

EXPEDITION PLAN AND RISK ASSESSMENT

Sevenside Sub Aqua Club - Expedition to Monach Isles 18th – 27th October 2009

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OBJECTIVES

1. Study Grey Seal in their largest breeding ground in UK
2. Dive with seals
3. Identify good diving locations for any future dive trips

DATES

The trip is a 10 day long expedition based from the 18th – 27th October. The time period is dictated by the breeding period of the seals and availability of Seabiscuit the club rib. This is being used by another club expedition to Oban for the preceding week.

MAIN EVENTS LIST

Date	Time	Event	Remarks
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Sat 17 Oct	2200	Leave Bristol	Pick UP boat in Oban?
Sun 18 Oct	1415	Catch Ferry	
	1600	Arrive Uist	
	1630	RV with MH Recce launch RV with local seaman	
Mon 12 Oct	0800	Start move to Monachs	
	1600	Complete in Monachs	
Mon 19 Oct – Mon 26 Oct	N/A	Filming/Photography	See separate Media Schedule
Tue 27 Oct	0800	Recovery from Monachs	
Wed 28 Oct	1150	Ferry to Skye	
Thu 29 Oct	0200	Complete in Bristol	

ACCOMMODATION

We have use of a refurbished school house owned by the xxx trust. This has a bottle gas cooker, no electricity or running water.

Water is provided via a rain collection tank. This we will use for cooking and will run through a purification filter for drinking

EQUIPMENT LOGISTICS

Each diver is responsible for their own personal dive kit. In addition full set of spares and tools will be brought by Martin McGrath. All film equipment to be provided by Stuart.

PARKING ON NORTH UIST

We should be able to leave trailers and cars next to which ever slip way we use as there is parking available at both locations

BREATHING GAS

We will take a small portable compressor, to provide daily refills for the open circuit divers (three of)

BOATS

After significant discussion with regard to launch sites on North Uist, we have identified a slipway at Stinky Bay, which will allow trailered launch 4hours either side of High-water as the

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slip has a significant step. Low water recovery can be accomplished over the hard sand if required.

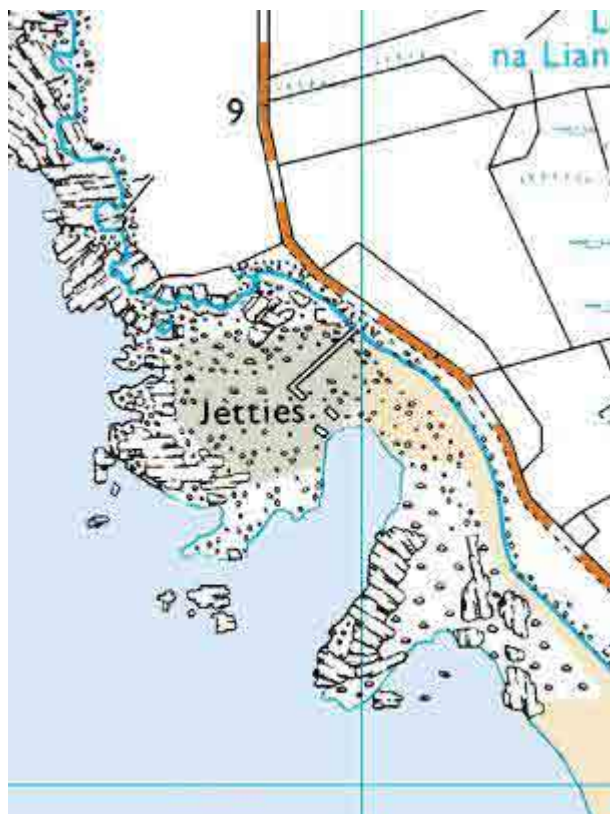
Also having identified that we will have a suitable mooring that will not require the boat to be removed from the water in the event of a storm the choice was for Seabiscuit (5.5M Tornado) rather than Soap Dish (5m Bombard inflatable)

GETTING THE BOATS TO MONACHS

The main thing is we need to arrive in Uig on Skye by 1330 latest on Sunday. This means picking the RIB up from Oban at about 0800 latest

We will then launch from one of two locations, the ideal and shortest crossing will be from stinky bay

Lee managed to get out to the Kallin harbour today and spoke to Nick who runs a boat out of there. He is interested in running gear out to the islands and it's a decent sized sea boat with enough room to make it out in just one trip. You could follow him out from Kallin or launch a rhib at a small slip/jetty on the west side of Benbecula call stinky bay and he would meet you there to load and make the trip out.



