DIVING INCIDENTS REPORT

Cdr. Martin Marks, RN, Chairman, Diving Incidents Panel

"Before I plunge into this year's catalogue of death, disaster and damage, I believe that it is important that we consider why the BSAC maintains a record of diving incidents. It is not just aimed at providing material for this presentation but at the much wider and more important target of providing feedback to Branches so that all divers can make use of others' hard earned lessons and experience, errors and misfortune thereby reducing the chances of it happening again.

To help with this feedback you will all have a copy of the Diving Incident Panel Report in your delegate folder. A further copy will be sent to all Branches by Headquarters to those Diving Officers who were unable to attend. There will also be a follow up article in 'Diver', highlighting the more important lessons as I see them. You might like to consider how you, as a Branch Diving Officer, can contribute to reducing future accidents using this information, and I will make some suggestions later.

This year, which runs from 1st November, 1981 to 31st October, 1982 I have received some 149 incident reports. This is down quite a bit on last year (216), but about the same as the year before that. I do get the impression though that less trivial incidents are being reported. 108 of these incidents involve BSAC members, but as the system is heavily biased towards BSAC Branch reporting, I do not feel that the figure has any significance.

The incidents are grouped together under the month in which they occurred and then given a serial number followed by the year, for example: January 61/82. The reports contains several summaries of incidents under many headings.

Fatalities

The most serious incidents are, of course, those leading to a death and the only good thing I can report is that this year, there were less than the previous one. However, nine British divers who enjoyed Christmas last year won't be around for the fun in 1982. Six of them were BSAC members.

Once again, solo diving and separation featured prominently. Of the nine, three were diving solo. In other words they deliberately went diving alone without even a manned lifeline. One of these was a BSAC member. Three others were separated during the course of a dive and died alone; again a step forward from last year, when ten out of eleven were either solo or separated. I believe that 'DIVE ALONE AND DIE ALONE' is a catch phrase worth impressing on divers.

Two other fatalities involved some other element of failing to comply with normal BSAC Rules or recommendations. One other was a tragic accident.

The BSAC member who died solo was on a Branch holiday. On the fatal day, his first dive was for 40 minutes during which he 'accidentally exceeded his planned maximum depth by going to 27 metres'. It is worth noting that 41 minutes 28 metres is on the absolute limit of the BSAC Table. Being concerned about missed decompression he decided to miss the next dive. Some four hours later, however, he was dropped from the hardboat for a dive, alone and without a surface marker buoy. The boat moved some 200 metres away to another group of divers and picked them up when they surfaced. After some 15 minutes the inflatable went inshore to look for the solo diver's bubbles; as it says in the Branch report 'mainly for something to do'. The diver was found 400—500 metres away on the surface with his snorkel in place and ABLJ inflated. It was apparent that something was wrong and his limp body was pulled inboard. Both EAR and CCCM were given. A helicopter was arranged and he was flown to hospital where he was pronounced dead.

The coroner's verdict was 'accidental death due to drowning', probably resulting from a heart attack. He criticized the insufficient surface cover and the fact that the victim was diving alone but added that he could not say if the outcome would have been any different had that cover been there. Fair comment, of course, but to my mind the point is that a buddy might have been able to help and that alone is reason enough for having one.

The Branch report notes that the victim had 'satisfied the boatman about such diving two years previously', and appears to prefer to diving alone on a shallow wreck without a surface marker buoy. Satisfied the boatman about what? His ability to breathe sea water in an emergency, assist himself to the surface when unconscious or indicate the position he is trapped in without a surface marker buoy? The whole thing sounds like a lame excuse to justify diving alone.

Why did he have to satisfy the boatman and not the Branch Dive Marshal? Who was in charge of the diving? Obviously, professional boatmen need to be involved in the dive organization but to hand over control and responsibility for the diving often puts them in an unfair position. They have a commercial interest and are keen to please. When a customer proposes to bend or break the rules they must be tempted to go along with him. In some cases their diving standards differ considerably from those recommended by the BSAC but to be fair there are some who insist on high standards and maintain them.

By far the worst and most tragic accident this season also involved a hardboat. Two divers were sitting on the transom of the boat, their feet on a purpose-built platform. One heard a shout from the skipper and turned to see what was happening. The other apparently misunderstood the shout to be the signal to

enter the water, and did so. In fact the shout was to tell another diver in the water to stay where he was and that the boat was about to manoeuvre to pick him up.

The diver who entered the water was struck by the propeller, severing a hand and an arm at the shoulder. He died before reaching hospital.

In fairness to the skipper and Dive Marshal a clear 'stand by' and 'go' system was in use to indicate when divers should enter the water; no signal had been given. Does your Branch have a safe, positive system for controlling the entry of divers into the water from boats? Does it allow for the effect of suit hoods on hearing?

Bends

For the third year in a row the number of reported cases of decompression sickness is up, this year to 36. Thirtythree of these were recompressed, 14 involved dives to 30m or more and 3 the dangerous practice of re-entry decompression. Eighteen of the incidents featured BSAC members. Of some concern are figures from the Institute of Naval Medicine which reports 83 patients, all amateur/civilians, of whom 50 were positively identified as a bend, arterial gas embolism or pulmonary baratrauma. A few examples:

August 36/82. Concerned a severe bends victim being given in-water recompression overseas and received national press coverage. The diver who organized and took part in the recompression has received several awards. It was carried out in bad weather and involved two dives to 36m for 6 hours with a partially paralysed victim.

However, I believe that it is important to emphasize that there was no chamber available and that the victim had been given the last rites. Such circumstances are never likely to occur in the British Isles and this treatment should never be attempted by amateurs. Diving medical advice is that it is likely to do more harm than good. The sheer logistics of supplying the air are well outside the scope of most amateur organizations anyway, apart from the problem of water temperature.

