

# **TYNESIDE 114 BRANCH BSAC**

## **SKERRYVORE EXPEDITION TO TIREE**

**Friday 17<sup>th</sup> to 27<sup>th</sup> May 2013**



**Issue 0, Jan 2013**

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## Background

Tyneside 114 as a branch endeavours to provide its members an opportunity to dive places that you cannot normally dive easily by chartering a boat. This year's expedition is planned to attempt to dive a location that whilst not geographically further afield than other locations the branch has visited, in terms of expense to get there and the effort required to dive some of the locations and the weather risk, this is more demanding.

Tiree is famous for other watersports such as surfing and kite surfing so we have allowed 10 days instead of our usual week long trip as an allowance for diving around inclement weather.

Volume II of Dive North-West Scotland reports "Diving around these islands is one of contrasts". Looking at the chart it is clear why. We aim to find out for ourselves.

## Purpose

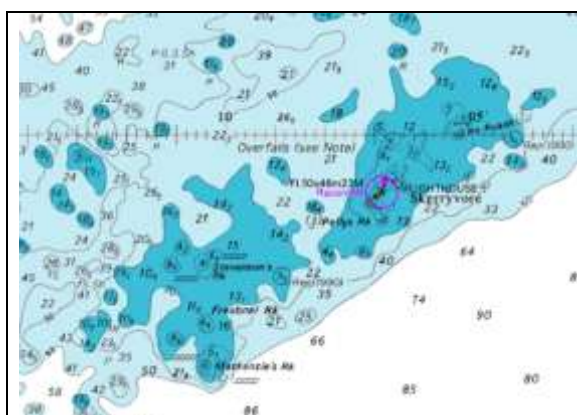
The primary purposes of this expedition are:

- 1) To conduct an expedition to dive old and new sites around Tiree, Scotland.
- 2) To coach and mentor up and coming Dive Leader and Advanced Diver Trainees within the branch on expedition diving.
- 3) Produce a magazine article for SCUBA magazine on diving Tiree. The club has an excellent track record of producing articles for SCUBA. If however we cannot get published in a reasonable time, the unedited article will be submitted to BSAC (as part of the final report).

## Main Dive Sites

The main target sites are some reasonably well know wrecks such as SS Labrador on MacKenzie Rock and the SS Tapti off Eilean Iomallach but also the sites often overlooked by hardboat diving such as the wreck sites around Roan Bogha in Gunna Sound and the Skerryvore.

Between 1790 and 1844 more than thirty ships were known to have been wrecked in the area (at least that is according to Wikipedia).



The Skerryvore and MacKenzie Rock – 13Nm SW of Hynish Harbour on Tiree.



Gunna Sound and Roan Bogha to the NE of Tiree. Eileann Iomallach NE of Roan Bogha.

## Backup Plans

Although Tiree is an island and we expect to be able to get in somewhere finding top site may prove more challenging than usual. The veering wind of a low pressure system may well leave the sheltered side exposed to a residual Atlantic Swell.

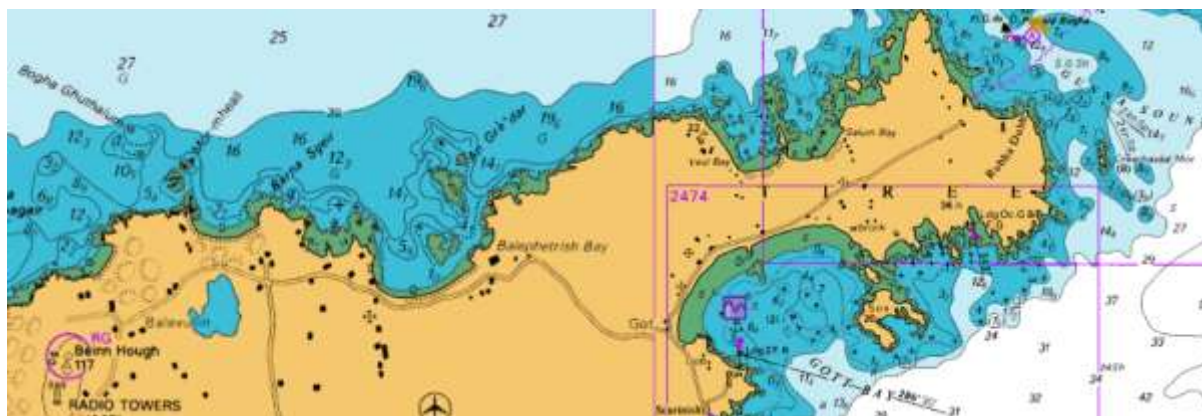
Some of the backup sites identified so far are:

Gott Bay: Reefs (reported to contain caves) and an old spoil area – Sheltered from all but southerlies and easterlies.

