

Deneck

Enclosed is a copy of reports for the Hebride Trophy. Some contributions have still not arrived so they are not included, but eg. Equipment and reports on the Skye III and Cape Wrath Trips, also, the section on Branch Meetings. I have not included all the appendix material to cut down on photocopying. Also page 3 of your introduction was slipped through the photocopying but I am sure you have a copy of this anyway. Perhaps if you could comment on the reports. Some reports have obviously been written rather hastily and so detailed analysis of grammar etc may not be valuable at this stage, but comments on style and accuracy of information should be included.

Many thanks

Geoff.

Introduction - Edinburgh University Sub Aqua Club

'Edinburgh University free Diving club' was founded in July 1968. An equipment grant made by the University was used to buy a compressor, 8 cylinders and 4 sets of equipment, and a week-long diving expedition to Scapa Flow was organised. We were in business! Initially pool training facilities and instructors were provided by Edinburgh BSAC, but by 1970 we were self-sufficient, with a regular annual intake of new members at the start of each academic year. The moniker had been coined - we were 'Edinburgh University Sub Aqua Club' - and BSAC Special Branch no. 407.

By then we were also supplying instructors to help other branches, such as Dunfermline College of Physical Education BSAC Special Branch and Settes College BSAC Special Branch. Expeditions at home and abroad were organised, such as the EUSAC 1970 Hebrides expedition (much as is now offered by the BSAC Expedition Scheme) and the EUSAC Jamaican Expedition, during which our D.O. supervised underwater colour vision experiments, the results of which were presented to the May 1971 SSAC conference.

We supported Scotfed in the founding days of 1972 when a handful of divers assembled, at the bidding of the ~~Regional~~ BSAC Scottish Council, to attend ~~the~~ Scotfed meetings on Sunday mornings and go for ~~all~~ inter-branch dives in the afternoons. Happy days! By this time we had two of the only four first class divers in Scotland (the others being the ~~Scotfed~~ ^{BSAC Scottish Council} Regional Leader and his diving buddy) we still have two - another qualified in 1985!

By 1973, EUSAC-trained divers were bringing diving into their careers. An underwater geology student led an expedition to Barbados to carry out a study for his PhD thesis. During that ^{rare} summer we mounted a search for the remains of H.M. frigates 'Pallas' and 'Nymph', lost off Barns Ness and Tor Ness, in the first of April in December 1810, the story of which was ^{published} ~~written~~ in 'Wreckers, wrecks and rescuers' by Kathleen Fisher and Ian Marion.

The following year we headed once again to Scapa Flow to dive

Introduction - (2)

The World War I wrecks of the German High Seas Fleet - an expedition which we have mounted at least every other year since. Our divers were joining in the major diving projects of the day - marine biology expeditions to Brittany and Mauritius and a National Environment Research Council expedition to investigate carbonate sedimentation of the west coast of Scotland, involving first digit dive sampling of seabed sediments in the Sound of Jura.

In 1974 one of our divers worked on the second season of the excavation of the wreck of HMS Dartmouth, in the Sound of Mull, ~~for~~ with the Institute of Maritime Archaeology of the University of St. Andrews. Detailed drawing, photography and sectioning was carried out, and such artifacts as pewter plates, clay pipes and market handles excavated for conservation at the National Museum in Edinburgh.

In 1975 a group of our divers undertook an underwater survey of two crannogs in Loch Tay, a ^{study} continued by one in a professional capacity, further details of which were subsequently published as an article in December 1981 'Diver'.

In the years around 1978 we assisted with the 'Titanic' project. Initially warning that the project should only be undertaken if conservation or restoration could be guaranteed, we accepted the invitation from the ~~Scottish Regional Coaster~~ BBC Scottish Coaster to carry out a complete survey of the vessel which had been lifted from 30m to 12m. This report was used as the basis for the final lift from 12m to the surface in June 1980, an exercise in which we participated, our photographers taking shots used for the front covers of the August 1980 'Underwater World' and the October 1980 'Scotsman' newspaper colour supplement. Our work on the underwater surveys was extensively filmed both on site and in the university laboratories by the ^{Horizon} BBC ~~the~~ ^{pro} ~~documentary~~ for a documentary about the ~~Titanic~~

In 1978 we organised the initial underwater surveys for the 'Royal Oak Film Expedition' for ~~was~~ BBC TV and one of ~~our divers~~ ^{us} was asked to join the ^{project} organising team. Our underwater photographers were first on the scene following the discovery of one of the ship's bells during the first week of the main expedition in 1979, and this was followed by the appearance of our D.O. on BBC TV's 6 o'clock news, complete with photographs of the bell of which allegedly the bell now hanging over the Royal oak memorial in Kirkwall Cathedral is almost certainly the same one, raised and presented by the Royal Navy ^{some time} after the expedition ^{We gave} public lectures to large audiences in Edinburgh and Glasgow ~~were given~~ on the subject of 'The Royal Oak' following ^{the} expedition. Also in 1979, our dives were among the founder members of 'the Scottish Underwater Photography Group', ~~we~~ one taking the position of Treasurer.

In the summer of 1980 one of our senior divers spent seven weeks helping to excavate the wreck of the 'Trinidad Valencia', lost in 1588 off the west coast of Ireland. A great number of finds were drawn, photographed, ~~and~~ catalogued and conserved.

Our D.O. joined BBC Radio Scotland and devoted several of his broadcasts to our activities, including Pool Training and wrecks dives on the aircraft carrier ~~the Spanish~~ ^{in 1980} 'Campania' in the Firth of Forth and on the 'bitana' in rock Pinnacles ^{around this time}. We carried out extensive wreck research and exploration in areas such as Islay and Mull, the latter being published as an article 'the wrecks of Mull' in June 1982 'Diver' and given as a presentation to the 1980 Scotfed Conference.

Edinburgh University Sub Aque Club is one of the oldest university BSAC Special Branches ~~and~~ remains very active, logging, for example, 943 ^{new} dives during 1984. We estimate that in the last 18 years we have trained around 500 ~~members~~ ^{of} divers ourselves, and with our supply of instructors to other branches, many more in total. Many of our divers have taken their training on into their professional careers - some as professional diving managers or as civilian divers.

MEMBERSHIP

HEINKE TROPHY

① NUMBERS

At Jan 1st 1985 We had 66 members.
During 1985 26 new members joined so that
at Dec 31st 1985 we had 88 members
(taking into account those leaving).

We start training at the beginning of the
academic year i.e. October, so included in the
membership at 1/1/85 are some 8 new members,
whereas in 1986 new members are actually
joining BSAc in JAN & FEB. thereby reducing
the figures for new members for the 1985 year.

During the year approximately 5 new members
to the club transferred from other branches.

(2) RENEWALS.

During 1985 32 people actually renewed membership with replies from another 30 people expected soon. The 26 new members in 1985 are coming up for renewal in Feb & Feb. Out of the new 30 members who joined in last years academic year we expect approximately 20-25 to renew.

A major problem we face is the restriction of membership to those at Edinburgh University (graduates, undergraduates & staff) and those graduates of other universities. This tends to keep the average number of years in the club to 4-5 yrs as people leave the club when they leave the university. Some degree of continuity is maintained with many people staying on to work in Edinburgh or do postgraduate courses thereby building the level of knowledge up in the club.

We make an effort to maintain links with people having left the Edinburgh area and to encourage renewals. With diving trips most weekends throughout the year, trips away for longer periods, opportunities for further training above sports dives all help to make the club friendly and cohesive. Together with the weekly social events - e.g. the Burns Supper in Jan.

Details of Administration

EUSAC is a special branch of BSAC because it is a university club and therefore has a restricted membership. We are subject not only to the constitution of BSAC but also that of the Edinburgh University Students' Union. There is usually no conflict between the two.

- Membership is restricted by the sports which constitution to university students are approved members of the university.
- C Other people can be granted a special dispensation if they can be seen by the SU executive committee to provide a valuable service to student effort in terms of EUSAC. This would be experienced drivers and a high level of motivation for banner.

- Subscription
- BSAC membership only for banner.
BSAC membership + £2-50 for university student nature.
BSAC membership + £2-50 + £5-00 for graduate of the university.

- Committee
- Committee of 8 members (Who are voted in for all the year).
Aug - held in April
~~not be quorate~~

- Organised Meetings - are held at least twice term
~~not be called by any committee member or ordinary member~~
Because of the expanding size of

the club we often "co-opt" members of the club to the committee. They do not strictly speaking have voting rights, but attend general meetings & take a valuable part in discussion.

This is a very ~~good way~~ efficient way of introducing new members to the workings of the Club and means new ideas & viewpoint are always aired. Also in view of the sometimes fairly rapid turnover of members in a university environment this structure enables more people within the club to ~~take hold of~~ enable a smooth handing of responsibilities from one committee to the next.

Apart from the committee, which organises & branch diving as a whole, all members of the club are encouraged and helped to act as Dive Marshals and also to play a part in the organisation of club trips & activities.

1984-85 COMMITTEE.

CHAIRMAN

DIVING OFFICER

TRAINING OFFICER

EXPEDITIONS OFFICER

EQUIPMENTS OFF.

ASST. EQUIP.

SECRETARY

TREASURER

David Barthwell

1st class Abingdon

Gosia Hide

2

>opted

SOCIAL COORDINATOR

ASST. TRAINING OFF.

EQUIPMENTS.

INFORMATION

NEWSLETTER - Usually 2 are printed every term (10 weeks). Contain current news & information for members + Reports & previous tips. Just about all of the training tips get written up which makes exciting reading for new bairees as well as providing amusement for other members of the club.

Apart from word of mouth these are the main form of communication and are circulated to all members of the club.

CONTACT LISTS - At least one and often 2 lists are published each academic year. These contain the names, addresses & phone numbers of all current members - including bairees. This is a very important document when dealing with a student population who tend to move around a lot.

