Wreck Hunters

A Yorkshire Regional Expedition to Develop Divers and Instructors

Expedition Aims

The purpose of this expedition is to facilitate divers from Yorkshire in preparing for National Instructor, First Class Diver and Advanced Instructor assessments and complete the AP2 section of advanced diver.

The expedition will be based around diving in the Cumbrae area with the aim of locating and diving new wrecks in the area and performing comparative marine life surveys on shallow sites round Little Cumbrae..

Background

In 2010 and 2011 the Yorkshire region ran development events to provide opportunities for divers to complete sections of the advanced diver syllabus that they had struggled with in branch and provide a vehicle for instructor and diver development at a high level. A third event is planned for the early May bank holiday weekend of 2012 to support divers in preparation for National Instructor, Advanced Instructor and First Class Diver assessments while allowing Advanced Diver trainees to complete the AP2 requirement.

The expeditions that have been run in previous years have been successful in developing divers from the Yorkshire Region who are pursuing higher qualification levels. The expeditions have helped prepare two national instructors and one first class diver; several advanced divers have been encouraged to attend the advanced instructor course and nine dive leaders have completed the AP2 section of the advanced diver qualification.

In earlier expeditions we have trialled the teaching of a range of survey techniques for wreck and marine life surveys and we are using the experience gained in previous exercises to allow us to assemble a team to locate and survey more adventurous sites.

Area Overview

Diving for the weekend expedition will be based around the Isle of Cumbrae. Eight potential wreck sites have been selected as possible dive sites. These sites were identified as charted wrecks about which some information is held on wrecksite.eu, none of the sites are regularly dived and there is little information available about them other than that taken from charts or wrecksite.eu. Details of these sites can be found in Appendix C – Dive Sites.

Over the course of the weekend two of these sites will be visited, surface and underwater searches performed to locate any wreckage and any findings logged. Selection of the two most appropriate sites to be dived as part of the weekend activities will be an exercise for the AP2, AI and FCD students.

The first dive of the weekend will be performed on a regularly dived wreck site on which wreck survey and mapping techniques can be taught and practised. This site is regularly visited by divers, but has been selected to provide suitable levels of

experience for divers wanting to achieve specific goals. Shallower second dives on each day will be conducted on sites around Great Cumbrae. These will be used to perform a marine life survey to identify the relative levels of the populations of selected species at specified locations. These surveys will be designed to be repeatable at these and other sites.

The sites selected as possible sites for the wreck location and survey project are not sites about which any information relating to previous dives has been identified. A survey was performed at the coordinates for the site of the Arab during the First Class Diver exam in August 2010 but no evidence of the wreck was found during this dive. In particular sites U1-U3 are unidentified wrecks and the team are not aware of any previous dives on the sites.

Diving is based from the water sports centre on Great Cumbrae where there is accommodation and facilities for filling cylinders.

Dive Platform

Diving will take place from two RIBs provided by members of the dive team. The two branch RIBS are equipped with radio, gps and echo sounder.

Travel

Divers will be coordinated into cars to facilitate car sharing wherever possible. RIBs will be towed by boat owners. All divers will cross to Great Cumbrae via the Largs to Cumbrae ferry. Ferries run until 2215, but any divers planning to catch the last ferry must contact Calmac to reserve a place.

Dates

The expedition will take place on the weekend of Friday May 4-Monday May 7, diving on May 5-7.

Costs

The budgeted cost of the trip is £190 per diver excluding personal travel costs and evening meals, this does include a contribution to towing driver's fuel costs of £0.15 per mile. A full budget for the trip can be found in Appendix B - Detailed budgets. It is anticipated that the BSAC expedition grant can be used to cover some costs of transporting and running RIBs for the expedition.

Accommodation

Self catering accommodation has been booked in one of the chalets at the watersports centre. This consists of 6 two bed rooms with shared used of lounge and other facilities. The accommodation will be available from Friday evening until Monday morning.

Breakfast, lunch and evening meals will be self catered. It has been decided to self cater evening meals on this event to allow additional time in the evenings for planning and other development activities.

Where possible divers will meet on the Friday evening on Cumbrae for a brief. Some divers may not arrive in time for the last ferry and will join the group on the Saturday morning.

Directions to Accommodation

Drive to Largs. Get ferry. Turn right.

Air and fuel

Air is available from a self service compressor at the watersports centre. Divers have unlimited access to this as part of the package provided by the centre. Divers will arrive with full cylinders of nitrox for first day of diving. Any diver requiring nitrox for day 2 will need to provide themselves with additional cylinders as none is available on the island.

Fuel for the ribs will be obtained from Largs marina.

Personnel

Pre-requisites

All divers must be comfortable diving up to 35m and diving in strong currents.

Personal equipment required

- Two cylinders per day (plus bailout)
- Alternate source (twinset/pony)
- dSMB and reel (red and yellow)
- Torch and backup torch
- Knife or shears

Expedition equipment

- Oxygen (therapeutic)
- Slates for survey recordings
- Shotline up to 40m.
- Tape measures, metre rules
- Reels, weights, lines
- Logsheets and clipboard
- First aid kit

Divers

The following divers will be on the expedition and their aims for the weekend are also detailed.