January 61/82. At a New Year Eve's party a diver consumed eight pints of beer and seven double Bacardi's. He was unable to recall going to bed. Over the next two days he undertook relatively shallow dives well inside the no-stop times, although there was a rapid ascent after the first.

For the next ten days he complained of severe head pains and distorted vision. His own doctor told him to go home and relax. When the symptoms deteriorated his Regional Coach became involved and recompression was arranged. Which reminds me of a note in one report this year where a diver's own doctor had told him that the pain couldn't possibly be a bend because it never occurs at the joints!

September 132/82. A diver was lifted from a fishing boat and transferred to a recompression chamber by helicopter. He was paralysed from the waist down after a dive to 125 feet for 30 min. He was still so paralysed after treatment.

One hundred and twenty five feet for 30 min - every time I see feet in a report I wonder how old his depth gauge was and what tables he was using.

One hundred and twenty five feet is very close to 38m, and at that depth the BSAC/RNPL Table stops at 27 minutes. Even on the RNPL 1972 Table at the back of the Diving Manual the dive is below the limiting line. For those not familiar with the implications of this I quote from the Naval Diving Manual: 'Diving below the limiting line carries a greater risk of decompression sickness. Intentional diving below the limiting line should not be undertaken unless a compression chamber is available on site and even then only when circumstances justify the risk.' How can any sport diving justify such a risk?

March 44/82. A dive was carried out to 103 feet for, 'some 16 or 17 min.'. It sounds as though he was using an hour glass for a timer. Further quote, 'he knew that the no stop time for 30 metres was 20 min.'

In fact 103 feet is very close to 32m and the ascent as recorded took 5 minutes instead of 2. Putting all these rather careless approximations together produces a dive two minutes over the no-stop time. The diver later complained of an ache in the right leg and shoulder and was recompressed.

August 102/82. A diver sought recompression six days after returning from a diving holiday. His problem was later diagnosed as a spinal bend. During the five month period preceding the incident, his log book showed that he had done a lot of diving, with 12 dives below 30m. There was no reference or record of stops. The dives included 35m for 60 min, 38m for 30 min and 40m for 28 min. When asked about stops he told the chamber staff that he 'swam about shallow to use up his air.'

He is a BSAC Second Class Diver. I wonder if the DO who certified him as being worthy of that qualification is here? It is their life in your hands - a very heavy responsibility.

August 112/82. A spinal bend. The preliminary report indicates a BSAC Branch dive using US Navy Tables, during which 140 min of stops were missed. I await the details with interest. There seems to be a growing trend to use the extra bottom times and shorter surface intervals offered by the USN Tables. I only hope those involved are aware of the extra risk involved. They should read the article by Dr. B. E. Basset in the 'PADI Undersea Journal', 2nd Quarter of 1982.

November 40/82. A diver felt weak and complained of a numb right leg after a dive to 25m for 25 min. Despite this, he carried out a second dive to 10m later in the day after which he felt better. His condition returned but worse the following day. He had 24 hours of recompression spread over the next four days and has been advised not to dive again.

July 103/82. A fifteen year old boy was recompressed after suffering a bend. This information came from a HM Coastguard Report and I have had no reply from the local diving club when I asked for more information.

Boats

This year has seen a crop of serious boating accidents, one of which I have already described. At this Conference last year I was asked about an incident which had taken place a few weeks earlier, but at the time I had no details.

This year, **April 57/82,** there has been a carbon copy incident. In both cases divers were practising man overboard drill from inflatables, with live bodies. During the course of the drill a diver either fell or jumped and went under the boat when it was moving. In last year's incident the diver suffered a skull fractured in four places and in this year's the propeller sliced through his femur, fractured a fibula and lacerated muscle, ligaments and tendon.

June 129/82. A diver was hanging on to the grab rope of an inflatable when the boat suddenly went ahead. The rope gave way and the diver went under the boat where he was struck by the propeller. He needed stitches in the leg. The cox'n had not realized that he was there.

September 141/82. A diver fell out of an inflatable whilst a novice cox'n was attempting a crash stop. The cox'n was being supervised by a Branch member who had just attended a Boat Handling Course. The diver suffered from shock and a cut wetsuit. He was luckier than the others. Boats must be treated with respect; they have the combined hazards of a motor car and Boadicea's Chariot.

Surface Marker Buoys

Based on the reports that I see you would expect that I could show you a slide of a surface marker buoy as a difficult 'what is it?' question. There are still many Branches who never use them and there were eight incidents directly attributable to them, or at least the lack of them.

July 101/82. Is a good example. Three divers with no surface marker and, surprise, the boat cover was unable to follow their bubbles. The divers surfaced some way from the boat. They later reported that the searching inflatable passed within 100m and, despite their waving and blowing ABLJ whistles, they were not sighted. Sea state 4 was reported. The divers were later picked up. There is something to be said for folding flags or a flare attached to your surface marker buoy.

July 117/82. Again, the surface cover lost contact with a pair of divers who had no surface marker buoy. The divers were eventually recovered. The Branch report notes that 'in future surface marker buoys will be used on all dives'. Does every Branch have to wait for its own personal incident before it takes this simple precaution?

Of course, there is another side to the story. A report that has just come in was too good to wait until next year. On a popular wreck site recently, an anchored inflatable was approached by a second boat. The newcomers asked if the boat was anchored over

the wreck. Perhaps foolishly, with hindsight, the first boat replied 'no', and helpfully pointed to where its divers' marker buoys could be seen a few yards away. The second boat went over to the nearest buoy, went alongside and dropped anchor. The diver underneath is reported to have seen the anchor strike bottom. The whole incident would be comic if it wasn't so dangerous.

Supervision

A significant factor that comes out of this year's incidents is that over one third of them could have been prevented or their likelihood significantly reduced by a Dive Marshal who knew, understood and insisted on the correct diving standards. Some examples at random:

April 76/82. Two Third Class divers at 34m failed to note their bottom time. The Dive Marshal made no record of their surface-to- surface times. Estimates varied from 15 to 24 min ... at 34 metres!

