UNIVERSITY OF LONDON SAC BSAC 0069

Isle of Skye 2014 – Expedition Report

Alison Niewiarowska, Expedition Leader
Michelle Kim, Expedition Mentor

With thanks to:-

- Dive and Sea the Hebrides for the warm welcome and invaluable local knowledge
- BSAC for the award of a BEGS grant
- University of London for their continued support

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Introduction

Purpose

ULSAC0069 has been a University BSAC club since 1958. The club is in a transitionary phase, having recently lost a few of its core experienced members. The few remaining Advanced Divers and instructors have been struggling to up-skill the junior members in order to future-proof the club. There was an urgent need to support junior members in becoming boat handlers, dive managers, practical rescue managers, Dive Leaders and Advanced Divers in order to run dive trips safely and effectively. This has required a huge amount of commitment from the remaining instructors and Advanced Divers, and a dedication to training of the upcoming Dive Leaders and Dive Leader trainees to take ownership of their club.

For the purpose of up-skilling members and in order to create a healthy BSAC branch with future leaders, it was decided to organise a BSAC expedition for late summer 2014. Following on from the success of a BSAC expedition to Guernsey in 2011 and an adventurous trip to Croatia in 2014, ULSAC gained the confidence to plan and co-ordinate a challenging expedition. It was decided that the destination that would allow ULSAC to invest most in the clubs ability to be an independent UK diving branch, using its own RIB, would be the Isle of Skye in Scotland. This gave us the motivation to run two boat handling courses to enable expedition members to learn and experience driving the club RIB. The primary purpose of this expedition to the Isle of Skye was to explore unknown dive sites to the club, albeit regularly dived, and to also locate new and interesting scenic dives that are not described in diving literature. The aims of the expedition were:

- To explore a challenging dive destination that was unknown to trip members.
- To conduct a week of challenging diving that would give members of the expedition the opportunity to dive manage, increasing members' competencies and confidence in this crucial skill set. This trip provided divers from Sports Diver through to First Class the opportunity to develop themselves. The diving was primarily safe but challenging diving in a dive location that was completely new to all team members.
- To identify and explore previously undived scenic sites.
- To enhance the diving skills of trip members under more adventurous conditions than they were accustomed to, increase their confidence not just with respect to their diving but also in working as a team to make such a complex expedition successful.
- To assist 1 trainee First Class Diver, 4 trainee advanced divers, 4 trainee Dive Leaders progressing towards their next diver grade.
- Cascade skills from First Class Diver level through to Sports Diver with a view to this translating back to their branch.
- To be self-sufficient in terms of boats, food, accommodation and other equipment.
- Promote expeditionary diving and diving in the Isle of Skye as a dive location to the wider diving community.

Location

The Isle of Skye is a remote and isolated dive location, free from the usual shipping channels of busier ports. Initial research indicated that the Isle of Skye was a perfect site for exploratory diving and is remote and unspoilt. Marine life that was seen on the trip included minke whales, dolphins, porpoises, seals, corkwing wrasse, conger eels, octopuses, lobsters, crawfish, jellyfish, crabs among others. The Isle of Skye is known for

having beautiful and breath-takingly stunning scenic diving, but the sites also have good visibility, in part thanks to the strong currents around the island. This has created dive sites with diverse marine life and clear waters, with the opportunity of exhilarating drift dives. However, the fast currents mean that the diving was challenging, with strong currents meaning that certain sites including wrecks must be dived during slack water. These conditions required careful and thorough dive planning.

Our base for the expedition was in the small village of Waternish (Stein) on the west coast of Skye overlooking the Little Minch which separates Skye and the mainland from the Outer Hebrides. We selected this location simply because we do not own our own compressor and thus needed easy access to a filling station. A simple online search for dive centres in Skye quickly shows there is only one (Dive and Sea the Hebrides) and that it conveniently also provides self-catering accommodation.

Expedition Management

Planning of the expedition was led by Alison Niewiarowska with guidance from expedition mentor Michelle Kim. The entire team met several weeks before the trip to thoroughly plan possible dive sites and logistics and tasks were shared equally between members. Overall management of tasks was carried out by Alison Niewiarowska. Alison Niewiarowska assigned dive managers (DMs) for each days diving, utilising the more experienced team members to act as assistant dive managers in order to guide the newer DMs.

The following rota was created showing each team members' roles and responsibilities during the week.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Ali N	DM	L	C	WU	B	DM
Andy	C	B	DM	B	DM	
Ali G	ADM	C	WU	C	ADM	
Michelle	WU	ADM	C	C		ADM
Hannah	B	DM	WU	ADM	L	
Karen	WU	C	L	WU		
Henry	L	WU	B	DM		
Natalie	C	WU	ADM	L		

Dive Manager	DM
Assistant Dive Manager	ADM
Refuel Boat	B
Pack Lunch/Put Lunch Away	L
Cooking	C
Washing Up	WU

Pre-expedition Planning Meeting

A planning meeting was held on Saturday 10th August 2014 in London. This was an opportunity for the whole team to get involved in selecting, researching and planning dive sites. The group was split into 2, with one group focussing on chart work, and the other on dive site research, logistics management and risk assessment. The groups rotated between these 2 areas.

Following conclusion of the meeting, a detailed list of actions and owners was circulated.

Who	Action
Dive Managers:- **Hannah Holdcroft** **Vedika Mehra** **Henry Mosey**	Send the expedition leader a full written brief (based on SEEDS) within two weeks, an email with more details of major points to consider will follow shortly.

Ali Niewiarowska **Andy Niewiarowski**	
[2]Michelle Kim ***Expedition Mentor***	Update expedition plan with corrections. Tows boat, drives van and MPV. Boat Cox'n.
[4]Ali Gaudion	Check First Aid kit, replace expired items, and add additional items appropriate to remote site as discussed. Tows boat, drives van and MPV. Boat Cox'n.
[5]Ali Niewiarowska ***Expedition Leader***	Circulate kit list. Ensure all tasks are delegated and keep track they are done. Dive manages first and last day of diving. Writes an article for SCUBA on the expedition for publication. Drives van.
Natalie Reeder ***Boat co-ordinator***	Liaise with Dave Pearce (ULSAC Boat Officer) to check the RIB in a ready condition for a week's outing. Check the grease gun functioning and the life jackets at Chiswick primed and ready to use. Ensures all correct boat kit is loaded into van and MPV and brought home after trip.
[1]Eunsook Park ***Head Chef***	Puts together a food cooking rota and washing up rota for the week. Puts together a shopping list and a menu list for the week. Send drafts to Hannah H. Has already booked secondary accommodation.
Henry Mosey ***Expedition Kit Officer***	Checks Andy's compiled kit list for boat and club kit. Ensures correct kit is loaded into van and MPV and brought home after trip. Ensures club kit is signed out to specific people and kit numbers are recorded. Ensures kit is signed back in. Prints off all trip paperwork, SOLAS sheets, dive management sheets, dive day schedules (list of all paperwork on kit list attached). Dive manages one day's diving.
[3]Andy Niewiarowski ***Expedition Treasurer***	Collected deposits, booked dive centre, paid dive centre, paid secondary accommodation. Dive manages one day's diving. Drives minibus, drives van. Check if dive centre has nitrox and accommodation has 3G/wifi.
[1]Vedika Mehra ***Dive Site Information Coordinator***	Records information about dive sites dived for trip reporting. Includes collecting all dive management sheets after each day and typing them up post-trip. Dive manages one day's diving.
Hannah Holdcroft ***Expedition Training Officer***	Ensures training needs of trip members are met. Particularly boat handling skills, dive site location skills. Mentors Eunsook with food duties and Karen with van booking. Dive manages one day's diving. Drives minibus, drives van.
Karen Ho ***Expedition Website Co-ordinator***	Maintains a daily blog on the trip and takes photos for blog and for trip reports. Books van for the trip (with help from Hannah).

[1]Pulled out within 10 days of trip, jobs reassigned
[2]Michelle took over organising food shopping list and cooking rota
[3]Andy took over as dive site information co-ordinator, collecting and transcribing dive management sheets and an additional day of dive management
[4]Ali G took over booking the hire van from Karen
[5]Ali N took over printing the expedition paperwork as Henry did not have access to a printer

Logistics

Dive Platform

We took one of ULSAC's RIBs, Rascal. She is a 6.5m vessel that can hold a maximum of 10 single-tank divers with kit. She has a 4-stroke 140hp engine, which is reliable and we had no problems. We carried standard safety and back-up equipment and radios in case of problems. Using our own RIB gave us complete independence and flexibility to find and explore dive sites around Skye.

Travel

The expedition used two vehicles, a commercially hired short-wheel based van (from H and H Van Hire) and a Ford Tourneo multi-person vehicle (MPV) hired from the University of London Union.

Transport was always going to be the extraordinary cost for the trip given the remote location of Skye and the total cost for transport was £1,368. Due to the cancellation of two people from the trip it would have been useful to have hired a smaller van, but unfortunately the van hire company could not accommodate a change in van size at such late notice.

Towing of the boat was done using the MPV. One of the drivers has held a towing licence for more than 3 years and so was able to supervise one of the other drivers with a provisional towing licence, as the provisional driver's insurance allowed this. The van was driven by 3 individuals who rotated driving, and the van carried all of the cylinders and diving equipment.

Accommodation

Our accommodation for the week was provided by Dive and Sea the Hebrides in the form of a house attached to the dive centre. There were 3 bunk rooms (2 twin rooms and 1 with 6 beds), a kitchen, dining area, living room with fire, 2 toilet/shower rooms and 1 separate toilet. The accommodation provided everything required to support the team during this expedition.

We also spent 2 nights staying in motorway service station hotels on the M6 on the way to and from Skye.

Food

The accommodation we stayed at in Waternish had a full-sized kitchen which we used to self-cater. Local shops were well stocked and within 15 minutes drive from the accommodation. Breakfast and lunch were prepared individually with dinner being cooked on a rota basis. On our final evening we ate at the local pub.

Air and Fuel

Fuel for the vehicles and the RIB was bought at local petrol stations. Atholl Service Station was approximately 15 minutes from our accommodation and our base of operations in Waternish. Fuel runs were organised on a rota basis between the vehicle drivers.

Air was commercially available from the Dive & Sea the Hebrides, based in Waternish. The dive centre was able to provide fills for all of our tanks including two 7L twin sets (one of which was 300bar). Dive & Sea the Hebrides also provided a mooring for Rascal for the week.

Launching and Recovery

We launched and recovered from the public slipway in Stein. We researched slipways further along the west coast including those at Meanish and Struan, but did not end up using them to launch from. The RIB was moored on a mooring buoy provided by Dive & Sea the Hebrides. The trailer was stored in the free public car park next to the slipway.

The slipway at Stein is covered at all but 1 hour either side of low water. On our launch day (Saturday 6th September) a slow start and a lack of appreciation of how quickly the water would recede on a spring tide meant that when it came to launch time the end of the slip was a foot above the water. After a few minutes of discussion we decided to go ahead with launching which ended up being a very tense affair as the RIB slid off the trailer and went remarkably vertical before the stern hit the water – we all breathed a sigh of relief when the bow flopped down and it was safely on the surface.

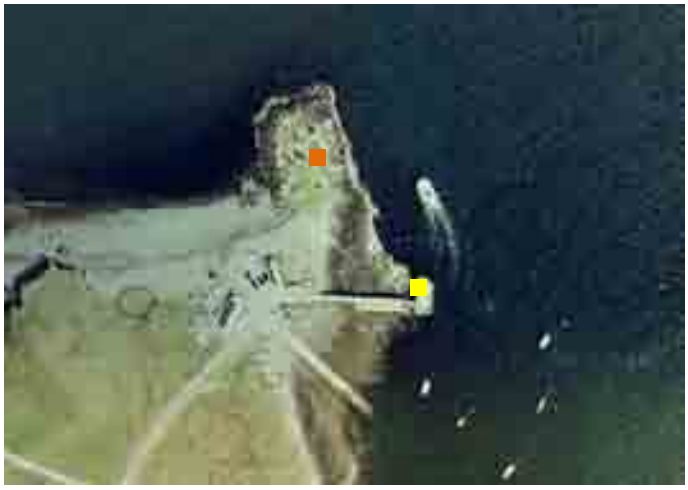
Diving Base

We had 3 diving bases during the 6 diving days of the expedition.