Name	Qualification	Aims	Roles	Branch	BSAC Roles
Louise Whitehouse	FCD/AI	NI Prep	Expedition leader, AP2 & FCD mentor	University of Leeds	Area Coach, branch instructor
Paul Beal	FCD/NI	Mentor	First Class Diver and NI mentor	University of Leeds	Area Coach, branch instructor
Nathan Molyneaux	AD/OWI	Task practise	Assistant technical coordinator	University of Leeds	Branch instructor
Chris Barr	DL/OWI	AP2	Assistant expedition leader	Leeds BSAC & University of Leeds	Diving officer, branch instructor
Caroline Porritt	DL/OWI	AP2	Assistant expedition leader	Scarborough/ Blyth	Branch instructor
Mark Robinson	DL	AP2	Recorder	Barnsley	Branch instructor
Steve Jowett	AD	FCD prep	Assistant survey manager/AP2 mentor	Wakefield	Area Coach, branch instructor
Matt Newbound	DL/OWI	AP2	Gas manager	Sheffield Hallam University	Branch instructor
Andy Turner	AD	FCD prep	Technical coordinator/ AP2 mentor	Doncaster	Area Coach, branch instructor
Adam Rhodes	DL	AP2	Boat manager	Manchester	Branch instructor
Chris Woods	AD	AI prep	Survey manager/AP2 mentor	Manchester	Branch instructor

In 2011 the final team did not include any divers working towards advanced diver or first class diver and although the resultant team were able develop their experience and skills with the support of the mentors the expedition lost some of its multi-layered developmental structure. It is hoped that this year with a team with a more varied skill set and range of requirements that experience and knowledge will be shared through a range of levels rather than just for advanced diver training. This

has always been the objective of these expeditions but last minute drop outs on the last occasion meant that the expedition strategy was somewhat simplified.

Launching and recovery

Boats can be launched from the watersports centre slipway. Once launched boats can be kept on the centre pontoon for the weekend.

Tidal Information

The planned weekend falls two days before spring tides, but this is not a greatly limiting factor as sites can be dived at most states of the tide.

Tides Greenock May 5-7 2012.

Day	Time (BST)	Height (m)
Saturday May 5 2012	05:30	0.3
	12:23	3.6
	17:56	0.1
	00:52	3.6
Sunday May 6 2012	06:21	0.1
	13:15	3.7
	18:45	0.0
Monday May 7 2012	01:40	3.7
	07:10	0
	14:05	3.7
	19:32	0.0

Tidal stream information (using tidal diamond D on chart) indicates that the time period HW+4 should be avoided for dives requiring slack water. This correlates with 15:53-16:53 on Saturday, 16:45-17:45 on Sunday and 17:35-18:35 on Monday so is unlikely to prove to be an issue.

RIBS will be launched on Saturday morning. This is possible roughly two hours either side of low water which means that launch should be possible for 07:30 on Saturday. Recovery will be mid-afternoon on Monday shortly after high water, so no problems are anticipated.

Daily Dive Plan

An overall plan for the scope of the expedition has been defined. This plan is likely to be flexible based on conditions on the day and final diver requirements.

Day	Site	Exercise	Teaching/Learning Opportunities
Saturday	Beagle	Basic outline survey of wreck and overview of life	Planning of wreck mapping Allocation of tasks Use of equipment Reporting of results of survey
Saturday	Little Cumbrae A	Marine life survey	Design, deployment and use of search rig Design and appraisal of search techniques Use of initial survey to identify appropriate species for more detailed survey at multiple sites
Sunday	Site 1	Site location, search, initial survey	Site location techniques, underwater search techniques, allocation of tasks, use of equipment
Sunday	Little Cumbrae A & B	Detailed marine life survey	Design, deployment and use of search rig Design and appraisal of search techniques
Monday	Site 2	Site location, search, initial survey	Site location techniques, underwater search techniques, allocation of tasks, use of equipment
Monday	Little Cumbrae C & D	Detailed marine life survey	Design, deployment and use of search rig Design and appraisal of search techniques

The detailed structure of the surveys to be performed will be planned and designed by the first class and advanced instructor preparation group over the course of the weekend under the supervision of the mentor group.

Dive Logistics

A maximum of 1 hour has been allowed for each wave of divers. It is expected that divers will dive in a rolling wave the second wave of divers entering the water in turn as wave one surface. At least two divers will remain on each RIB at any time to act as boat handlers and surface cover.

Each site will be marked with a top tension shot lines deployed up-tide of the wreck and a position recorded for each dive site. These positions will be used as a reference point for the survey work.

Survey Techniques

Wreck surveys 1

Basic wreck survey. Initial sketch completed by Teams 1 and 2. Some measurements and depths plotted. This then handed over to teams 3-5, areas for detail added to create a basic wreck plan with some details.

Wreck survey 2 & 3

Surface search techniques will be used in the vicinity of the chosen mark and the best location for a search for wreckage identified. The dive team will then conduct an underwater search for wreckage and record any data found.

Marine life survey 1

The sites for this exercise will be selected by the First Class Diver and Advanced Instructor group as part of their task preparation. Four sites will be selected to roughly the north, south, east and west of Great Cumbrae.

