity of the U-boat 482.

From the initial information given on the Hydrographic Office sheets, I proceeded to read numerous books and websites on shipwrecks in the Inner Hebrides area, putting together a synopsis on each of the wrecks on its history, giving information on the type of ship, where it was built, who owned it, when and where it was lost, the cargo being carried at the time of its loss and where possible its orientation. This I did for 10 local shipwrecks including the U-boat. This information was used to provide the team members with as much information as possible on the proposed dive sites, and was also included in the final expedition plans.

Next came the challenge to identify the class of submarine which at that moment in time we believed to be the U-482. And just to make things more complicated I discovered that there are eleven types of U-Boat and several variations of the Type VII C U-boat which the U-482 was. This then led onto researching the specific specifications, refits, different conning tower shapes and so on. The patrol routes taken by the U-boat and the ships she sank.

The research led me to the National Archives, which gave invaluable transcripts (See appendix 2) of M.O.D. information on the U-482 movements and information related to the sinking of the Jacksonville in 1940.

During my research I discovered a small museum in Germany which, is manned by an ex-German Submarine Serviceman, now elderly, he is the main contributor to a well known U-boat website. I wrote to this gentleman and had the letter translated by another member of the Operation Sunrise Team. Enclosing a small financial contribution to his cause, asked if he could offer any further information on the armaments carried, number of torpedo tubes, modifications, etc. One of his volunteer associates responded, unfortunately there is no specific information held on the U-482, but he did confirm information I already held.

Further research into the Battle of the Atlantic gave way to the possibility of the submarine being Italian as two went missing during manoeuvres around the coast of Scotland. So the search continued to find significant differences in the shapes of conning towers and the submarines and arms held onboard to make it easier to differentiate between the two countries naval armaments.

Whilst in Gigha, I had an opportunity to speak to an elderly resident, who recalled eye witness accounts of the sinking of the U-boat by two fishermen at the time of the sinking.



### **Promotion of Operation Sunrise**

Right from the beginning it has been the intension to promote Operation Sunrise to a wider audience. This initially took the form of a dedicated website ([www.operationsunrise.co.uk](http://www.operationsunrise.co.uk)). This was expanded upon during the expedition itself with a running day diary, summarising the events of each day.

The local press have also taken an interest in the expedition running stories in April; regarding the expedition itself, just prior to the expedition and post expedition; again detailing the event and also promoting Mid Lancs Sub Aqua Club and the British Sub-Aqua Club.

Dive magazine are due to be running a two month feature regarding the research, the organisation and the expedition itself. This has been organised and written by Operation Sunrise team member Sophie Dyhouse.

Also I have been approached and agreed to speak at the 2009 Diving Officers Conference and the 2010 North West Regional Conference to help promote adventurous / expedition diving / help promote the BEGS scheme.

### **Day Plans - Overview**

The day planning was based upon a rota, allowing all team members the opportunity of both RIB and shore diving, plus on day 1 time will be spent confirming; tidal calculations, the positions of known wrecks as well as conducting a structured search for the U-482.

|              | <b>Little Mo</b>   | <b>Shore Dive</b>   |
|--------------|--|---|
| <b>Day 1</b> | <b>Team 1</b><br><b>Team Leader – Joe Thomas</b><br>Search for U-482<br>Ospray II<br>Moncoussu | <b>Team 2</b><br><b>Team Leader – Mark Weeks</b><br>Port Mor      |
| <b>Day 2</b> | <b>Team 2</b><br><b>Team Leader – Mark Weeks</b><br>Search for U-482<br>Ospray II<br>Moncoussu | <b>Team 1</b><br><b>Team Leader – Joe Thomas</b><br>Ardminish Bay |
| <b>Day 3</b> | <b>Team 1</b><br><b>Team Leader – Steve White</b><br>U482 (2 Divers)<br>Riant                  | <b>Team 2</b><br><b>Team Leader – Jon England</b><br>Caolas Point |
| <b>Day 4</b> | <b>Team 2</b><br><b>Team Leader – Jon England</b><br>Riant<br>Kartli                           | <b>Team 1</b><br><b>Team Leader – Steve White</b><br>Caolas Point |

**Note:** – Tidal offset for Riant, Osprey II & U-482 have been **confirmed** as Straights of Gigha + 2Hrs  
All other sites dived are non-tidal

### **Team Day Diary's**

#### **11<sup>th</sup> September 2009 – Team 1 (by Dive Manager – Joe Thomas)**

- Prepared kit, loaded boat, launched Rhib from slip way and travelled to approximate location of assumed wreck.
- Used echo sounder and GPS to locate wreck of supposed submarine, possibly the U482.
- Logged exact coordinates and travelled to position of the wreck of the Osprey II
- Used echo sounder and GPS to locate the wreck of the Osprey II, successfully shotted the wreck and two buddy pairs dived the wreck. Dive report subsequently completed detailing the wreck and life present.
- Travelled to the approximate location of the wreck of the Moncoussu. Used echo sounder and GPS to locate the wreck of the Moncoussu. A buddy trio dived the wreck and completed Sea Search report documenting the marine life.
- Returned to shore and filled cylinders and prepared kit for subsequent day's diving.

N.B. spotted five basking sharks, three porpoises and two pods of dolphins on the surface.

12<sup>th</sup> September 2009 – **Team 1** (by Dive Manager – Joe Thomas)

- Found suitable access point for Ardminish Bay (to the North of the ferry slip) and prepared for dive.
- Two buddy pairs dived along the shore line – with a maximum depth of 3m – to complete marine life and sea bed surveys for Sea Search.
- A further buddy pair then dived further into the channel to complete marine life survey for Sea Search.
- Found suitable second access point for dive two on the other (south) side of Ardminish Bay.
- Low tide prevented a full dive using SCUBA kit, therefore marine life survey was carried out by a snorkel dive.
- Filled cylinders requiring air fills first and then blended nitrox and trimix in preparation for dive on the U-boat (Andy and Alvin) and the Riant and Karlti for the remainder of the group.