Wreck of Lady Isle: Near to Gott Bay – Sheltered and Shallow

Gunna Sound: Drift Diving and so shallow Pinnacles.

Wreck of SS Malve Balaphetish Bay and Ingrid off Rubha Port Bhoisid for Southerly and Easterly winds. Some of the shallower reefs may be worth exploring in case we turn up any more unknown wooden wreck sites.



The two main dive gives for the area are “Dive NW Scotland” by Gordon Ridley and “Argyll Shipwrecks” by Peter Moir and Ian Crawford.

The later gives some detailed accounts of some of the main sites and is generally a reliable source of positions for wrecks. Interestingly some sites would appear still to be located and positively identified.

## Dates

Friday 17<sup>th</sup> May: Advance Party take RHIB to Oban. Stay in Bed and Breakfast overnight.

Saturday 18<sup>th</sup> May: 7.00am sailing from Oban arrive 10.45am.

Advanced Party Ferry to Tiree.

Establish dive base at Accommodation and Scout Island boat launch sites.

Possible dive in the afternoon.

Sunday 19<sup>th</sup> May: Second Party Travel to Oban with Inflatable. Stay overnight.

Advance party commence diving.

Monday 20<sup>th</sup> May:

Second Party Catch Ferry at 8.00am and arrive 12.05am. Join Advance party for diving.

Remainder of week, diving.

Monday 27<sup>th</sup> May: 12.45pm ferry. Return to mainland. Arrive Oban 16.30pm.

### Cost

An indicative overall figure for the weekend is approximately £460 to £580 per person, higher than normal trips of this kind given the small group and longer duration. Final costs will depend on the final expedition cost divided by the number of those participating in it and also whether we are successful in obtaining any secondary funding. A budget costing is presented in the Appendices. Given the Expeditionary nature of the planned diving the club may apply for a BEGS grant to help cover the additional costs.

### Pre-requisites

For diving you must be a full diving member of the BSAC and should hold a diving qualification of BSAC Dive Leader or Advanced Diver.

This is expeditionary diving and is likely to be physically demanding. It is important to ensure you are fully dive fit and dived up.

The diving is intended to be a mix of wreck and scenic. Deeper sites are available but are usually reefs and we anticipate that divers will be able to pick their depth.

You should be able to competently and confidently launch a delayed surface marker buoy unaided, mid-water.

### Accommodation

Google Maps output for

Cèabhar Guesthouse & Restaurant, Sandaig, Isle of Tiree, Argyll, PA77 6XQ



### Extract from the Guesthouse Website

The guest house can currently sleep up to 8 guests in five bedrooms currently set up as; two singles (en-suite), two doubles (en-suite) and a twin bedroom (private bathroom opposite). There are also a couple of sofa beds, one in the lounge and the other in the dining room, and if needs

be we can put up a guest bed or a travel cot in one of the double bedrooms. All rooms have TV/DVD, including the lounge, and there is a games cupboard in the hallway. The lounge and dining room both have solid fuel stoves and all bedrooms have heaters. There is also free WiFi throughout the house, so don't forget your laptop.

We will provide fresh linen, tea towels, washing up liquid and bin bags each week. **Sorry towels are not provided.** The kitchen comprises a fridge, washing machine, induction hob, electric oven/grill and a small dishwasher. All crockery, glassware and basic utensils are available either within the kitchen or the dining room. There is also a small counter top freezer in the shed.