An overview survey in four directions from a fixed base point on a single site. Dive teams will record any species seen along a single transect. The results of this survey will be used to select species for a more detailed survey at four sites round Little Cumbrae.

Marine life survey 2 & 3
Three species observed on survey one will be selected and their density surveyed at four sites (two on each afternoon) the protocol for this survey will be designed to be repeatable at each site and at a later date to allow for monitoring of species over time.

Diver and Instructor Development

In addition during the course of the expedition it is expected that where relevant divers will gain experience of boat handling, site location and equipment deployment.

All the opportunities detailed above will be used as opportunities to do, teach and teach others to teach.

The survey work will give experience in handling tape measures, underwater signals and provides teaching opportunity areas for teach group coordination, equipment management, risk assessment and search design.

Daily timetable

The timetable below shows details for each planned day of diving. Following on from the expedition run in October 2011 it was felt advisable to allow a one hour dive time for the first dive of each day. This will allow greater time for time on the dive site as well as performance of any survey work on the wrecks while still allowing sufficient time for planning activities in the evenings. The timetables for Sunday and Monday may be adapted dependent on the final selection of sites and structure of surveys to be carried out.

Activity	**Saturday**	**Sunday**	**Monday**
Meet	08:00	08:30	07:15
Leave jetty	09:15	09:15	07:45
Arrive site 1	09:45	09:45	08:15
Wave 1 enter water	10:15	10:15	08:45
Wave 1 leave water	11:15	11:15	09:45
Wave 2 enter water	11:30	11:30	10:00
Wave 2 leave water	12:30	12:30	11:00
Leave site 1	12:45	12:45	11:15
Arrive site 2	13:15	13:15	11:45
Wave 1 enter water	13:30	13:30	12:00
Wave 1 leave water	14:15	14:15	12:45
Wave 2 enter water	14:30	14:30	13:00
Wave 2 leave water	15:15	15:15	13:45
Leave site 2	15:30	15:30	14:00
Arrive jetty	16:00	16:00	14:30
Unload, fill cylinders, plan	16:15	16:15	
Dinner	19:30	19:30	
Depart			15:30

Daily Rota

Roles will be assigned each day to provide suitable levels of experience across the three boats

	Dive manager	**Ass dive manager**	**Cox**	**Boat handler**
Louise Whitehouse			Sat	Sun
Paul Beal			Mon	

	Dive manager	**Ass dive manager**	**Cox**	**Boat handler**
Nathan Molyneaux				Sat
Chris Barr	Sat	Mon		
Caroline Porritt	Sun	Sat		
Mark Robinson	Sun	Sun		
Steve Jowett			Sat	
Matt Newbound	Mon	Sat		
Andy Turner			Mon	
Adam Rhodes	Sat	Sun	Sun	Sun
Chris Woods			Sun	Sat

Planning and preparation activities for each day have been allocated across the team.

	Dive planning	Task planning	Mentoring	Filling Cylinders	Prepare Lunch
Louise Whitehouse			Fri/Sat/Sun		
Paul Beal			Fri/Sat/Sun		
Nathan Molyneaux		Fri/Sat/Sun		Sat	Sat
Chris Barr	Fri/Sat/Sun			Sun	Mon
Caroline Porritt	Fri/Sat/Sun			Sat	Mon
Mark Robinson	Fri/Sat/Sun			Sun	Sat
Steve Jowett		Fri/Sat/Sun			Sun
Matt Newbound	Fri/Sat/Sun			Sun	Sun
Andy Turner		Fri/Sat/Sun			Mon
Adam Rhodes	Fri/Sat			Sat	Sat

	Dive planning	Task planning	Mentoring	Filling Cylinders	Prepare Lunch
Chris Woods		Fri/Sat/Sun		Sat	Sun

Preparation

The five divers working towards AP2 met in April to plan the diving and timelines for Saturday and commence working on the detailed logistics for the expedition. The divers are currently researching the proposed sites for Sunday and Monday and these will be selected and the final daily plans updated during the weekend to allow learning from the experience on each day.

The advanced instructor/ first class diver group are due to meet on Wednesday Aril 23 to plan the structure of the surveys to be performed and identify areas for teaching opportunities and additional development. The outcomes of this session will be built into the final plan.

Reporting the expedition

A log of activities will be maintained during the weekend and this will be used to generate a report and presentation. The report will appear in the Yorkshire regional newsletter and the presentation delivered at the Yorkshire region conference.

The expedition run to Cumbrae in October 2011 was reported in a presentation at the Yorkshire regional conference in March 2012 and the sections from the report appeared in the Yorkshire regional newsletter.

Appendix A – Risk Assessment

This risk assessment is based on the BSAC generic risk assessment for open water diving and has been modified to include specific risks identified for the expedition to Cumbrae in May 2012. Participants in the expedition are also expected to dive within the guidelines of 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.

Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Entanglement in lines and/or underwater obstructions	Everyone	Rare	Medium	Medium	Dive Manager to brief about hazards appropriate to site Divers to carry appropriate cutting implement.	Assistance from buddy/buddies. Surface cover to mount rescue as necessary.
Ear damage	Everyone	Occasional	Moderate	Medium	Divers not to dive if suffering a cold or is unable to 'clear ears' at surface.	Assistance from buddy. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Equipment failure	Everyone	Rare	Moderate	Minor	All equipment is kept serviced and maintained to manufactures and/or British/European Standards. All divers to carry out a 'buddy check' prior to entering water.	Assistance from buddy. Kit to be removed/replaced as necessary. Abort dive if unable to resolve problem.

Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Running out of gas	Everyone	Occasional	Fatal	High	All SCUBA sets fitted with cylinder pressure gauges. Monitoring by buddy/buddies. All divers are to return to the surface with 50 bar in the cylinder.	All divers carry an Alternate Source which maybe used by another diver. If decompression stops are required signal surface and a cylinder can be sent down.
Trips and slips	Everyone	Occasional	Minor	Medium	Dive Manager to brief all divers about risks appropriate to site.	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Diver separation	Everyone	Occasional	Medium	Medium	Divers to dive in buddy pairs at all times. Contact to be maintained throughout the dive. Dive Manager to brief separation procedure.	Divers to surface following separation procedure. Surface cover to mount search and rescue as appropriate along with notifying coastguard. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Reduced underwater visibility	Everyone	Frequent	Medium	Medium	Dive Manager to brief about visibility conditions at start of day and to monitor during day. Divers to use a buddy line as necessary.	Divers to abort all diving if visibility becomes dangerous.

Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Decompression illness	Everyone	Occasional	Major	Medium	Dives planned and conducted in accordance with a dive computer or decompression programme. Dives planned to be logged with dive manager All divers equipped with a dive computer to monitor decompression requirements. Backup monitoring equipment and decompression plan to be carried by all divers. Where decompression is accelerated this must be conducted in line with training. A safety stop of 5 minutes will be performed in addition to any compulsory decompression.	Surface cover to mount search and rescue as appropriate along with notifying site staff. First aid to be applied as necessary by qualified personnel. Seek further medical advice as appropriate. Evacuation to medical facilities, as necessary.
Weather	Everyone	Frequent	Medium	Medium	Diving planned using latest weather information. Weather conditions constantly monitored by Dive Manager.	Dive Manager to cancel diving as necessary using recall procedure.

Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Exposure to weather	Everyone	Occasional	Minor	Low	Dive Manager to brief people in advance of trip to bring suitable clothing. Dive Manager's day brief to warn divers of risks and to take appropriate action.	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Dehydration	Everyone	Rare	Medium	Low	Dive Manager to brief all divers about staying hydrated, Water/Squash provided to encourage divers to keep hydrated.	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Injury from falling Equipment	Everyone	Rare	Moderate	Low	Monitoring and assistance from buddy/buddies.	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities.
Panic	Everyone	Rare	Minor	Medium	Divers to monitor buddy/buddies before and during dive for signs of nervousness and/or stress.	Surface cover to render assistance as necessary. Abort diving as necessary.
Drowning/near drowning	Everyone	Rare	Major	Low	Divers to retain 2nd stage in mouth whilst in water. Buoyancy Aid to be fully inflated at surface. Buoyancy Aids to be worn at all times when on Rigid Inflatable Boat.	Surface cover to mount rescue as appropriate along with notifying site staff. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities.

Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Fast ascent	Everyone	Frequent	Medium	Medium	Divers competent with equipment they use. Divers to practise regularly with kit. Divers to conduct regular checks to insure no faults are present with kit.	Surface cover to ensure trainee is safe, render assistance as necessary. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Separation from boat	Everyone	Rare	Moderate	Medium	DM to monitor conditions before and during dive. Divers to return to surface using a Delayed Surface Marker Buoy. Divers logged in and out of water.	Surface cover to mount search and rescue as appropriate. Notify coastguard as necessary. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Contact with propeller and/or boat	Everyone	Rare	Major	High	Boat to be skippered by trained personnel. Skipper to brief divers regarding boat procedures.	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Injury from other boats	Everyone	Rare	Major	High	Boat to use A-flag when divers in water. Divers to surface using DSMB. Lookout to monitor other surface traffic. Radio contact with other boats to warn them off if necessary. Position of boat to protect divers	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.

Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
RIB Entry and Exit	Everyone	Rare	Minor	Low	Skipper to brief divers about entry and ext procedures. Assistance from other divers.	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Nitrogen Narcosis	Everyone	Occasional	Moderate	Medium	Depth experience to be increased gradually over course of diving. Monitoring from Buddy.	Ascend as necessary until effects reduce or stop. Abort diving if narcosis becomes a danger to diver's or buddy's health.
O_2 Toxicity	Everyone	Rare	Major	High	Partial Pressure of O_2 not to exceed 1.4 for dive gas and 12.6 for decompression gas. Diver to monitor buddy/buddies during dive.	Divers to abort dive. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Carbon Monoxide poisoning	Everyone	Rare	Moderate	Medium	Cylinders filled from compressor which has been constructed and tested in accordance with the Pressure Systems Safety Regulations (2000) and SCUBA Industries Trade Association Recommendations.	Divers to abort dive if they detect anything at fault with the breathing gas. First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.