His home number is 01870 602403 I gave him your name so he knows what it's about if you call. He is a font of knowledge on the best launch sites and the Monarchs good guy to have a talk to. I am quite impressed with the boat and may try and hirer it for the club next year as its MCA certified.

Some of the mooring out on the Monarchs have been lifted for the winter to change them but there are still mooring out there for use.

I checked the harbour on North Uist but I can't get hold of the fisherman from there at the present, but I did take photographs today if you want to check them out yourself, but I understand it's a much longer run from there.

The fishermen from Kallin use the Oban tide tables

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About 14 miles round and down. Pier is available most states of tide



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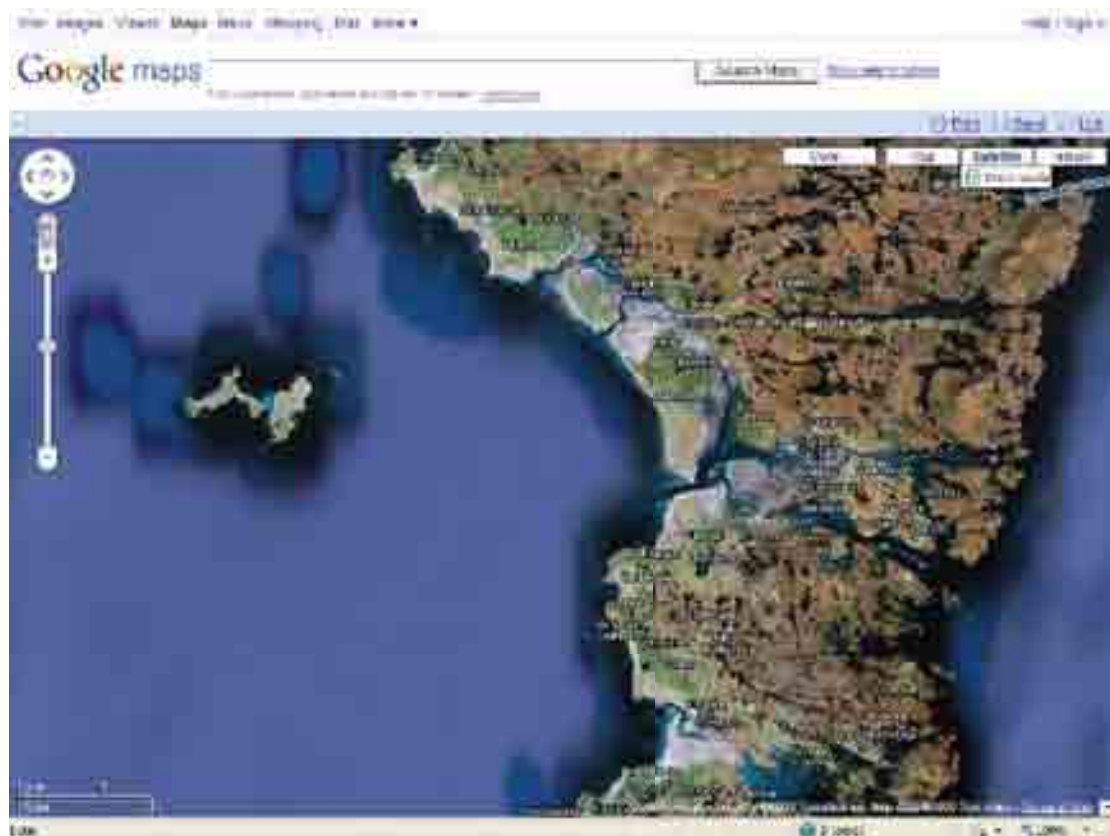
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StinkyBay



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OVERNIGHT MOORING

Via our Uist contact Lee, we have permission to use the mooring s of the local fisherman that have left the Island for the winter. These provide shelter from most conditions with possible exception of Gale force 8-10 SE

EATING

There are no facilities on the island therefore we ill be taking all of our food with the exception of anything that can be hunter gathered while on the island, Fish, Shellfish edible seaweeds.

DIVE SHOPS ON THE ISLANDS

There are none – so each participant needs to bring enough spares for the duration.