13<sup>th</sup> September 2009 – **Team 1** (by Dive Manager –Steve White)

- Prepared kit, loaded boat, launched Rhib from slip way and travelled to approximate location of supposed wreck position.
- Used echo sounder to locate the position of the wreck and send a shot line in.
- One buddy pair kitted up and went down for a dive to find the wreck with the aim of identifying it. Both were breathing tri-mix, with a separate travel gas and decompression gas. They also took a video camera to document any findings.
- Divers surfaced after 58minutes (exactly as planned). They had been unable to locate the wreck but had found what appeared to be a Life Boat canister used on Type VII u-boats in approximately 64m of water in the vicinity of the wreck.
- Used echo sounder and GPS to locate the wreck of the Riant, successfully shotted the wreck and two buddy pairs dived the wreck. Dive report subsequently completed detailing the wreck and life present, including Sea Search form.
- Travelled to the approximate location of the wreck of the Karlti. The bow was visible above the water line. A buddy pair dived the wreck and completed Sea Search report documenting the marine life.
- Returned to shore and filled cylinders and prepared kit for subsequent day's diving.

14<sup>th</sup> September 2009 – **Team 1** (by Dive Manager –Steve White)

- Found suitable access and exit points [access via giant stride entry from top of pier, exit via raised platform and ladders on lowered section of pier] for Caolas Point and Pier (to the South end of the island) and prepared for dive.
- Two buddy pairs dived along the shore line and under the pier – with a maximum depth of 6m – to complete marine life and sea bed surveys for Sea Search.
- A further buddy pair then dived in the same area to complete marine life survey for Sea Search.
- Filled cylinders requiring air fills first and then blended nitrox and trimix for remaining cylinders and stages.
- Repacked and arranged kit in preparation for loading into the van and cars for return journey to Manchester.
- Loaded van with all dive kit ready for departure first thing on Tuesday morning.

11<sup>th</sup> September 2009 – **Team 2** (by Dive Manager – Mark Weeks)

5 divers – 2 waves (Bob, Jon & Mark/ Jamie & Sophie)

Dived left and right side of the bay; more life to the right. Seal spotted off the headland, lots of crushed crab shells would indicate sea otter, one seen the previous day as well as a basking sharks. Day started later due to later hotel breakfast time, commenced diving of 1045hrs and completed at 1515hrs. Filled team cylinders using 2 compressors, waited for boat cylinders due to kit faffing. All cylinders filled by 1850hrs, large compressor needs oil and filters in 1.75hrs.



12<sup>th</sup> September 2009 – Team 2 (by Dive Manager – Mark Weeks)

0830hrs Bob & Jon load kit  
0900hrs Unload van – Alvin had to revisit as all the kit didn't come off, waited for ferry to leave and launched boat. Got bitten to death by midges!  
1030hrs Arrived and shotted Osprey 2. Andy and Mark dived first, swell underwater made it tough to get down; videoed wreck. Bob & Jon next, planned a 50 minute dive but did 36 minutes. Jamie & Sophie followed, swell had increased and hard to get down, inflated lifting bag on bottom of shot. Sophie had a severe suit leak.  
  
1245hrs Left Osprey 2 and travelled to Moncousu site, lunch en route.  
1355hrs Arrived at Moncousu, Jamie; Jon and Bob to dive – all others sun bathing!  
1419hrs Diving  
1500hrs Left Moncousu and travelled back to slip  
1515hrs Dropped Andy, Bob & Mark at slip, remainder of team moved boat to sea and waited for ferry to arrive and clear slip.  
1550hrs Boat out of water.  
1600hrs De-kit boat, pack kit in van and take cylinders to be filled.  
1630hrs Jon; Sophie; Mark and Ann return to cottage and fill cylinders. Andy; Bob and Jamie refuel boat, prepare shot and drop tanks for following day.  
Evening Eat & write day reports.

13<sup>th</sup> September 2009 – Team 2 (by Dive Manager – Jon England)

0930hrs Group meets and heads off to dive site.  
0945hrs Arrive at dive site (Fishing Jetty), commence kitting up.  
1020hrs Wave 1 (Jon & Mark) enter the water by doing a giant stride off the pier.  
1055hrs Wave 2 (Jamie & Sophie) enter the water from boat jetty, explored the underside of the pier. Found an abandoned lobster pot with a lobster in it. Released lobster in space under pier.  
1110hrs Wave 1 exit the water, lots of velvet swimming crabs, prawn & edible crab.  
1145hrs Wave 2 exit, whilst in locals visited surface party and asked if they could remove a rope from the rubber of a local fishing boat, party obliged. During the surface interval Sophie and Ann went for ice cream for the group, raced back with 6 dripping cones! During lunch Bib was convinced to dive in the afternoon.  
1314hrs Wave 1 (Bob, Jon & Mark) enter the water with the intention of collectig scallops&prawns, some buddy issues–the Dive Manager re-educated the divers in question to the error of their ways.  
1359hrs Wave 1 exit, wave 2 kit up.  
1423hrs Wave 2 enter the water. Wave 1 takes van & drop Mark off at cottages to start blending for the next day. Some of the group stay on site to manage. Wave 2 collects scallops & prawns, recover the lost lobster pot & leave on pier for the local fishermen.  
1505hrs Wave 2 exit the water.  
1530hrs Divers leave the site and return to the cottage to fill cylinders.  
1630hrs Jamie takes van to meet Team 1, load cylinders and return to cottage to continue filling cylinders.  
1740hrs Fill van with Team 2 kit & leave Team 1 to complete cylinder filling. Rebreather divers prepare units for tomorrow.