Days 1 and 5 – Stein

- Yellow — Slipway – usable at all states of tide (exposed LW +/- 1 hour)
- Red — Mooring buoy for RIB overnight
- Blue — Accommodation, gas fills, toilets
- Green — Free car park, trailer stored here

Days 2, 3 and 4 – Meanish Pier



- Yellow — Steps - usable all states
- Orange — Grassy area for lunch/surface interval

Day 6 – Kyle of Lochalsh

- Yellow — Slipway – usable all states
- Blue — Lochalsh hotel – they allowed us to use their toilets
- Green — Lochalsh hotel car park where cars and trailer were stored (ask hotel)

How it Went

Planning Resources

Appendix A - Expedition Planning Resources contains details of information sources used. Our host, Gordon McKay from Dive and Sea the Hebrides was incredibly helpful in providing us with information on sites and tides, and we are very grateful for that help.

Team Members

Unfortunately 2 of the original 10 expedition members had to withdraw from the trip due to personal reasons. The first withdrawal was 10 days prior to departure and the second was 7 days prior. The 2 available spaces were advertised on the ULSAC mailing list and on the BSAC London Region facebook page but unfortunately they were not able to be filled.

Appendix B – Expedition Team Members contains details of the 8 members of the expedition.

Dates

The expedition began on Friday 05th September and finished on Saturday 13th September 2014, a total of 9 days.

Appendix C - Expedition Timetable contains an overview of the expedition.

Appendix D - Expedition Diving Summary contains details of who did what on which day.

Appendix E - Expedition Diary contains principal events from each day.

Costs

Appendix F - Expedition Financial Summary contains an overview of the expedition.

Budgeted cost was £508 per person (not including personal equipment hire), and actual costs came out at and average of £544 per person inclusive of equipment hire.

Every effort was made to reduce the cost of the expedition. Unfortunately the two late cancellations resulted in the variable expedition costs being split between 8 people instead of 10, thus increasing the cost for those that attended. A £200 deposit had been collected from every individual to cover non-refundable fixed costs which were van hire, dive centre accommodation, air fills, mooring, and hotel accommodation on the travel days so for these fixed costs the impact on the 8 who attended was minimised.

Weather

Appendix G - Expedition Weather contains a summary of the forecast before we left and a record of the weather encountered, summarised in retrospect. We experienced good weather for the whole expedition.

Dive Sites

Appendix H - Expedition Dive Sites contains full details of the sites visited.

Appendix I - General and Marine Life Photographs contains a selection of photographs.

Reporting

Expedition Reporting

During the expedition we hoped to report our experiences on the ULSAC website expedition 'blog', which can be found at http://blog.ulsac.net/. We aimed to use personal laptops with wi-fi or mobile phone coverage to allow us to keep this up-to-date but we had not anticipated the complete lack of any signal in the area. The only commercially available wi-fi was in the local pub, the Stein Inn, although unfortunately this was for residents only and we were not permitted to use it. The dive centre allowed us to use their office wi-fi for emergency work reasons for some of our team members. The blog was updated on our return to London.

The expedition had a dedicated media co-ordinator whose aim is to promote Skye as a diving destination. As well as our blog, the full trip report will be made available on the ULSAC and St Albans SAC websites www.ulsac.net and www.sasac.co.uk and the Expedition Report will be made available to BSAC.

We have also contacted SCUBA magazine regarding running an article. In anticipation of this article, all 8 members have written up one or two of the 12 dives as a dive article and this will be compiled by Alison Niewiarowska.

Expedition Criteria

Criterion	Result
3.1. What level of diver is the expedition aimed at? ***(Answer) Dive Leader***	1 FCD, 1 AD, 3 DLs, 3 SDs
3.2. How many divers are in the group? ***(A) 8 to 12***	10 divers signed up to the trip, only 8 attended as 2 cancelled within 10 days of the expedition and could not be replaced in time.
3.3. How many different BSAC branches are involved? ***(A) 2***	7 members from ULSAC and 1 member from St Albans (who is a secondary member of ULSAC) attended the expedition.
3.4. Potential for cascading the diving experience to others. Percentage of the party in any of the following roles: Regional Coach, Area Coach, REDS Co-ordinator, Branch Diving Officer, Branch Instructor (any grade), Branch Expeditions Officer: ***(A) 60 - 80%***	1 National Instructor (Michelle Kim), 1 Regional Coach (Ali Gaudion), 1 Diving Officer (Alison Niewiarowska), 1 branch instructor (Hannah Holdcroft) and 2 assistant instructors attended the trip. 75 % of the expedition members.
3.5. Given that at least one member of the expedition must be a First Class Diver, how many additional First Class Divers will be present on the expedition	Only one FCD attended this expedition.
3.6. What is the potential for improvement of Advanced Divers who could aspire to a higher level of diving? What percentage of Advanced Divers does the expedition comprise?: ***(A) 10 - 30%***	Ali Gaudion is an advanced diver (13%).
3.7. What is the potential for improvement of Dive Leaders who could aspire to a higher level of diving? What percentage of Dive Leaders does the expedition comprise? ***(A) 30 - 50%***	There were 3 Dive Leaders on this expedition (38%).
3.8. How long is the expedition? ***(A) More than 8 days***	The expedition ran from the 5th of September to the 13th of September with 6 days of diving.
3.9. What level of independence of leadership will the expedition have? ***(A) Total self leadership, e.g. RIB diving, own boat***	All diving was carried out by ourselves on the club RIB with the exception of one night dive, which was the third dive of that day.

3.10. What are the primary aims of the expedition? (e.g. Archaeology, Environmental Issues & Marine Biology, Scientific study, wreck discovery?) ***(A) Challenging diving at undived/rarely dived sites***	We dived in the Isle of Skye, which is a remote dive site. We were only the second group at the dive centre that summer. We also didn't see a single other dive group at the Isle of Skye, and so this is a rarely dived location.
3.11. What range of diving styles will the expedition employ? ***(A) Either mixed gas or rebreather diving or deeper diving (>30m)***	We were expecting some of the dive sites to be deeper than 30m but found that the deepest diving we did was to 24.4m.
3.12. What diving techniques will the expedition employ? The following types are examples: wreck diving, extended range, drift diving, wall diving, offshore diving (>12 nautical miles), diving in an enclosed environment, diving in a remote location? Specify additional particular techniques as appropriate. ***(A) 5 or more***	We dived on several wrecks, did drift diving, did wall diving, dived in Port Napier which has several swim through, dived in a remote location and did a night dive.
3.13. At what level is the expedition expected to be reported once the expedition is complete? ***(A) Presentations at National level (DOC, NEC Dive Show, LIDS) or magazine article in DIVE or DIVER or media coverage (e.g. TV, Radio, Newspaper)***	We have written a blog and are also drafting an article for the SCUBA magazine.

Supporting evidence

Supporting evidence for the expedition consists of:

1. ***Attachment 1 – Expedition Dive Log***
2. ***Attachment 2 – Expedition Financial Receipts***

Review

Cascade of Skills

Dive Management Focus

4 team members acted as Dive Manager (DM) over the 6 diving days. The pre-requisite in order to act as an expedition dive manager was to have completed lessons DP1 and DP2 from the BSAC Dive Leader syllabus.

Alison Niewiarowska, Dive Leader, day 1 and 6

Previous DM experience: recently completed AP2 over May bank holiday running a small boat branch trip to Anglesey. Has run a mixture of small boat and hard boat weekends.

Ali was the most experienced of the dive managers and this showed through her diligent planning and dynamic dive managing as well as the guidance and support she provided to the other dive managers. Where Ali has further developed her dive managing skills is in the areas of delegation and managing her team where she identified that a "one size fits all" approach does not always lead to success and it is necessary to continually adapt to changing circumstance.

She commented:

> *"One of the most valuables things I have learnt is how best to manage my human resources. My personal nature is to treat all individuals equally and so during pre-trip planning meetings I allowed people to volunteer for tasks and I was keen that everyone helped out equally. However, I soon learnt that this is not an appropriate management strategy and it is far better to assess team members and their skills and to delegate appropriate tasks."*
>
> *"This was the most difficult skill I had to personally develop and I had to learn to assess how team members were coping with tasks, and to adapt my plan and reassign tasks depending on the success. An example of this was one team member volunteered to book the van for the trip, but it very quickly became apparent that this individual was overwhelmed by the multi-tasking that was required to complete this process. The individual became quickly stressed by the task and I assessed the situation and realised that it was more productive for the group, and better for the individual, if the task was reassigned to a more experienced team member."*

Andy Niewiarowski, Sport Diver, day 3 and 5

Previous DM experience: completed DP1 in August on a training day at an inland site, completed DP2 organising a hard boat trip over August bank holiday.

Andy had only recently completed the Dive Planning and Management course in August and had never been involved in organising a small boat trip. He threw himself into the task with great enthusiasm and determination and came out with the confidence and motivation to continue organising small boat diving.

He commented:

"I was given to opportunity to dive manage 2 days of the expedition days under the guidance of experienced divers. As the diving was at an unknown location to the club, and I'd only recently attended a dive planning and management course, I found the dive managing very challenging but extremely rewarding."

"I learned valuable information about chart work, site location, diving conditions, safety and management. Members of our club rarely go to unknown sites, so such opportunities are scarce."

"I'll use that excellent experience to plan future club trips, and it has encouraged me to further extend my experience of dive management and share that experience with others in the branch."

Henry Mosey, Dive Leader, day 4

Previous DM experience: DP1 on a training day at an inland site, DP2 planned for Portland but relocated to inland site due to bad weather.

Henry had come into the expedition having never dive managed a trip to the coast or involving boats. He gained appreciation of the importance of delegation.

He commented:

"The expedition to the Isle of Skye was a fun, interesting and very rewarding experience. The trip consisted of unknown dive sites which added a level of challenge and adventure to the entirety. This was particularly evident during my appointment as Dive Manager for a day in which a multitude of new considerations had to be addressed. Planning during the night beforehand involved utilising local knowledge, charts, dive site articles and many other resources in order to create a clear picture of what we could expect."

"It was the first time I have had to take into account the use of boats and this adds another level of complexity to the planning process. Dive managing on a trip more complex in nature than I am used to taught me the importance of delegation. It is hardly possible to take care of every detail on a dive trip and so giving out responsibility to those around you allows for enhanced control of any given situation as you are not bogged down in the specifics."

"I feel that the diving environment is a great place to practice and develop managerial skills; especially on an expedition which requires significant daily problem solving."

Hannah Holdcroft, Dive Leader, day 2

Previous DM experience: organised 3 hard boat weekends in the UK.

Hannah had never organised a trip using small boats before and learnt that site location when you have to do it yourself can be a tricky and time-consuming task and this needs to be factored into the timelines. She also acknowledged the importance of local knowledge particularly in areas where it is difficult to predict the tidal flow.

She commented:

"Dive managing an unknown site I learned how it can be challenging just recognising whether or not you are in the right place as it is unfamiliar and you're trying to work out which land marks are the land marks that have been described to you. Also I found that you need to add in extra time to make sure that if there are any delays, such as going to the wrong place, you don't miss slack and also that you need to arrive at a site particularly early just in case the slack time is slightly earlier than you'd anticipated."

"I also found that local knowledge of both the site for site location and for slack times is invaluable as what we'd calculated as slack time based on information from charts and online was incorrect and instead it was at a completely different time according to local knowledge."