FUEL ON THE ISLANDS

There are no facilities on the islands, all fuel needed for the boat compressor and generator will need to be ferried to the island initially.

RISK ASSESSMENTS

These fall into generic and expedition specific categories

Generic risk assessment is as follows:-

Hazard	Who	Risk Evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Heart Attack	All	Low	Medical declaration or referral to medical referee. All divers dive fit	CPR, contact emergency services and evacuate casualty

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Hazard	Who	Risk Evaluation	Controls	Immediate measures to deal with consequences if risk does occur
				In addition all of party are first aid qualified or instructors and we will have a portable defibrillator
Hypothermia	All - particularly wetsuited divers	Medium/High	Divers to wear suitable protective suits and bring hot drinks All divers to bring waterproof coats, hats on boat	First Aid as appropriate. In extreme cases contact emergency services and evacuate casualty.
Entanglement	All	Low	Divers to carry knife and/or net cutter	Assistance from buddy
Nitrogen Narcosis	All	Low as most diving is expected to be less than 30m	Divers have adequate training and experience for dive	Divers to move to shallower water.
Decompression Illness	All	Medium (<35m)	Divers have adequate training and experience for dive Use of Nitrox (if applicable) Dive planned using deco computer/ tables	Administer O2 Contact emergency services and evacuate casualty.
Running out of Gas	All	Low/Medium	Use of redundant air supply is strongly encouraged. Monitor consumption	All divers carry AS.
Diver separation	All	Low	All divers to carry sufficient gas and independence to do all planned decompression	Divers to check at decompression for buddy pairs if not safe to surface Signal to boat cover.
Currents	All divers	Medium	Evaluate tidal flows on arrival All pairs to carry DSMB to be deployed in all events at start of ascent (unless on shotline) or immediately if current is taking divers away from vicinity	Contact coastguard
Boat mechanical failure	All	Medium	Boat to carry minimum safety equipment as recommended by BSAC and MCA Inform coastguard before leaving launch site and on returning Boats to operate in groups and remain in contact	Contact coastguard and inform them of the situation even if there is no immediate danger In addition given location of diving and poor quality radio performance due to distance from mainland EPIRB to be taken on trip
Boat running out of fuel	All	Medium	All boat to carry sufficient for journey +50%	Use of North Uist contacts in an emergency
Divers being hit by boat on surfacing	All	Low	Divers to use DSMB if not on shot line.	First aid as required Contact

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Hazard	Who	Risk Evaluation	Controls	Immediate measures to deal with consequences if risk does occur
			Boat cover to position between divers and other water users	coastguard/emergency services

An expedition/location specific assessment is as follows:-

Hazard	Who	Risk Evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Engine failure on trip across	Coxes	Low	All engines to have received professional service in close season and have been tried out	
Engine failure	All	Low	Take backup engine 15hp	
Engine failure on Monachs	All	Low	Check regularly; avoid rocks; ensure oil levels are kept topped up	Contact alternative boat owners, make use of local fisherman contacts
Compressor failure	All	Low	Check regularly, ensure oil levels are kept topped up	Lee has compressor on North Uist, we can run and get to his shop 1 hour either side of HW
Decompression Illness	All	Low/Medium	Most of diving is expected to be less than 30m	Administer O2 Contact emergency services and evacuate casualty.
Decompression Illness	All	Low/Medium	Encourage Jesus factor stops, particularly on second dives of the day	Administer O2 Contact emergency services and evacuate casualty.
Decompression Illness	All	Low/Medium	Try to maximise surface intervals	Administer O2 Contact emergency services and evacuate casualty.
Hitting submerged rocks	Coxes	Medium	Know safe passages; keep clear of heavy swell areas; carry spare prop and tools to change it	Tow back to base if severe damage
Bad weather for crossings	Expedition Leader	Medium	Be prepared to go early & stay late (see text)	Stay in harbour if conditions dictate
Bad weather for diving	Dive Managers of the day	Medium	Know which sites are sheltered from which wind direction	Invoke bad weather alternatives (sheltered sites dependant on prevailing wind)
Security for kit left in boats overnight	All	Low	We will be only people staying on isles	Call police

Risks in the event of divers using re-breathers are identified thus:-

Hazard	Who	Risk Evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Hyperoxia, Oxygen toxicity from exceeding MOD, or incorrect PO2 (Set	Nitrox divers, trimix divers with Hot	Medium	Record %O2 and MOD for all nitrox divers before dive. All nitrox divers to be	Recover casualty to surface/boat. First aid as appropriate. Contact emergency services.