For more active guests we are ideally situated for easy access to the beaches that make Tiree so perfect for surfing, windsurfing and kite-surfing. It is also now possible for appropriately qualified groups of divers to enjoy the undersea life and shipwrecks around Tiree (please contact us for further details) There are drying racks and rinsing tubs in the back garden and some space in the shed to store some equipment, bikes, or to hang wet suits if it is raining.

The guesthouse is situated next door to our licensed restaurant and you are welcome to book

### **Current Expedition Team**

1. Dave (FCD/NI): Club Chairman
2. Andy (FCD/NI): Expedition Leader, Rebreather Diver
3. Fiona (DL/OWI): Club Treasurer, Advanced Diver Trainee
4. Richard (DL/OWI): Advanced Diver Trainee, Photographer
5. Hubert (ADV/OWI): Advanced Instructor Trainee, Rebreather Diver
6. Kevin (Experienced SP/ADI): DL Trainee
7. Alex Joyce (ADV/CI): Member of Hazel Grove BSAC
8. TBC

### **Room Allocation**

Single Room 1: Alex Joyce

Single Room 2: Dave Mitchell

Double Room 1: Richard Booth

Double Room 2: Andy and Fiona

Twin Room: Hubert, Kevin

### **Food**

Breakfast: Communal cereals, toast, jam, marmalade, orange juice.

Lunch: We will make our own packed lunch in the morning. Packed lunch will be sandwiches, crisps, fruit, chocolate/fruit bars.

Evening Meal:

We may well eat out on a couple of nights given the proximity of the restaurant depending on the restaurant next door. Otherwise we will be self catering.

## **Transport**

To keep transport costs to a minimum, lifts can be shared.

Current requirements are:

Andy and Fiona Hunt, Estate Car – Towing RHIB

Hubert Desgranges and Kevin Thompson – Single Car, Own Kit (plus additional kit from 2<sup>nd</sup> party)

Richard Booth, Dave Mitchell, Alex Joyce – Car + small inflatable with bulky dive kit. NB. Single cylinders are available on the island so only Pony bottles may be required.

For an 8<sup>th</sup> diver, additional transport will need to be sought.

A DANGEROUS GOODS NOTE will be required to be completed and carried by the drivers carrying compressed gas. The Expedition leader will issue these forms in advance,

## **Personal Equipment Required**

Your diving kit

Gas for at least 2 dives per day (plus bailout) – some bottles are available from Ceabhar on Tiree.

Alternative air source (pony, stage, twin set etc.)

Delayed surface marker buoy (on reel, ready to launch)

Spare delayed surface marker buoy (to signal distress)

Collapsible flag

Torch and backup torch

Knife or underwater shears

Woolly hat

Sunglasses, hat and sunblock (just in case)

Underwater Camera (optional – if you have one already – Instructor team will have one).

Money

Clothes

Materials that you normally use for dive planning

## **Equipment Provide by the Expedition**

The accommodation owners are divers and have 6x12lt cylinders available.

Club Compressors x 1 (to backup/supplement that provided by the accommodation)

Club RHIB x 1

Richard's Inflatable x 1

Jerry cans/spare fuel tanks for Richard's Inflatable

Gas analyser

Blending kit and oxygen if satisfactory method of transporting the gas can be found.

## Timetable

A daily timetable will need to be produced during the planning sessions. A typical template is provided below.

	Sunday Dive 1: _____ Dive 2: _____	Saturday Dive 1: _____ Dive 2: _____	Fri Dive 1: _____ Dive 2: _____	Thu Dive 1: _____ Dive 2: _____	Wed Dive 1: _____ Dive 2: _____	Tue Dive 1: _____ Dive 2: _____	Mon Dive 1: _____ Dive 2: _____	Sunday Dive 1: _____ Dive 2: _____	Saturday Dive 1: _____ Dive 2: _____
Breakfast and make packed lunch									
Briefing and depart for quayside									
Load and launch boats									
Depart for and location of dive site 1									
Arrive at dive site 1									
Dive 1									
Lunch, transit and locate 2 <sup>nd</sup> site									
Dive 2									
Set off for slipway									
Arrival at slipway and recover boats									
Return to accommodation									
Charge tanks, plan for next day									
Evening meal									



## Expedition responsibilities

### Dive Manager:

With the Expedition Leader, plan and manage the next day's diving activities in accordance with BSAC Safe Diving. Outputs are a timetable, buddy pairs and navigation plan.