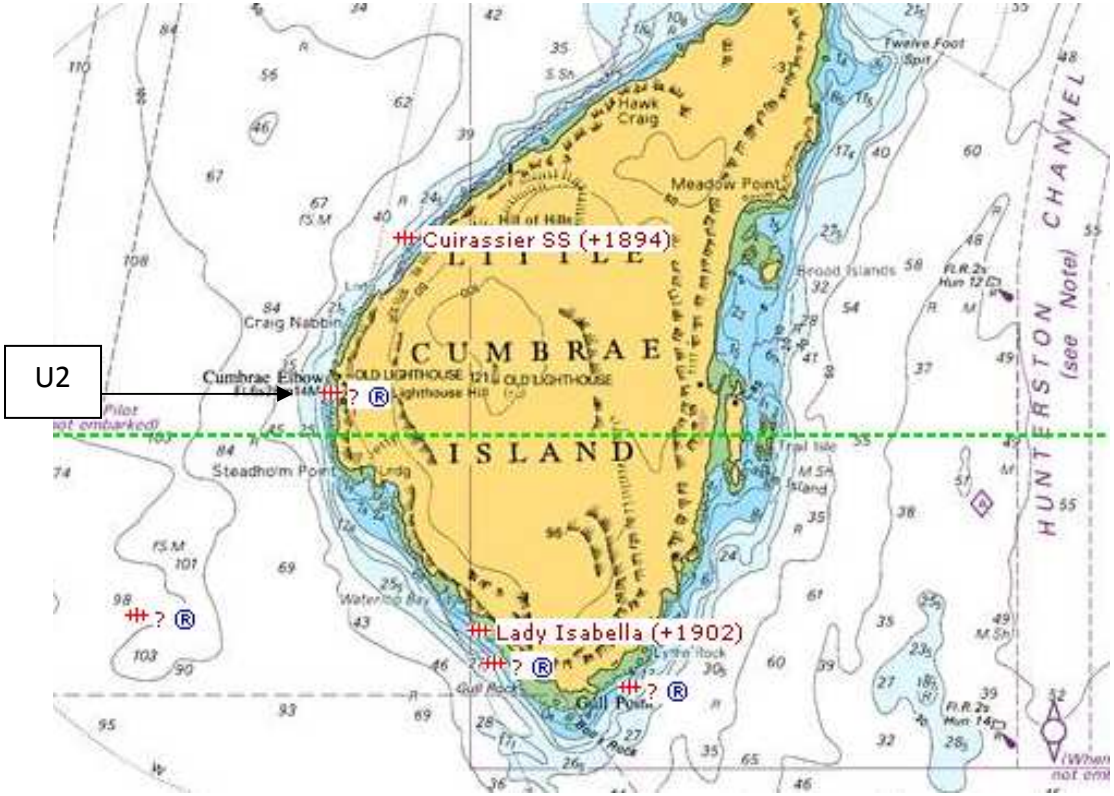
Hazard	Who	Frequency	Severity	Risk evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Carbon dioxide poisoning	Everyone	Rare	Moderate	Medium	Equipment to be serviced and in good working order Dives to be planned to be conducted in low stress conditions where possible.	Divers to relax and control breathing Abort dive if symptoms continue First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Injury due to lifting heavy equipment	Everyone	Occasional	Moderate	Medium	Equipment to be lifted with care and help requested where appropriate	Secure equipment First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities, as necessary.
Heart attack	Everyone	Rare	Fatal	Minor	All divers to submit a medical self-declaration or dive medical completed by appropriately qualified staff (Dive doctor registered with either the HSE or UKSDMC).	First aid to be applied as necessary by qualified personnel. Evacuation to medical facilities.