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Hazard	Who	Risk Evaluation	Controls	Immediate measures to deal with consequences if risk does occur
Point) setting on Rebreathers	deco & rebreather Divers		qualified for gas mix they are using. Deco cylinders to be turned off and/or DV marked to prevent accidental use All rebreather buddies to understand HUD units of Buddy	
Total Loop Flood	All Rebreather Divers	Low	Bubble check at 6m Pre dive checks positive negative	Bail out capacity for remainder of return to surface
Total electronics failure	All Rebreather Divers	Low	Check of Battery power prior to dive	Bail out capacity for remainder of return to surface
Hypercapnia (CO2 hit)	All Rebreather Divers	Medium	Adequate Scrubber life for planned dive Sufficient pre-breath of unit Do not beat the scrubber(level of underwater work) Buddy awareness of Rebreather diver stupidity or poor skill	Bail out Gas of diver or BUDDY AS and dive abort
Hypoxia lack of O2	All Rebreather Divers & Trimix divers	Medium	Trimix divers use of correct breathable mix at depth Rebreather Divers maintain correct set point BUDDY understand any HUD unit	Bail out Gas of diver or BUDDY AS, followed by remedial action or dive abort

Conduct will at all times be in accordance with BSAC "Safe Diving Practices" booklet

OTHER SAFETY/EMERGENCY INFORMATION

Stornoway
HM Coastguard
Clan Macquarrie House
Battery Point
Stornoway
Isle of Lewis
Western Isles
HS1 2RT

Tel : 01851 702013/4
Fax : 01851 704387

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Costal safety manager

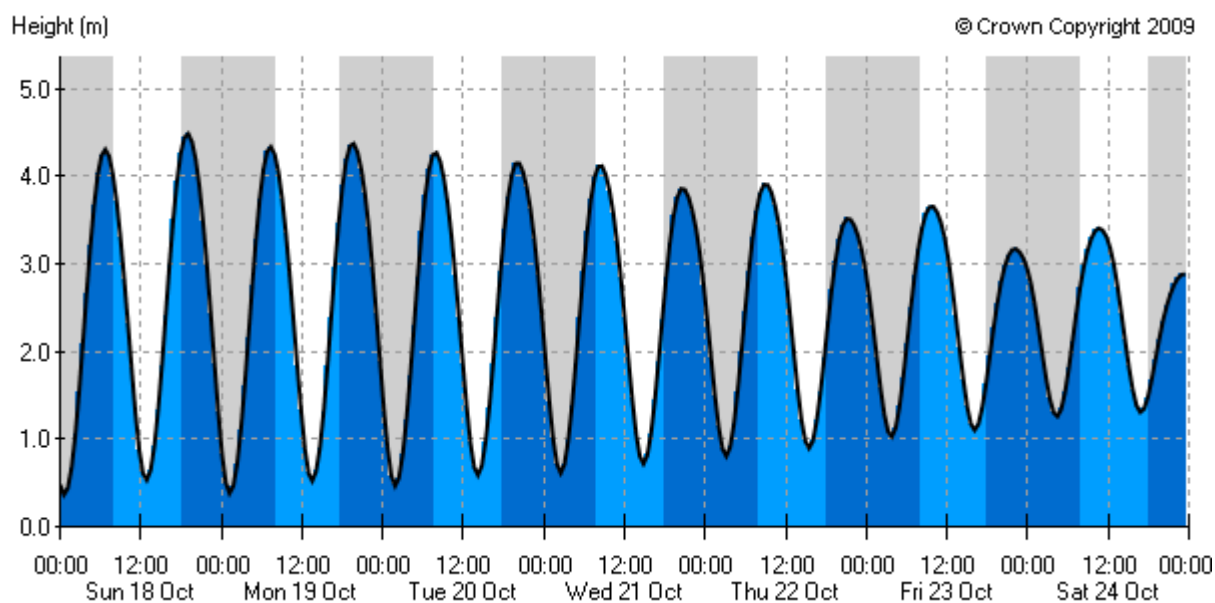
Ian.burgess@mcga.gov.uk

There are no known restrictions and little or no local experience of diving the Monarchs