### Diver Cox:

Ensure boats are fully fuelled, equipped and prepared for the days activities.

Check safety gear including Oxygen, Radio and Sufficient Fuel.

### General:

Admin – Complete a neat version of the daily club logsheets for the records

Cooking – Prepare food for group

Washing Up – Load and empty dishwasher/Washing up

## Daily Rota

Cox – Indicated who have BH and who are Diver Coxen. Allocation to be confirmed.

Cooking - Fiona head chef with assistance from others especially Hubert when it comes to marine identification of edible species.

Washing Up – If you have not cooked or helped prepare food.

Packed Lunch – Prepare your own

Name	Dive Manager	Dive Cox – Club RHIB	Dive Cox – Sea Flea	Write logsheet	Gas filling
1. Dave (DC)	2 <sup>nd</sup> Sun	TBC	TBC	Mon	Mon, Thu, Fri
2. Andy (DC)	1 <sup>st</sup> Sat	TBC	TBC	Sat	Tue Wed
3. Fiona (BH)	Tue, Thu	TBC	TBC	Sun	Tue Wed
4. Richard (BH)	Wed Fri	TBC	TBC	Mon	Thu, Fri
5. Hubert (DC)	Sun	TBC	TBC	Tue	Sat, Sun
6. Kevin (BH)	2 <sup>nd</sup> Sat, Mon	TBC	TBC	Wed	Sat, Sun
7. Alex (DC)		TBC	TBC	Thu	Mon, Thu, Fri
8. TBC		TBC	TBC		

## Dive Plan

A maximum of 1 hour has generally been allowed for each wave of divers. It is expected typical dive times will be of the order of 45 to 50 minutes for most sites.

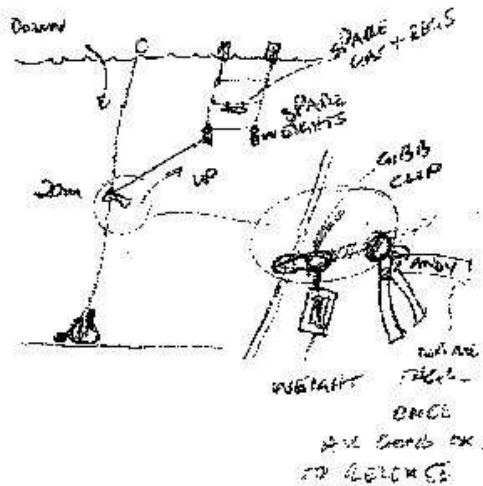
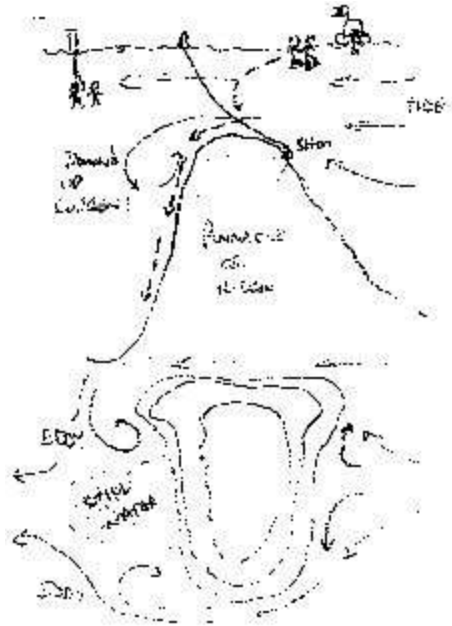
Offshore pinnacle / wall

Shot the tidal swept face of the pinnacle or wall.

Deploy divers up tide.

Divers use knowledge of the current flow around the wall/pinnacle to find shelter. The sketch opposite shows flow lines that may be encountered around a typical offshore pinnacle.

DSMB deployed at end and drift off in the tide being aware that the DSMB could be in a faster current on the surface and they may be dragged away from the pinnacle.



## Deep Wreck

A trapease system may be deployed with spare gas (air or nitrox). Trapease system to be released if all divers are on it or tide is too strong during stops. Each diver will have a tag to attach to the line to log in and log out.