Boat Handling Focus

Boat handling in ULSAC in recent years has been almost exclusively done by a small group of very experienced people. These people are also the most comfortable at organising small boat diving and this has meant that while the club has new dive managers coming through, they have generally restricted themselves to commercial boat trips. In the lead up to this expedition we ran 2 boat handling courses, one a year in advance, which was combined with a Diver Cox'n Award (DCA), and one 2 months before the expedition. 5 of the expedition members attended one of these courses (although 1 subsequently withdrew from the expedition) and one further member attended both, obtaining DCA on the first course and boat handling instructor on the second. Following the withdrawal of one boat handler this left the expedition with 4 new boat handlers and 2 boat handling instructors.

In order to best develop the new boat handlers we adopted a system where 2 of them would be boaties for a whole day and this would alternate. The 2 new boaties would buddy the boat handling instructors allowing them to maximise time for boat handling development. Testimonials from each of the 4 new boat handlers are included below. As a result of the expedition 3 out of the 4 are now at the point where they can safely drive a boat for a diving wave without supervision, taking full responsibility for getting to and locating the dive site, dropping off and picking up divers and getting us back to base with associated coming alongside/shelving shore manoeuvres. The final boat handler is nearly there but just has a little more to learn around decision making particularly when operating in shallow water where there is danger of damaging the boat.

Below are a selection of comments from the 4 individuals:

"I went on my first club RIB trip about 6 months ago, during which I very much enjoyed RIB diving, but thought it looked very difficult to drive boats, and didn't see any opportunity to learn boat handling skills in the near future. However, to encourage up-skilling of newer member of the club, expedition members ran a boat handling course prior to the expedition, which I eagerly attended. During the expedition, I was given the opportunity to handle the club RIB under the guidance of experienced instructors. Throughout the week, I gained the experience and confidence to handle the boat independently and eventually took full responsibility for a full diving session. This experience has given me the enthusiasm to offer to help as a boat handler for future club trips, some of which involve training new club members over the coming months.

"Over the week of the expedition in Skye, I developed skills related to boat handling, site location and dive managing at an unknown site. I now feel confident to be in charge of a RIB without supervision, driving it around, dropping and picking up divers and mooring it. I have also learnt

how to use the echo sounder to locate a wreck or other dive site and the signs to look for on the echo that indicate wrecks, kelp or rocks; along with locating the dive site from other land marks around it; and how to shot a dive site based on these signs."

"I went on the boat handling course in July in earnest, to be ready to get hands on experience on driving the club RIB in Skye. I found the boat handling course interesting, exciting and exhilarating but also very hard work. I found that on the boat handling course while driving the RIB, I tended to be quite good on close manoeuvres when instructed to do one, but when it came to planning and deciding a course of action in response to a situation, I tended to be apprehensive and indecisive and find it difficult to decide between two courses of action. I was very keen after the course to get the opportunity to work on the weakness and looked forward to the Skye trip."

"The Skye expedition also gave me the opportunity to gain some experience driving one of the club's boats. I went on the Boat Handling course last summer but this is the first time since then I've been on a trip where we have really used them, owing to a shortage of experienced boaties/towers in the branch. The length of the expedition meant I had enough time to practise the things I had forgotten and gain experience of important skills such as mooring, dropping off/picking up divers, locating dive sites and putting in a shot line. I found this really useful and I now feel much more confident about using the club boats on trips in the future."

"On the Skye trip my boat handling skills improved vastly with the extra hours I was able to drive the RIB. I found I got more confident at driving at high speed and my ability to come alongside a platform improved to the point where I felt confident to do it without a boat instructor to guide me. I also found that my ability to drop off divers and pick up divers improved as well, but I am aware the sea state on the trip was extremely calm and so I most likely need more practice with supervision in less calm conditions. The one aspect that I still need to work on, and found most challenging, was working under pressure and this was most evident with shotting a site. I find that with two available courses to take, I will hesitate before making a decision and this means I lose valuable time with which I could line myself up and make it easier for myself. So in short, I need to be more confident in my own decision making skills, which would give me more time in which to line up and carry out my manoeuvres. Going on this week long expedition with two boat handling instructors was a golden opportunity to get hours of experience handling the RIB, and not an opportunity that comes along very often in a busy BSAC student branch. I am indebted to the two instructors for their patience and guidance and their willingness to freely share their knowledge and give up their time to teach. This for me acutely summarises the true spirit of BSAC club diving and sharing of skills."

Personal Skills Focus

By its nature an expedition of this kind lends itself to a number of personal development opportunities and these were acknowledged by the team members. Some comments from individuals are below.

"As a new diver, the expedition gave me the opportunity to dive consecutively for 6 days – the most I've ever done in a single trip. This gave me ample opportunity to gain more confidence in the water, RIB diving and diving as part of a small team."

"The diving itself was also challenging as I experienced a number of new environments including a drift dive, a night dive and various minefields of jellyfish. It was definitely a great opportunity to practice my diving skills in these new situations. I am now much more confident in leading dives in such situations and now have a better idea of hazards which can be included in my brief."

"This experience has been invaluable to me and has helped me develop these skills which are not only critical for my diving development but also to my professional working life as well."

"I have been able to experience UK diving with more challenging conditions and of different types such as drift and night diving."

"As well as being an extremely fun trip, the Skye expedition was a great opportunity to upskill and do some more challenging diving. I now feel more confident in leading drift dives and entering more intact wrecks such as the Port Napier. My favourite new experience was the night dive we did from the hard boat – we rarely get the opportunity to do night dives in the branch and my previous experience of them was limited to a very shallow shore dive we did a couple of years ago on a trip to Cornwall."

One of the participants has recently become an Advanced Instructor (AI) and found the expedition to be one continuous adhoc teaching opportunity. She comments:

"We had a planning session before the expedition where I got to take people through using charts, planning routes using multiple waypoints, site selection and general work on getting all of the logistics together for an expedition of this type. On the expedition itself I was able to consolidate my mentoring skills overseeing two new dive managers in running a day of diving from a small boat. I only recently became a boat handling instructor and with 4 trainee boat handlers on the expedition I was really able to consolidate my instructing skills in this area, learning when to intervene, when not to and building in some AI techniques such as helping one boat handler to visualise a run to drop off divers on a shot line in tricky conditions. We had an interesting experience on day 1 with the tide going out so fast that we were left with a 1m drop off the end of the slipway and a boat to launch. While we did launch the boat by pushing it off the trailer over the end of the slipway, this situation taught me to think things through and to work together to come up with a solution to a problem. The next step for me is First Class Diver and in terms of the personal development of working as part of a team to make an expedition happen I feel I gained a huge amount of confidence in my ability to make challenging diving happen."

Expedition Leader's Review

My previous experience of running trips has been organising 3 weekend trips and 3 bank holiday weekend trips. One of these bank holiday weekend trips was to an unknown site to the club, Anglesey, so I felt that I was ready to take the step of leading a week long expedition to an unknown site. I knew that this was going to be challenging for me and the team but I was confident that the support I had from the whole team, but especially from the experienced members of the team, Ali Gaudion and Michelle Kim, meant the expedition would be successful. I knew that the site was remote and the week was going to be extremely busy and so I felt it crucial to do as much preparation and planning as possible before the expedition. To that end, the

group discussed the expedition regularly, culminating in a day-long trip planning meeting on Sunday the 10th of August.

I realised early on that I would not be able to do every task by myself and decided that the only way to manage the expedition efficiently was to delegate. For example, before the trip planning meeting, I researched dive sites using internet resources but asked Michelle Kim to purchase charts for Skye and locate the sites on the chart and fill out SOLAS sheets for every site. At the day of the trip planning meeting, we then double checked all the co-ordinates in order to teach the more junior members of the club how to use the chart and plot waypoints, and confirm the coordinates. I assigned many other tasks, to all members, at the trip planning meeting. As two members of the team dropped out at short notice I had to assign their tasks shortly before the trip, which showed me the importance of being dynamic and flexible even when plans are already in place.

The expedition was a valuable learning experience for me. I learned about boat handling, dive managing and started learning new things about myself and expedition managing. For example, on the very first morning, I learned that expeditions will not always run to plan, and I tend to be overcautious in unknown situations. An example of this was when we tried to launch the boat off a slipway that had uncovered during low water to expose a half-meter drop. Owing partly to my inexperience, I felt we should wait several hours until the water level rose, particularly as it was the first day, but our First Class Diver was confident we could still launch successfully. Michelle justified her decision and explained her plan thoroughly, so I decided that the team could rise to the challenge. I learnt that to be an exceptional expedition leader you have to be creative, tenacious and decisive and inspire confidence in your team even when they don't initially agree with you. Of course you have to have years of experience and really know what you are doing to be able to carry out such feats, but it made me realise that we were truly on an adventurous trip.

The expedition was on the whole a great success, particularly considering the experience of the collective group. We drove up to Skye, which is an extremely long way with no incidents. This might not seem like an achievement for most clubs, but with the majority of trip members under 25 and unable to drive rented vehicles, this was something we had been concerned about before running the trip. We successfully went diving twice everyday and even three times on one day. We were successfully able to combine challenging dive management and site location, while allowing new boat handlers to increase their boat handling skills and shot dive sites for the first time. We also allowed relatively new dive leaders to manage diving for a day which increased their skill set vastly. This was one of the harder aspects of running the expedition, allowing newer members of the club to take responsibility, knowing that it could impact the day's diving experience for everyone else if something went wrong, whilst allowing the newer members the freedom to make decisions.

On the whole, we enjoyed high quality diving but there were a couple of issues, including missing slack on the SS Doris. This was unfortunate, as we had taken the time to arrive on site early and waited for 45 minutes for what we thought was the slack time. Unfortunately, we missed slack because of the unpredictable spring tides and our unfamiliarly with the site. We also found it challenging shotting the SS Urlana with only one pair of divers finding the wreck. The final issue was predicting local currents on an island like Skye can be challenging for drift dives and so our drift dive on the Ard Beag did not go as anticipated and was a little fast for the experience of some of the divers. On the whole I think that 3 dives out of 12 not going exactly to plan was not bad considering that the majority of team members were

concentrating on learning new skills, for some dive managing, for some boat handling and shotting sites, and all in an unfamiliar location.

I have learnt a great deal and will certainly to be keen to run another expedition as I found it a thoroughly enjoyable trip and it definitely fulfilled the purpose of up-skilling club members.

Expedition Mentor's Review

The objective of this expedition to cascade as much skill and knowledge to the less experienced club members was clear from the conception of the expedition and thus every element of planning and execution of the expedition was inevitably going to be a team effort. Having said that it was still vital that the group had a competent leader to manage the various personalities and to ensure that all the bases had been covered. This is where Ali Niewiarowska, as the expedition leader was highly effective. I have worked closely with Ali before, during and after the expedition and have found her to be a receptive, highly capable and dependable individual. Throughout she has taken it upon herself to drive the team forward through her role model behaviour and acting as a mentor herself to more junior members of the team. This is exactly the kind of leadership behaviour that ULSAC desperately needs.

Overall, the whole team was pro-active and co-operative throughout the process. The planning meeting was very productive with everyone throwing themselves into all aspects of what is involved in conducting a multi-day diving expedition independently using a small boat. Whilst in Skye, the delegation of roles and responsibilities ensured everyone was involved and that the workload was spread evenly. The atmosphere throughout the week was high, although I'm sure this was helped by the calm weather and smooth seas, this would not have been the case had the diving not been high quality, exciting and enjoyable.

The fact that the whole week ran smoothly without any major issues is a testament to the amount of planning and preparation that was done beforehand and those who attended have now gained vital knowledge and experience in all aspects of organising small boat diving from planning and selecting appropriate sites, locating and searching for sites, deploying and recovering shot lines, safely operating a RIB on a dive site as well as getting to and from shore. The intention is that they will be able to use this experience as a blueprint to organise branch small boat diving in the future.