14<sup>th</sup> September 2009 – Team 2 (by Dive Manager – Jon England)

0900hrs Unloaded van & load kit onto boat.  
0930hrs Launched boat & started transit to first wreck.  
1040hrs Arrived at West side of island & watched a juvenile basking shark feeding in the vicinity.  
1055hrs Located what we thought was the wreck & deployed shot.  
1135hrs Andy & Mark dive, Bob & Jon commenced kitting up. Bubbles were observed going in various directions so Bob & Jon waited. Andy & Mark surfaced, told the group that the shot was in the wrong position. Relocated shot & sent Bob and Jon in, they swam South discovering a reef but no wreck. Continued to search until 1410hrs but a rebreather problem meant that other divers didn't enter water.  
1430hrs Arrive at Karlti, Jamie & Soph do the first dive.  
1520hrs Mark, Bob & Andy dive, boat cover see 3 basking sharks.  
1545hrs Wave 2 divers surface & reboard boat, spent time watching 3 basking sharks.  
1600hrs Return to slip  
1615hrs Recover boat, unload kit and take pictures. Team 1 take cylinders & fill.  
1720hrs Filling cylinders, redistribute kit and load van.  
2000hrs End of trip meal.

## **Expenses**

The actual costs came in at;

|                                    |            |
|------------------------------------|------------|
| Accommodation                      | £1687.00   |
| Van Hire                           | £199.98    |
| Gas (O2 & He)                      | £426.28 *  |
| Gas Blending equipment             | £428.00    |
| Fuel Towing                        | £280.00 ** |
| Fuel Boat                          | £315.00 ** |
| Fuel Van                           | £100.00**  |
| Fuel Compressor                    | £45.00 **  |
| Ferry Cost (Boat)                  | £57.50 **  |
| Ferry Cost (Van)                   | £105.00    |
| Compressor Filter & oil            | £114.25    |
| Food                               | £178.24    |
| Ratchet Straps                     | £34.38     |
| Rope (10mm x 200m)                 | £42.21     |
| Chart of Gigha                     | £25.30     |
| Hydrographic Office research costs | £76.00 **  |
| Jerry Cans (4-off)                 | £95.76     |
| Video tapes                        | £24.99     |

Total    £4235.29

Less BEGS grant (£1000)    £3335.29

Total per person (13 persons)    £269.61

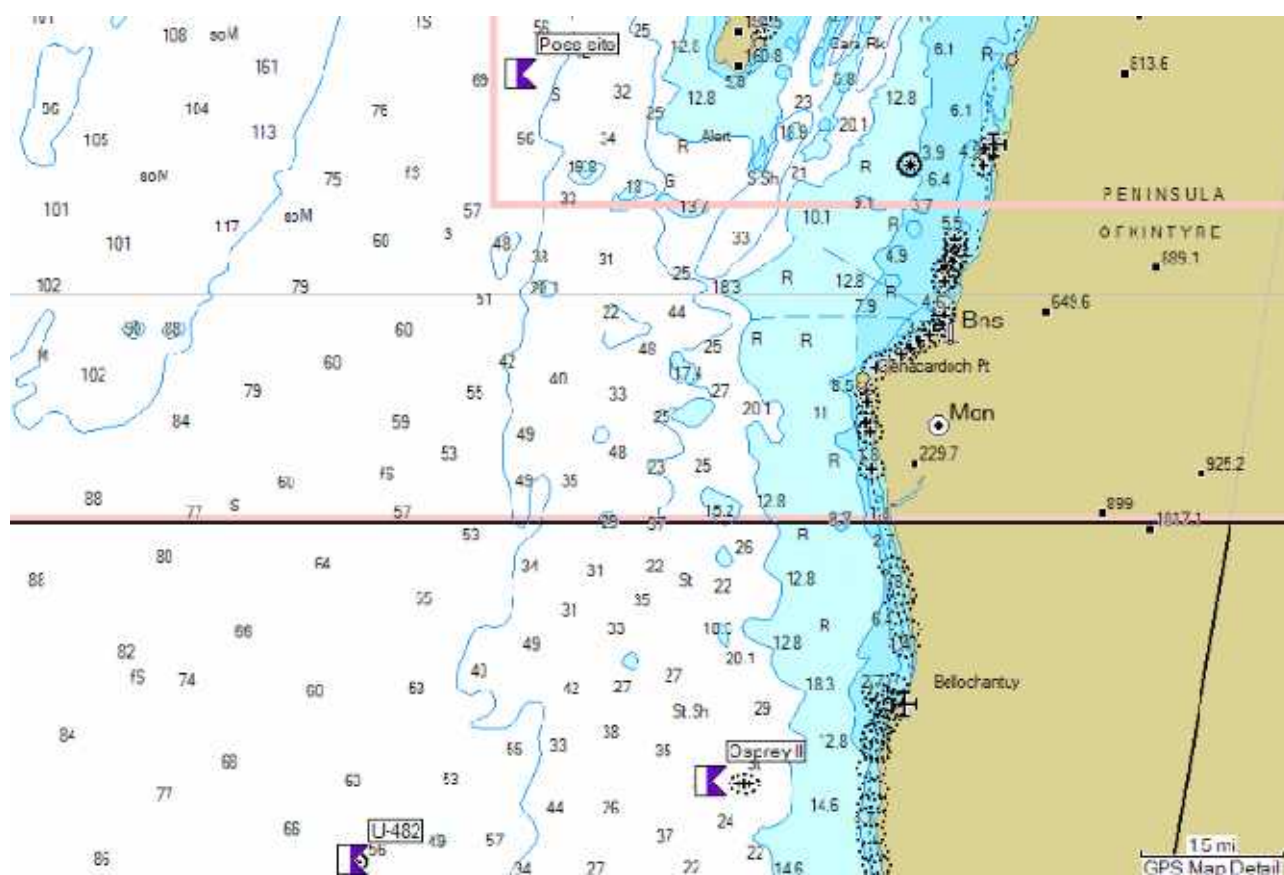
Although the expedition did go a little over budget (£32 per person), everybody agreed that the expedition still provided excellent value for money, as the price included; all diving, accommodation, food, breathing gases, equipment transport. Basically all team members had to provide was their own transport costs, as the hired van ensured that up to 4 persons could travel in each vehicle.