NOTICEBOARDS - There are specific notice-boards in all of the university buildings for sports club news. In Edinburgh, which has a separate science campus as well as several different union buildings, this can be a very useful asset.

SPOTS UNION - The sports union is run by students, headed by the Sport Union President who is a student granted a year's sabbatical from his/her course.

Every 2 weeks there is a General Meeting which is attended by the Sport Union executive committee and one representative from each sports club.

The Sport Union President is also very keen to hear details of how the club is progressing, news of training qualification gained by members etc and is readily available at most times for the secretary of the club to pass on & receive information.

At the moment EUSAC has a list of communication from the club to the Sports Union & vice versa which means that any member of the club can express a point of view within the Sport Union.

A written summary of each General Meeting is circulated to the Secretary of each club.

Within the SU building there are pigeon-holes so that any mail or info from the SU is easily passed on to the Club Secretary.

SPOTS UNION HANDBOOK - Is published each year with details of every club sports club in the SU. EUSAC has its own entry with a brief summary of club activities, training, driving qualification which can be gained and details of how to join. The names & phone numbers of the Chairman & Secretary of the club are also there.

This Handbook is posted to all Freshers before they arrive at university along with details of the SU Fair (**) and is also freely available to all.

Other university student.

INFO FOR NEW MEMBERS

FRESHERS At the SU fair in Freshers' Week we have a stall which is manned throughout the 2 days and at which we hand out a booklet containing all relevant details for the prospective club member including

Club Activities

Structure of club

Training details

Qualification

Names & addresses of committee members

Breakdown of cost of joining the club & an idea of how much will have to be spent on equipment etc

This is probably the most important point for a newcomer to university and we do our best to keep costs down as much as possible for trainees.

INFORMATION FOR STAFF

The main communication with trainees after Freshers' Week, is via weekly lecture & pool sessions and the notice boards, newsletters etc. All members of the club are readily available for newcomers to talk to.

Membership

= Promotion:

Being a university club we are obviously constrained by the fact that our promotional events have to occur at the start of the academic year to ensure the maximum number of trainees and new members. Our approach to the advertising of ~~each other~~ ourselves is based on a concentrated but high profile effort.

Firstly during Freshers week we have a stall at the University Sports Union fair. This is a desk manned operated by about five members of the club to give advice and try and get as many people interested in the club as possible. To liven up the proceedings we also have a slide show (of both underwater and surface shots), one of the clubs inflatables is also present as well as a mannequin in full diving gear. Copies of BSAC publications are also available for the ^{Students} ~~public~~ to read.

To complement the sports union fair we also have a listing in the sports union handbook. This tells the reader about the club, its training and the diving he/she can expect to do with the club. This is sent to first year students before they ~~are~~ start at university.

To encourage prospective members to join we have a meeting near the beginning of term where they can meet members of the club and the club we can explain more fully to them the workings of the club and the BSAC. This is usually followed on another evening by a wine and cheese party so that the initial contact is further cemented.

WATERWORK

We provide training facilities for divers to train up to Advanced Diver Level. For this purpose we organise lectures, Pool training and Open Water training.

Our pool training starts in October (at the beginning of the academic year) and during the first sessions 50 people completed the Introduction to Diving Course.

Following on from this we train people over a period of 14-20 weeks, depending on trainee ability, to complete the Novice Diver waterwork and SS1 of the Sports Diver Training. We took on 40 people at the start of the Novice Diver course, of which all completed the ABLE and Rescue Skills test. Unfortunately,

because of the financial aspects of purchasing a diving suit, only 31 of trainees continued to complete their Novice Diver Pool training.

Our pool training takes place twice a week during the autumn and spring terms. 20-25 people train on Tuesday nights at Fettes College swimming pool and we have two hours available in the pool. One and a half hours of this is spent training and the final half hour is spent playing Octopush. We have 12 complete sets of club equipment available for the trainees to use, and also some personal equipment is provided by instructors for use by trainees. This means that in some cases a shortage of equipment necessitates

the splitting of the session into two 45 minute ~~one~~ lessons, but we ensure that every trainee has some training time each week. Some snorkeled training and testing is interspersed to relieve the pressure on equipment use. The Wednesday night is used to train the remaining 10-15 people. Following the lectures, at 8.30 pm, we move to the pool in Portobello High School for a pool session lasting 1 hour. There is no shortage of equipment on this night.

The wednesday night training is particularly useful for those trainees who are unable to spend two nights a week training.

People such as final year students, with heavy work loads, receive priority for the wednesday sessions. Both tuesday/Wed training finish with a dunk in the pool.

People instructing in the pool vary in qualifications from experienced Sports Divers to Club Instructors. Although we strongly recommend Branch Instructors to attend an ITC, we always encourage ^{newly qualified} Sports Divers to become involved in diver training. Typically 10-12 instructors are present on Tuesday nights and 5-7 on Wednesday nights. The tuesday night Octopush session serves to encourage attendance by instructors as well as providing valuable snorkelling practice for trainees.

During October 1984 we introduced the New Training Scheme to both our pool and open water training schemes. As a result of this we took advantage by reorganising our training records. A scheme was devised to provide each trainee with a personal record sheet, to be held by the training officer, which ~~could be~~ updated at the end of each training session. This record sheet contained all the training exercises the trainee would need to cover during the course of the training, and as each exercise was completed satisfactorily it could be signed by the instructor concerned. (see Appendix for record sheet). This meant that both instructor and trainee could see, at a glance, how much progress had been made. These record sheets could also be put into central records at a subsequent date. Waterproof record sheets were produced as prompt cards for instructors.

In between the blocks of training exercises the trainees are subjected to the prescribed BSAC Tests such as the Basic Skills tests etc. These are performed by ~~the~~ senior Branch Instructors such as the Training Officer, Diving Officer and Club Instructors to confirm the trainees' ability to proceed to the next block of training.

* On completion of the Full Equipment Test and Sports Dive-Rescue Skill

WATER WORK (2).

lesson, the trainees are invited to sit the Novice Diver theory exam. This exam was held every Friday night during the period when trainees were ~~at~~ completing the pool training. The philosophy behind this was that, on successful completion of the test, the group of candidates would be taken along to our Friday night meeting place, the Post Graduates Students Union^(PGSU). This is our central social evening of the week and it is also the place where we organise the weekend's diving. The newly qualified Novice divers could then be introduced to the PGSU ~~at~~ and at the same time their first dive would be organised for that weekend.

The First Novice Dives

completed their first dive on 5th February 1985.

From ^{the beginning} of February until the end of the spring term (mid March) all of the Sunday dives were designed to take in first-time and Novice Divers. Any other dives were either carried out on Saturday or deferred. Approximately 12-24 divers (including instructors) would be diving each Sunday. Typical dive sites were Dunbar, Eyemouth or St Abbs on the East Coast or Loch Long on the west coast, if the weather was bad. During these dives the Novice divers could build up experience underwater and complete some of the training lessons such as underwater Navigation and SMB training. During the summer term more adventurous dives were carried out and experienced novices taken on these. These include boat dives, cliff dives and wreck dives. For the less experienced novices, and those who like getting wet more than once a week, evening dives were organised on Wednesday at Dunbar. Typically 10-18 people dived on Wednesday evenings.

We also organise four ^{weekend} expeditions, early in the year, specifically designed for trainees. Two trips to Oban and two to Skye allowed us to guarantee 26 places available to Novice Divers. An equal number of instructors went on these trips. During these trips the Novice Divers would be introduced to more adventurous dives,

such as night dives, large wreck dives and drift dives.

The first Novice Divers gained their Sports Diver qualifications just before the end of the summer term, some eight months after signing up at the Sports Fair.

Open Water training for the Dive Leader and Advanced Diver qualifications happens throughout the year on a ~~as~~ supply/demand system. ~~Training~~ We organise an expedition to Mull during the Easter holidays which is specifically designed for Dive Leader/Advanced Diver training. ~~During the~~ This expedition had 3 Club Instructors and 9 potential Dive Leaders or Advanced Divers taking part in it. During the week each diver took their turn at Dive marshalling and difficult dives were organised and carried out. For example,

dives requiring accurate slack water calculations, and decompression dives were carried out. By the end of the week, people had carried out Dive Leader assessment dives, carried out simulated decompression and decompression dives, and worked up from initial 25m dives to the final dive of the week to the bows of the "Rondo" at 50m with decompression stops.

During the summer and latter part of the year many other expeditions were organised where divers could further their experience and training. Open water lessons and tests, such as ~~to~~ Controlled Buoyant Lift exercises, were often organised either after dives on Sundays or separately on Saturdays for those who were working for higher qualifications.

LECTURES

We organise a lecture course which runs for 20 weeks and covers lectures at all stages. At the beginning of the academic year (October) we start with the "Introduction to Diving" lecture course, at which stage we have 50 people attending. This runs concurrently with the "Introduction to Diving" pool sessions.

This part of the course is run completely free of charge and is open to all who show an interest at the "Sports Fair". This course then runs straight into the "Novice Diver" lecture course. At this stage 40 people attended the lectures. The students who did not continue from the Introduction course did so either for

financial reasons or because they were unable to afford the time. All received cards indicating that they had completed the Introduction to Diving course. The "Sports Diver" lectures continue on from the "Novice Diver" lectures and all 40 people attended these.

We then run lectures for the "Dive Leader" and "Advanced Diver" courses following straight on after the "Sports Diver" course. We encourage novices to attend these more advanced lectures, although a large number of people at these lectures are people advancing their qualifications or revising the subjects. On average 30 people attend these lectures.