Things we might have done differently

On the whole the expedition went exceptionally smoothly. There was 1 minor diving incident to note, which was a loss of buoyancy by one diver from 15m on a night dive with no ill effects. This was attributed to not monitoring depth often enough and the increased difficulty in maintaining a constant depth in the dark.

It is fair to say that we could and should have avoided the complication around launching the boat on a dried out slipway if we had been paying more attention to the receding tide and not planned to launch around low water.

We missed slack on one site (SS Doris) where the first pair got the end of slack but no other pairs did. This was not due to arriving at the site late as we had arrived 1 hour before calculated slack, it was more due to lack of knowledge of local tides and what to expect the surface conditions to look like during a slack window where the water never really stopped flowing. Having observed the surface conditions once slack was over we now know that we had actually arrived on slack and should we return we would know what to look for.

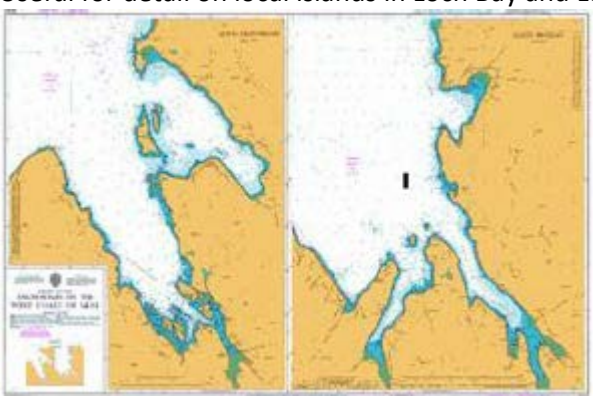
On one dive 3 out of the 4 buddy pairs failed to find the intended dive site (SS Urlana). The nature of the seabed (large kelp covered boulders) and the nature of the wreck (extensively broken up and spread over a large distance) made this a tricky one to locate. In hindsight we might have decided to take on a structured underwater search from the very beginning rather that just for the final buddy pair which should have resulted in more of the team finding the wreck.

Appendices

- Appendix A - Expedition Planning Resources
- Appendix B - Expedition Participants
- Appendix C - Expedition Timetable
- Appendix D - Expedition Diving Summary
- Appendix E - Expedition Diary
- Appendix F - Expedition Financial Summary
- Appendix G - Expedition Weather
- Appendix H - Expedition Dive Sites
- Appendix I - General and Marine Life Photographs

Expedition Planning Resources

Primary Resources

No	Resource Name	Description
1	Chart	Admiralty Chart 1795 – The Little Minch Southern Part – 1:100000
2	Chart	Admiralty Chart 2533 – Anchorages on the West Coast of Skye – 1:25000 Useful for detail on local islands in Loch Bay and Loch Dunvegan 
3	Tidal Streams Atlas	Admiralty NP218 Tidal Stream Atlas – North Coast of Ireland & West Coast of Scotland
4	Tides	Reeds PBO Small Craft Almanac 2014 Standard Port is Ullapool Loch Dunvegan tide information available in relation to Ullapool
5	Dive and Sea the Hebrides	Invaluable local knowledge and advice from Gordon McKay http://www.dive-and-sea-the-hebrides.co.uk/

General Research

No	Resource Name	Description
1	Dive and Sea the Hebrides	The only dive centre on Skye, provides accommodation, air, mooring and has their own hard boat the "Elena C". http://www.dive-and-sea-the-hebrides.co.uk/
2	BSAC Website Trip Reports	Article by Iain Paul from 2004 http://www.bsac.com/diverreports.asp?section=1248&itemid=2253
3	gooddive.com	A very brief guide on diving in the Isle of Skye http://www.gooddive.com/uk-diving/isle-of-skye-diving.htm
4	visitouterherbides.co.uk	Sailing advice for navigating the Western Isles http://www.visitouterhebrides.co.uk/see-and-do/sail-hebrides/sailing-in-the-outer-hebrides
5	Dive Magazine	Article by Jane Morgan from August 2010 http://www.dive-and-sea-the-hebrides.co.uk/documents/skyehigh-by-jane-morgan-dive-august2010.pdf
6	Sport Diver Magazine	Article by Ross Coventry from July 2010 http://edition.pagesuite-professional.co.uk/launch.aspx?referral=other&pnum=&refresh=k03M1He6Bt20&EID=d2efbbe4-8175-4133-955a-827c68a58f8f&skip=
7	Diver Magazine	Article by John Liddiard from July 2005 http://www.dive-and-sea-the-hebrides.co.uk/documents/CLEAR%20BLUE%20SKYE.pdf

Contacts

Resource Name	Description
Stornoway Coastguard	VHF Channel 16 Operations Room on 01851 702013
London Hyperbaric Chamber 24hr helpline	07999 292999
BHA/RN Diver Helpline	07831 151523
Nearest recompression facility: Seafield Recompression Chamber	01520 722215 (01520 722221 24 hrs) Seafield College Kishorn Strathcarron IV54 8YA
Nearest A&E – Portree Community Hospital, Isle of Skye	01478 613 200 Portree, Isle of Skye, North and West Highland. IV51 9BZ
Portree Police Station	Somerled Street, Portree, IV51 9EH. Non-emergency dial 101
Skye Boat Centre	6 Strollamus, Broadford, Isle of Skye. IV49 9AL 01471 822070

Expedition Timetable

Day	Date	Time	Activity
1	Fri 05 Sep 2014	17:00	Main party meet at University of London Union
		18:00	Remainder of party meet at Chiswick boathouse to prepare RIB
		19:00	Depart London
2	Sat 06 Sep 2014	02:00	Arrive Lancaster for overnight stay
		09:30	Depart Lancaster to continue journey
		19:30	MPV towing RIB arrives in Waternish, Skye
		22:00	Van arrives in Waternish, Skye
3	Sun 07 Sep 2014	12:30	Dive 1: Lampay Island, south-west
		16:30	Dive 2: Loch Bay Pinnacle
4	Mon 08 Sep 2014	10:00	Dive 1: SS Chadwick
		14:00	Dive 2: Meanish Reef
5	Tue 09 Sep 2014	10:30	Dive 1: SS Doris
		13:00	Dive 2: Meanish reef
		14:45	Dive 3: Oisgill Bay, south
6	Wed 10 Sep 2014	11:00	Dive 1: Conger Crevice
		14:45	Dive 2: SS Urlana
		21:30	Dive 3: Loch Bay Pinnacle, night dive
7	Thu 11 Sep 2014	11:45	Dive 1: Ard Beag, drift
		17:00	Dive 2: Clett Island, north
		19:00	Recover RIB
8	Fri 12 Sep 2014	09:00	Depart Waternish, Skye
		11:00	Arrive Kyle of Lochalsh, Skye
		12:00	Dive 1: HMS Port Napier
		15:30	Depart Kyle of Lochalsh, Skye
		23:00	Arrive Carlisle for overnight stay
9	Sat 13 Sep 2014	08:30	Depart Carlisle to continue journey to London
		15:00	Arrive Chiswick boathouse, wash RIB and equipment
		16:00	Arrive University of London Union, party disperses

Expedition Diving Summary

Name	September 2014												No. Dives	Total Time (min)	Max Depth (m)
	7th		8th		9th		10th			11th		12th			
Ali Gaudion	14.7	19.2	20.9	17.6	16	19.4	18.2	12.1	21.9	14.8	16.9	18.7	12	465	21.9
Ali Niewiarowska	15.5	18.9	20.9	17.6	11.5	21.8	18.0	13.5	21.8	22.0	18.0	16.2	12	474	22.0
Andy Niewiarowski	16.3	17.9	21.7	14.8	15.5	19.5	19.2	15.6	22.4	21.6	15.5	16.3	12	443	22.4
Hannah Holdcroft	14.2	20.6	21.5	15.8	22.8	22.8	18.8	14.8	21.7	24.3	16.4	16.5	12	421	24.3
Henry Mosey	16.7	18.1	21.2	15.4	22.4	24.2	19.0	14.0	21.7	15.0	16.0	15.3	12	415	24.2
Karen Ho	16.7	22.2	21.8	14.9	11.6	24.4	19.6	15.5	22.7	20.0	18.1	17.7	12	412	24.4
Michelle Kim	16.6	20.8	20.7	19.4	22.8	22.5	19.1	13.8	21.8	20.2	16.7	18.4	12	473	22.8
Natalie Reeder	16.2	21.1	20.3	18.5	21.3	22.3	19.1	11.7	21.8	24.3	14.9	15.0	12	438	24.3
Totals													96	3541	24.4

Depth	No. Dives
≤15 m	16
>15 m and ≤20 m	45
>20 m	35

Average Depth (m)	18.5

Average Time (mins)	36.9

Expedition Diary

Friday 05 September 2014

5 ULSAC members and the hired van met at the University of London Union at 17:00 to load the kit stored there before proceeding to the boathouse at Chiswick where the RIB and remainder of the kit was stored. 2 members had travelled ahead to the boathouse to prepare the RIB for transport. The final member was delayed in leaving work and eventually arrived at the boathouse at 19:00. The MPV towing the RIB and carrying 5 people and the van with 3 people started the journey to the planned overnight stop at a hotel in Lancaster. Due to 2 road closures on the M6 motorway we did not arrive until 02:00.

Saturday 06 September 2014

We set off at 09:30 to complete our journey to Waternish. The long journey was only broken up by the monotony of service station food and coffee however, once past Glasgow and into the Highlands the scenery provided welcome relief. The MPV and RIB finally arrived at 19:30, weary and in need of a good meal which was found at the village pub, the Stein Inn. The van had stopped in Fort William to buy groceries for the week. Unfortunately, the GPS unit being followed by the van team directed them to take the Skye Ferry (which had finished for the day) rather than the Skye Bridge so they took an unwanted 2 hour detour eventually arriving at 22:00.

Sunday 07 September 2014

The day started with loading and launching the RIB. Due to a rather slow start and how quickly the water level receded during a spring tide, by the time we were ready to launch the end of the slip was above water by a foot. After some deliberation and checking that the depth of water below the slip was sufficient we decided to proceed with launching and accepted that the RIB would take a longer drop to the water than usual (this is not a recommended technique!) We all breathed a collective sigh of relief when after going worryingly vertical the hull came down to rest on the surface of the water. We were then able to set off for our first dive which due to weather was restricted to one of the nearby islands called Lampay. Everyone was pleased to experience visibility in the region of 10m following a dark summer on the south coast. We returned to Waternish for lunch before our second dive on the pinnacle in Loch Bay which was 1nm away on the opposite side of the loch. On arrival back to base we set about mooring the RIB for the night. This was on a buoy approximately 50m from the slip and involved a swim from and to the mooring each day. It was also our diving officer's (and the day's dive manager's) birthday so we celebrated with cake after dinner.

Monday 08 September 2014

Our aim today was to dive further round the west coast around 8nm from Waternish. We decided it would be more fuel efficient and quicker to drive the RIB round the coast with just 5 people and no kit and send the van and 3 people by road to Meanish pier where we would be able to base ourselves from during the day. We successfully rendezvoused with the van at Meanish and proceeded for our first dive on the wreck of the SS Chadwick in Oisgill Bay. The helpful sketch and advice from Gordon meant that we dropped the shot directly onto the boilers. We returned to Meanish and enjoyed lunch on a rocky outcrop overlooking The Minch with only sheep for company. Our second dive was just the other side of the pier wall on Meanish reef. We were joined on our dive by a local free diver and enjoyed a fabulous reef dive.