The additional expense was incurred due to; the ferry cost for the van, the donation towards the fuel costs for the van, and an over spend on the food.

Unfortunately I misplaced a wallet containing the fuel and Hydrographic Office receipts; I will try harder next time...

\* Receipt does not include cylinder collection cost from BOC (£46.58)

\*\* Receipt lost



| Site      | Latitude     | Longitude     | Depth |
|-----------|--------------|---------------|-------|
| U-482     | 55 30.298 N  | 005 51'.399 W | 65m   |
| Kartli    | 55 42'.229 N | 005 44'.913 W | 6m    |
| Ospray II | 55 30'.998 N | 005 45'.063 W | 32m   |
| HMS Riant | 55 40'.303 N | 005 46'.926 W | 37m   |

## **Appendix 1 – Day Plans**

### **Team 1 - Day 1 (RIB Diving) – Prepared by Joe Thomas**

#### **Divers and Roles:**

Andy Bennett – Cox, Boat Prep  
 Steve White – Ass. Cox, Boat Prep, Compressing  
 Joe Thomas – DM  
 Alvin Foy – Food prep  
 Paul Walker – Food prep, Ass. DM  
 Sven E – Food prep (morn), Compressing  
 Kat Lewis – Diary

#### **Buddy Pairs (waves 1 & 2, both dives):**

Wave 1 – AF/JT, SW/SE

Wave 2 – AB/AP/KL

| <b>Time</b>  | <b>Task</b>   | <b>Task Breakdown/Personal</b>   | <b>Checks</b>             |
|--------------|---|--|---------------------------|
| Night Before | - Prep kit (compress?)<br>- Prep lunch<br>- Dive brief    | Prep kit, ALL. Prep lunch, AP/AF/SE. Passage plans, JT/AB to check. Load kit into vehicles, ALL. SW/KL to compress if necessary. Dive brief, JT. | Weather and passage plans |
| 06:00        | Breakfast   | Prep breakfast AP/AF/SE. go-no go JT/AB.   | Weather and passage plans |
| 06:45        | Depart Accommodation                                      |  |                           |
| 07:00        | Arrive at slip Boat prep/load kit                         | Notify coastguard, JT. Boat prep AB/SW. Load kit, ALL  |                           |
| 07:45        | Boat into water   | Boat into water, ALL. AB stow trailer. SW elec checks. AF/SE/AP prep ropes and shots   |                           |
| 08:15        | Depart for U-482  | 12.91 nm @ 12kts avg. = 65 mins  |                           |
| 09:20        | Arrive at U-482   | Search pattern, ping wreck (1 hour max)  |                           |
| 10:20        | Depart for Osprey II                                      | 8 nm @ 12kts avg. = 40 mins  |                           |
| 11:00        | Arrive at Osprey II                                       | Locate and shot wreck AB/SW. Monitor tides (presumed slack at 12:30 p.m. approx). Prep wave 1.   |                           |
| 12:30        | First wave in   | AF/JT, SW/SE – 30 min max dive time. Prep wave 2.  |                           |
| 13:00        | Recover wave 1  |  |                           |
| 13:15        | Second wave in  | AB/AP/KL. SW ass. Cox.   |                           |
| 13:45        | Recover wave 2  | Recover shot   |                           |
| 14:00        | Depart for Moncoussu                                      | 13.4 nm @ 12 kts avg. = 67 mins  |                           |
| 15:15        | Arrive at Moncoussu                                       | Locate wreck. Prep wave 1  |                           |
| 15:30        | First Wave in   | AF/JT, SW/SE. Prep wave 2  |                           |
| 16:00        | Recover wave 1  |  |                           |
| 16:15        | Second wave in  | AB/AP/KL   |                           |
| 16:45        | Recover wave 1, depart                                    | RTB  |                           |
| 17:15        | Arrive at slip  | Recover boat and checks, AB/SW & ALL   |                           |
| 18:15        | - Compress<br>- Prep dinner<br>- Plan tomorrow<br>- Diary | Compress, SW/SE. Prep dinner, AP/AF. Plan tomorrow, JT/AB. Diary, KL.  | Weather checks            |
| 20:00        | Dinner  | ALL  |                           |
| 21:00        | Debrief/Brief Day 2                                       | Debrief/Brief Day 2 JT/AB & ALL  |                           |
| 21:30        | Prep kit  | Prep kit and load into vehicles  |                           |

## **Team 1 - Day 2 (Shore Diving) – Prepared by Joe Thomas**

### **Divers and Roles:**

Joe Thomas – DM, Compress  
Steve White – Ass. DM  
Alvin Foy – Food prep, Compress  
Anthony Petitt – Food prep  
Sven E – Food prep  
Kat Lewis – Diary