On surfacing and becoming aware of the problem they were instructed to carry out re-entry decompression. They were extremely lucky to suffer no ill effects; this procedure is not recommended for amateur divers.

May 60/82. A BSAC Branch boat rescued two divers half a mile off shore. They had no boat cover, no shore party, no air on surfacing, one ABLJ between them, no knowledge of tides and one had received no diving training at all!

September 18/82. Two divers on holiday advertised for diving companions and were joined by a third. The report notes 'we agreed that most of the time he would be diving by himself although on deeper dives, or wrecks he would be accompanied by one of us'. Their dive profile on the first day suggests a disregard of normal diving tables.

After a dive on the second day the third diver suffered paralysis and had to be recompressed.

All these incidents and others covered earlier underline the need for a competent Dive Marshal. But to be effective he needs the backing of the whole Branch and its members, who have to accept that he is appointed by the Branch Diving Officer and is acting on his behalf. He should be given complete cooperation even when his decision, for example, to abort diving because of the weather is unpopular.

A student doing the open water dive planning section of an Advanced Instructor Course recently commented, 'We don't do it like this in our Branch, nobody is in charge, we do it democratically.' Equality and freedom of choice are important aspects of our society but when this can put other people's lives at risk surely most reasonable people will accept some limitations! In fact, the Diving Manual takes quite a strong line on this — 'So important is this matter that Club Rules stipulate that, as far as diving conduct is concerned, the Dive Marshal has authority to exclude a member from diving if he will not obey diving instructions given to him.'

You will shortly be hearing some proposals from Doug Robertson which, in the longer term, should go some way to producing more effective Dive Marshals. In the meantime what can your Branch do to improve things? Are your Marshals really competent? If your wife or husband, boy or girlfriend was diving under their supervision would you be totally happy that they were in good hands?

If you have any hesitation at all then perhaps you should talk to your Regional Coach about a Dive Marshal Course. One run in September by the Southern Region Coach had three students only. Perhaps we are too easily satisfied in the standards we accept?

Cold

The icy Winter brought several reports of frozen-up demand valves and incidents under ice, including a fatality. Two incidents involved novices. Is a dive under ice really the place for a novice?

The fatality arose from two divers under four to five inches of ice. They were roped together but not to the hole in the ice. There was no competent Dive Marshal.

Probably because of a leaking octopus rig demand valve, diver A started to run low on air. They ascended to below the ice and began to dig through with knives. Diver A then ran out of air completely. Diver B shared with him using his own octopus rig and indicated that they should return to the hole. Diver A refused and continued digging. When B looked towards A shortly afterwards he had dropped the demand valve and was blue in the face with staring eyes. Diver B tried to pull A back to the hole but was making little progress and using a lot of air.

He cut himself free and reached open water. Diver A was released shortly afterwards by spectators but efforts to revive him failed. Diver A was a First Class Diver and Advanced Instructor with over 500 dives logged. B was a Second Class Diver.

They broke most of the basic recommendations for diving under ice in having no line to the hole, no standby diver, no competent surface party and failing to return to the hole as soon as a problem developed.

January 35/82. This is interesting as it involves a host of different problems. Two Third Class Divers and a novice were diving under thin ice. The novice's weight belt slipped down to his knees and o of his buddies repositioned it. The novice then ran out of air and snatched the first buddy's demand valve — obviously a trained survivor. The two Third Class Divers shared air.

As they surfaced the second buddy moved over to share air with the novice but, after the latter had taken 6 breaths in a row, had to pull back his demand valve. They managed to break through the ice on the surface, which was fairly thick. By this time the novice was unconscious with purple lips and was not breathing at all. However his breathing restarted of its own accord as soon as his neck was extended as a preparation for EAR. He recovered in hospital.

March 32/82. A novice and a dive leader, who was the Branch DO, surfaced after the novice complained of cold. The novice was instructed to snorkel back, breaking the ice in front of him, whilst the DO continued his dive alone. The novice developed cramp and had to be rescued by other divers.

This was the same Branch DO who featured in last year's report as considering that Second Class Divers were quite capable of looking after themselves on solo 17m dives.

After all this some of you might think it is safer to stay ashore. Wrong!

August 114/82. A diving cylinder was left standing upright and unattended. A passing diver caught her knife in the harness, pulling the bottle over onto her foot and breaking a toe.

May 58/82. A diver broke his finger whilst winching a boat out of the water and **October 137/82** a boat trailer accidentally ran away down a slip, striking a diver and severing an artery in his leg. A BSAC member was commended for his prompt action in applying a tourniquet until a doctor and ambulance arrived. However, as it was he who accidentally released the trailer he would seem to have been under a moral obligation at the very least.

In the past, I and my predecessors on the Incident Panel have always emphasized the anonymity of all reports. However, on this occasion I intend breaking with tradition and naming names. I can see a few worried faces around already.

The incident is **August 149/82** and resulted when a 14 year old boy got into difficulties whilst swimming in the Thames near Oxford. A search was organized and two members of Dover Sub-Aqua Club who were on a boating holiday offered to help. They went down, snorkelling, over a dozen times into water 10 feet deep, which was cold and murky, until they found the body. The two were John Sayers who was 16 and Gary Furneaux aged 15. Their efforts were commended by the Thames Valley Police. A spendid effort by two young lads.

And now a cautionary tale of dry suits. **January 34/82.** A drysuit direct-feed valve jammed open after use. The diver made a rapid ascent, although luckily from only 3 metres. On the surface the air in the suit prevented him bending his arm sufficiently to disconnect the direct feed supply, it restricted his breathing and nearly throttled him. His pillar-and-pin type rubber weight belt snapped. He was rescued by his buddy with bruises on the neck as the only after-effect. The victim pointed out in his report that the air supply button on his direct feed system projected above the top of the casting in which it was housed so that it was possible for a lifejacket to hold the button down.