## Dive Management

This is RHIB and inflatable diving so we will probably dive either a single wave (or staggered wave). The club RHIB comfortably takes 5 and the inflatable 2. We can get an extra diver in on the RHIB but will need to be pack carefully.

## Tidal Information

Dates fortunately coincide with neap tides. For deeper square profile dives, the aim will be for slack water. Other sites may be dived off slack. Some sites we will be estimating slack based on the nearest tidal diamonds and having to judge the conditions on site.

The underwater topography is such that tidal strength is likely to vary from that indicated depending on the dive site.

Tide and slack information will be obtained from Admiralty Total tide software.

## Navigation Plans

These will be generated the night before during planning sessions. A copy of Benfield Chart plotter and Admiralty Total tide will be available to help create route plans. Template is provided below in anticipation of planning sessions.

Leg	From	To	Dist (Nm)	Brg (M)	Time (mins)	Comments
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

## Launch Sites

According to Duncan (owner of Ceabhar), you can beach launch at Scarinish harbour and also at Balinoe (Soroba) beach and Milton harbour. They have also managed to launch our RIB at Balinoe and Gott Bay just using a car.

Other methods of launch and recovery are being investigated. E.g. hire of a local with a 4x4 or a tractor or use of cars on the road with a winch, or simply launching the boat at a slip and loading it elsewhere.

We are investigating the use of a sand hopper wheel for the RHIB to facilitate beach launching and recovery.

The inflatable can be launched virtually anywhere.



Possible Slipway on west side of Scarinish Pier. Main ferry slip opposite side..



Milton Harbour, E Tiree. Access to slip unclear.



Balinoe Beach Launch

## Dive site information

Main Target sites are listed below.

Within site of the accommodation:

**SS Cairnsmuir 56°29'.570 N, 007°01'.360 W – 8m**

Ran aground 06/07/1885

**HMS Sturdy 56°28'.988 N, 006°59'.055 W**

Moir and Crawford's book has a good description.

Possibly only the boiler and scattered wreckage remains plus evidence on salvage on the shore.

Ran aground on 30th Oct 1940 – 5 men lost.

**U-Boat? 56°27'.988 N 006°59'.055 W** The Hydrographic Department records indicate a captured German submarine broke adrift and ran aground on Tiree. Other reports place the submarine in 30m of water buried in sand upto the conning tower. Research is continuing into trying to locate this submarine.

**Reefs and Pinnacles around the Skerryvore Lighthouse 56°19,346N 007°07,018W**

Although Hydrographic records indicate the vessel SS Ravensheugh sank here in 1911 other information places it within 4 miles of the Skerryvore, potentially in very deep water. Weather permitting we shall endeavour to explore the surround reefs. Depths of 15 to 25m typical but some deeper water to west 40m+. Couple of other reported wrecks on chart in 1990.

## Mackensie Rock and the Labrador

56°17'18" N, 007°10'06" W

This site is well known but rarely dived due to its position.

Members of the club have dived the bows during a diving expedition with Newcastle University SAC (many years ago) which are in deeper water (30m+). The rest of the wreckage is reported to be in shallower water by Moir and Crawford.

The ship was wrecked in thick fog in 1899. The vessel broke in two but no lives were lost.



## Roan Bogha Pinnacle and Wrecks

St Clair - 56°32'.388 N 006°40'.057 W - SS Hurlford 56°32'.333 N, 006°40'.083 W

Two main wrecks are listed on this rock. The St Clair (1880) and the SS Hurlford (1917)

Hydrographic reports the St Clair possibly being the wreck to the east of the rock. Very broken up with a clipper type bow and Victorian ware toilet. Shipwrecks of the west coast of Scotland provides a location diagram.

## Wrecks of Tapti, Arnold, Nessmore

The Tapti is one Scotlands most famous wrecks and has been dived by the club before. It was featured in SCUBA magazine in 2012 after a FCD prep event visited the site. Other site near to it are less well dived and not widely dived. We shall endeavour to dive all in 1 day.