The lecture program is organised by the Training Officer and the lectures are given by a wide variety of Branch Instructors. The lecturers vary in qualification from experienced Sports Divers to First Class Diver/Advanced Instructors. We strongly encourage people who are Sports Divers to become involved as Branch Instructors and senior instructors are available to assist inexperienced lecturers. A wide range of facilities are available for lectures. We often

use overhead projectors^{and} slide projectors ~~and~~ in the lectures, in addition to the usual ~~the~~ blackboards and pre-prepared visual aids. Items of equipment are often brought in for display or practical purposes. We have two^{large} rooms available (each capable of holding 50 people) which means that classes can be split into small groups if desired. Some lectures such as "Arranging Your Own Dives" are run as small tutorial groups ^{with} one Branch Instructor to four ~~one~~ Novices. This allows a much more informal approach to teaching and enables us to get some feedback from Novices.

We have no formal preparation for national examinations although we have senior Instructors (First Class/Advanced Instructor) who can give help on a one-to-one basis. From time to time we also organise specialist lectures for those interested. Topics such as Coastal Passage Making have been included.

At the beginning of the year we organised a Branch Instructor evening. The purpose of this evening was to re-orientate Branch Instructors towards the New Training Scheme. During the evening a series of lectures and discussion periods were arranged with the objective of introducing the philosophy of the New Training Scheme in the light of the teaching techniques encouraged on an Instructor Training Course. Appendix ... shows a time-table of the evenings events. Fourteen Branch Instructors attended this event besides the instructors.

DIVER TRAINING - COURSES & EVENTS

During 1985, members of our branch were involved in both a wide range of events, courses and examinations. Events at regional and national level were attended with some of our members travelling as far afield as Fort Bovisand for a weekend course.

As a result of these events, new contacts were made with divers from branches outside our region and existing links with other branches were strengthened.

A lot was learned from these events and on returning to the branch, the experience gained passed on quickly to the rest of the branch.

Eleven events were attended and a breakdown of these events is shown below.

DATE	EVENT	VENUE	NOS ATTENDING
12/13 th	National Examination Preparation - Theory	Fort Bovisand	3
16/17 th	Instructor Training Course	Darlington	2
2 nd	First Class Diver Examination - Theory	Rosyth	3
9 th	Club Instructor Exam	Rosyth	3
8 th /10 th	Instructor Training Course	Rosyth	4
22 nd , 24 th	Open Water Rescue Course	Kyle of Lochalsh	4
25 th	Advanced Instructor Course	Camborne	2

UNE 1 st /2 nd	<u>Boat Handling Course</u>	<u>Clyde</u>	<u>9</u>
pt. 20 th /22 nd	<u>First Class Diver Exam</u> - Practical	<u>Cumbrae</u>	<u>3</u>
1. 2 nd /3 rd	<u>Instructor Training Course</u>	<u>Edinburgh</u>	<u>4</u>
1. 23 rd /24 th	<u>Diving Officers Conference</u>	<u>London</u>	<u>5</u>

Logbook endorsements were obtained by all our members where applicable and ~~at the examinations~~, all three branch instructors who ended the Club Instructor exam were successful. The three members involved in the First Class Diver Examination were successful in the Theory paper but only one passed the practical examination.

CHECKED IN DETAIL AND THIS IS PRETTY
IT IS BASED ONLY ON MY RECORDS
AND THEREFORE WILL NEED SOME
ADJUSTMENTS.

DIVER TRAINING - QUALIFICATIONS

Our branch consists of 61st members, all of whom are Full Diving members of the B.S.A.C. Qualifications range from novice Diver to First Class Diver and the table below shows a breakdown of the qualifications of both our divers and instructors.

QUALIFICATION	TOTAL NUMBER	NOS GAINED DURING 1985
VICE DIVER	23	23
OPTS DIVER	23	9
NOVICE LEADER	3	3
ADVANCED DIVER	9	4
FIRST CLASS DIVER	3	1
OF QUALIFIED DIVERS	<u>61</u>	<u>40</u>
SUB INSTRUCTOR	4	3
ADVANCED INSTRUCTOR	2	-
PROFESSIONAL INSTRUCTOR	-	-
TOTAL NO OF INSTRUCTORS	<u>6</u>	<u>3</u>
OTHER QUALIFICATIONS		
S.S. TEACHER	1	2

①

BALMCH DIVES.

Edinburgh University Solo-Aqua club is an active club. We dive most weekends throughout the year either on expeditions or day trips. The first dive of 1986 was on 4th January on the "Beagle" in the Clyde estuary. The first time the club had dived this stretch. The last dive of the year was on the 31st December in Loch Smart on a New Year social diving & expedition.

Having our base in Edinburgh is a great advantage as the forth estuary is at our backdoor, the Berwickshire coast is within our hour and half drive; the East coast off Northumbria the Ocean area; and the Clyde estuary and its associated Sea lochs are all within 3 hours drive.

This multitude of dive sites gives us the ability to organize trips to sheltered open water in virtually any weather conditions for all levels of dives from novices on their first dives to the most experienced. The availability is being used more and more as an ever increasing number of divers want to dive in difficult and find that diving 12 months a year is a comfortable proposition. The new training scheme has meant that many novices are able to dive early in the year when many sites are unfishable due to heavy weather.

②

Dives are organized on the basis to accommodate all divers with different levels of experience and to further increase a knowledge of skills. Dive sites possible dive sites and people interested in diving are liaisoned through the weeks. During the club meets 3 times a week. Twice for training and on Friday evenings. A number of sites are normally chosen taking into account the experience of the diver and the availability of transport. With economic cutbacks we can no longer afford to use boats

Union members for all trips. Expeditions & specific novice training dives have priority. On the day before the dive the D.O. and Dive Marshall will make liaison with the boat operator having found the likely meeting point for the boat drivers. Dives normally take place on a Sunday but during vacances and the period when major novices are travelling open water diving, trips may be arranged for weekdays and Saturdays.

We have 2 Sns in Balmches and these allow us a wide range of dive locations and types. The first and single cylinders are major diving risks; natural hazards, collision and user have left many wrecks scattered in these waters. (A complete list of wrecks is detailed in Appendix). The wrecks vary in size

(3)

size, condition and depth. From the "LUDLOW" we can see a lead line deployed much for target practice late in Second world war. A ~~thrust~~ ^{thrust} ~~water~~ ^{water} ~~level~~ ^{level} ~~wreck~~ lies in 6 to 7 m of water on a ~~sitting~~ ^{sitting} sandbank.

The wreck is in 2 major sections and provides a good ride for navigation and novice dives. At the opposite end of the spectrum on the SS Kintyre section off 48-50m we obtained often in low light conditions, in lead when these 2 extremes various wrecks may be dived providing a range their authors club members to gain in skill and knowledge of wrecks ~~discovery~~ ^{discovery} and diving and divers required us to travel long boat. This results in members having the chance to learn to look handle through a range of conditions.

INSET HERE *

Short dives apart from training tend to be scenic "Run" dives, the ~~bottom~~ ^{bottom} ~~water~~ ^{water} forth returning and Bermudian coast provide superb venues with rocky seabeds, corallines, cleats, holes and small caves abound on ~~area~~ ^{area} the main life. The St Abbs / Egmont area is well known to many divers

provides a mini-vacation of the St Abbs / Egmont area.

The Club holds meetings in the evenings (Dinner is about a 25 mile drive from Edinburgh) Night diving is also done here due to the easy access and enclosed nature of the area. The SeaLochs associated with the Clyde estuary provide excellent diving. Loch Long in particular is never uninhabited. These sea-lochs are not as rich or varied as the east coast for life or scenery but their year round diveability is a great advantage. The "Cove" at Loch Long is the site Parrotfish, sole and is visited regularly during the winter months. "The Cove" are in fact an area of large ledges scattered down the hill slope of the loch side. The faces of the rocks are rich green and are colonised by plumose and ~~anemone~~ anemones take warm tubeworms aboard. Crabs, lobsters, Dus's (large mussels) and the odd conger inhabit the nooks and crannies between the rocks. Loch Fyne further to the west has some good differences with rocks corallines, cleats, holes and in 20 to 30 m of water. The sea lochs have the advantage of being to the north of the Highland Boundary fault. The scenery around them is mountainous and dramatic

panorama of snow clad peaks more than makes up here the
less attractive diving below.

Ocean to the North and west of Clangens is a fair
step for a day's diving but the attractions of the S.S. Brede
in Amundsen Bay or the falls off Lure at the mouth of Lure
Creek have taken its place. The "Brede" is well known as
needs little description. The falls off Lure are a tidal
feature. Lock Gate is a deep long sealock with a shallow
narrow entrance. The result is a strong tidal flow into and
out of the lock. This provides an exciting drift through
and over a maze of rollers and kettle pools created in
spasms and the remains of a large pool lost in
the construction of the Bridge that spans the narrow
to the north of Lock Gate is Lock Creek which
has a similar though less dramatic dive through its
narrow.

* Insert *

Scattered down the length of the fjord strong ebb and
flow islets. Those in lower fjord including the Bas rock and the
many islands provide excellent diving. The Bas rock has
steep walls to the North and East split by deep gullies. It is on
the south face the slopes are gentler and less bolding. Quite abundant
will seals, Arctic and Common in profusion. It is possible to
watch Cilliumate and Razorbill observers can also be
seen and there is a shallow cove that runs ~~far~~
right through the rocks - a mini-abandoned St Kilda.

Also *Map of 1287*
Dives - Islands

Expeditions - Oban I

Our first training weekend expedition of the year was to Oban on the 15-17 March 1985.

A total of 12 divers took part with qualifications ranging from Advanced Diver to Novice Diver. 4 Advanced Divers, 4 Sports Divers and 4 Novice Divers. The main purpose of the expedition was to provide our Novice Divers with the opportunities to carry out their final qualifying dive for their Sports Diver qualification and also to give the Sports Divers experience in Dive Leadership, Dive Marshalling and Boat handling under the supervision of the Advanced Divers.