### **Buddy Pairs (waves 1 & 2, both dives):**

Wave 1 – JT/KL, AB/AP  
Wave 2 – SW/SE

| Time  | Task  | Task Breakdown/Personal   | Checks                    |
|-------|---|---|---------------------------|
| 08:00 | Breakfast   | Breakfast, prep lunch, AP/AF/SE, go-no go JT/AB   | Weather                   |
| 09:00 | Depart  |   |                           |
| 09:30 | Arrive at site  | Unload kit. Prep wave 1   |                           |
| 10:00 | First wave in   | JT/KL, AB/AP - 45 min max dive time. Prep wave 2  |                           |
| 10:45 | First wave out, Second wave in  | SW/SE – 45 min max dive time, 2 hour surface interval begins for wave 1 (lunch, complete seasearch slates)    |                           |
| 11:30 | Second wave out   | 2 hour surface interval begins for wave 2 (lunch, complete seasearch slates)                                  |                           |
| 12:45 | First wave in   | JT/KL, AB/AP – 45 min max dive time. Prep wave 2  |                           |
| 13:30 | First wave out, Second wave in  | SW/SE – 45 minute max dive time.  |                           |
| 14:15 | Second wave out, load kit   | Load kit into vehicles  |                           |
| 14:45 | Depart  | RTB   |                           |
| 15:15 | Unload kit  | ALL   |                           |
| 15:45 | - compress<br>- prep dinner<br>- complete seasearch<br>- Plan tomorrow<br>- diary | Compress, AB/AF. Prep dinner, AP/SE. Complete seasearch, ALL. Plan tomorrow and passage plans, SW. Diary, KL. | Weather and passage plans |
| 19:00 | Dinner  | ALL   |                           |
| 20:00 | Debrief/Brief Day 3   | Debrief JT/AB. Brief Day 3, SW  |                           |
| 21:00 | Prep kit  | Prep kit and load into vehicles, ALL.   |                           |

**Team 1 - Day 3 (RIB Diving) – Prepared by Steve White**

|  |                                   |                                     |
|--|-----------------------------------|-------------------------------------|
| <b>Manager: SW</b><br><b>Assistant: AB</b> | <b>Time out</b>                   | <b>Tides - 12:22 HW 19:01LW BST</b> |
|  | <b>ETR</b>                        |                                     |
| <b>Divers:</b>                             | <b>AB, AF, GG, JT, AP, SE, SW</b> |                                     |

| <b>Time</b>       | <b>Task</b>               | <b>Task Breakdown/Personal</b>  | <b>Checks</b>               |
|-------------------|---------------------------|---|-----------------------------|
| Night before      | prep kit                  | boat divers to move kit over to boat and secure, SW to prep final passage plan    | Weather and passage details |
| 08:00             | Breakfast, lunch prep     | AF, GG, SE prep break -JT AP lunch - SW AB go / no go                             | Weather and passage details |
| 09:15             | depart accom.             |   | boat checks & P. Plan?      |
| 09:30             | arrival at slip           | notify coastguard   | ferry arrival departures?   |
| 10:00             | launch boat & depart      | AB to stow & secure trailer, SW to check elecs, SE AF AP prep ropes, shot etc     |                             |
| 11:15             | Arrive at dive site       | 17nm @ 20 knots = 0:51minutes @ 15knots = 1:08min @ 10 knots 1:42                 |                             |
| 11:30             | locate and shot wreck     | assume wreck has been 'pinged'  |                             |
| 12:00             | first divers in           | AB and AF AP SE JT AND GG to act as safety divers <b>HW 12:22 - check charts!</b> |                             |
| 13:30             | recover divers and shot   |   |                             |
| 13:30             | depart for Riant / Karlti |   |                             |
| arrival           | Arrive at dive site       | check distances - revise / update passage plan / notify coastguard of changes     |                             |
| arrival + 30min   | locate and shot wreck     | (assumption is wreck has been 'pinged')   |                             |
| arrival + 45 min  | first wave in             | SE, SW, JT, AP, GG - second wave lunch  |                             |
| arrival + 2hrs    | second wave in            | AB, AF diving? First wave lunch   |                             |
| arrival + 3 hours | recover divers and shot   |   |                             |
| Arrival + 4 hours | RTB                       | (estimated time 18:30)  |                             |
| 18:30             | recover boat              | check trailer cond. bearings,lightboards,stowage. Prep for tomo (inc kit)         | Boat rec. and tow checks,   |
| 19:00:- onwards   | compress / mix            | JT, SE, assume 2 hours as shore team would have 'pressed during SI etc.           |                             |
| 19:00             | prep dinner / tomo lunch  | GG, AP, AF  |                             |
| 19:00             | Plan tomo.                | SW, AB  |                             |
| 20:00             | Dinner                    | All   |                             |
| 21:00             | debrief / brief           | SW, AB  |                             |



**Team 1 - Day 4 (Shore Diving) – Prepared by Steve White**

|  |                               |                                     |
|--|-------------------------------|-------------------------------------|
| <b>Manager: SW</b><br><b>Assistant: SE</b> | <b>Time out</b>               | <b>Tides - 12:22 HW 19:01LW BST</b> |
|  | <b>ETR</b>                    |                                     |
| <b>Divers:</b>                             | <b>AF, GG, JT, AP, SE, SW</b> |                                     |

| <b>Time</b> | <b>Task</b> | <b>Task Breakdown/Personal</b> | <b>Checks</b> |
|-------------|-------------|--------------------------------|---------------|
| TBC         |             |                                |               |