A cautionary tale of buoyancy involving a drysuit was **July 143/82.** A Third Class Diver was at 35m. In his own words, 'I did not like it down there; I wanted to be on the surface'. So he inflated his drysuit *and* ABLJ and, as if by magic, he was on the surface leaving his buddy behind him. By some miracle, he suffered no ill effects. This procedure is also not recommended.

What can you, as a Branch DO, do to reduce accidents next year? I have already suggested the quality of Dive Marshals as an area that seems to need attention. Surface marker buoys and boats are other areas needing thought and care.

How about arranging a Branch presentation on this year's incidents? I've done most of the work for you already in the Incident Report, and all you need is a volunteer to give it.

I would like to thank all those who have sent in reports, especially HM Coastguard Headquarters in London who send me copies of all their reports involving divers. Also John Marshall, the staff officer of the St John Ambulance Brigade in Guernsey, who runs the much-used chamber out there.

Finally a challenge. I challenge you all to put the Incident Panel out of business with a safe, incident-free year next year!"

Questions

Simon Fraser *(Hampstead).* "In the decompression accidents, have you made any attempt to test the depth gauges being used to see if they were contributory factors to the incidents?"

Martin Marks. "Not personally, but I know that when HMS 'Vernon' are involved in a case, they automatically do this if they can. You have to appreciate that in a lot of cases all the information I ever get is on the back of a scrappy piece of card."

Paul Baker *(Dover).* "One or two of the incidents that you have described today have involved people that in the past have caused other incidents. I know that at one time we were talking about expelling these people; has anything been done on that line to either issue warnings from Headquarters or actually expel these people, as it seems to be the same people time after time who are causing the problems?"

Martin Marks. "My policy is, and I am sure that Tony Dix will bear me out, that when I do come across something that I believe to be very dangerous, then I write privately to Tony. The action to be taken is then up to him."

APPENDIX 1

STATISTICAL SUMMARY OF ACCIDENTS AND INCIDENTS

ITEM	1978	1979	1980	1981	1982
Incidents reported	89	120	151	216	149
Incidents analysed	81	114	148	203	148
British incidents	63	105	135	190	126
Incidents abroad	12	9	9	8	10
Location unknown	6	0	6	5	12
BSAC Members	53	76	106	160	108
Non BSAC Members	15	14	22	9	15
Membership unknown	13	24	17	33	26
National Snorkellers Club	0	0	3	1	0
Total fatalities	12	13	13	12	9
BSAC fatalities	8	5	6	5	6
BSAC Branch diving	3	4	2	4	5
ALL fatalities: solo	5	1	5	5	3
separated	5	6	0	5	3
underwater		9	7	9	8
on surface		4	5	3	1
3 or more in party		4	1	1	0
Decompression sickness	29	33	18	30	36
Recompressed	23	32	16	23	33
Depth reported	19	12	16	24	24
30m or deeper	12	6	14	19	14
Repetitive diving	4	2	6	7	8
Attempted recompression underwater		5	6	3	3
Commercial chamber		5	7	5	14
Service chamber		27	7	11	12
BSAC Members		13	12	23	18
Definitely NOT BSAC			4	2	8
Ascents	22	25	36	46	35
Emergency ascents	13	5	6	5	1
Aborted dives	12	20	11	30	11
Assisted ascents	12	9	8	11	7
Buoyant ascents	6	7	5	15	14

ITEM	1978	1979	1980	1981	1982
Coastguard alerted	17	34	24	37	27
Ambulance		8	4	10	8
Police		5	2	7	5
Lifeboat		21	14	16	10
Helicopter	12	22	12	31	22
Reported by HM Coastguard		35	19	21	17
Divers in the water		83	128	157	137
30m or deeper		19	30	18	18
50m or deeper			4	5	2
1m to 30m		42	42	76	43
On the surface		12	40	58	18
Involving boats		23	21	44	19
On land		5	17	6	4
Swimming pool			8	6	4
Bad seamanship	6	8	3	8	6
Injury caused	14	8	6	25	18
Weight/buoyancy involved	10	3	6	8	7
Solo diving	9	5	12	26	10
Separation	9	10	6	14	9
Resuscitation	4	11	8	7	5
Narcosis reported	3	2	6	5	1
Ears	2	4	5	14	7
Good practice involved			29	13	10

MONTHLY BREAKDOWN	ALL INCIDENTS	FATALITIES	BENDS
November	7	1	1
December	4	0	1
January	7	1	1
February	2	0	0
March	8	0	2
April	11	0	1
May	16	0	4
June	19	1	4
July	23	2	5
August	28	4	9
September	17	0	4
October	3	0	0
Undated	1	0	0

All the above reports are based on information received between November 1, 1981 and October 31, 1982.

APPENDIX 2

SUMMARY REPORTS

Each of the following reports is set out in a standard way: month, serial number, precis, membership, qualification, organisation of dive type of dive, where – country/water, depth in metres (italics), and a set of numbers which indicate an analysis of the major factors in accordance with the key provided in the report.

KEY

MEMBERSHIP:
B = BSAC, I = Independent, O = no organisation.
C = commercial, N = National Snorkellers Club.

QUALIFICATION:
O = none, S = Snorkel, 3 = Third Class, 2 = Second Class, 1 = First Class, Inst = Instructor.

ORGANISATION OF DIVE:
C = Club/Branch, P = Private, O = none, Comm = commercial, H = holiday.

TYPE OF DIVE:
B = boat, Sh = shore, Sn = Snorkel, D = drift, T = training drill, O = none.