Our first dive of the weekend was on Friday night, as soon as we arrived in Oban. It was a night dive on the wreck the "Golden Gift", just off Oban Esplanade, with a maximum depth of 15 metres and a bottom time of 15 mins. The site was well known to all but the Novice Divers, who were themselves doing their first night dive. With one pair in ^{the water} at a time, the diving took 1½ hours but we were still left with enough time to get back to our accommodation, get changed and enjoy a night out in Oban.

We stayed the weekend in self catering chalets in the hills south of Oban. The club had stayed there in previous occasions and the close proximity to a bar, which boasted late licence and regular ceilidhs, together with the proprietors' tolerance to divers, attracted us to book into the same place year after year.

We were up early on Saturday morning to fill our cylinders at the Oban ~~SAC~~ Divers Sub-Aqua centre and by about 10.00 am we were launching the boat to dive the wreck! This was the first boat/wreck dive for the Sports Divers and the Sports Divers took the opportunity to ~~get~~ get some ~~experience~~ experience in boat handling and navigation.

A maximum depth of 20 metres was adhered to together with a bottom time of 20 minutes. The diving was split to two waves, so that only 6 divers and a boat-handler were out on the boat at any one time.

The diving took up the rest of the morning and as soon as the second wave returned from their dive, we settled down to have the lunch on the beach whilst a couple of volunteers returned to can Divers to refill the cylinders for the afternoon's dive.

The second dive of the day was also on the Breda and was very similar to the morning's dive except that we were able to explore a different section of the wreck and others were able to try their hand at boat handling.

The two dives left us all pretty exhausted ^{at the end of the day} and we turned back to the Chalets ^{in the evening} to face the home-made chilli and a ceilidh in the Barn Bar.

On Sunday morning we drove to the north of Oban, Loch Creran and dived 'The Narrows'. We launched the boat beside the bridge and we each did two drift dives through the arches of the bridge — Again this was the first drift dive for the four Novice Divers. The maximum depth for these dives was 6m and the average bottom time about 20 minutes.

By about 2.00pm, we had all finished our two dives and after a quick spot of lunch we recovered the boat, packed the minibus and drove back to Edinburgh.

The trip was a great success and was enjoyed by everyone involved. A total of 30 dives were carried out during the weekend on three different sites - 5 dives each. The total cost of the trip including transport, accomodation & kit came to approximately £1000.

LOCHALINE I 4th → 6th MAY 1985

The purpose of this trip was to go and dive the Sound of Mull from the mainland side and gain more experience of the wrecks which we had all dived at least once during April.

5 members of EUSAC teamed up with 2 members of PERTH SSAC and some members of ALEXANDER BSAC

Of the 5 from EUSAC there was one Advanced Diver, 2 Dive leaders & 2 Sport divers.

The trip was a long weekend and we each did 5 dives.

4-5-85 HISPANIA - 24M. Wreck
10-stop dives
CALVE ISLAND 30-40M Cliff
10-stop dives

5-5-85 THESIS 24-30M Wreck
10-stop dives
30M Wreck
10-stop dives (with time penalty)
LONDO

(The above were all buddy-pairs with all clubs)
6-5-85 LONDO 40M
10-stop dives

(One 3-some and one buddy pair as we were the only ones left).

Accom We stayed in a self-catering caravan and the members of the other clubs stayed B&B.

Cost ~ £30 each.

Equipment One club inflatable 30HP outboard
Portable compressor

The only non-diving activities during this trip were waiting for the bottles to be filled, mending the portable compressor and visiting the Kochaline hotel.

Lochaline trip

21.9.85 - 4.10.85

We arranged to dive in the sound of Mull over the 4 days from 21.9 - 24.9.85. The purpose of this trip was basically enjoyment, but coupled with the fact that it gave some of the divers a chance to increase their experience in wreck diving and deeper dives.

The group consisted of 8 people; one Advanced diver, one dive leader and six sports divers.

The dives carried out were as follows:-

21.9.85 SS. Rondo - 4 buddy dives; depth ~ 34m.
all no stop dives

22.9.85 ① Hispania - 4 buddy dives; depth 26m
all no stop dives

② Calve Island - 4 buddy dives; depth ~ 30m.
all no stop dives.

23.9.85 ① Thesis - 2 buddy dives; depth ~ 28-34m.
all no stop dives

② Rondo - 2 buddy dives; depth ~ 26m.
time penalties were accrued from the first dive.
2 decompression dives.

24.9.85 ① Calve Island - 2 buddy dives; depth ~ 30m
② Hispania - 2 buddy dives; depth 26m.

we stayed in a caravan in Lochaline, and self-catered.

we took both club boats, and launched from either Lochaline pier, or a slipway at Dinnis. We also hired a portable compressor.

The four days of diving cost approx. £25-30 / head

LOCHALINE III 12th → 15th OCT. 1985

This was a 4 day trip designed for experienced divers to do some deep diving on wrecks. It was also used by 2 of the members of the party as a work up to some deeper diving the following weekend.

The trip was somewhat split as not all of the people could stay for 4 days. There were 8 people in all, 3 of whom went home after 2 days.

2 Advanced Divers, 1 Dive Leader and 5 Sport Divers.

All of these people were experienced and had dived in the Sound of Mull before.

12-10-85. RANBO. 25-40M. 4 buddy-pair dives
no-stop dives.

THESIS 28-30M. 4 B-P. dives
no-stop (with time penalties).

BALLISTA 5M 2 B-P & one 3-some.

13-10-85 HISPANIA 20-24M 4 B-P.
(no-stop dives)

AROTOKISH POINT - this was a new site which the club hadn't dived before. We were following details from Gordon Ridder's book "NW SCOTLAND 2" on a wreck called the "EVAN BOSSE".

We didn't find the wreck but had a quite spectacular cliff dive

26M. (with time penalties).
one 3-some & one buddy pair

14-10-85 THESIS 30M. one 3-some & one B.P.
(no-stop)

AROTOKISH POINT - After talking with

some local clam divers who claimed to have a better idea of where the wrecks were, we also scoured the area systematically for about 2 hrs. A blip appeared, we grappled, the line caught and 3 of us went down it to find a boulder. As it wasn't far off shore we decided to give up on the wreck and continue the dive on a rocky boulder above. There was a lot of life and a surprisingly good dive. 30m for 20 mins.

The other 2 members of the party dived further round the bay for scallops for tea.

15-10-85.

Rondo 3-some 40m 10-above
1 Buddy-pair - 50m for 12min
stops. Sair at 10m
Sair at 5m.

The pair doing stops dived first as there were 3 kitted-up divers in the boat + a boat-hander.

A shot-line was tied to the rudder at 10m with a decompression bottle attached for the stops.

ACCOMMODATION - we stayed in a self-catering caravan/chalet in Hochaline. The 4 days cost ~£30 each.

EQUIPMENT 3 club inflatables (30 HP engine), portable compressor.

This was an intensive diving trip and of the only social events were held in the Hochaline Club!

Mull Trip.

30-3-85 to 6-4-85.

At 7.00 am on Saturday 30th March we assembled at our lock up to leave for our Advanced Diver / Dive Leader training week. The minibus, boat and trailer had been packed and prepared the evening before, to allow us an early start to ensure that we caught the 13.00 Ferry from Oban to Mull. 9 potential Dive Leaders / Advanced Divers and one Club Instructor set off for Oban. Two more Club Instructors were picked up at Oban - they had been involved in an expedition organised for the senior school pupils at Fettes College and Merchiston Castle Schools.

The first dive of the expedition was on the sheer rock wall at the North End of Calve Island near Tobermory, Isle of Mull. This cliff descends sheer from 10m to 46m and thus we were able to choose ^{our} depth depending on how well worked up we were. Training commenced on this dive as we were able to carry out Dive Leader training and Assessment dives. A Dive Marshall was appointed from the group of potential Advanced Divers. During the week, doing two dives a day, more ^{of us} completed Dive Leader assessment dives and assessed Dive Marshalling. The dives ^{we} carried out were all of an advanced standard. The wreck of the Hispania lies in the Sound of Mull. This wreck is subjected to very strong currents and dive marshalling ^{had to} be spot on to ensure that we were able ^{to} dive at slack water. The wreck itself is superb, lying intact with a slight list to starboard, and on some of the dives the 30m visibility allowed us to stand on the bridge and look out over the bows of the ship. The wreck of the Ronde, although not as intact as the Hispania, is equally unique as it lies at an angle of 45° down the side of a small island. The rudder of the wreck lies in 5m of water, while the bows lie at 50m. This wreck provides an excellent

site for progressively working up to deep dives. The first dive on this week was at a depth of 26m. During the week we progressed deeper introducing, first, simulated decompression stops and then real stops. The last dive of the week, was a 50m dive to the bows of the Ronde ^{on Mull} and ten of the divers carried out this dive. During the week other dives were carried out on the wrecks of the Pelican, Thesis and Ballista. It had been hoped to carry out some dives on the West Coast of Mull, such as the Meldon and the ~~or~~ Cunard liner Ausania, although bad weather prevented this. Many a night, at half past midnight, the dive Marshall could be seen drifting off to sleep to the sound of "Gale Warnings issued for the sea areas Malin, Hebrides ..." emanating from the radio.

During the week we stayed in comfortable chalet accommodation overlooking Tobermory Bay. The total cost of the trip was £86 per person, inclusive of food, accommodation, ferries, transport, boat petrol ^{and air}. This was a very well budgeted expedition which is essential when organising a diving expedition for students.

The expedition finished with a dive on the ss Breda at Oban before driving home to Edinburgh.

SKYE EXPEDITION

8th - 9th June 1985.