Appendix B - Detailed budgets

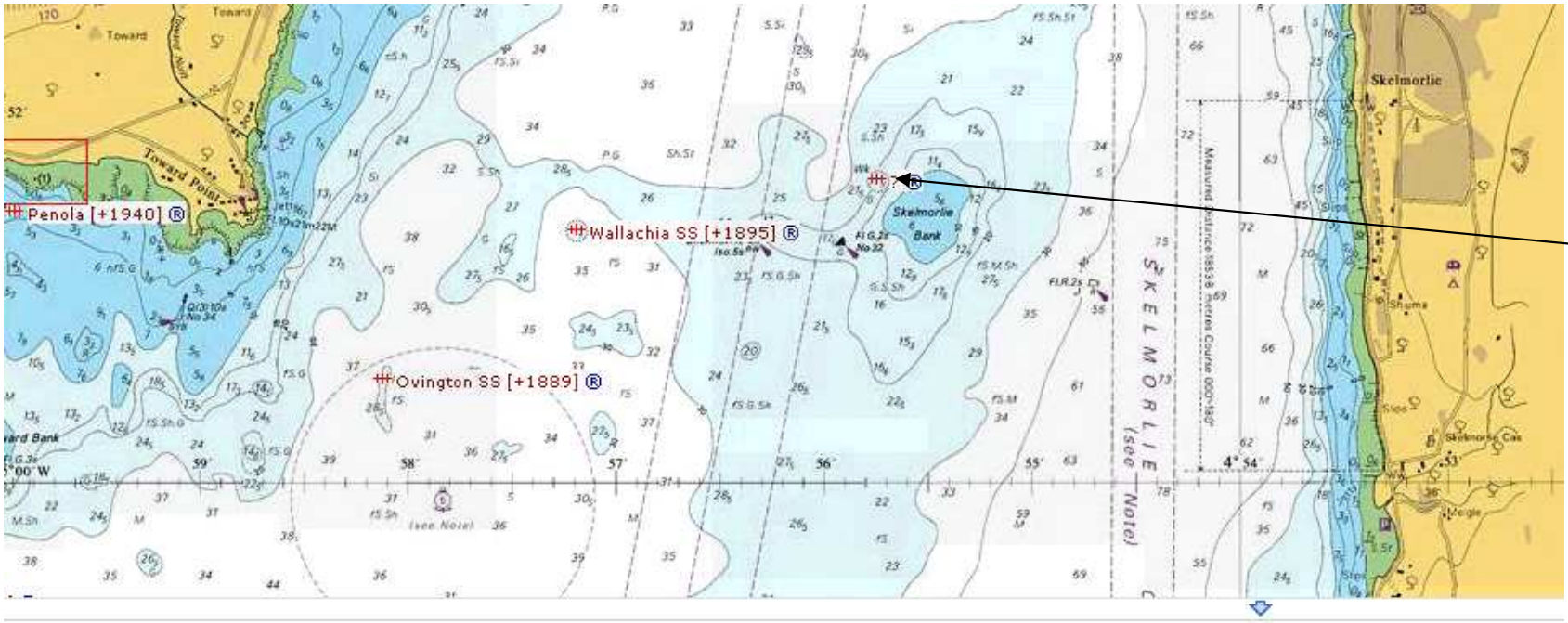
Cost	Amount(£)	Cost per diver (11 divers) (£)
Bed and breakfast (£30 per night)		82.64
Unlimited air (£7.50 per day)		22.50
Food		25.00
Sub Total		**130.14**
Total RIB fuel (£75 per day)	450.00	40.91
Ferry (£34 per boat)	68.00	6.18
Towing fuel supplement	160.00	61.64
Total	678.00	
		191.77

Appendix C – Dive Sites

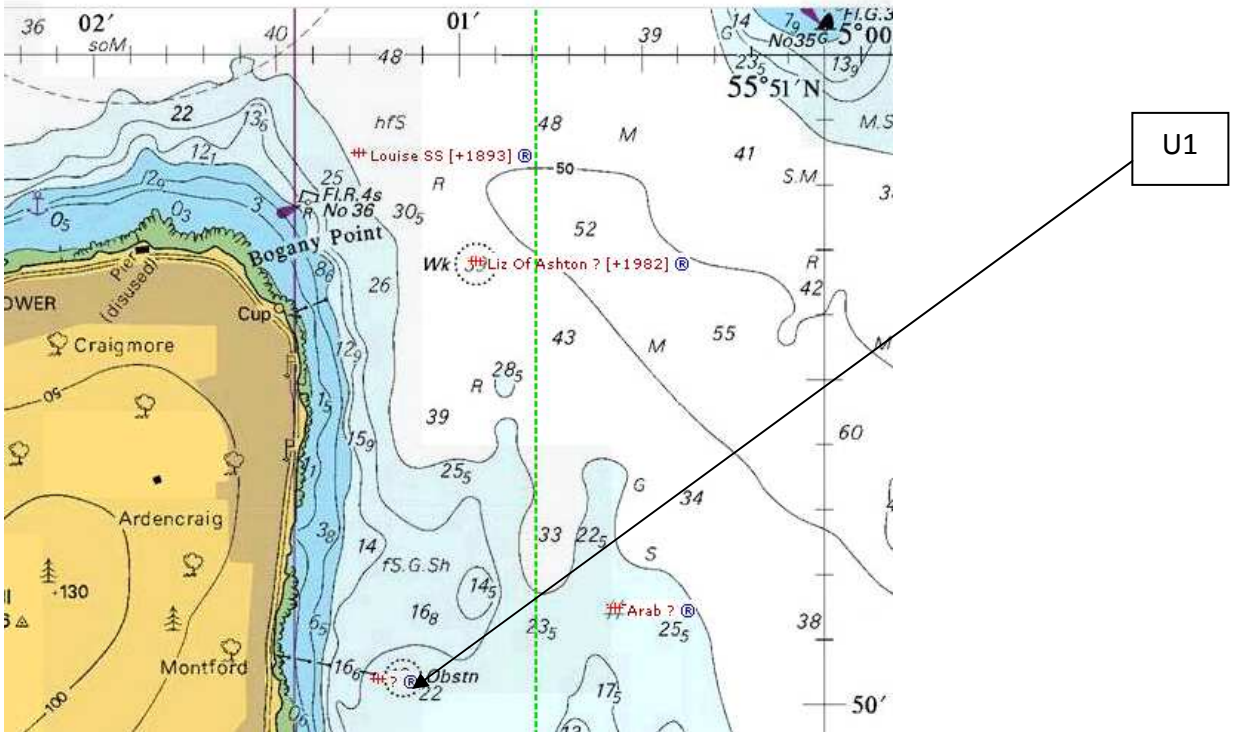
Name	Depth (m)	Lat	Lon	System	Reliability	Notes	Source
U2	12	55°43.229' N	004°58.078' W	WGS90	gps 0~10m	**H1286/75 4.8.75 WRECK OF TENDER, OR BARGE, LIES IN 554314N, 045800.5W [OGB]. LIES BETWEEN 8-9FMS ON GENTLY SLOPING SEABED OF MUD AND SILT. LIES DIRECTLY IN LINE WITH OUTFALL PIPE, 40FT FROM SHORE. ONLY METAL HULL REMAINS PROJECTING 7-8FT ABOVE BOTTOM AND COVERS AN AREA 50FT X 12FT X 8FT. LOOKS LIKE A TENDER OR BARGE. (A LAW, DTD 31.7.75). **H1287/76 WK LIES UPRIGHT IN ABOUT 40FT OF WATER. SEABED FLAT, SANDY MUD WITH A MODERATE SLOPE. LIES OFF LITTLE CUMBRAE LT HO ABOUT 40FT FROM SHORE, DIRECTLY IN LINE WITH AN OUTFALL PIPE. LENGTH 45FT, WIDTH 15FT, HT 8FT. BOWS SHARP, STERN SQUARE. THERE IS A FOC'SLE IN THE BOWS, WITH PORTHOLES, A SMALL HATCHWAY AND ENGINE COMPARTMENT IN STERN. DECK FLAT, NO SUPERSTRUCTURE. METAL OF HULL BADLY CORRODED. THOUGHT TO BE A TWIN SCREW RAF REFUELLING MOTOR BOAT. (C EASTON, UNIVERSITY OF GLASGOW). **11.12.80 DESCRIBED AS TWO WWII AMMUNITION BARGES IN 12MTRS. (BSAC WK REGISTER, VOL III). **H2885/83 12.5.86 NOT FOUND DURING SURVEY, BUT NOT SEARCHED FOR. (HMSML GLEANER, HI 165C). POSITIONS BELOW THIS POINT ARE IN DEGREES, MINUTES AND DECIMALS OF A MINUTE	UK Hydrographic Office