| Activity                                     | Start | End   | Duration |
|--|-------|-------|----------|
| Get-up and breakfast                         | 07:00 | 08:30 | 90       |
| Prepare lunch for everyone                   | 07:30 | 08:30 | 60       |
| Prepare kit for transfer to site / load cars | 08:30 | 09:00 | 30       |
| Travel to shore dive site                    | 09:00 | 09:30 | 30       |
| Prepare kit and Wave 1 kit-up                | 09:30 | 10:00 | 30       |
| Wave 1 dives                                 | 10:00 | 10:45 | 45       |
| Fill cylinders                               | 10:45 | 12:45 | 120      |
| Wave 2 kit-up                                | 10:45 | 11:00 | 15       |
| Wave 2 dives                                 | 11:00 | 11:45 | 45       |
| Lunch  | 11:45 | 12:45 | 60       |
| Wave 1 kit-up                                | 12:45 | 13:00 | 15       |
| Wave 1 dives                                 | 13:00 | 13:45 | 45       |
| Fill cylinders                               | 13:45 | 14:45 | 60       |
| Wave 2 kit-up                                | 13:45 | 14:00 | 15       |
| Wave 2 dives                                 | 14:00 | 14:45 | 45       |
| Prepare kit for transfer to base / load cars | 14:45 | 15:15 | 30       |
| Travel to base                               | 15:15 | 15:45 | 30       |
| Fill cylinders                               | 15:45 | 17:45 | 120      |
| Write-up day reports                         | 15:45 | 17:15 | 90       |
| Write-up seasearch reports                   | 15:45 | 17:15 | 90       |
| Prepare evening meal                         | 18:30 | 20:00 | 90       |

### **Team 2 - Day 1 (Shore Diving) – Prepared by Mark Weeks**

| Start Time | Action  | Duration |
|------------|---|----------|
| 0600       | Get-up  | 30mins   |
| 0630       | Prepare lunch / eat breakfast / check personal kit          | 60mins   |
| 0730       | Load-up cars  | 30mins   |
| 0800       | Leave base and travel to Port Mor                           | 30mins   |
| 0830       | Everyone prepare kit / wave 1 kit-up                        | 30mins   |
| 0900       | WAVE 1 PORT MOR   | 45mins   |
| 0945       | Wave 1 exits and wave 2 kit-up                              | 15mins   |
| 1000       | WAVE 2 PORT MOR   | 45mins   |
| 1045       | Wave 2 exits and everyone sorts out kit for next dive       | 30mins   |
| 1115       | Lunch   | 75mins   |
| 1230       | Wave 1 kit-up   | 15mins   |
| 1245       | WAVE 1 PORT MOR   | 45mins   |
| 1330       | Wave 1 exits and wave 2 kit-up                              | 15mins   |
| 1345       | WAVE 2 PORT MOR   | 45mins   |
| 1430       | Wave 2 exits and everyone packs-up kit                      | 30mins   |
| 1500       | Leave shore dive and travel to base                         | 30mins   |
| 1530       | Write-up day reports / seasearch reports and fill cylinders | 120mins  |
| 1730       | Prepare tea   | 90mins   |
| 1900       | Eat tea, go to pub, drink and sleep                         | LOTS     |

N.B: in the above it is assumed that Team 1 will prepare breakfast whilst Team 2 prepares lunch and Team 2 will prepare tea whilst Team 1 fills their cylinders for the next day

### **Roles and responsibilities**

Andy – Expedition leader / skipper

Team 1 – Food manager for breakfast, dive marshal for own diving and gas manager for own cylinders

Jamie / Sophie – Dive marshal / assistant dive marshal

Bob / John – Gas manager

Mark / Ann – Food marshal

In addition to the above Team 2 will also have the following responsibilities:

Mark / Ann – Completing day reports for Team 2 and preparing tea for everyone

Sophie / Jamie – Completing seasearch forms for Team 2 and preparing lunch for everyone

Bob / John – Filling cylinders for Team 2

### **Team 2 - Day 2 (Rib Diving) – Prepared by Mark Weeks**

| <b>Start Time</b> | <b>Action</b>  | <b>Duration</b> |
|-------------------|--|-----------------|
| 0700              | Get-up   | 30mins          |
| 0730              | Prepare breakfast / eat breakfast / check personal kit   | 60mins          |
| 0830              | Launch Little Mo   | 30mins          |
| 0900              | Leave slipway and travel to Osprey II                    | 45mins          |
| 0945              | Find & shot Osprey II                                    | 45mins          |
| 1030              | Ready divers (3 buddy pairs as outlined below)           | 30mins          |
| 1100              | DIVE OSPREY II (HW @ 1034)                               | 50mins          |
| 1150              | Recover divers & shot                                    | 30mins          |
| 1220              | Leave Osprey II and travel to U482                       | 25mins          |
| 1245              | Locate / ping U482 / eat lunch                           | 60mins          |
| 1345              | Leave U482 and travel to Moncoussu                       | 60mins          |
| 1445              | Find & shot Moncoussu                                    | 45mins          |
| 1530              | Ready divers   | 30mins          |
| 1600              | DIVE MONCOUSSU (LW @ 1703)                               | 45mins          |
| 1645              | Recover divers & shot                                    | 30mins          |
| 1715              | Leave Moncoussu and travel to slipway                    | 15mins          |
| 1730              | Recover Little Mo  | 30mins          |
| 1800              | Move kit from Little Mo to base                          | 30mins          |
| 1830              | Fill cylinders / write-up day report & seasearch reports | 90mins          |
| 2000              | Eat tea, go to pub, drink and sleep                      | LOTS            |

N.B: in the above it is assumed that Team 1 will prepare lunch whilst Team 2 prepares breakfast and Team 1 will prepare tea whilst Team 2 fills their cylinders for the next day