This weekend expedition was organised as a small, spontaneous, expedition for some of the more senior members of the club who had not been diving very much recently. Four divers left Edinburgh on Friday night for the 250 mile drive to Skye. We arrived ^{on} at the mainland side, opposite Skye, after the ferry had departed and camped locally. At 6.00 am the next day we caught the first ferry across and drove up to Harlosh, at the north end of Skye to launch for a dive on the wreck of the ss Chadwick. As always on this wreck the visibility was in excess of 30m. The wreck lies in 25m of water and is covered with a great profusion of life. The fluorescent blue striped cuckoo wrasse give this dive site an almost tropical flavour. In the afternoon we dived on the wreck of the ss Doris. This wreck is often misnamed the Doric or Dorrict, but in the previous year we found a brass name plate confirming its identity as the ss Doris built by Wood, Skinner Ltd of Newcastle. The wreck, although very broken up, provides a fascinating dive because of the excellent visibility and profusion of life. Both the Chadwick and the Doris are affected by strong tidal streams and we, therefore, had to dive at slack water. The boat journey back from the Doris was very eventful as we encountered a 7m long Basking Shark. We followed this for a while but, as much as we tried, it eluded our attempts to drop snorkellers in close to it. On the next day we carried out a dive at one of our favourite, but ^{relatively} inaccessible dive sites. The wreck of the Nordhuk lies off Eilean Trodday, a small deserted island 5 miles North West of Skye. The wreck, which sank in 1976, lies in 30m of ~~water~~ gin clear water.

The accuracy of our transit: for

this week allowed us to drop a shotline on the bridge within a minute of arriving at the dive site. We all had excellent dives and some superb underwater photographs were taken. The visibility was so good, and the sun sufficiently bright, that some ^{natural light} photos came out over exposed at a depth of 30m! We were disappointed that the wreck was much more broken up than the previous year. Presumably the violent Scottish storms have taken their toll. However the site is so good that even a pile of bent steel will make a dive here worthwhile, should the wreck break up in years to come. The day was finished off with a short 6m dive on the wreck of the armed trawler HMS Rhodesia. The journey back was a long one and we arrived back in Edinburgh at about 2.00am. A tiring but very rewarding weekend.

SKYE I

Friday the 17th May saw the beginning of the club's first ~~annual~~ expedition of the year to the Isle of Skye. As the third sporty Diver training expedition it was ~~intended~~ ~~to~~ ~~be~~ ~~for~~ ~~those~~ ~~clubs~~ ~~members~~ ~~who~~ ~~were~~ ~~not~~ ~~able~~ ~~to~~ ~~go~~ ~~on~~ ~~the~~ ~~previous~~ ~~expeditions~~ ~~to~~ ~~Oban~~ ~~there~~ ~~were~~ ~~also~~ ~~those~~ ~~merely~~ ~~here~~ ~~to~~ ~~do~~ ~~more~~ ~~diving~~. On this expedition there were 6 Dive Leader, one advanced diver, one advanced diver, club instructor and eight Novice Divers all of the Novice divers having done at least 4 open water dives previously. Equipment taken on the expedition consisted of the 5m inflatable and engine and accessories, an echo sounder, grapple, club aquamungs & ABSLJs for the novice Divers plus two spears at each.

Towing the boat off a University Minibus we left Edinburgh at 6pm with thirteen in the minibus and 3 in a private car to arrive at Kyle at Lochalsh at 9pm for the ferry and then finally at Drakes by 11pm.

Our accommodation for the trip was a cottage belonging to the parents of a member club member which we use every year at this time. Food for the 6 days had been brought in ~~from~~ ~~local~~ ~~shops~~ ~~brought~~ with us and after two rounds of cheese or toast the troops retired to their respective matrasses, towels, camp beds and bits of flour.

~~After~~ ~~the~~ ~~first~~ ~~day~~ ~~was~~ ~~spent~~ ~~practicing~~.

A perfect Saturday morning was greeted by a surprisingly enthusiastic party of divers. The first dive was to see on the ~~the~~ wreck of the Port Napier (see Appendix). Launching the boat at the slipway by the ferry slipway at Kyleakin we dived the wreck in two waves at eight, diving to a maximum depth of 18m with max dive duration limited to 30min. We then drove straight ~~back~~ ~~home~~ to the Skye diving centre at Harlach to refill the tanks. ~~After~~ ~~the~~ ~~first~~ ~~two~~ ~~dives~~: After a discussion over lunch we decided on a new diving site club for our afternoon dive. A group of small shannies ~~about~~ ~~about~~ ~~about~~ ~~a~~ ~~mite~~ into Harlach bay (Harlach Shannies)

SKYE I

Again diving in two waves this boat site provided divers a help curved rocky bottom at 15m with an abundance of fish, crustaceans and colourful anemones in the gullies between the shelves. The bright sun and ~~poor~~ ^{excellent} visibility (20m+) made this a superb second dive.

Sending an advance party back to Dracs to cook we refitted the bubbles returned to Dracs to eat then straight to the Stein Inn for a pint and a sing.

The considerable boat journey in reaching Heskethwick made Sunday a slightly less hectic day of only one dive. Failing to find the wreck with either echo sounder or grapple the first wave dived a 15m cliff. The second wave had more success in sending divers down to direct on transits and sending divers down to direct on to the wreck in the slight current. The day was finished off with a Bar-B-Q at the launch site (Meenish Point).

On the Monday we hired an ex-military assault craft from SDC, launched both boats across into Hurlash Bay and made our way on our way to McLeod's Maiden on a calm blue sea, under a calm blue sky. These massive ~~huge~~ blocks magnificent natural archways, rock stacks and sea caves make this a site worth visiting for even the nov diver. Our first dive was a long dive between shelves & stacks in 15m. with a help curved rocky bottom and with excellent visibility. We then motored ~~over~~ ^{out} from the Maiden's after lunch to dive the SS Urana as our second dive. The wreck lies in only 12m of water. Motoring back to Hurlash we stayed close to the cliffs on the West side at Hurlash Bay and snorkelled into one of the large sea caves. Another Monday morning ~~exhausted~~ exhausted Monday night saw a fairly exhausted bunch of divers in bed unusually early.

After tidying and packing and the obligatory group photos on Tuesdays morning we made our way to Kyleakin for a quick dive on the Port Naipr. Before leaving for Edinburgh:

SKYE I

Again we dived in two ways with dives of 20m for 30mins. And with an efficiency and speed unknown to B-U-SAC we left Skye by 12 reluctantly to return to Edinburgh. The cost of this trip came to £165 per head in total taking into account the £120 club subsidy.

SKYE II

Friday 16th June to Monday 19th June

The second expedition to the Isle of Skye was from Friday 16th June to Monday 19th June. This was the fourth and final Sports Diver training trip of the year however most of Novice Divers in this expedition had been in one of the previous training trips or done a substantial number of dives by this time. The members of this expedition were 1½ sports divers, 4 Novice divers, 4 Dive leaders, 1 advanced diver, 1 advanced diver, club instructor. Equipment taken down on the trip consisted of the Sim Inflatable + engine + accessories, grapple, buoyancy & ABLIS for Novice Divers. Transport for the expedition was in the form of a University Minibus towing the boat and two private cars (as three people couldn't leave Edinburgh until Saturday morning.) We stayed in the ~~at dormitory~~ self catering dormitory accommodation at the Skye Diving Centre in Harlach which made most convenient the fitting up bubbles.

After the traditional cheese toasties on arrival, an early night and an early start we made our way to Meannish Point on a sunny Saturday to dive the wreck of the SS Chardwick. Diving in two waves of 4 we managed to make very good time on a ~~good~~ sea with only a slight chop. From our experiences of the previous Skye expeditions we also made time by dropping divers directly onto the wreck by using the ~~transit obtained~~ more accurate transits obtained. The dives were all to 22m on the wreck and limited to 30 misses.

Back in Harlach we fitted the bubbles and were joined by the three who had not left Edinburgh the night before. The afternoon dive was in the Sturries in Harlach Bay. ~~was~~ The kelp was much more dense than a month before but still a large variety of marine life and fantastic visibility were present. The closeness of our accommodation meant a swift but large meal was followed by an evening of song in front of the open fire in the Stein Inn.

Sunday was the highlight of the weekend. With a very early start we set off on a beautiful day we drove the long distance to

to launch the boat at

to dive the Northern Nordhuk (see appendix). With one wave away on the 30 min boat journey over flat but turbulent waters to the dive site. The other wave exploded the reef at a castle and bathed in the sun. The wreck was grappled for along ~~varicose~~ transits and buoyed by the first wave. A superb dive, the Nordhuk lies in 30 m of gin clear water with no ~~oppo~~ currents. After the second had returned, accompanied part the way by dolphins, we found divers out & to do a second dive on the Kelp covered Rhodesia which lies a few hundred meters from the boat launch site just off Palm Island in 9m of fairly cloudy water.

Thirteen thoroughly exhausted divers then made their way back to Herlsh for a large, simple meal and a welcome early night.

On Monday the weather had turned for the worse with liberal dressings of wind, rain and mist. We therefore decided on a shore dive at a new site at Husabost House (Husabost). Having asked permission to dive at Husabost House we dived from a small pebbled bay which, we had been informed, turned into a bouldered slope ~~at~~ across the front of the bay. Instead we found a seemingly endless flat sandy bottom, but at least now we know!

After returning to Herlsh to pick our soft kit and pay for the accommodation and air we returned to Edinburgh.

The final total cost at which included a £120 subsidy from the Club training fund came to £53 per head.

WEEKEND EXPEDITION TO DIVE THE WRECK OF THE HELENA FAULBAUMS

On Friday, the 18th October 1985, six very experienced divers set off on a weekend expedition to Oban. The aims of the expedition were to dive the wreck of the Helena Faulbaums which lies off Belnahua, a remote island just south of Oban, in 60metres of water.