## Appendix 1: SCUBA Magazine Wrecked Article Guidelines

The purpose of this feature is to celebrate a great wreck dive, providing a detailed description of its features, a section on its history, essential facts and a line drawing that can be converted into a glorious graphic by the artists at TRMG.

Body text. We need around 1,000 words on the wreck and its features. Obviously you need a few introductory words at the outset to set the scene, but then it's straight into a guided tour of the wreck. Feel free to mention its life, hazards such as fishing nets, opportunities to enter the structure and safety considerations where relevant. A few words can be given over to depth and difficulty, but this is also addressed in the 'Essentials' box.

Line drawing. This doesn't have to be great art... the priority here is clarity. The idea is to give an idea of the layout of the wreckage and annotate it with the positions of features you mention in the body text. Obviously it is important that the map is as accurate as possible, and that it is your own work. You can use information from other divers and charter skippers, but the crucial thing is that you are confident from your own dives that it is an accurate illustration of the wreck and will be of use to divers.

History sidebar: About 200 words to tell the story of the ship and how it came to be where it is. In cases where history is vague, a few lines about how it was discovered and how often it is dived will be fine.

Essentials: A sizeable panel offering an 'at a glance' guide to the wreck. It should total 350-400 words and include brief information on the following:

1. Depth range: obvious data
2. Finding the wreck: GPS coordinates
3. Tidal information: When best to dive
4. Gas: What to use, where to get local fills
5. RIB launching: where?
6. Accommodation: you can recommend 1-3 local hotels/b&Bs
7. Food: you can recommend 1-3 local eateries
8. Blown out: what else to do in the area – one quick sentence and a url will be fine
9. Recommended charter boats

A choice of 5-10 photographs of the wreck is required. These should be saved onto a disc as full size jpegs (ie as big as they come out of the camera, not scaled down for internet) and the disc can be sent to the editor by arrangement.

## **Appendix 2: Emergency and Local Information**

In case of diving or boating related emergency contact Clyde Coastguard. At sea VHF channel 16. On land dial 999 and ask for Coastguard.

Phone number for BHA Diving Accident Helpline in Scotland 0845 4086008

Note although in open sea the VHF radio reception is good, in some of the backup sites the reception is quite poor. Mobile phone reception is variable around the island but improving and may well be better than VHF up in the Sea Lochs where many backup dives are planned.

Belfast Coastguard

Stornoway Coastguard general phone number: 01262 672317

### Nearest Hospitals with Accident and Emergency Department

Tiree Medical Practice, Baugh Surgery, Isle of Tiree, PA77 6UN. Tel: 01879 220323

Anything major likely to require evacuation to Oban A&E. Lorn & Islands District Hospital, Oban (A&E) - 01631 567500

Nearest recompression facilities (in order of proximity)

Category 2 Chamber: Dunstaffage, Oban, 01631 559211

Category 3 Chamber: University Marine Biological Station, Millport 01475 530581

Category 1 Chamber: Aberdeen Royal Infirmary, Fosterhill, AB25 2ZN. 0845 4086008

### Weather forecasts

Radio: Shipping forecast area Malin, Radio 4 at 0048, 0520, 1201 and 1754 (local time). All broadcasts are on LW on 1515m (198 kHz) and some transmissions are on VHF.

Web: <http://magicseaweed.com/>, <http://www.metoffice.gov.uk/weather/>

### Fuel

MacLennan Motors - 220555 - Pierhead – Scarinish

### Shops

Royal Bank of Scotland - 220307 – Scarinish

Surf Shop - 07712 159205 - Cornaigmore (near Loch Bhasapol)

Scarinish Main Post Office - 220301 – Scarinish -OPENING TIMES

Monday, Tuesday, Wednesday, Friday | 9am - 5:30pm

### Navigation:

Relevant charts to be identified from [www.wrecksite.eu](http://www.wrecksite.eu) and then procured from Admiralty Distributor Lilley and Gilley based in Newcastle Upon Tyne.

### Local gas supplies:

Ceabhar has a compressor. We will take a portable one to supplement/backup this one.

### Local Churches:

Baptist Church - 01879 220141 - Ian Tainsh

Sunday Services 11am at An Talla in Crossapol.

Evening worship 6:00pm - venues vary - please check.