Tuesday 09 September 2014

We followed the same pattern as the previous day and sent the RIB round the coast to meet the van at Meanish pier. We departed Meanish for our first dive ahead of schedule and arrived at our dive site, the SS Doris, well ahead of the scheduled slack water time. We had been warned of the potential for strong tidal activity in this area due to the convergence of tides coming from different directions. As such we were wary of dropping divers in too far ahead of the calculated slack time. The first pair were eventually dropped in 30 minutes before slack only to find that whilst it was slack when they first descended, after just a few minutes it was clear that the current was picking up. The second and third pairs were able to complete a dive on the wreck albeit a rather currenty one however it was clear that the second cox'n pair would not be able to dive at this site. Instead they were given the opportunity to dive at Meanish reef once again and considering 1 of the pair had not seen the full extent of the reef the previous afternoon they were both happy with the outcome. Following a short lunch break at Meanish, our second dive was the reef located on the south side of Oisgill Bay which was protected from the main south to north tidal flow.

Wednesday 10 September 2014

Day 4 was to be the furthest we ventured from Waternish. We were aiming to dive in the vicinity of the group of rocks called "Macleods Maidens" which were a further 9nm south of Meanish pier. As such, to save on time and fuel in making return trips between the first and second dives we opted to carry lunch and tanks for our second dives on the RIB with us. Our first dive was a site called "Conger Crevice", not too difficult guessing what we were likely to see there and we were not disappointed. For lunch we had been told about a beautiful white sandy beach very close to our dive site (apparently the only one in western Scotland!) which would be an agreeable place to go ashore. After a period of creeping along the coastline in search of the beach we eventually spotted it behind a cluster of boulders. The beach itself was indeed a beautiful white sandy beach surrounded by cliffs and even with a waterfall. We could all have happily spent the afternoon sunbathing there had the urge to dive not been so great. For the second dive we headed to the site of the SS Urlana. This was described as a very broken up wreck (plates, scattered wreckage and a boiler) amongst kelp and boulders directly in front of a large visible rock. The first pair were deployed but surfaced after 13 minutes having not found any trace of the wreck. Pairs 2 and 3 were dropped further out to sea and again aborted early with no wreck in sight. The last pair were dropped in to the south of the visible rock and told to search for the wreck by swimming south along the 10m contour. After 20 minutes of searching the pair spotted a rusty plate and subsequently the large intact boiler of the SS Urlana. Success in the end but that was not the end of the days diving. Gordon from our hosts Dive and Sea the Hebrides had kindly offered to take us out for a night dive on the Loch Bay pinnacle on his boat the "Elena C". We waited for the sun to set at 21:00 and headed out armed with glow sticks. The dive itself was spectacular with huge amounts of life active on the pinnacle and bioluminescence keeping everyone entertained.

Thursday 11 September 2014

This was our last diving day in Waternish and having not arrived back to shore from our night dive until 23:30 the day's dive manager decided we would have a relatively easy day logistically and dive locally as we did on the first day. First up was a planned drift dive at Ard Beag. The plan was to drop in and keep the reef to our left in the drift until we get taken to the sheltered side of the wall. We were told to avoid going over the top of the reef as we would be taken off the reef and onto a featureless bottom. 3 pairs dropped in at the same time to enable the cox to keep track of all 3 together however all 3 pairs were taken over the top of the reef by the current which was quick but not uncomfortably so. Once on the sheltered side there was a seabed of shells and crustaceans to entertain us. As we were about to head out for our second dive we crossed paths

with Gordon and Aileen who had just returned from a wildlife photography trip, Aileen told us that they had been watching minke whales just off Waternish Point which was only 4nm away. We agreed that this was an opportunity not to be missed so we delayed our second dive and headed out to the point. When we arrived we turned off our engine and echo as directed and sat and waited. We saw many pods of harbour porpoise and a few seals and eventually were fortunate enough to see the minke whales coming up for air. We saw 3 to 4 in total in flat calm seas, a really special moment. We then headed to Clett Island where we were going to dive the northern tip where there is a submerged pinnacle. This proved to be an interesting and enjoyable last dive for all.

Friday 12 September 2014

Today was the start of our long journey back to London but not before a small stop off. We left Waternish at 09:00 and drove to Kyle of Lochalsh from where we launched the RIB and squeezed in a dive on the HMS Port Napier. After a period of playing “spot the wreck” we all enjoyed hour long dives on this spectacular wreck. Having recovered the RIB and packed up we eventually set off for our overnight stop in Carlisle at 15:30, eventually arriving at 23:00.

Saturday 13 September 2014

Dedicated as a travel day, the group left Carlisle at 08:30 for the journey back to London eventually arriving at the boathouse in Chiswick at 15:00. As we had not had access to a tap in Kyle of Lochalsh we proceeded to wash the RIB and all the dive kit. We finally arrived back at the University of London Union at 16:00. Our expedition was over.

Expedition Financial Summary

Expenditure

Item	Amount
Transport: MPV hire	£200.00
Transport: Van hire	£507.85
Transport: Congestion Charge	£12.55
Usage Charges: MPV	£342.75
Usage Charges: Van	£304.95
Usage Charges: RIB hire	£200.00
Usage Charges: Equipment hire	£122.50
RIB Consumables: Fuel	£232.28
Air Fills	£400.00
Accommodation and Mooring	£1,483.00
Food and Drink	£498.99
Misc: Gift and Glow Sticks	£52.24
Total	£4,357.11

Income

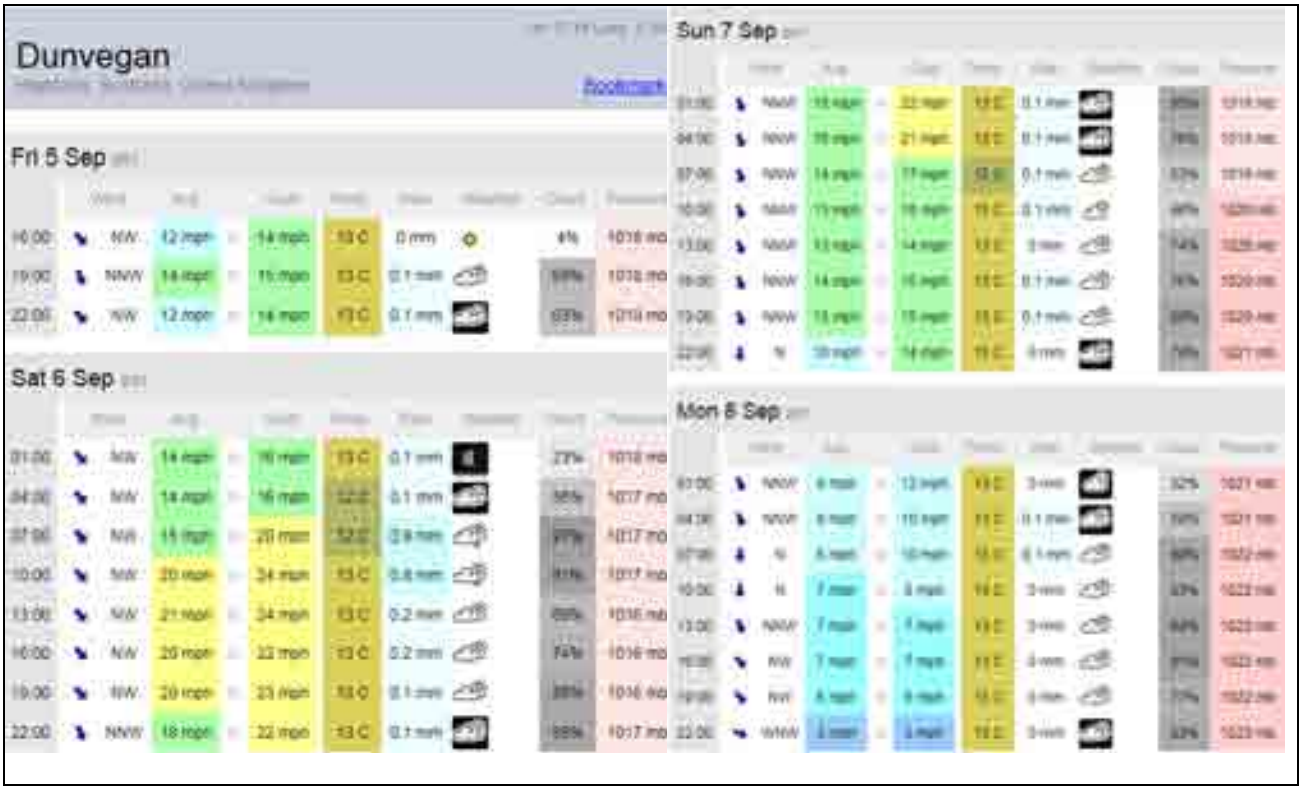
Item	Amount
Personal Contributions	£3,357.11
BSAC Expeditions Grant Scheme	£1,000.00
Total	£4,357.11

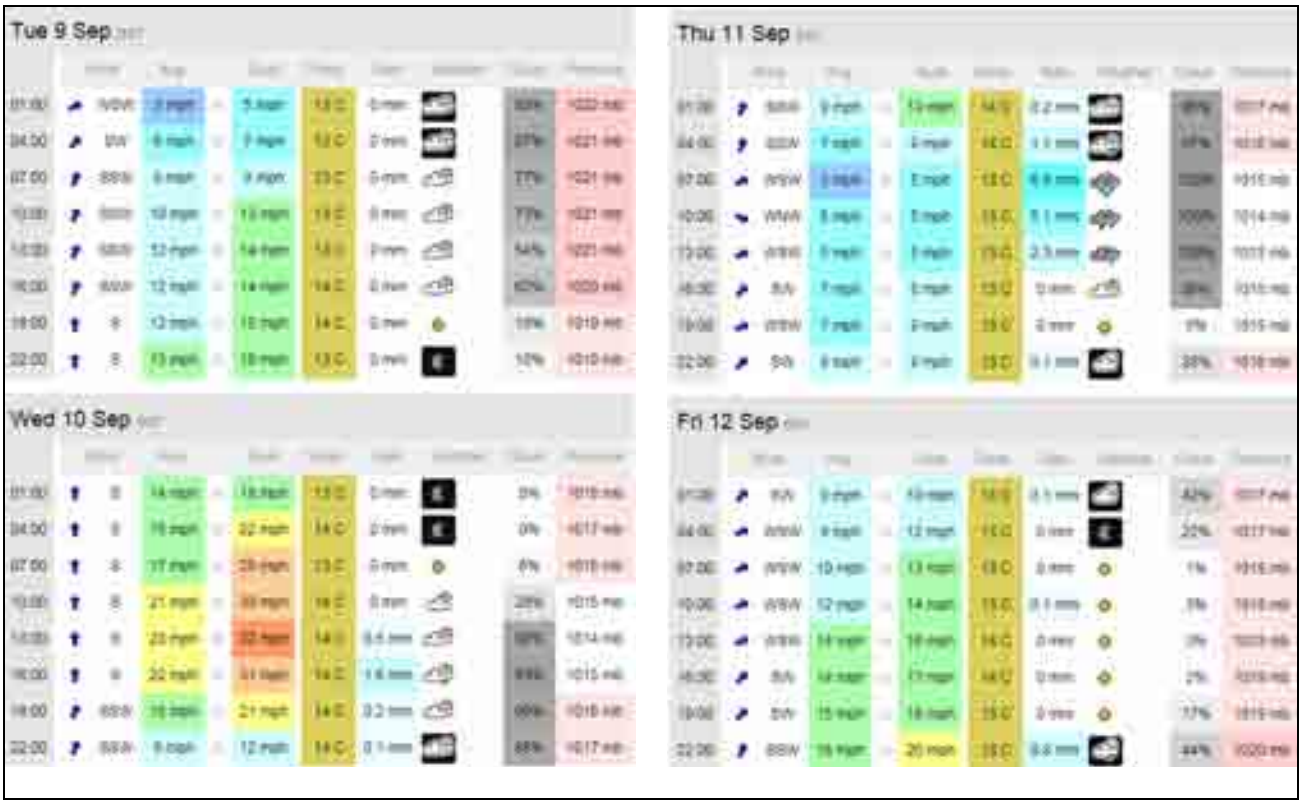
Cost per person	£544.64
Cost per dive	£45.39