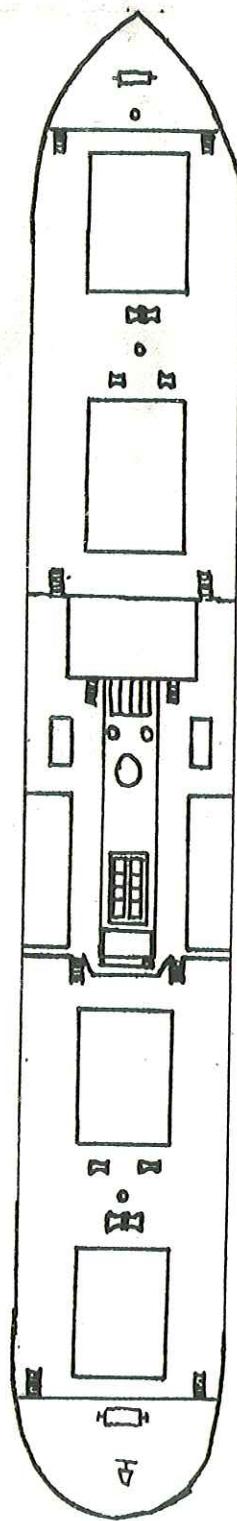
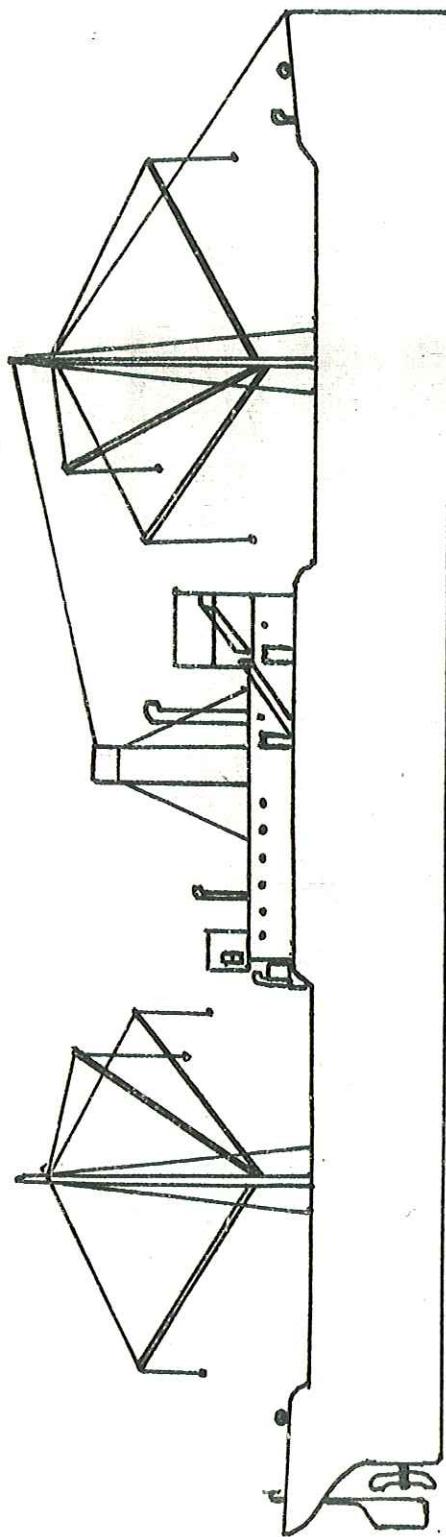
We first dived on the Helena Faulbaums in September 1983, at which time we suspected that the wreck had not been dived before. Intact and undisturbed crockery lay in the accommodation area, assorted brassware lay, unscratched by divers knives, in the remains of the bridge and there were no visible signs that the wreck had been dived. Certainly, the Hydrographic Office say that the wreck "has not been dived according to our informant" and Gordon Ridley, in his book Dive West Scotland, says "As far as I know it is undived". Since this first dive we have carried out more than 40man dives on this wreck, gathering more and more information on it. (The appendix shows a survey of the wreck).

On Saturday the 19th we had an early start, setting up shotlines, preparing emergency decompression bottles, checking over our twin 11 litre cylinders and valves, and preparing for the dive ahead. We set off from the slipway at Cuan in the inflatable allowing plenty of time to arrive at the site well before slack water. The dive site lies some five miles from the nearest mainland amongst waters where currents in excess of 5 knots can be found. We located the wreck quickly on the echosounder using a set of transits which allow us to position a shotline, at will, on the bows, bridge or stern. On this occasion we chose the bridge. As slack water approached, we completed the setting up of lines and bottles, and the first divers entered the water. The shotline was positioned on top of the engine casing at a depth of 52m. From this position we were able to explore the bridge area and upper levels of the engine room.

Dives were limited to 55m, using the RNPL 1972 table to calculate the necessary decompression requirements for a 15 minute dive. The visibility on the wreck is often in excess of 25m, but unfortunately on this occasion an overcast sky meant that visibility was reduced to the extent of the torch beam. Nitrogen narcosis, although apparent, did not affect us badly. The boat trip back was lively as we were all extremely high. One wonders whether nitrogen narcosis really does disappear on ascending!

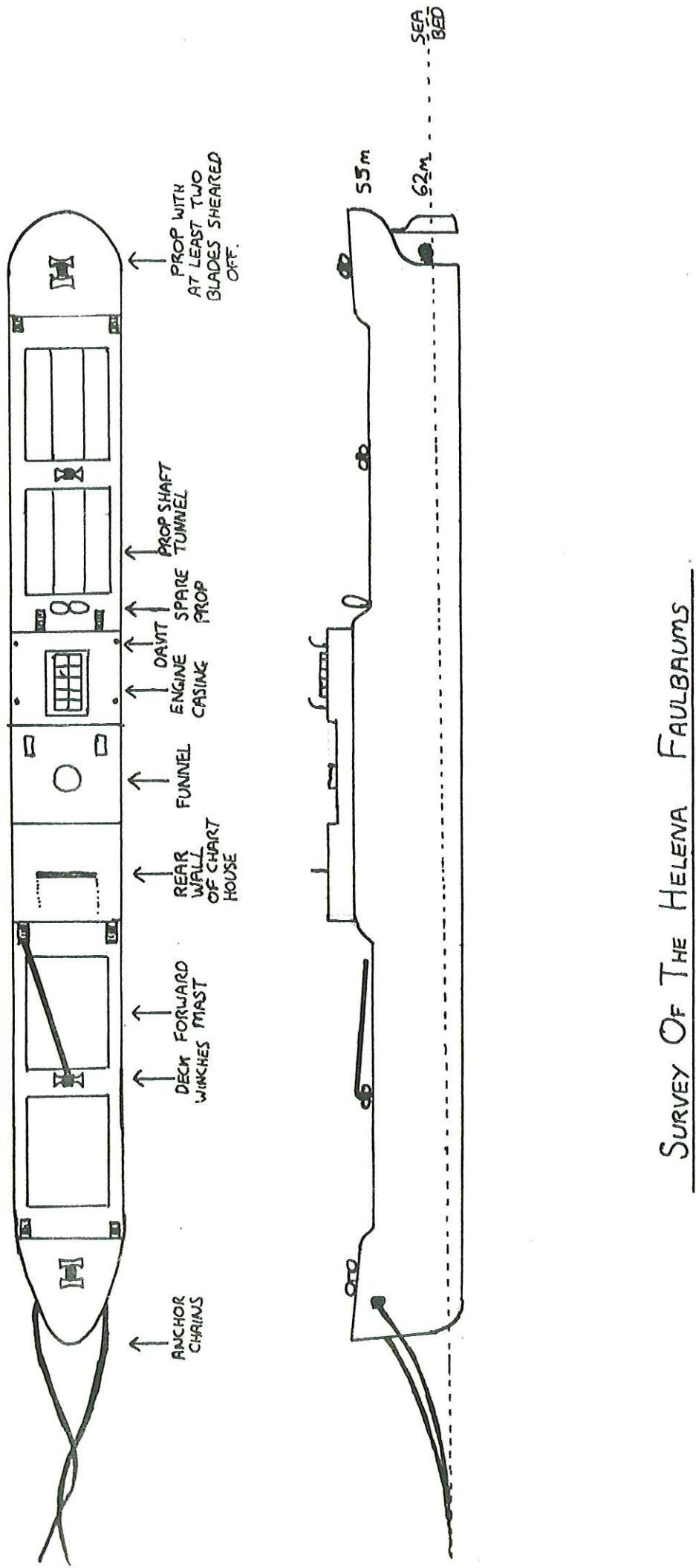
On the Sunday we positioned the shotline on the bridge area again. We dived to 60m, some of us exploring the inside of the engine room while others investigated the prop. Narcosis was much less apparent, presumably because of our "work up dive" the day before. Even the 30mins of decompression stops did nothing to dampen down our excitement at this, another, brief 15 minute encounter with the wreck of the Helena Faulbaums.

The expedition was finished off perfectly when, a few days later, a letter arrived from the owners of the caravan, we had hired, commending us on how tidy and clean it had been left. This was particularly pleasing as, initially, they were reluctant to take us because of previous bad experiences with divers.



Helena Faulbaums

GRANGEMOUTH DOCKYARD Co. 1920



SURVEY OF THE HELENA FAULBRAUMS

Mull expedition - Autumn 1985

The traditional autumn Mull expedition saw 6 divers, of first class, Advanced and Sports Diver grades, set off for a week of revisiting much-loved wreck sites, with some exploration thrown in. We stayed in self-catering chalet accommodation at Ach-na-cracibh (badic - Field of the Trees), overlooking Tobermory, and conveniently located for cylinder recharging at 'Seafare', near the Caledonian MacBrayne pier and shops, pubs and restaurants in the town below.