For more information the Tiree Community Website has more details. See

<http://www.isleoftiree.com/>

### Appendix 3: Application Form

Title: Mr/Miss/Mrs/Other : .....

Name: .....

Permanent Address .....

.....Postcode.....

Telephone Number (Home): .....

Telephone number (Mob): .....

E-mail address: .....

BSAC Membership No ..... No of UK Dives .....

Diving qualifications.....

.....

#### What Skills or resources can you bring to the Expedition?

- |  |  |
|--|--|
| <input type="checkbox"/> Oxygen Administrator    | <input type="checkbox"/> Side scan sonar operator      |
| <input type="checkbox"/> First Aider             | <input type="checkbox"/> Can draw wreck layouts        |
| <input type="checkbox"/> Underwater photographer | <input type="checkbox"/> Prepared to help write report |
| <input type="checkbox"/> Underwater videographer | <input type="checkbox"/> Diver Coxen                   |
| <input type="checkbox"/> Marine biologist        | <input type="checkbox"/> Access to 4 x 4               |
| <input type="checkbox"/> Wreck research          | <input type="checkbox"/> Access to RHIB                |

Other .....

Your equipment configuration (e.g. single 12lt + pony, rebreather, twin 10lt etc)

.....

Next of Kin (and relationship e.g. Wife, Husband, Father, Mother):

Name: ..... Relationship .....

Telephone Number (Home): .....

Telephone number (Mob): .....

**THIS APPLICATION FORM IS SEALED IN AN ENVELOPE AND TAKEN ON THE EXPEDITION FOR  
OPENING IN CASE OF EMERGENCY.**

I confirm that the information given in this application form is correct, to the best of my knowledge, that I am fit to dive & that I will dive in accordance with the BSAC Safe Diving Practices.

Signature: ..... Date .....



## Appendix 4: Detailed cost breakdown

Estimated costs per person are shown in the Spreadsheet below.

<b>COST ESTIMATE</b>							
Number of Divers	7	Assuming full boat					
Number of Days Diving	8.5	Sat, Sun, Mon, Tue, Wed, Thu, Fri, Sat, Sun					
Number of nights in accommodation	9	Above nights					
Boat Fuel	£510.00	Assume £30 per day for boat					
Towing allowance	£100.00	Richard £50, Andy £50					
Additional towing fuel	£0.00	N/A					
Club Fees	£360.00	Club RHIB x £40 per day					
Private Member Boat Costs	£280.00	Richard's RHIB x £40 per day					
Charts and total tide software for area	£50.00	May need to get some more					
Air	£25.00	Estimate for fuel of centre's compressor					
Mooring & Launch Fees	£0.00	N/A					
Oil	£0.00	N/A					
Compressor Filters etc	£50.00	N/A					
Sand hopper wheel for RHIB trailer	£150.00	N/A					
Fuel Running around	£0.00	Included					
Food budget	£350.00	Assuming £50per head - meal out and self catering					
Vehicle Fuel for Round Trip	£444.67	See calculations below					
Accommodation	£1,000.00						
B&B accommodation on way up	£175.00						
Ferry Cost	£608.00	Car £52 return, Boat £78 each return, Adult £11.40 return 229 for 1 car, trailer and tow persons.					
<i>Cost Estimate of Other Costs</i>	<u>£4,102.67</u>						
<i>Per Diver</i>	<i>£586.10</i>						
<i>If grant funding available:</i>	<i>£1,000.00</i>						
<i>Total Cost per Diver</i>	<i>£443.24</i>						
<b>Fuel Cost Estimator</b>							
Mileage round trip	600	(500mile round trip plus 10miles per day on island average)					
Price per litre	£ 1.45						
Miles per litre (not towing)		9					
Number of cars not towing	1	Hubert, Kevin					
Cost fuel - non towing cars	£ 96.67						
Miles per lt (towing in)		5					
Number of cars towing	2	Andy, Fiona, Brian, Alex, Richard, Dave					
Cost fuel (towing vehicles)	£ 348.00						

## Appendix 5: Risk Assessment

This Risk Assessment is based on the BSAC's generic risk assessment for diving in open water and has been modified to include specific risks identified for the Expedition. Participants in the expedition are also expected to have read and understood the information given in the BSAC publication 'Safe Diving Practices'. The risk assessment will form the basis of briefings given by the Expedition Leader that aims to remind divers of the main safety points. The risk assessment will be monitored by the Expedition Leader to ensure that the risks identified are still valid. All divers however have interests in safety and so should highlight any hazards to the Expedition Leader that come to their attention.