U2
Cuirassier SS (+1894)
Lady Isabella (+1902)
CUMBRAE
LITTLE
ISLAND
Cumbrae Elbow
Lighthouse Hill
Steadholm Point
Craig Nabbin
Hawk Craig
Meadow Point
Broad Islands
Gull Point
Gull Rock
Waterloo Bay
Twelve Foot Spit
HUNTERSTON CHANNEL
(see Note)
Pilot not embarked

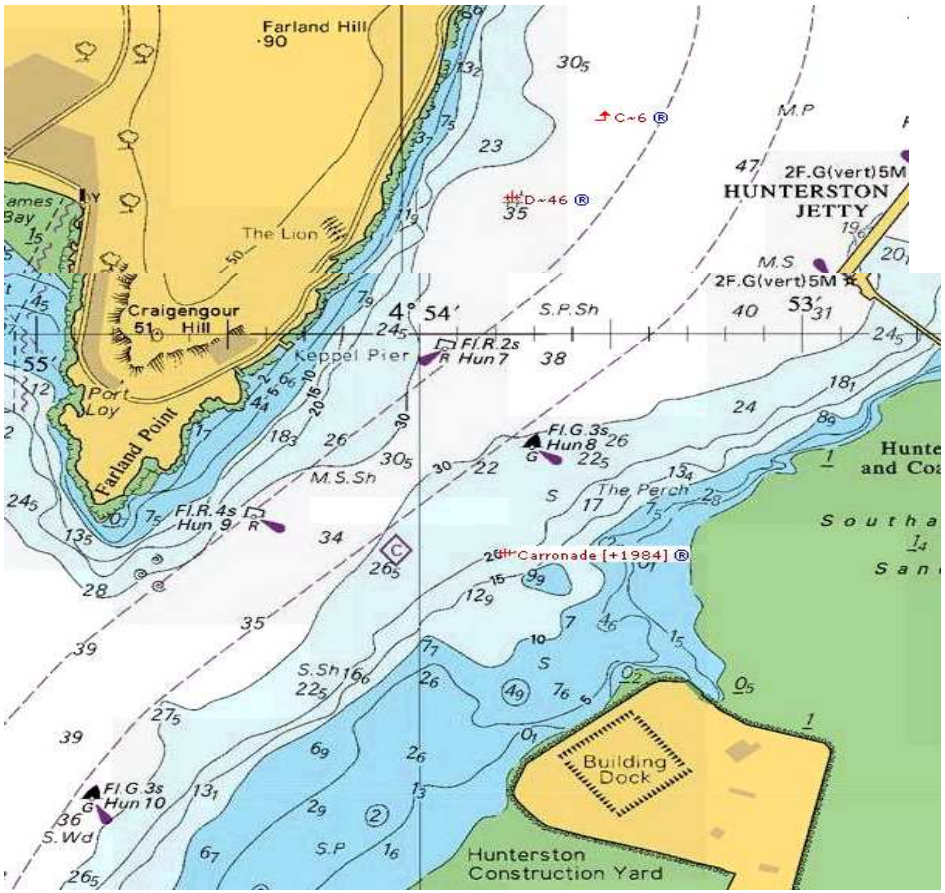
Name	Depth (m)	Lat	Lon	System	Reliability	Notes	Source
U3	18	55°51.812' N	004°55.737' W	WGS91	precise 10m~40m	**H2885/83 12.5.86 EXAM'D 29.6.85 IN 555149N, 045540W [OGB] USING TRISPONDER [2 LOP]. LEAST E/S DEPTH 14.9 IN GEN DEPTH 18MTRS. NO SCOUR. DCS3 HT 3MTRS, LENGTH 10MTRS. LYING ON STEEPLY SHELVING SEABED, ORIENTATED 000/180 DEG. NOT FULLY EXAM'D. (GLEANER, HI 165C). BR STD. **H4065/85 19.2.87 EXAM'D 26.6.86 IN 555149N, 045539W [OGB] USING TRISPONDER [2 LOP]. LEAST E/S DEPTH 15.9 IN GEN DEPTH 17 TO 19MTRS. NO SCOUR. DCS3 HT 2.5MTRS, LENGTH APPROX 25MTRS. INTACT, LYING 015/195 DEG. (HMS HECLA, HI 322). NCA.	UK Hydrographic Office