Expedition Weather

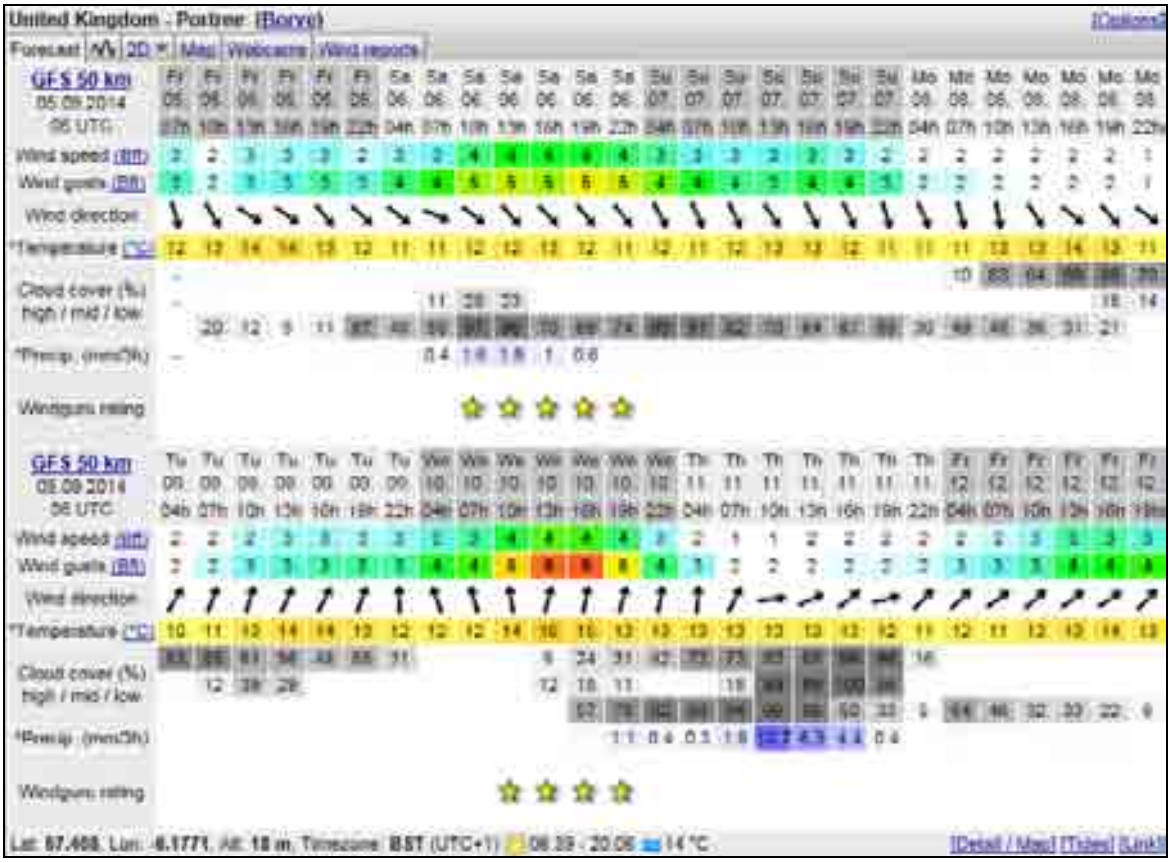
Forecast Weather

As with any diving expedition numerous hours were spent in the week preceding departure constantly refreshing various weather sites hoping for favourable conditions. Fortunately two semi-dependable websites (www.xcweather.com and www.windguru.com) showed similar forecasts for the week with moderate to light winds initially north-westerly before backing southerly/south-westerly. The only exception to the light wind was forecast to be Wednesday 10th Sep with wind speed predicted to be force 4 gusting 6.





www.xcweather.co.uk



www.windguru.com

Actual Weather

The table below shows the actual weather data during the expedition. The winds remained light all week and did not increase as was predicted. To our surprise there was very little rain and an unexpected amount of sunshine.

Day	Date	Pressure (mb)	Wind (mph) Mean	Wind (mph) Max	Wind Dir	Rain (mm)	Max Temp	Ave Humid
1	Fri 05 Sep 2014	1019	8.1	12.4	NW	0.0	15°C	82%
2	Sat 06 Sep 2014	1018	13	19.9	NW	0.0	14°C	85%
3	Sun 07 Sep 2014	1020	11.8	16.1	NNW	0.0	15°C	80%
4	Mon 08 Sep 2014	1022	6.8	12.4	NW	0.0	16°C	83%
5	Tue 09 Sep 2014	1021	8.1	16.2	SW	0.0	15°C	86%
6	Wed 10 Sep 2014	1021	6.8	12.4	SSW	0.0	18°C	89%
7	Thu 11 Sep 2014	1022	3.1	6.8	W	0.0	17°C	93%
8	Fri 12 Sep 2014	1025	3.1	10.6	SSE	0.0	19°C	91%
9	Sat 13 Sep 2014	1028	3.1	6.8	Variable	0.0	19°C	87%

Water temperature was 13°C throughout the expedition

Expedition Dive Sites

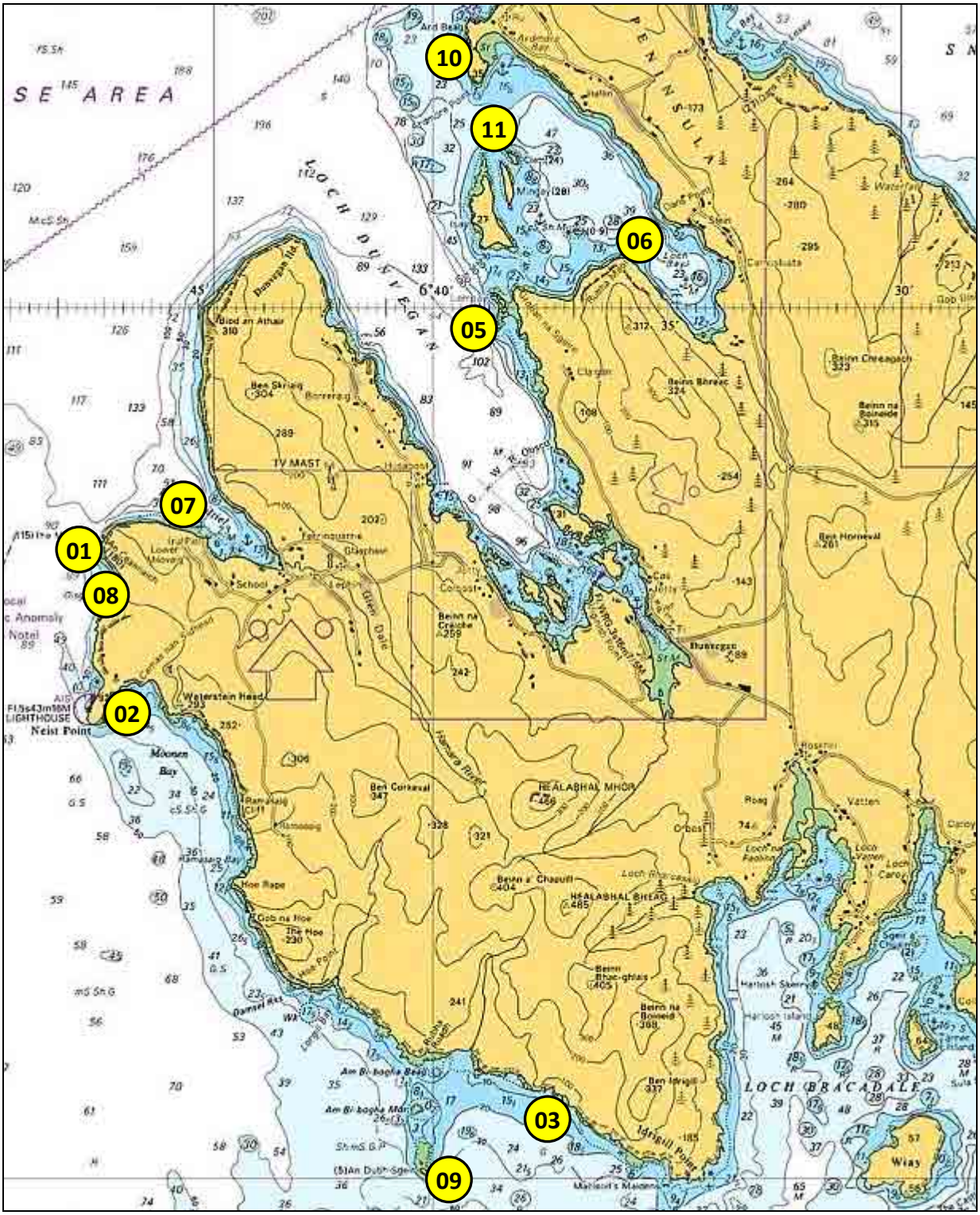
Wreck Dives

Site	Name
01	SS Chadwick
02	SS Doris
03	SS Urlana
04	HMS Port Napier (from Kyle of Lochalsh)

Reef Dives

Site	Name
05	Lampay Island
06	Loch Bay Pinnacle
07	Meanish Reef
08	Oisgill Bay
09	Conger Crevice
10	Ard Beag Drift
11	Clett Island

Overview



www.wrecksite.eu (chart scale 1:100000)

Slack water on the west coast of the Isle of Skye is 4 hours after HW Dunvegan.

Extreme care should be taken around exposed peninsulas such as Neist Point where conflicting tidal streams can lead to unpredictable underwater currents (including up and down currents).

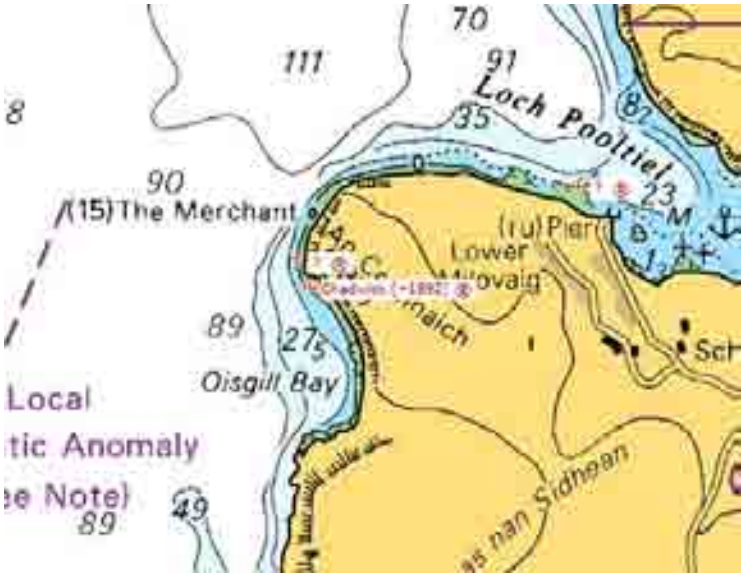
Site 01

Name SS Chadwick

Type Wreck

Co-ordinates 57 27.081N 06 47.059W(WGS84)

When to dive 4 hours after HW Dunvegan



Site Overview

www.wrecksite.eu

Marked By No wreck symbol on chart. Approximate position marked on wrecksite.eu as indicated above.

To place shot on boilers look for straightish edge of low rock below high cliffs to the east of The Merchant rock (marked as triangle on sketch). Drive out from straight rock edge and boilers are in 15m. No visible trace will be seen from this angle however if driving from north to south here will be a small "bump" before the reef rises up to 6m (bottom right sketch).

Site Sketch

Courtesy Gordon McKay, Dive and Sea the Hebrides

Additional Info From UKHO, via The Wrecksite

Date Sunk: 05 July 1892 (hit rocks)

Tonnage: 1463

Wreck lies inverted and broken up

Diver Wreck Tour:

http://www.divernet.com/Wrecks/wreck_tours/159458/wreck_tour_20_the_chadwick.html

Notes Despite being quite broken up there are some distinctive large sections of wreckage including an anchor and boiler still encased in hull plating.