Mull, which usually provides some relatively sheltered dive sites no matter the wind direction, obliged straight away by ~~giving us~~ sheltering ^{north-easterly} from the ~~the~~ Force 6-8¹ in Loch Buie, on the south coast, for an excellent, long, 15 m dive on the wreck of the 'Heldar', a 2514 ton collier lost after hitting a mine in 1917. Experience born of past mistakes saw us efficiently motor up at low water and now straight onto the exposed middle post - a far cry from that day in April 1975 with its unsuccessful swimline searches ~~during~~ a snowstorm, and ~~and~~ also from that day a few years later when an unsuccessful 6-hour echo-sounder search ~~operation~~ ended only when the tide dropped far enough for the middle post to break surface!

The following day, found us breaching the ~~the~~ Force 6¹ for a dive on the 'Hispania', which, at 1340 tons, is a nice size, and lying with its deck at around 15-20 m, provides a good long dive. This must surely be many a divers' ideal wreck! Next, we repeated our search of years gone by for the wreck of the 'Evelyn Rose' at Ardnamish Point. This time the position and exact depth given in 'Dive North-West Scotland' would be our guide. Unfortunately the reference is quite wrong, but the site yielded a 35 m dive on the extremely deep and awesome cliff wall which must rate alongside the face of North-West Calve Island for big wall enthusiasts.

The gales were unrelenting and often accompanied by driving rain, and we allowed ourselves time off to experience tranquillity

amidst the storms with a visit to the Abbey on land and ^{to experience} the excitement of a visit to Mackinian's Cave on the ~~north~~^{north} west coast. ~~of~~

This involved a short traverse along the cliff face to avoid half an hour's wait for the falling tide to clear the entrance. The malevolent fairies of the cave were absent that day and the visit was well worth the effort.

The remaining days yielded dives on the fishing boat moored in 8m of water in Calve Island Sound, the 'state wreck' (now really only a pile of stones scattered about on the bottom), in 10m near Rubha Dearg in the Sound of Mull, and finally, a lively trip out to Dearg Sgeir by Cilleman Mor in sunshine and a stiff breeze for a 50m dive to the bows of the 'Fonda' to round off the week's diving.

This trip again fulfilled the expectations of the senior club divers present for a week of good diving, among friends, with good food and comfortable accommodation.

- .

Falls of Lora trips.

Towards the end of last year we organised two trips to a ~~new~~ site that was new to us and not very heavily dived by ~~any~~ other clubs. This was the falls of Lora under Camel bridge near Oban. A brief description of this site can be found in Gordon Riddleys book 'Dive ... off' but suffice to say it is a drift dive of great magnitude. Certainly we had read about it and heard stories about it but for us this was a new challenge.

The first trip consisted of ~~six~~ ^{six} people (N.B. it was 5 but doesn't sound bloody safe in areesome, BSAC policy and all !!!) & I being an advanced diver, and 3 dive leaders and 2 sports divers. When it came to the second trip, of the six people diving 3 of them had been on the first trip.

On a trip such as this, it is a prerequisite to have boat cover, so one of the clubs inflatables was brought along to drop each pair in and follow them and pick them up at the end of their dives. Before any of the pairs were allowed in we threw a large buoy in at the start of the current and its progress was monitored to give an indication of the strength and directions that the current took in its passage down the loch.

Once it was established that we could dive, we put one pair in at a time. We only put one pair in the water at a time. We limited each dive to a maximum of 20 minutes.

The cost of the trip was reduced from what it would have been because we spent the weekend in a cottage owned by one of the divers and this meant that food for the trip was far cheaper than it would have been. This a highly new and adventurous dive was undertaken by the club at a relatively low cost and it looks as though the falls of Lora will be one of our major dives when we venture to the West Coast.

Can you
put a
photo copy
in the
appendix

MALDIVES TRIP.

During September of 1985 I spent 2 weeks diving in the Maldives doing 2 or sometimes 3 dives a day. The first week I spent at the Island of Kuramathi, which is an island on its own some hundred miles from the 2 main atoll chains.

Most of the diving was chopoff diving from walls starting at about 10m. ~~The usual practice~~ ^{was} I was very lucky that as it was the off season, the only diver there apart from the Dive master. The usual practice was to dive down the wall to 25m and then sit on the wall and wait. we usually dived where there was an upswelling of water from deeper bringing up plankton thus encouraging fish to shoal. While we waited usually the schools of Hammerhead sharks (sometimes 20 to 30), manta rays and other sharks passed by. If decompression was incurred we spent our penalty time traversing the wall at 10m and 5m.

The next week I went to the island of Band which is in the middle of a large atoll chain. Apart from wall diving there was also of diving on coral heads. Here there were more divers and I was quite pleased that the dive master asked me to lead people who had newly qualified on their resort course.

SCIENTIFIC

ISLE OF MAY PHOTOGRAPHIC EXPEDITION 1986.

At the beginning of October 1985 we were approached by Guido Picchetti, Director of the Rose International Diving Centre, for assistance with a photographic project on the Isle of May. Guido is a one of the pioneers of diving in Italy and is a well known underwater photographer. (See appendix for a Biography). He is wanting to write an article and obtain photographs on the Isle of May Island. We have been asked to organise the necessary boats and divers to assist in this operation and also to carry out some research into suitable sites for photography. We are currently in the process of organising this back up and hope in the new year to arrange some dives on the May Island to find suitable sites.

DECOMPRESSION RESEARCH

One of our members, Constantinos ... , has been involved in research at the Dept of Physiology University, on bubbles in body tissues. See agenda for details.

COMPETITION

As a branch we do not normally have any competitive events in our calendar, as often the time we spend diving and training restricts our commitments. We did however ~~at~~ make contact at ~~the~~ D.O.C 85 with the Diving Officer of Leith Nautical College BSAC and we arranged ~~as~~ a friendly Octopush match which we hope to play early in 1986.

Note added in proof. This match was played on February 3rd 1986. The score ~~was~~ matches 2 matches to 1 in favour of our branch. A return match is being organised.

PUBLICITY AND PUBLIC RELATIONS

One of our major involvements outside our own branch has been that of providing instructors for other branches and this has continued this year. We have been involved in the running and training of Fettes College BSAC Special Branch since 1970. The training is organised by one of our Club Instructors, Jenny Clough, and a number of our other members assist as instructors. One of our instructors, Dougie McEwan has over the last few years been involved in the building up of a diving club in another local school, Merchiston Castle School. Again the branch has provided instructors to assist in this venture. ~~An article appeared in the Times Educational Supplement including some detail on the diver training at Merchiston Castle School.~~ A number of dives this year have been carried out by the members of these two schools, and we have provided the instructor back up for these dives. In April of this year we organised a joint expedition for the two schools. Three Club Instructors from our branch, four divers from Merchiston Castle and five divers from Fettes College took part in an expedition to Oban. As most of the teenagers ^{only} had completed a few dives, the dives were kept relatively easy. However, they did get the chance to do a dive on the 7000 ton wreck of the ss Breda, and ~~an~~ an exciting drift dive at a depth of 6m through Crinan Narrows.

Another involvement of our instructors outside the branch involves teaching at the University. With the increase in diving activities in Scotland the medical profession has recognised the need to include some basic information on diving physiology and medicine in the curriculum of medical students. This year Geoff Hide, one of our Club Instructors, ran diving tutorials for 2nd year medical students. The class of 150 students was divided into 8 groups and each group

was given a tutorial period lasting two hours. During these tutorials the students were able to handle SCUBA equipment and were given a talk on the effects of pressure on the human body and some of the ailments caused by it. The tutorials also covered the physiology of diving and the basics of commercial diving operations and the physiology of mixed gas breathing. The tutorials ended with a simple experiment on the "Diving Reflex" in humans and a short video on hypothermia.

Another area of involvement outside our branch is that of people who are involved with the BSAC and other Diving branches. Dougie McEwan, one of our Branch Instructors and proprietor of the local dive shop is a member of the NDC Equipment Working Group, and in this capacity he is involved in the designing of the BSAC's recommendations for equipment specification. As a university diving club many of our members come from outside Edinburgh and often abroad. This means that when members leave university they establish contacts with their home branches and as a result we have contacts in BSAC and SSAC branches far and wide. For example, we have members involved in branches in Gibraltar, Cyprus, Aberdeen University, Perth (SSAC), Alander (SSAC), Kintailoch and EXUL (London University). This year we organised a joint expedition to the sound of Mull with the Alander Branch of the Scottish Sub Aqua Club.

Freshers Party 85.

At the beginning of each academic year, we organise a party especially for the trainees of the club. The idea isn't that only trainees turn up, rather the intention is that the trainees should meet the other members.

This year, we situated the party in the two rooms above the Post-Graduate Student Union - This was ~~mainly~~ done mainly because of the low cost of hiring the rooms and the necessity for the party to be self financing. In the interest of this last point, we also organised a raffle - The prize was a bottle of whisky, much criticised for the fact that it wasn't malt, but appreciated by all when it was passed round by the winner.

A barrel of beer was purchased from the bar downstairs - Crisps and peanuts were also provided.

Half way through the party a couple of Scottish Dancing tapes were produced - The tables were moved out of one room and after a small amount of persuasion we had everyone reeling on the dance floor.

The party proved to be a success, the new trainees who came are now well and truly integrated into the club - After all, once you've made a fool of yourself on the dance floor, there is no going back!

Burns Supper 85.

Every year on the 25th January, there is a traditional celebration in Scotland entitled Burns Night - As the name suggests, it is an evening founded in honour of the memory of one of Scotland's most renowned poets:

"Robbie Burns" - Although "Robbie" is not forgotten on this evening, there will be numerous speeches recalling the 'Great' man's poetry. The evening is first and foremost a wonderful opportunity for the club as a whole to get together - A chance for the older and sometimes not so active members to meet those new to the Club -

In 1985, the event took place in The Witchery, a cosy restaurant situated at the top of the Royal Mile - Ideal, in so far as the fifty-three members who attended filled out the room comfortably.