LOCALITY:
H = home, A = abroad, F = freshwater, S = sea, L = land, P = Swimming pool

DEPTH IN ALL THE ABOVE:
In Metres (Italics), X = UNKNOWN OR NOT RELEVANT.

November 2/82: Fatality. Buoyancy problems caused separation during assisted ascent exercise. Victim reached surface but was in difficulty, having lost contact with his D V. Buddy unable to release his weightbelt because of thrashing arms. Victim then sank. Body recovered about four minutes later by third diver who found ABLJ bottle empty although there was some air in the jacket. B.3.C.Sh/T. H/F. 2.17.24.30.59.

November 15/82: Pregnant diver became breathless during 'G' test. Attributed to tightness of wetsuit B.S.C.T. H/F. 1.29.34.59.

November 16/82: DV failure amongst two at 120ft. Successful assisted ascent B.2.C.Sh.H/F.*37*.1.2.18.32.33. 58.

November 17/82 Novice suffered disorientation during dive. Perforated eardrum and prior-to-dive ear infection diagnosed. B.S.C.Sh.H/F.*20*.6.20.27.42.

November 19/82 Diver panicked in dark low viz; confused signals as buddy blinded by torch. Buoyant ascent without ill effects. B.*X*.C.B.H/F.*18*.1.3.48.63

November 21/82: Perforated eardrum during octopush match. B.X.C.T.H/F.20.

November 40/82: Diver felt weak and had numb right-leg after dive to 25m for 25mins. Despite this he carried out second dive to 10m later in the day after which he felt better. Conditioned worsened next day. Twenty hours of recompression spread over four days. Advised not to dive again. B.3.C.B.H/S.*25*.11.27.

December 25/82: Diver lost mouthpiece when buddy line slipped and became trapped under ice in frozen river. Rescued by other divers cutting through ice. Press reports only. B.X.C.Sh.H/F.19.23.24.25.58.66.

December 28/82: Bend after dive to 30m for 18mins. Background of medicinal drugs and exposure to industrial gas. C.3.H.B.A/S.*30*.11.

December 30/82: Divers separated and one surfaced through ice and panicked. Rescued by snorkler breaking through ice to him. B.2.C.Sh.H/F.23.54.66.

December 31/82: Branch reports several DV's frozen in free flow position during ice dives. Higher performance valves most susceptible as to be expected. B.3.C.Sh.H/F. 32.37.66.

January 33/82: 2 DV's frozen up after about 5 minutes. Divers surfaced safely. B.X.C.X.H.1.32.37.66.

January 34/82: Dry suit direct feed valve jammed open after use. Diver made rapid ascent although luckily only from 3m. On surface internal pressure prevented him bending arm to disconnect input tube, prevented him breathing and nearly throttled him. Pillar and pin type rubber weight belt snapped. Rescued by buddy. Bruises on neck only after effect. Noted that inlet air valve button on VVDS projects above valve casting so that it is possible for life-jacket to hold button down. B.2.Comm.B.H/J.*3*.33/37. 67.

January 35/82: Two Third Class divers and a novice diving under ice. Novice weight belt slips around his knees. Re-positioned by buddy. Novice then runs out of air and snatches buddy's DV. Remaining two share air. Second buddy then shares with novice but has to pull back DV after six breaths. Manage to break through the thicker ice they have moved under. Novice unconscious, purple lips and not breathing on surface. Breathing restarted as soon as his neck was extended. Recovered in hospital. B.S.C. Sh.H/F.*17*.1.23.24.25.34.47.48.58.61.66.

January 37/82: Two DV's froze up and ABLJ free flowed when used causing uncontrolled buoyant ascent. Diver exhaled hard. No after effects. B.3.C.Sh.H/F.*21*.3.28.32. 37.66.

January 39/82: Fatality. Diver died under ice. Details not yet cleared for public release (serviceman). B.1.X.X.A/F.17.

January 52/82: Dislocated shoulder during octopush match. B.3.C.O.H/P.20.

January 61/82: At a New Year's Eve party a diver consumed 8 pints of beer and 7 double Bacardis. He was unable to recall going to bed. On 1st and 2nd January he undertook two relatively shallow dives well within no-stop times although there was a rapid ascent after the first. Over the next ten days he suffered severe head pains and distorted vision. Own doctor told him to go home and relax. Regional Coach arranged for recompression when symptoms worsened. Treatment successful. B.X.C.B.H/S.*11*.11.27. 64.

February 38/82: DV interstage hose failed on surface during pool training. B.X.C.T.P. 33.59.

February 41/82: Buoyant ascent. No details. H/F.3.

March 32/82: Novice and dive leader surfaced after novice complained of cold. Novice instructed to snorkel back breaking the ice in front of him whilst leader continued his dive alone! Novice developed cramp. Assisted by other divers. B.S.C.Sh.H/F.*5*.1.23.57.64.66.

March 42/82: Semi-commercial shell fish diver with bend in shoulder. Dive schedule:

Day 1 Two dives to 130ft, estimated at 35mins total time with one hour interval and 10 min stop at 10ft.

Day 2 One dive to 130 ft, estimated 15mins; one hour interval; second dive 45ft, 25mins approx. (approx. 10 min stop at 10ft).

All dives carried out on a decompression meter. Both days diving outside limits of BSAC Table. By RN Table II he missed 20 min stops Day 1 and 30 on Day. 2. Medical opinion that he was lucky to escape with minor break. O.O.Comm.X.H/S.*40*.11.27.62.64

March 43/82: Divers assisted yacht in distress by using VHF radio. B.X.C.B.H/S.13.18.22.

March 44/82: Dive carried out to 103ft for "some 16 or 17 mins", "knowing that the no stop time for 30m was 20 mins" (N.B. 103ft is nearer to 32 metres). Ascent took 5 mins (3 mins in excess of tables) Later developed ach in right leg and shoulder. Recompressed. B.3.C.Sh.H/F.*32*. 11.27.31.62.64.