Lee Coleman – BSAC diver just formed a local branch, also runs the local store
01876 580257 day
01876 580671 night
bootneck@hebrides.net

Shillay, Scotland

Port predictions (Standard Local Time) are equal to BST



Sun 18 Oct			
LW	HW	LW	HW
00:35	06:42	12:48	18:55
0.4 m	4.3 m	0.5 m	4.5 m

Mon 19 Oct			
LW	HW	LW	HW
01:13	07:17	13:27	19:31
0.4 m	4.3 m	0.5 m	4.4 m

LW	HW	LW	HW
01:50	07:49	14:07	20:03
0.5 m	4.3 m	0.6 m	4.2 m

Wed 21 Oct

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LW	HW	LW	HW
02:27	08:22	14:46	20:37
0.6 m	4.1 m	0.7 m	3.9 m

Thu 22 Oct

LW	HW	LW	HW
03:05	08:58	15:26	21:15
0.8 m	3.9 m	0.9 m	3.5 m

Fri 23 Oct

LW	HW	LW	HW
03:41	09:40	16:04	22:03
1.0 m	3.7 m	1.1 m	3.2 m

Sat 24 Oct

LW	HW	LW	HW
04:19	10:35	16:48	23:15
1.3 m	3.4 m	1.3 m	2.9 m

Predicted heights are in metres above Chart Datum

Springs and Neaps

Sunday 18th October 2009 15 days before full moon
2 days before spring tide

Moon Phases

New Moon Sunday 18th October 2009	First Quarter Monday 26th October 2009
Full Moon Monday 2nd November 2009	Last Quarter Monday 9th November 2009

Times of Sunrise



Sun 18 Oct

08:11

Mon 19 Oct

08:13

Tue 20 Oct

08:16

Wed 21 Oct

08:18

Thu 22 Oct

08:20

Fri 23 Oct

08:22

Sat 24 Oct

08:25

Times of Sunset



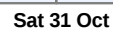
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Sun 18 Oct
18:19
Mon 19 Oct
18:16
Tue 20 Oct
18:13
Wed 21 Oct
18:11
Thu 22 Oct
18:08
Fri 23 Oct
18:06
Sat 24 Oct
18:03

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Port predictions (Standard Local Time) are equal to UTC





Predicted heights are in metres above Chart Datum

Springs and Neaps

Sunday 18th October 2009 15 days before full moon
2 days before spring tide

Moon Phases

New Moon	First Quarter
Sunday 18th October 2009	Monday 26th October 2009
Full Moon	Last Quarter
Monday 2nd November 2009	Monday 9th November 2009

Times of Sunrise



Sun 25 Oct
07:27
Mon 26 Oct
07:29
Tue 27 Oct
07:32
Wed 28 Oct
07:34
Thu 29 Oct
07:36
Fri 30 Oct
07:38
Sat 31 Oct
07:41

Times of Sunset



Sun 25 Oct
17:01
Mon 26 Oct
16:58
Tue 27 Oct
16:56
Wed 28 Oct
16:54
Thu 29 Oct
16:51
Fri 30 Oct
16:49

FINANCIAL BUDGET & COST BREAKDOWN

Item	Cost	No	Total	Remarks
Passengers	9.80	4	36.20	
Ferry (car)	44.80	2	89.60	
Ferry (boat)	68.00	1	68.00	
Car Fuel	150	1	150	1300 miles at 50mpg
LR Fuel	300	1	300	1300 miles at 25mpg
Gen Fuel	60	1	60	50 litres
Comp Fuel	80	1	80	75 litres
Boat Fuel	120	1	120	100 litres
Food	?		?	
HDV Tapes	?		?	
Video Hire	650	1	650	
Schoolhouse	300	1	300	
Editing	?		?	
Post Production	?		?	
Film lighting	350	1	350	
TOTAL			2203.80?	

Fixed costs are currently identified as follows:-

Ferry passenger tickets
Cost of fuel to get boats across to the islands and back

Variable costs

Fuel running costs (petrol and two-stroke oil) for diving and diving related activities (eg site searching) on the islands
Fuel running costs (petrol and two-stroke oil) for pleasure activities (eg visiting outer islands)

Additional Personal costs

"Order of cost" liability can therefore be anticipated as follows:-

	Amount	Per person	Cum total
Group fixed costs:-		£	£
Ferry/outboard fuel	£100 per person	100	
Towing costs (excess)	£100	15	
			185

Group variable costs-:			
Outboard fuel, diving		30	
			387
Personal Responsibility costs-:			
Food/drink	£50 PER PERSON	175	
Accommodation	Rental of school house		

The Expedition Leader will obtain ferry tickets in advance, and a deposit from each signed up expedition member has been obtained to cover this expenditure.