### Generic and Specific Risks Considered for the Expedition Sites

Hazard	Who	Freq	Severity	Risk	Controls	Action if occurs
Rapid ascent	All divers	Occ	Fatal	High	Expedition Leader and core expedition divers to new expedition divers. Minimum level of diver expected = Advanced Diver.	Recover divers and assess. Administer oxygen and contact HMCG for medical advice/evacuation if required.
Separation from boat	All divers	Occ	Fatal	High	Skipper to monitor diver positions. All dive pairs marked by DSMB at end of dive.	Diver to deploy surface detection aids. Skipper to maintain lookout. Contact HMCG & commence search.
Deteriorating weather	All divers	Freq	Fatal	High	Diving planned using latest weather information. Weather conditions constantly monitored.	Diving cancelled or changed to back-up site by Expedition Leader. Diving in progress terminated.
Poor VHF coverage (in an emergency)	All divers	Freq	Fatal	High	Check with locals about radio blackspots particularly on backup sites. Check radio with HMCG on departure/leave details of plans and instructions with someone on shore.	Try mobile phone. Relay Message.
Nitrogen Narcosis	All divers	Freq	Fatal	High	Divers to ensure they have built up to depth immediately prior to expedition.	Assistance from buddy.
Diver Separation	All Divers	Rare	Fatal	Medium	Divers to dive in buddy pairs at all times. Carry surface detection aids (e.g. DSMD, Flag, Whistle, Torch)	Divers to surface advise surface cover. Re-establish contact and advise surface cover intentions.
Bad visibility	All Divers	Freq	Major Injury	Medium	Good finning technique to avoid stirring up bottom. Take bottom line for reeling off if poor visibility expected.	Dive to be abandoned in the event of adverse reduced visibility. Divers to surface and exit.
Contact with boat/propeller	All divers	Rare	Fatal	Medium	Skipper to ensure boats avoid divers. Divers to surface under DSMB.	Recover injured diver First Aid kit on boat.
Heart attack	All	Rare	Fatal	Medium	Medical self-declarations complete.	CPR. Dive Manager or Cox to contact Coastguard and arrange for medivac.
Running out of air	All divers	Rare	Fatal	Medium	Divers to record their air details and plans on the logsheet. Buddy pairs should ensure they have enough gas for the dive.	All divers carry AS.
Entanglement	All divers	Rare	Fatal	Medium	All divers carry appropriate cutting implement, e.g. line cutter, wire snips, diving knife, etc.	Assistance from buddy
DCI	All divers	Occ	Major injury	Medium	Plan & conduct divers correctly to tables &/or dive computers. Divers to stay hydrated.	Oxygen to be administered by trained divers. Contact HMCG & evacuate.
Food or other allergies	All Divers	Rare	Fatal	Low	Equipment leader to review application forms to check for reports of allergies. Advise cooks. Advise divers to bring own food if required	First aid on boat Notify Coastguard and hospitalise in cases of severe reaction.
Injury from other boats	All divers	Rare	Fatal	Low	Flag 'Alpha' flown while divers are underwater. Skipper monitors/warns surface traffic. Divers ascend under DSMBs.	First Aid kit on boat. Boat crew trained in First Aid.
Trips/Slips & Tumbles	All	Occ	Minor Injury	Low	Dive Manager to ensure boat is kept tidy by the divers. Take care on slip ways (clue to risk is in the name).	Remove casualty from danger and provide appropriate first aid. Contact HMCG and hospitalise, as required.
Jelly fish stings	All Divers	Occ	Minor Injury	Low	Look out for tentacles in the water and streaming from the shot line and avoid. Most divers stung across lips. Wear gloves.	First aid on boat (ensure vinegar and tweezers are carried). Notify HMCG and hospitalise in severe cases.