### **Roles and responsibilities**

- Andy – Expedition leader / skipper
- Team 1 – Food manager for lunch and evening meal, dive marshal for own diving and gas manager for own cylinders
- Team 2:
  - o Mark / Ann – Dive marshal / assistant dive marshal
  - o Sophie / Jamie – Gas manager
  - o Bob / John – Boat marshal
- In addition to the above Team 2 will also have the following responsibilities:
  - o Mark / Ann – Completing seasearch forms for Team 2
  - o Sophie / Jamie – Filling cylinders for Team 2
  - o Bob / John – Completing day reports for Team 2

**Team 2 - Day 3 (Shore Diving) – Prepared by Jon England**

| Activity                                     | Start | End   | Duration | Actioned by |
|--|-------|-------|----------|-------------|
| Get-up and breakfast                         | 07:00 | 08:30 | 90       | T2          |
| Prepare lunch for everyone                   | 07:30 | 08:30 | 60       | JE, RB      |
| Prepare kit for transfer to site / load cars | 08:30 | 09:00 | 30       | T2          |
| Travel to shore dive site                    | 09:00 | 09:30 | 30       | T2          |
| Prepare kit and Wave 1 kit-up                | 09:30 | 10:00 | 30       | T2          |
| Wave 1 dives                                 | 10:00 | 10:45 | 45       | W1          |
| Fill cylinders                               | 10:45 | 12:45 | 120      | MW, AM      |
| Wave 2 kit-up                                | 10:45 | 11:00 | 15       | W2          |
| Wave 2 dives                                 | 11:00 | 11:45 | 45       | W2          |
| Lunch  | 11:45 | 12:45 | 60       | T2          |
| Wave 1 kit-up                                | 12:45 | 13:00 | 15       | W1          |
| Wave 1 dives                                 | 13:00 | 13:45 | 45       | W1          |
| Fill cylinders                               | 13:45 | 14:45 | 60       | MW, AM      |
| Wave 2 kit-up                                | 13:45 | 14:00 | 15       | W2          |
| Wave 2 dives                                 | 14:00 | 14:45 | 45       | W2          |
| Prepare kit for transfer to base / load cars | 14:45 | 15:15 | 30       | T2          |
| Travel to base                               | 15:15 | 15:45 | 30       | T2          |
| Fill cylinders                               | 15:45 | 17:45 | 120      | MW, AM      |
| Write-up day reports                         | 15:45 | 17:15 | 90       | JH, SD      |
| Write-up seasearch reports                   | 15:45 | 17:15 | 90       | JE, RB      |
| Prepare evening meal                         | 18:30 | 20:00 | 90       | JH, SD      |

**Team 2**

Dive Manager / Assistant Dive Manager  
Gas Manager / Fills  
Food Managers responsible for lunch  
Food Managers responsible for evening meal  
Day reports  
Seasearch reports

Jamie & Sophie / Jon  
Mark & Ann  
Jon & Bob  
Jamie & Sophie  
Jamie & Sophie  
Jon & Bob

**Wave 1 (W1)**

Mark & Ann  
Jon & Bob

**Wave 2 (W2)**

Jamie & Sophie

## **Team 2 - Day 4 (Rib Diving) – Prepared by Jon England**

### **Day Plan @ 15 kts**

Outward journey round southern tip of island; return journey round northern tip

| <b>Activity</b>                        | <b>Start</b> | <b>End</b>   | <b>Duration</b> | <b>Actioned by</b> |
|--|--------------|--------------|-----------------|--------------------|
| Get-up and breakfast                   | 07:00        | 08:30        | 90              | JH, SD             |
| Go to boat                             | 08:30        | 08:40        | 10              | T2                 |
| Prepare & launch boat                  | 08:40        | 09:10        | 30              | AB, MW, AM         |
| Depart slip & notify coastguard        | 09:10        | 09:15        | 5               | MW, AM             |
| Travel to Riant (6.5 nm)               | 09:10        | 09:36        | 26              | AB                 |
| <i>Arrive site</i>                     | <i>09:36</i> | <i>09:36</i> | <i>0</i>        |                    |
| Locate & shot wreck                    | 09:36        | 10:21        | 45              | MW, AM             |
| Ready divers                           | 10:21        | 10:51        | 30              | JE                 |
| <b>Dive Riant (37m / 60 mins max)</b>  | 10:51        | 11:51        | 60              | T2                 |
| Recover divers                         | 11:51        | 12:21        | 30              | AB & first out     |
| <i>Leave site</i>                      | <i>12:21</i> | <i>12:21</i> | <i>0</i>        |                    |
| Travel to Karlti (4nm)                 | 12:21        | 12:37        | 16              | AB                 |
| <i>Arrive site</i>                     | <i>12:37</i> | <i>12:37</i> | <i>0</i>        |                    |
| Locate & shot wreck & lunch            | 12:37        | 13:30        | 53              | MW, AM             |
| Ready divers                           | 13:30        | 14:00        | 30              | JE                 |
| <b>Dive Karlti (10m / 60 mins max)</b> | 14:00        | 15:00        | 60              | T2                 |
| Recover divers                         | 15:00        | 15:30        | 30              | AB & first out     |
| <i>Leave site</i>                      | <i>15:30</i> | <i>15:30</i> | <i>0</i>        |                    |
| Travel to slip                         | 15:30        | 16:06        | 36              | AB                 |
| Arrive slip & notify coastguard        | 16:06        | 16:11        | 5               | SD                 |
| Recover boat & secure                  | 16:06        | 16:36        | 30              | AB, MW, AM         |
| Load Van                               | 16:36        | 17:06        | 30              | T1 & T2            |
| Write-up day reports                   | 17:06        | 18:30        | 84              | MW, AM             |
| Write-up seasearch reports             | 17:06        | 18:30        | 84              | JE, RB             |