March 45/82: Burst ABLJ. No details. 28.33.

March 48/82: Novice suffered injury to teeth and gums jumping into pool fully kitted from 1 metre diving board.

Hand over mask but not DV. Diver Training Programme will be altered to emphasise holding mask *and* DV. B.O.C. T.A/P.20.43.60.

March 54/82: Diving party assists yacht in distress by calling coastguard. B.C.B.H/S.22.13.14.

March 59/82: Burst eardrum, lost consciousness at 7m. Successful rescue. B.X.C.X.H/F.7.6.20.23.25.

April 49/82: Diver suffered surgical emphysema. Had participated in one hour underwater swim in pool as part of sponsored dive. B.S.C.O.H/P.2.20.27.

April 50/82: Suspected bend after fast ascent from 25m. Not confirmed by recompression. Fast ascent caused by dry suits. B.3.C.Sh.H/F.*30*.3.11.30.35.58.62.67.

April 51/82: Contents gauge seized at 2000 psi. Gauge later found to be *for use in air only*. Approx. 10 released for retail sale. Graduations in black (psi) and red (bar). Sticker on rear notes that "this gauge is fitted with a safety pressure equalising system". Hose fitting is 1/8in BSPP with a flat bottom, not female cone as is more usual. B.3.C.B.H/S.22.4.33.37.

April 53/82: Coastguard, helicopter and lifeboat involved in search for two missing divers. Recovered by helicopter. Diving party had no knowledge of local tides, carried no flares and boat ran out of fuel. O.X.X.B.H/S.13.14.15.21. 23.37.40.43.

April 55/82: Dive boat assists in search for lost boy swimmer. B.C.B.H/S.23.51.

April 56/82: Branch boat tows in another. B.C.B.H/S.8.

April 57/82: Diver badly injured by outboard propeller after falling overboard whilst practising man overboard drill. Propeller diced through femur, fractured fibular, lacerated muscle, ligaments and tendon. B.C.B.H/S.8.12. 20.52 [DIP comment – live victims should not be used for man overboard practice].

April 65/82: Lone diver without ABLJ went 'finning and walking' along rocky shore to find inflatable which had been swept away. Rescue services alerted when he failed to return as it got dark. Diver found and boat recovered B.3.C.B.H/S.8.13.14.16.21.51.

April 74/82: One diver separated from group of 3 and then seen surfacing rapidly. Diver cannot remember surfacing. First dive with new direct feed ABLJ. B.X.C.Sh. H/F.*13*.3.30.35.54.58.

April 76/82: Two 3rd Class divers at 34m failed to note their dive time. Neither did the surface cover. Estimates ranged from 15 to 24 mins. Expedition leader instructed them to re-enter and decompress! No after effects. Excellent, detailed Branch investigation and report. B.3.C.8.H/S. 34.10.31.64 [D.I.P. comment: re-entry decompression is not a recommended practice for amateur divers, even if there are no symptoms.]

April 83/82: Diver carried out buoyant ascent after running low on air. No after effects. B.3.C.B.H/S.*16*.3.47.54.

May 4/82: Out of air. Diver unable to operate reserve on hired cylinder. Emergency ascent. B.3.H.B.A/S.*22*.3.35. 43.47.60.

May 6/82: Overweight divers in difficulty in choppy sea during 250 metre swim back to shore. B.3.H.Sh.A/S.*14*.29. 30.47.51.

May 7/82: Diver caught in net. Released by buddy. B.S.H. B.A/S.23.

May 58/82: Broken finger whilst winching a boat out of the water. B.X.X.B.H.20.

May 60/82: BSAC branch boat rescues two divers half a mile off shore. No shore party, no boat cover, no ABLJ on one diver, no air on surfacing, no knowledge of tides. One diver had received no diving training. O.O.P.Sh.H/S.23.28. 43.47.55.60.

May 62/82: Diver developed minor bend symptoms after long weekend's diving of no-stop dives. Symptoms deteriorated later in week. Recompressed. Minor spinal bend diagnosed. An excellent and very detailed Branch investigation/report. No obvious cause.

May 63/82: Four divers recovered by other Search boat after their own boat had engine failure. B.X.C.B.H/S.8.13. 15.23.45.

May 64/82: Diver dveloped pain in left shoulder and knee after two dives to 70ft. He claimed to have done 15 mins *and* 40 mins on one 72 cuft cylinder by overfilling! He made no stops on either dive (c.f. no-stop dive time 38 min for 70 ft). This was his second recompression in nine years. X.X.P.X.H/S.*22*.11.27.31.

May 66/82: Diver developed mild spinal bend after doing solo repeat dives looking for an anchor "inside no-stop time". Recompressed. B.3.C.B.H/S.*22*.11.27.57.

May 67/82: Near miss by skier on a snorkeller. Snorkeller was apparently using an orange buoy, no flag on boat cover Several ski boats in the area. B.X.X.Sn.H/S.8.16.56.

May 68/82: Diver collapsed after dive to 25m. Buddy had surfaced earlier (!) and diver was noticed to be behaving strangely when he returned to inflatable and then became unconscious. Shortly afterwards his breathing stopped as did his heart. CCCM restarted heart and breathing. Taken to hospital where air embolism was diagnosed. Over fast ascent suspected.
B.Inst. C.B.H/S.*25*.12.26.27.30.54.63.

May 69/82: Diver developed slight tingling in the fingers after missing 5 mins of stops after dive to 27m. Symptoms worsened over next few days. Recompressed. B.3.C.Sh. H.27.11.27.

May 72/82: Novice diver panicked on surface before dive. Buddy ditched weights, inflated ABLJ and towed ashore. B.S.C.Sh.H/S.1.18.23.