Name	Depth (m)	Lat	Lon	System	Reliability	Notes	Source
Arab	25	55°50.145' N	005°00.570' W	WGS84	gps 0~10m	**NO PREVIOUS RECORD. **F SHOWN IN 555009N, 050030W ON 1907. (DATE NOT RECORDED). **24.6.82 SHOWN AS FOUL ON NE 2131. **H1310/83/14 21.3.83 COULD BE WK OF WOODEN SMACK ARAB. (P MOIR). **H2885/83 12.5.86 NOT FOUND DURING SURVEY, BUT NOT SEARCHED FOR. (HMSML GLEANER, HI 165C).	UK Hydrographic Office
SS Louise	35	55°50.845' N	005°01.269' W	WGS88	unreliable	**H1310/86/36 22.12.86 FOUNDERED ABOUT 200MTRS NE OF BOGANY POINT BUOY. (P.J. MOIR, 26.11.86). NCA YET, POSN 555051N, 050112W [OGB] FOR FILING ONLY.	UK Hydrographic Office
U1	21	55°50.035' N	005°01.219' W	WGS89	Quality: Precisely known	**HH274/510/05 19.2.03 DIFFUSER, LEAST DEPTH 18.1MTRS, IN 5550.04N, 0501.15W [OGB]. (WEST OF SCOTLAND WATER). - NM 1123/03. POSITIONS BELOW THIS POINT ARE IN DEGREES, MINUTES AND DECIMALS OF A MINUTE **30.1.03 EUT POSN: 5550.036N, 0501.220W. NE 1906.	UK Hydrographic Office



Name	Depth (m)	Lat	Lon	System	Reliability	Notes	Source
Carronade [+1984]	20	55°44.596' N	004°53.770' W	WGS86	bad >1km	**H4458/80 3.9.84 SANK WHILE UNDER TOW BY PILOT CUTTER. PLOTS IN 20MTRS OUTSIDE HUNTERSTON CHANNEL. SHOULD BREAK UP. (TELEX DTD 29.8.84). NCA, POSN 554436N, 045342W FOR FILING ONLY.	UK Hydrographic Office
D46	35	55°45.246' N	004°53.704' W	WGS87	gps 0~10m	**H3081/73 8.6.73 SWAMPED MOORING D46 IN 554516N, 045341W [OGB]. (RNO GREENOCK, HN 6/73). INS AS FOUL. - NM 1051/73. POSITIONS BELOW THIS POINT ARE IN DEGREES, MINUTES AND DECIMALS OF A MINUTE	UK Hydrographic Office



Site for practise of initial survey techniques

Name	**Beagle**
Location	47.309N 4 56.636W
Distance (nm)	2.6
Travel time (min)	15
Max depth (m)	33-38
Notes	Built by Tod McGregor in Partick Glasgow the Beagle was a 454gt iron steamship, working as a small cargo passenger ship between Belfast and Glasgow. Launched 1864, she was involved in a collision with the steamer Napoli off the Gt Cumbrae in 1865 at skate Point and sunk quickly in Nov1865. Orientation: Approx. 170/350 and sitting on an even keel, stern pointing NW. Superstructure has largely collapsed but the hull remains intact. Her anchor can be found on the seabed just off the bow on the starboard side. Considerable amount of life on the wreck. Generally dark with poor vis.

Appendix D – Emergency and Local Information

In case of diving or boating related emergency contact :	
Clyde Coastguard	(01475) 729 988 MMSI 002320022 At sea use DSC followed by a call to VHF channel 16. On land dial 999 and ask for coastguard.
BHA diver helpline	0845 4086008
Nearest recompression facilities	
Category 2	Dunstaffage, Oban, 01631 559211
Category 3	University Marine Biological Station, Millport 01475 530581
Category 1	Aberdeen Royal Infirmary, Fosterhill, AB25 2ZN, 0845 4086008
Weather forecasts	
Phone	Marinecall inshore waters: Mull of Galloway to Mull of Kintyre including the Firth of Clyde and North Channel 09068 500 463
Radio	Shipping forecast area Malin, Radio 4 at 0048, 0520, 1201 and 1754 (local time). All broadcasts on LE on 1515m (198 kHz) and some transmissions are on VHF
Web	http://metoffice.gov.uk/weather