"The wreck itself lies in a north-westerly direction from the cliff at 15m. It can be seen as a number of large fragments at depths from 15 - 25 metres. The boiler sat at 15m, then a number of plates and a mast lie on the slopes and an anchor encrusted in plumose anemones can be seen at around 18m. Much of the wreckage is covered by anemones and dead man's fingers. The seabed is relatively flat, gently sloping down from 15 metres; currents tend to be stronger towards the deeper end of the wreck. The visibility was about 5 to 10m. In terms of marine life, there were lots of male cuckoo wrasse, lobsters and many brown crabs. We also encountered some pollock which were up to 20 inches. A torch was particularly useful to look out for squat lobsters and fish sheltering inside the wreck."

Site 02

Name SS Doris

Type Wreck

Co-ordinates 57 25.148N 06 47.126W (WGS 84)

When to dive 4 hours after HW Dunvegan

Site Overview www.wrecksite.eu

Marked By No wreck symbol on chart. Approximate position marked on wrecksite.eu as indicated above.

Wreck is lying in last rocky inlet before it opens out to into Moonen Bay. Drop divers in close to shore in 10m and let them swim down the wreck. Advise divers to ascend up slop back to 10m before deploying DSMB as strong currents will seep divers away if DSMB is deployed at depth. Competing tidal flow around Neist Point can result in unexpected down and up currents. Care should be taken.

Site Sketch

Courtesy Gordon McKay, Dive and Sea the Hebrides

Additional Info From UKHO, via The Wrecksite

Date Sunk: 12 July 1909 (hit rocks)

Length: 77.7m Beam: 4.8m Tonnage: 1381

Completely broken up

Article from Dive and Sea the Hebrides: http://www.dive-and-sea-the-hebrides.co.uk/documents/ss-doris.pdf

Notes The SS Dorris was an easy site to locate, particularly as we had a very informative diagram of the site location kindly provided by Gordon McKay (see above). We were warned in advance that the slack times for this site were notoriously unpredictable,

particularly during spring tides. Nevertheless, we arrived at the site 1 hour earlier than predicted slack in order to assess the state of the currents. Unfortunately, despite our best efforts, the currents were difficult to assess and slack window was short, so not all divers were on the wreck during the slack window. However, half of the diving pairs had an enjoyable dive. Care should be taken when diving this site and divers should be vigilant of tide as they descend the wreck. The tide will be felt from approximately 20m.

"The Doris is an interesting wreck which starts in around 10m very close to shore. The boiler can be found in 15m and then divers can follow the wreckage down to the propellers in 28m. In between these 2 features the wreckage consists of plates and ribs of the hull spreading off either side. There wreck is full of plumose anemones and large shoals of fish hover above the wreck when the tide isn't running. When it is running you can find the fish hiding in the gulleys in the shallows (along with the divers who missed slack!)"

Site 03

Name SS Urlana

Type Wreck

Co-ordinates 57 20.806N 06 37.173W (WGS 84)

When to dive Diveable at any state of the tide

Site Overview

www.wrecksite.eu

Marked By No wreck symbol on chart. The wreck lies in 10 to 12m just in front of the visible rock north-east of the area showing 10.7 in the centre of the extract.

Wreckage lies in 10m to 15m amongst kelp covered large boulders just in front of exposed rock.

Wreck is located in front of prominent rock on the right of the photograph below (indicated by red circle). The boilers are in approximately 12m.

Site Sketch

Courtesy Gordon McKay, Dive and Sea the Hebrides

Additional Info From UKHO, via The Wrecksite

Date Sunk: 05 September 1943 (ran aground)

Length: 140m Beam: 10m Tonnage: 6850
Completely broken up
Article from Dive and Sea the Hebrides: http://www.dive-and-sea-the-hebrides.co.uk/documents/ss-urlana.pdf

Notes

An old British India Steam Co ship, the Urlana ran aground in bad weather. Today the wreck is very broken up and spread across a large area. For the most part divers will find rusty plates and bars in amongst large boulders covered in kelp. The seabed is coarse sand so the visibility is generally very good and when the sun is shining it is incredibly picturesque. In around 12m there are the remains of the 2 boilers rising up around 5m from the seabed. This is a good rummage dive.

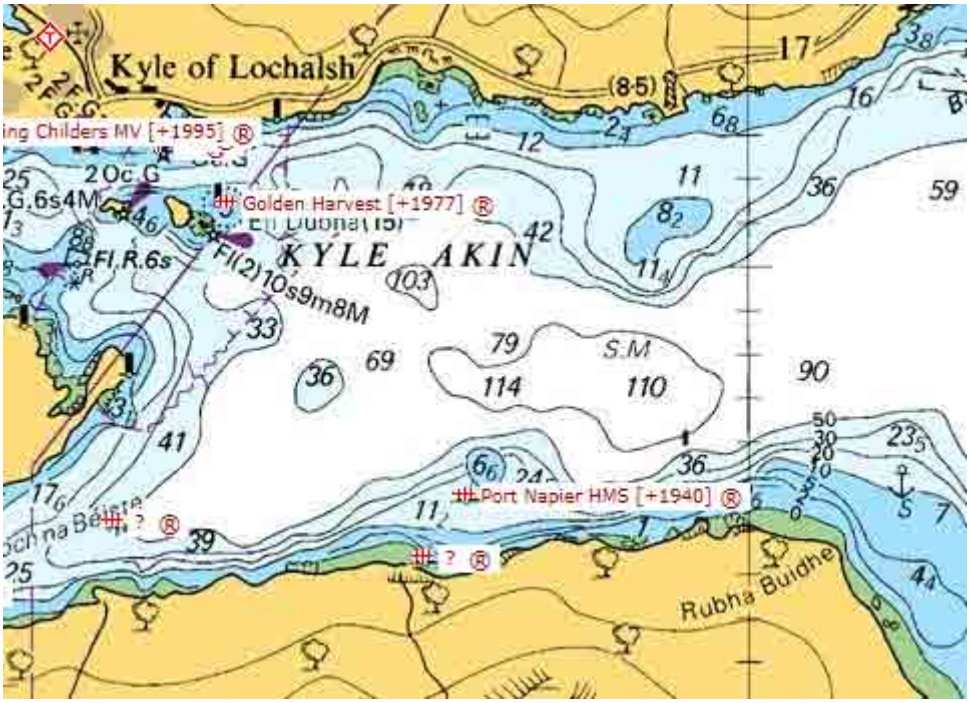
Site 04

Name HMS Port Napier

Type Wreck

Co-ordinates 57 15.951N 05 41.251W (WGS 84)

When to dive Diveable at any state of the tide



Site Overview www.wrecksite.eu

Marked By Wreck, visible at chart datum, as shown.

Additional Info From UKHO, via The Wrecksite

Date Sunk: 27 November 1940 (fire and subsequent explosion)

Length: 152m Beam: 21m Tonnage: 9600

Completely broken up

Diver Wreck Tour:

http://www.divernet.com/Wrecks/wreck_tours/159466/wreck_tour_12_the_port_napier.html

Notes An iconic wreck the 9,600 tonne Port Napier was a must do site even though we had to fit it in on our journey back to London at the end of the trip.

"The HMS Port Napier is a truly fascinating wreck, which allows for some very enjoyable diving. The former minelaying vessel suffered an engine room fire only a few months after being commissioned and now sits at the bottom of Loch Alsh. The wreck itself actually emerges from the water at low tide meaning locating the structure couldn't be easier.

The wreck lies on its starboard side with the deck structure well preserved and easily appreciated from the outside. There still exists a pair of 4inch guns on the bow although the exact shape is somewhat hidden beneath the mass of colonising vegetation. Swimming along the deck is quite amazing as the mast structure and various other projections remain adhered to the ship in the calm waters of the Loch.

The visibility on the wreck is good (about 10 m) but fragile without complete finning discipline preventing churning up clouds of silt. This can be particularly disorientating

when on the inside, but fortunately most of the portside armour plating has been removed meaning that a 'blue window' is ever present above divers. The internal structure is stable but there still exist a few obstacles such as ropes, metal poles and siding which may break away if bumped into. The wreck's hold can be infiltrated by a number of doorways and holes.

The wreck itself is covered in life, including soft coral, plumose anemones and crabs, as well as wrasse and pollock."

Site 05

Name Lampay Island

Type Scenic Reef

Co-ordinates 57 29.510N 06 38.412W (WGS 84)

When to dive Diveable at any state of the tide

Site Overview

www.wrecksite.eu

Marked By We dived the southwest wall where the contours are tight by the drying area.

Notes This was one of the first dives of the trip, so we wanted to stay relatively local. We also wanted to dive some shallower sites after the long drive to Skye, and as some members hadn't dived for several months prior to the trip. Fortunately, there are several excellent sites near the launch site of Stein and this made for a great shake-down dive.

"On the south-west side of Lampay Island there is a kelpy reef at about 3m which comes out from the rock. If you swim to the edge of this reef you can descend down a wall to around 15m. If you then keep the wall to your left you can swim along the wall and into a gulley, which comes up to around 4m, then come back down the other side. This wall has a sandy bottom meaning that even with several divers on the site you still get good visibility (10m+). The wall is home to many squat lobsters, lobsters, and crabs which you can find by peering into the crevices between the rocks. There are also schools of fish swimming around that you may encounter. On the surface you may see seals and dolphins swimming nearby."

Site 06

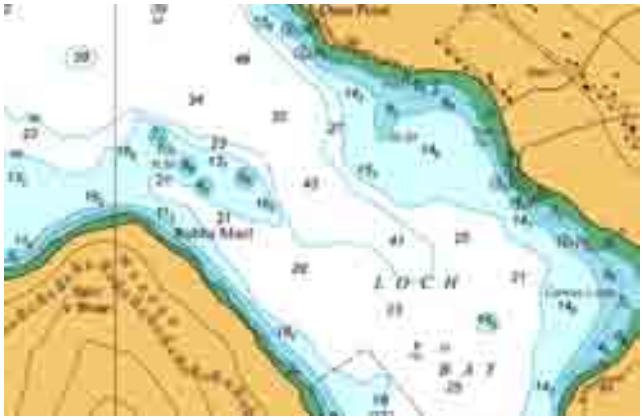
Name Loch Bay Pinnacle

Type Scenic Reef

Co-ordinates 57 30.411N 06 35.388W (WGS 84)

When to dive Diveable at any state of the tide

Site Overview



Memory Map

Marked By Submerged pinnacle marked by 4.3m in extract above.

Notes We did this dive site on the first diving day, as it's conveniently located across the bay from our launching site at Stein, and it was an excellent site that wasn't too deep on the first day's diving. We also came back here later in the week for a night dive.

"It's a non-tidal site and sheltered, so is diveable in all but the worst weather conditions. There is a buoy attached to the top of the pinnacle, which comes up to about 6 m (be careful at low tide, as there will be a lot of slack rope floating around). On the top of the pinnacle there is a forest of kelp and rocks, which is home to groups of small shoaling fish and wandering crabs. In all directions, the pinnacle then drops off at a fairly steep angle until it reaches a sandy bottom at about 23 m. The slopes of the pinnacle are covered with rocks and crags, which hide a plethora of life.

We did our first dive here during the afternoon at about 4–5 PM. Our group spotted wrasse, common and squat lobsters, swimming velvet and edible crabs, plumose anemones and various soft coral. It's recommended to circumnavigate the pinnacle whilst spiralling upwards until the top is reached. A 30–40 minute dive will allow 1 or 2 full circles, depending on how often you're distracted.