May 73/82: Diver ran out of air on surfacing. Unable to inflate ABLJ as rubber handle was slipping over valve spindle and also unable to inflate dry suit. Gave distress signal and was rescued by another branch's boat. No reference to his buddy but known to be on a Branch dive. X.X.C.B.H/S.*36*.23.30.33.47.

May 75/82: Inflatable boat dive, two pairs of divers. Boat anchored and tied to shot line so that when first pair surfaces away from the boat cox'n had to cut tightened knots to reach them. One diver of first pair surfaced with empty cylinder. Second pair separated when one of them was low on air; one surfaced, one continued dive!
B.X.C.B.H/S.8.47.52.54.64.

May 80/82: Minor ear problem caused dizziness on shallow dive. Surfaced and assisted ashore. Group of four divers, *one 3rd Class, three novices!* B.Sn.C.Sh.H/F.*10*.1.6.23.

June 8/82: Inflatable ran out of fuel. Faulty tank gauge. B.–C.B.H/S.8.33.40.

June 12/82: Cave diver – bend due to incorrect decompression. O.X.X.X.H/F.11.27.64.

June 13/82: ABLJ bottle and clamp detached from bag. B.X.C.X.H/S.*X*.33.

June 23/82: Lost divers during drift dive. Divers, one of whom was Dive Marshal, had declined the offer of an S.M.B. Subsequent search involved helicopter, lifeboat, inshore rescue boat and 30 small boats. Lost divers swam ashore but were unable to climb cliffs. Swam around cliffs the next morning. B.X.C.B.H/S.13.14.15.21.55.

June 24/82: Cave diver bent after missing stops and ignoring altitude effects. Dive was for 15 mins to 46m at 215m altitude. Omitted 20 mins of stops.
X.O.O.X.H/F.*46*.11.27.60.44.

June 70/82: Diver shared air with buddy after DV failed. After one series of breaths diver pushed back shared DV and inflated ABLJ at 20m. Air embolism – two days in recompression chamber. B.3.C.Sh.H/F.*20*.3.11.26.32.33.61.

June 71/82: ABLJ direct feed hose failed in boat after dive. Apparent inadequate bonding/crimping of metal fitting to flexible hose end on new hose. B.I.C.B.H/S.28.33.

June 77/82: Lone diver swallowed seawater after DV failure. Managed to reach rocks where he was rescued by a local boatman. No boat on shore cover.
X.X.H.Sh.H/S.7.23.32.33.55.57.64.

June 78/82: Reversed ear after dive to 30m. Close fitting dry suit hood and "slight nasal cold" reported.
B.2.C.B.H/S.*30*.6.20.27.42.67.

June 79/82: Fatality. Pair of divers separated during ascent from 34m dive. On reaching surface one diver could not see his buddy. Branch dropped shot line and commenced search. Other boats and helicopter involved in search but missing diver not found.
B.2.C.B.H/S.*34*.13.14.16.17.54.55.

June 82/82: Divers carried out re-entry decompressions (after carrying out dive of 35 mins to 25m) on instructions from D.O. B.3.C.B.H/S.*25*.10.31.64 (See April 76/82).

June 97/82: Boat capsized in surf during Boat Handling Course. B.X.Comm.H/S.8.51.

June 100/82: Diver ran out of air after using his own cylinder to fill two lifting bags. Assisted ascent.
B.2.C.B.H/S.*26*.2.31.35.47.61.

June 105/82: Novice's ABLJ direct feed jammed open at 10m. Novice had presence of mind to operate dump valve and ascended in "a not too desperate state". No after effects. B.S.C.B.H/S.*10*.3.18.28.33.

June 106/82: Overweight novice with faulty direct feed at 32m. Assisted to surface by dive leader using his own ABLJ. B.S.C.B.H/S.*32*.1.3.23.28.30.33.

June 113/82: Mild knee bend after 20 mins at 30m. Own doctor stated "not a bend as they never appear in joints". Dive Marshal contacted a diving doctor for second opinion. Recompressed. B.X.C.B.H/S.*30*.11.

June 117/82: Boat cover lost contact with pair of divers without SMB. Extract from Branch Report Recommendations: "SMB's will be taken on all club diving trips irrespective of whether a wreck dive is planned or not. SMB's will be used on all dives unless they are considered to constitute an additional hazard, as on wreck dives. Divers will be encouraged to construct fluorescent orange emergency flags and carry them on all dives" DIP comment – very laudable recommendations although SMB's should be used on wreck dives if at all possible. B.X.C.B.H/S.13.21.55.

June 129/82: Diver hanging onto inflatable grab rope was injured when the boat suddenly went ahead and the rope gave way. He went under the boat and was struck on the leg by the prop. Cox'n did not realise diver was there. B.X.C.B.H/S.8.20.

June 147/82: Suspected decompression sickness. No detail. B.X.X.X.H.

July 9/82: Novice had severe mask squeeze.
B.O.C.B.H/S.*11*.20.27.60.

July 10/82. Anchored (?) boat drifted ¾ mile during dive. Divers on surface for 15 minutes waiting for pick up. B.–.C.B.H/S.*9*.8.52.

July 11/82: Commercial hardboat's diesel tank ran dry after five miles. Boat returned to harbour on one engine only as other tank was expected to run out soon B.X.Comm/C.B.H/S.8.31.40.52.

July 14/82: Snorkellers from hardboat rescued young boy stranded on rocky isle by outboard failure.
B.X.C.B.H/S.18.22.

July 84/82: Cerebal bend after 35 min at 70ft; 4 hour interval; 45 min at 50ft. Aggravated by two day delay before seeking treatment. Limited knowledge of diving theory and no proper diving training.
O.O.P.X.H/S.11.27.60.

July 85/82: Diver received severe head injuries after being struck by boat propeller. Last reported to be recovering. B.X.C.B.H/S.12.20.52.

July 86/82: Fatality. Diver alone drowned. Possible heart attack. B.X.X.X.H/S.14.15.17.