The meal began, as always, with one member saying Grace. As with all the other speakers, she was persuaded to give her speech during so when she was at her most vulnerable, that is during the previous Friday night drinking session in the Post-Graduate Student Union. The Soup was then served, then the Haggis was brought in to the accompaniment of the sweet or not so sweet sound, depending on ones taste, of the bag-pipes; Yet another member surprising us with hidden talents.

The next little ceremony to be performed was the stabbing of the Haggis (A clean dirk knife was used, of course), only once this was completed could we start to eat - The rest of the speeches being delayed until coffee, when we listened to a true Scot recite the Tamashanter and another adapt the 'Immortal Memory' to suit the one common interest - "Dring".

The evening was rounded off with two speeches, one by the ladies, the other by the gentlemen of the party. This is the moment where those who have committed the most memorable deeds of the year are made to cringe. Hopefully it is done with taste

and is thus enjoyable rather than hurtful.
Last year a slide projector was used to show the embarrassing poses people had been caught in throughout the year, and it proved to be enjoyed by all.

At mid night the meal was well and truly over, but the evening was by no means finished. All but a few going on to Dougie's Plat for a party which lasted into the early hours of the morn.

Fiscally the evening was beneficial for the club. We decided to augment the price of the meal by a pound a head, the £53 raised being put towards a trailer for the cost of a trailer for our second boat inflatable.

CONFERENCES

We always send delegates to the Diving Officers Conference in London, and this year was no exception. Five of us travelled down for DOC 85.

As always the conference is a time for meeting old friends and making ^{new} contacts as well as being provided with Food For thought from the array of stimulating presentations. This years conference was a particularly memorable one as one of us, John Lambias, received his First Class Diver qualification.

Unfortunately this year has not coincided with the biennial Scotfed conference or the Brighton Conference. The last time each of these were held (in 1984 and 1987 respectively) we sent 3 delegates to each.

BRANCH INSTRUCTORS EVENING

VENUE : SEMINAR ROOM II , CHAPLAINCY CENTRE.

Aims

- Introduce the New Training Scheme.
- Discuss Teaching Methods in the Pool, Classroom and Open Water.
- Demonstrate different Teaching Techniques.

INSTRUCTORS

DENEN BORTHWICK , First Class Diver / Advanced Instructor

JENNY CLOUGH , Advanced Diver / Club Instructor.

GEOFF HIDE , Advanced Diver / Club Instructor

IAIN HOSKING , Advanced Diver / I.T.C.

JOHN LLAMBIAS , Advanced Diver / Club Instructor / RLSS Teacher.

TIME TABLE

7.00	LECTURE : INTRODUCTION AND NEW TRAINING SCHEME	GEOFF HIDE,
7.20	LECTURE : PROGRESSIVE INSTRUCTION	IAIN HOSKING,
7.40	VIEWPOINT : GROUP DISCUSSION	GEOFF HIDE,
8.00	LECTURE : LECTURING TECHNIQUES	JENNY CLOUGH
8.20	COFFEE	
8.40	LECTURE : POOL ORGANISATION AND INSTRUCTION	DENEN BORTHWICK,
9.00	LECTURE/DEMONSTRATION : TEACHING LIFESAVERING	JOHN LLAMBIAS,
9.20	OPEN FORUM	
10.00	CLOSE.	

NUMBER

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(1)

DATE

SHEET No.

My Dissertation research project was submitted to the University of Edinburgh and had the title:

"Gas bubbles and the pathophysiology of decompression sickness!"

The literature was reviewed and mathematical models and conclusions drawn regarding:

The genesis

The growth

The stabilisation

and death of the bubble, including predictions on the distribution in the circulation depending on different tissue conditions reigning at the time.

Statistical and mathematical models analytical and compared only gave satisfactory predictions under strictly pre-defined conditions. Aberrant findings were traced to the presence of a skin round the bubble, which made of coagulated protein (coaguloflum) impurities and surfactants, with a variable diffusion coefficient. The above remnants after "full" resolution of a bubble combined with leukocytes, platelets and lipids can explain the far less than 100% safety of bubbles and also DOL which is almost certainly caused by these "non-compliant microemboli."

The pathophysiology of the condition was then presented as a manifestation of tissue response to injury. Comprehensive bubbles were then examined to exhibit susceptibility factors to DCS and experiments were done at in Cambridge using the Jaeger apparatus.

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Confirmed the ~~the~~ increased susceptibility to DCS after alcohol ingestion since the threshold to cavitation and growth of a bubble ($\Delta P = 25$) was crossed.

Repeated breath hold dives were reported to cause DCS like symptoms in pearl fisherman and the nitrogen accumulation under these conditions was studied and modelled:

$$P_{N_2} = b + t_1 t_2 \left(\frac{P_{N_2 \text{ at depth}} - P_{N_2 \text{ initial}}}{\alpha} \right)$$

$t_1 = \frac{1 - e^{-kt}}{1 - e^{-k(t-\text{dive})}}$

$t_2 = \frac{\alpha}{1 - \alpha}$

after equilibrium

α = tissue constant

b = tissue + depth constant

approx 15 dives to 61 ft of 2 min each with 1 min interval would be enough to cause DCS.

Attempts are now being made to modify the Jaeger method and perform the experiments directly on blood and also to study the effects of pregnancy factors on susceptibility to DCS during January - July 1986.

Extensive lists of references, ~~etc~~ protocols, exp. results can be submitted if req'd.

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SHEET No.

Two sets of experiments were performed on *Electroplaera cirrhosa* - a cousin of the Mediterranean octopus (*Octopus vulgaris*) with my project supervisor Dr Andrew Parkard (MA DSc) in collaboration with the Gatty Marine Laboratory (Univ. of St Andrews).

Both of us being keen divers - Dr Parkard actually dived and collaborated in marine biology projects with Jacques Cousteau - we tailored these experiments round this amazing animal so often encountered in our diving expeditions in the Mediterranean.

The aims of the experiments were

1. To investigate whether the cephalopod skin ^{is comparable} ~~behaves~~ to the Ussing's model of frog epithelium, and
2. To investigate the neural control on a specialised area of musculature in the electrode ~~skin~~ hood.

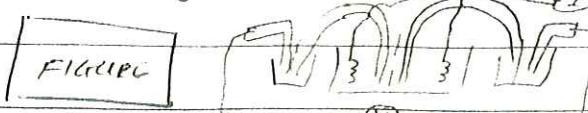
REF.

1. Johnson and Ussing (1958) reported that a ^{electrical} potential is set up across the frog skin when it is used as a barrier to separate two compartments containing identical electrolyte solutions.

The epithelium was polarised and an $E_{\text{MF}} = E_{\text{Na}} + E_K$ was developed and a current flux demonstrated

$$i_{\text{sc}} = f_{\text{Na}} \frac{\partial V}{\partial t}$$

Method: An Ussing chamber was used

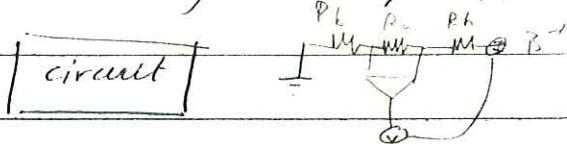


2. modified bathing solution, / Sea water and instead

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of frog's Ringer, and electrical measurements done with a voltage clamp apparatus.



Result: A very low composite skin resistance was demonstrated, and no potential difference demonstrated across the epithelium.

Discussion: Formidable obstacles were met since we voltage current passing electrodes became polarised in sea water but by using the transient (initial) instrument readings it was clear that no ion transporting epithelium capable of polarising the membranes was present.

Indeed the negative result emphasises the different evolution of these different mechanisms in the two animals to subserve different functions. The frog lives in a pond of almost distilled water so has to isolate its internal environment from the hostile osmotic insult presented by the pond water and needs to obtain sodium ions essential for its cellular function; indeed:

$$\text{CSE}_{in} = \frac{f_{tot}}{Na_{in}}$$

whereas the octopus has evolved in a different way by making its extracellular fluids isoosmotic with the environment thus obtaining the essential ions ~~and~~ ^{at} balance and obviating the need of

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~~both functionally and physiologically~~

2. A specialised area of the limbus of the hood

REF

musculature was reported in other sepioids
and we demonstrated its presence in Eledone

(as?).

Method: The animal was anaesthetised in alcohol
and humanely killed by overexposure of alcohol
and the wedge shaped area of the limbus
dissected. ~~Blocks~~ Blocks were suspended in oxygenated
sea water and their response in two perpendicular
axes to various neurotransmitters, at pharmacological
doses investigated using sensitive ORMEQ strain gauges.

The blocks were subsequently sectioned and
a modified acetyl cholinesterase histochimistry method
performed.

Results: Cholinergic responses were detected in two
ways axes at least one being nicotine.

Histochimistry revealed AChE in specialised
grauft fibers and rosethorn branches which innervated
the area plus the radial hood muscle of the rest
of the hood, apparently sparing the rest of the
musculature.

Discussion: The search for the other neurotransmitters
continues as is the research into the possible
ionic mechanisms that might be involved in
the differential muscle fibre activation. This is
~~a unique arrangement where different neurotransmitters are used in the
same muscle. We have refuted previous proposals of~~

THE ROYAL INFIRMARY OF EDINBURGH
I.P. CLINICAL NOTES

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glutamate as the neurotransmitter on ~~the~~
~~treated~~ severe diarrhoeal doses were needed
for its effects to appear.

New techniques /drugs recently
became available and
an attempt for further elucidation of the above
mechanisms will be continued as part of a
Medical Research elective during spring.