We dived this site again as a night dive, shortly after dusk (about 9–10 PM), with the kind assistance of Gordon MacKay and his boat Elena C. During this dive, the life was even more abundant and more active. In addition to the life listed above, we saw conger eels, feeding barnacles and a sea of feather stars swimming around the kelp forest. What's more, the phosphorescence made for a very atmospheric dive and safety stop. The night dive was one of the highlights of the trip, and thoroughly recommended by all. This was in part due to familiarity of the site on a previous day, so diving this site by day then night is advisable to get the most out of it.

The visibility at this site was about 5–8 m."

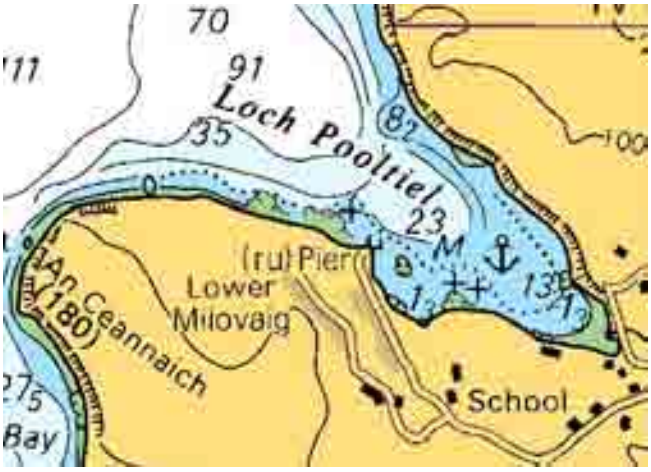
Site 07

Name Meanish Reef

Type Scenic Reef

Co-ordinates 57 27.433N 06 44.942W (WGS 84)

When to dive Diveable at any state of the tide



Site Overview www.wrecksite.eu

Marked By We dived the reef represented by the dotted black line and started our dives on this contour between the where pier is marked and black cross.

Drop divers in line with rocky out crop on edge of wall in 6/7m and tell them to make their way down the wall and north-west along the reef.

Site Sketch

Courtesy Gordon McKay, Dive and Sea the Hebrides

Notes This site is easily accessible from Meanish Pier and is within sight of the pier. It is important to note that the slipway can be uncovered and certain times of the tide but there is a ramp and steps that can be used to moor on. However, at low water these can be quite a steep step and is very slippy but is manageable if care and time is taken.

"Meanish Reef is just off of a rocky outcrop at the end of Meanish Pier. We used our RIB to drive out to it but you could probably do this as a shore dive if you don't mind

swimming a bit. You descend just off the end of the point into around 10m of water on top of the reef. Follow the gentle slope of the seabed down until you drop off the wall. At this point it isn't a huge wall, only dropping to about 12-13m but stick with it. Keeping the wall, made up of big boulders, on your left you'll find lots of little critters hiding in the cracks so get your torch out and have a good rummage. There are tonnes of squat lobsters, edible crabs, starfish of all shapes and sizes and one of our divers found an octopus hiding in a hole. As you follow the wall along it becomes much more defined with the depth increasing to 15-20m depending on the tide. You can easily spend 30 minutes or so ambling your way along the wall but save some gas for the end. Just as you're getting a bit tired of brown boulders the end of the wall appears and it's covered in plumose anemones. This section is stunningly beautiful and because the visibility is so good it can still be enjoyed while completing your safety stop."

Site 08

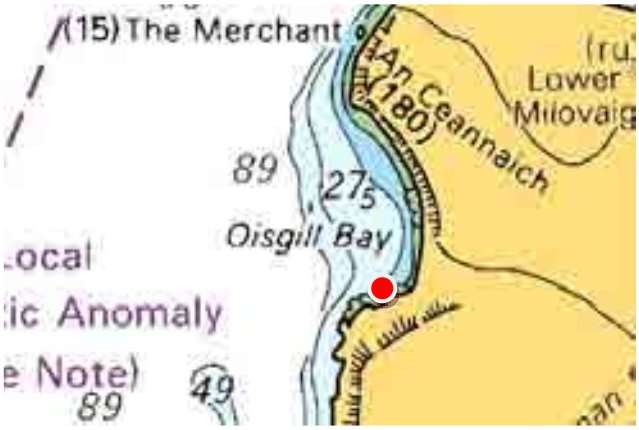
Name Oisgill Bay

Type Scenic Reef

Co-ordinates 57 26.584N 06 46.849W (WGS 84)

When to dive Diveable at any state of the tide

Site Overview



www.wrecksite.eu

Marked By We dived on the reef in the south of the bay in the dark blue 20m area marked by red spot above.

Site Sketch

Drop divers on edge of wall in 10m and direct them to follow wall down and to the west.

Courtesy Gordon McKay, Dive and Sea the Hebrides

Notes A reasonable second dive site which is sheltered from the tide coming from the south. Good for newly qualified Ocean Divers. Beware there is a magnetic anomaly here (as indicated on chart) which we observed when comparing the on board compass to the GPS positioning.

"This dive site encompasses a plateau about 8m deep and a vertical wall which descends from about 10m down to 24m. It is covered in quite a few plumose anemone and a multitude of starfish. On the plateau of the wall there is also a gully which is enjoyable to swim through which is home to several more starfish and quite a few medium size fish. If you swim to the end of the gully, the wall peters out and you hit sand, which is an indication you have come off the dive site and need to turn back around again and swim up the plateau to find the wall again."

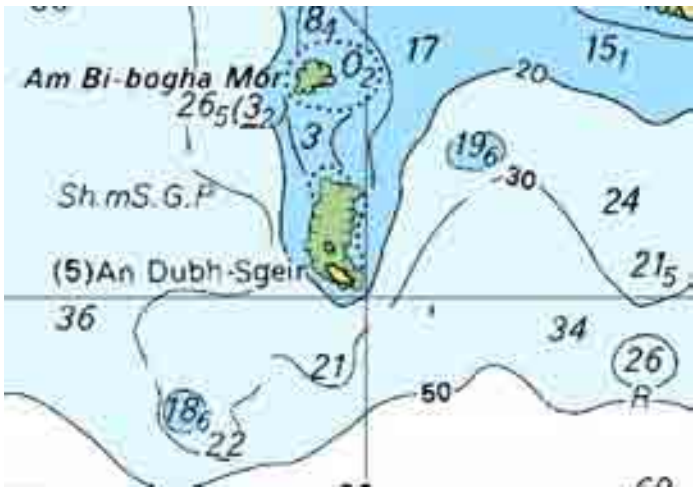
Site 09

Name Conger Crevice

Type Scenic Reef

Co-ordinates 57 20.045N 06 40.096W (WGS 84)

When to dive Diveable at any state of the tide. When the tide is running north there is a gentle drift which takes you along the wall. When the tide is running south you are protected by the land masses to the north.



Site Overview

www.wrecksite.eu

Marked By Visible rock An Dubh-Sgeir. We dived on the south-east edge where there is no drying area.

Drop divers on south-east tip of An Dubh Sgeir where there is no drying area (bottom asterisk). Divers are to follow wall to whilst keeping it on their right hand side. Likely surfacing point is a small bay (top asterisk).

Site Sketch

Courtesy Gordon McKay, Dive and Sea the Hebrides

Notes A fabulous dive site with great visibility and a wealth of marine life. The site is a horizontal crevice running into the rock which has become the home to a plethora of conger eels, lobsters and crabs.

"Conger Crevice is an amazing dive site offering an incredible variety of life. Situated near Macleod's Maidens, this site is a steep wall dive with a rocky bottom and a maximum depth of 20m. Even dived at slack, there is still a very gentle current

around the rock, so it can be enjoyed as a slow drift dive. The crevice itself is at the bottom of the wall – it is deep, horizontal and provides shelter for an abundance of life, sustained by the strong currents.

Visibility on the site is excellent, helped by the lack of sand/silt at the bottom of the wall, and allows you to see that the rock face is covered by beautiful, brightly-covered jewel anemones, barnacles and dead men's fingers. A torch is essential for this dive – the crevice is filled with nooks and crannies and the best life is hidden here. Edible crabs, lobsters and starfish are plentiful and, protected by the crevice from local fishermen, grow to huge sizes.

The real attraction of the site is obviously the conger eels for which it was named. They are numerous and easy to spot in their hideaways – we found seven during just one dive. As usual, the congers are shy and retreat from torchlight but you can usually still see them through other gaps in the rock. This was a fantastic dive site and one of the best wall dives I've ever done – I would definitely recommend it to anyone visiting Skye."

Site 10

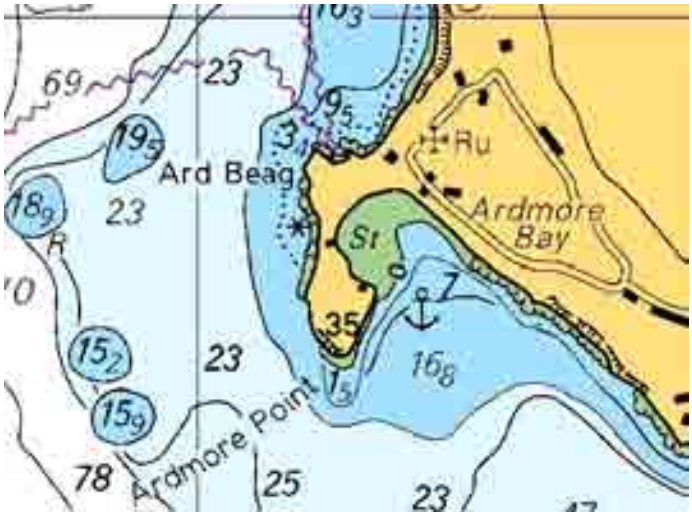
Name Ard Beag Drift

Type Scenic Reef

Co-ordinates 57 33.440N 06 39.037W (WGS 84)

When to dive Drift dive

Site Overview



www.wrecksite.eu

Marked By We dropped in divers to the north of the headland in the area marked 9.5.

We dived on Dunvegan HW+3 (tide flowing north to south). Drop divers to east of reef marked by 3.4m and ideally they should drift around the reef.

Site Sketch

Courtesy Gordon McKay, Dive and Sea the Hebrides

Notes A thrilling drift dive! Sadly we were unable to stay on the reef wall as directed but all divers experienced a quick drift over the reef nonetheless.

"Having been told to "go around the reef with it on your left-hand side, you'll get a drift for the first half of the dive and then come round to a section where you'll be sheltered from the current but DON'T go on top of the reef as it'll be really drifty there", we dropped in down current from the reef into about 15m thinking that we'd just drift onto the wall and follow it round. It soon became apparent however, that we had absolutely no choice but to go over the top of the reef!"

The top of the reef is very kelpy so easily snags SMB lines but does have a good level of crustacean life and shoals of pollock. One pair spotted a tadpole fish which was a nice treat. The sheltered side of the reef has enough to keep a buddy pair occupied with nooks and crannies to be investigated. This is a tricky one to get right but if all you want is a quick drift then you'll definitely get that no matter where you drop in!

Site 11

Name Clett Island

Type Scenic Reef

Co-ordinates 57 31.497N 06 38.289W (WGS 84)

When to dive Diveable at any state of the tide

Site Overview

Memory Map

Marked By We dropped in divers on the north tip of Clett Island, slightly south-east to the area marked by 18m. There is a cross marking and underwater obstruction.

Notes This is a nice, easy and sheltered dive site with generally good visibility. It can be dived all but a strong northerly wind.

"A scenic dive this is a 45 degree sloped, rocky outcrop from the shore with a sandy bottom at 20 m. Some kelp at 5-10m. No currents and a relaxing dive. Would suggest to bring a torch particularly for spotting critters."

Marine life spotted included ballan wrasse, cuckoo wrasse, starfish, blennies and gobies are found at 15-20m. Many squat lobsters were found between rocks, plumose and snakelocks anemones are common, particularly on the rocky outcrop. A few very tiny nudibranchs and sea urchins were found on kelp.