LIST OF PARTICIPANTS

While being a club expedition the logistics were such that this trip only allowed for a limited number of divers, the primary restraint being that the accommodation can only sleep 4. Camping was considered but discounted given the nature of weather in October on the isles. The individuals so far are as follows-:

Name	Contact Tel & E Mail	BSAC Membership No	Present Grade
Andy Torbet - Exped Leader		A	Advanced Diver Open Water Instructor
Stuart Keasley		Not a BSAC member	PADI IDC Staff Instructor
Martin McGrath		Renewing Member	Advanced Diver AI
Andy Moll			1 st Class Diver AI

TARGET DIVE SITES

There are no known wreck locations on the Monachs, and given the short planning time we have not had opportunity to contact the Hydrographic Agency to gain information from their wreck database.

Scenics

The primary target for non seal dives, will be the Shillay Light rocks as these would appear from the charts to provide for some deep water with potential for wall diving between 15 and 35m

The remainder of the islands are relatively shallow in nature

Seals

This is the primary reason for the trip and as to locations for diving we will be looking to dive close in shore to the male and adolescents beaches. The other areas will be inhabited by breeding groups with a dominant bull. These will not be dived.

FOOD

Item	Quantity	Remarks
BREAKFAST		
Porridge	3 boxes	
UHT Milk	12 litres	
Sugar	2 bags	
Tea bags	Box of 100	
LUNCH		
Packets of Soup	16	8 lunches
Bread	5 loaves	
Bread Mix	5 loaves worth	Bread Tin
Butter	3 blocks	
DINNER		
Pasta	2 packets	2 meals
Pasta Sauce	2 jars	1 meal
Mince	1 kg pack	1 meal
Noddles	8 packets	2 meals
Rice (boil in the bag)	1 box	1 meal
Tinned Steak	3 jars	1 meal
Tinned Chicken	3 jars	1 meal
Turnip	1	1 meal
Chinese Sauce	2 Jars	1 meal
Thai Sauce	2 jars	1 meal
Curry Sauce (mild)	2 Jars	1 meal
Baking Potatoes	8	1 meal (+spare)
Instant Mash	2 boxes	2 meals
Haggis	1	1 meal
Beanfeat (Spag Bol)	2 packs	1 meal
Beanfeast (plain)	6 packets	3 meals
SNACKS		
Apples	18	
Tangerines	18	
Bananas	18	
Instant Noodles	32	
Cup-a- Soups	60 sachets	
Hot Chocolate	1 large tin	
Sweeties	Up to you	
Squash	3 litres	

Carrots	1 bag	
DOMESTIC		
Toilet Roll	4 rolls	
Bin Bags	1 roll	
Washing up Liquid	1 small bottle	
Soap	2 bars	
Dish Towels	2	Andy's
Washing up scrubbers	2	
Coal	1 large bag	
Lighters	4	
Fire Lighters	2 boxes	
Candles	12	
Gas canisters	4	For lanterns

Dinners on The Monachs:

- 19 – Mince, Pasta Sauce, Pasta
- 20 – Beanfeast (plain), Chinese Sauce, Noodles
- 21 – Stewed Steak, Instant Mash
- 22 – Beanfeast (Spag Bol), Pasta
- 23 - Beanfeast (plain), Thai Sauce, Noodles
- 24 – Chicken in White sauce, Baked potatoes
- 25 – Beanfeast (plain), Mild Curry, Rice
- 26 – Haggis, Turnip, Instant Mash

DIVING EQUIPMENT

Item	Number	Remarks
Membrane Drysuit	1	
Wetsuit 7mm	1	
Short John	1	
Wetsuit Socks	1	
Bootees	1	
Gloves	2	
Hood	2	
Fleece Trousers	1	
Fleece Top	1	
Undersuit	1	
Thick Socks	2	
Sealskin Socks	1	

BSAC Severnside Branch
October 2009

..... end of plan