#### Team 1

Food Managers responsible for lunch and evening meal

#### Team 2

Skipper

Dive Manager / Assistant Dive Manager

Boat Marshall

Food Managers responsible for breakfast

Day reports

Seasearch reports

Andy

Jon & Bob

Mark & Ann

Jamie & Sophie

Mark & Ann

Jon & Bob

## **Appendix 2 – National Archives Transcripts**

[only some. File shortened by Max Ruffert]

13

LL 482

4885 KC/S

T O O 1815

T O I 1732/13/12/43

FROM: U. 482

14

3764 KC/S

T O O 2120

T O I 1943/3/5/44

FROM: U. 482 (MATUSCHKA)

TO: N.O.I.C. LIBAU

25TH U/S FLOTILLA

MAIN REPORTING STATION FOR SHIPPING MOVEMENTS BALTIC

SHALL NOT ARRIVE LIBAU UNTIL 2400.

3764 KC/S

T O O 0543

T O I 0441/6/6/44

FROM: MATUSCHKA'S U/BOAT

OWING TO FOG, ANCHORED AT POSITION 30 ON WAY 1 AT 0530.

4850 KC/S

T O O 0900

T O I 0724/6/6/44

FROM: U. 482 (MATUSCHKA)

ONWARD PASSAGE TO KIEL CONTINUED AT 0800.

4850 KC/S

T O O 1550

T O I 1455/6/6/44

FROM: U 482 (MATUSCHKA) (MATUSCHKA)

HAVE PASSED GJEDSER BARRAGE WESTBOUND. SHALL ARRIVE  
IN KIEL AT ABOUT 2300.

2104/6/6. F. 4482 -R.  
 Proceed in route to Kiel  
 for Hallenstein op.  
 CXL 23

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Page 1 of 1

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15

1042/7/6 U 482, U 722 read, to  
operate 0100/8

3764 KC/S

T O O 0140

T O I 0514/16/7/44

FROM: U 482

TO: CONTROL

HAVE PASSED THE GJEDSER BARRAGE BOUND & EAST.

3764 KC/S

T O O 2305

T O I 2345/22/7/44

FROM: U 482 (CHATUSCHKA)

MY POSITION IS WAY (ROHAN) I POSITION 12F. CONDITIONS OF  
RECEPTION ARE FAIR, HEAVY OUTSIDE INTERFERENCE.

EUYP KC/S

T O O 0250

T O I 0132/23/7/44

FROM: U 482 (CHATUSCHKA)

HAVE PASSED GJEDSER BARRAGE WESTBOUND.

REFERENCE SERIAL NO. 19:

CONTROL SIGNAL STRENGTH 4, NEJSTADT 2. AT TIMES HEAVY  
OUTSIDE INTERFERENCE.

5002 107/2

TOD 0930

TOT 0931/5/18

FROM: NATOSOMA 482 PI

TO: STN NY, SEATTLE

THE BOATS HAVE BEEN TANDI UP BY EXHIBIT AT ROT 01

1127/6/8 f. to 575

Took up escort of U 482 ck.  
at 0930 at Rot 01

1843/6/8 K. Matusche ck.

in acc. with 'KURIER' order operate  
~~the~~ Matusche as weather  
Boat 1....1344/7/8 - 'Kurier' plan.  
see U 772..1359/7/8 Reckon with arrival of  
5 'Puzels' in as to food from  
the south from PM 17/8..0852/9/8 K. KURIER boats  
Send no more KURIER signals  
for the present... faulty equipment.

4155 KC/S

TOD 0930/10/18

FROM: U/NATOSOMA

Oslo Fjord.

2 TORPEDO TRACKS TO STAMBORED IN NAVAL GRID SQUARE AG 1683

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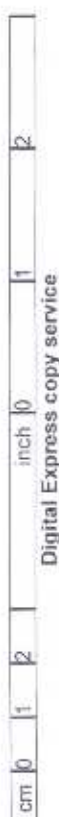
Order Number: 21840/26796

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17

1706/11/8 Schumann & Matuschka  
 proceed in convoy as far as  
 Bergen then independent passage to  
 the Atlantic steering for Green RR 13  
 via Green DA 63...  
 { Green RR 13 = AL 10 }  
 " DA 63 = AE 60 }

2050/11/8 L. Kierp, Matuschka etc.  
 to report re engineers to do with  
 'KURIER'

See KURIER. GXLIII 1

7055 NO/S

T O O 1114

T O I 0958/10/5/44

TO: BOATS PROCEEDING TO THE ATLANTIC

H/2 P1

1) CONTRARY TO PREVIOUS ORDERS MATUSCHKA WILL PROCEED VIA

SQUARE GREEN JV 35.

2) SCHAEFER AND ASCHERHANS WILL GO TO SQUARE GREEN BB 55 VIA SQUARE  
 GREEN QR 63.3) EXPERIENCE SHOWS THAT THE ENEMY OPERATES INCREASED AIR WHEN  
 ESTABLISHING U-BOAT BOAT MOVEMENTS ON THE NORWEGIAN COAST.  
 PROCEED CAREFULLY.

DEPT. NOTE: GREEN JV 35 = NAVAL GRID SQUARE AN 32.

GREEN BB 55 = NAVAL GRID SQUARE AL 32.

GREEN QR 63 = NAVAL GRID

SQUARE AE 60.

1537/18/8 Ireland 0500/19

**Appendix 3 – Seasearch Reports**

**Appendix 4 – Risk assessments**

**Appendix 5 – Dive Managers Slates**

**Appendix 6 – Receipts**