July 87/82: Recompression incident. No details.
B.X.X.X.A.11(?).27.

July 88/82: Fatality. Diver drowned. No details.
X.X.H.Sh.H/S.17.57?.

July 89/82: Coastguard alerted when SMB came undone from line and cover boat lost contact with divers. Lifeboat launched and helicopter airborne. Divers picked up by yacht. Letter of thanks to Coastguard and bottle of Scotch sent to lifeboat crew.
B.X.C.B.H/S.13.14.15.21.31.56.

July 90/82: Diver recompensed after 14 min dive to "35–40 metres". Local knowledge of site suggests 40m plus. Cerebal bend diagnosed. B.X.C.B.H/S.*40+*.11.31.

July 92/82: Four divers left in water after engine failure and anchor parted. Coastguard, lifeboat and helicopter involved. Divers plus "two other inflatables being used with no engines" were picked up by lifeboat.
I.X.C.B.H/S.8.13.14.15.21.33.45.

July 93/82: Type I bend after 35 min at 20m. Ache in left arm following day which moved to shoulder. Recompressed. B.2.C.Sh.H/F.*20*.11.27.

July 94/82: Bend after 'dive' in recompression chamber. Five divers carried out dive to 165ft for six minutes with two minutes stop at 20ft and five minute stop at 10ft. One diver later complained of aching joints. Recompressed. B.O.C.T.H.*50*.11.27.59.

July 96/82: Perforated eardrum after kick in ear during 'friendly' octopush match. Branch now purchasing head protectors. B.3.C.Sn.H/P.6.20.

July 99/82: Diver ran out of air at 20m assisted ascent. Had earlier been towed in full kit by an inflatable some 500m after changing dive site – suggestions that this allowed D.V. to freeflow.
B.Inst.C.B.H/S.*20*.31.47.61.

[D.I.P. comment – towing kitted divers with a boat is potentially dangerous. It only takes a few minutes to get them inboard for a transit. See incident June 129/82 for likely results.]

July 101/82: Three divers, no SMB. Inflatable cover unable to follow bubbles. Coastguard alert. Diver picked up by passing motor boat. At one stage divers reported that they were only 100m from inflatable, waving and blowing ABLJ whistles *but were not seen or heard by boat crew*. Sea state – Force 4.
B.X.C.B.H/S.13.21.55.58.

July 103/82: Unconscious diver lifted by helicopter to recompression chamber. CCCM given by ambulance crew during flight. Embolism suggested. Coastguard report X.X.X.X.H/S.*X*.11.12.13.14.26.

July 116/82: Bend. *15 year old* boy recompressed. No details, Coastguard report only. X.X.X.B.H/S.11.12.13.15.

July 120/82: Bend. No details. X.X.X.X.H/S.11.

July 143/82: A 3rd Class diver at 35m. In his own words "I did not like it down there; I wanted to be on the surface". Inflated VVDS and ABLJ! Buoyant ascent, buddy followed up at more conventional speed. No after effects. B.3.C.B.H/S.*35*.3.28.60.

July 144/82: Non-member undergoing 'B' training snorkelled to 3m and burst eardrum. B.O.C.T.H/P. *3*.6.20.60.

July 145/82: ABLJ cylinder/bag connector shattered on inflation. B.X.X.X.X.28.33/38.

August 5/82: Diver became disorientated and had to be stopped by his buddy from descending passed 30m. Attributed to excessive seasick pills and medication for stomach ailment. B.3.H.B.H/S.*30*.1.19.23.42.

August 29/82: Apprehensive novice with buoyancy problem. Assisted to surface by buddy where novice "beat" her DV, swallowed water and lost consciousness. B.S.C.Sh.H/F.*15*.23.25.29.

August 36/82: Severe bends victim given 6 hours of in-water recompression in two sessions by an Army diving instructor. No recompression chamber available. Victim recovered. Rescuer awarded Queen's Commendation for Brave Conduct. X.X.H.X.A/S.10.
[D.I.P. note – there was *no chamber* and the *victim had been given last rites*. These are about the only circumstances in which this treatment can be justified. This particular incident needed air for two divers at 33m for six hours. Should not be attempted in U.K.]

August 91/82: Diver recompressed.
X.X.X.B.H/S.11.13.14.27.

August 95/82: Fatality. Two divers, one 3rd Class and one novice dived to 46m. One had a watch, one a depth gauge. Novice appears to have panicked on ascent dislodging buddy's mask. Buddy replaces mask but lost contact with novice. During subsequent search buddy descends three times to 46m. On third descent he was accompanied by two divers one of whom was using his octopus valve (3 divers – 2 cylinders!). Third diver runs out of air and shares on ascent (3 dives – 1 cylinder!!). Novice found drowned. B.S.C/H/H.B.A/S.*46*.2.17.47.54.58.61.62.

August 98/82: Branch boat dropped four divers in the water but then went to assist a lone diver in distress 300m away. Engine failure and boat drifted away. Four divers picked up by fishing boat. Branch boat returned after starting engine and, not realising divers had been picked up, raised alarm.
B.X.C.B.H/S.8.13.21.45.65.

August 102/82: Diver sought recompression six days after overseas diving holiday. Spinal bend diagnosed. During five month period prior to this incident he had done a lot of diving with twelve dives to 30m or more. These included 35m/60 min, 40m/28 min, 38m/30 min etc. When asked about stops he told the chamber staff that "he swam about shallow to use up his air"! A BSAC 2nd Class Diver. B.2.H.Sh.A/S.*30–40*.11.43.60.62.64.

August 104/82: Two divers separated when their boat began to sink. Rescued unhurt. Press report only. 8.23.

August 107/82: Fatality. Followed incident in which the diver lost his arm in a hand boat propeller. He seems to have misunderstood a shout from the boat skipper as the signal to enter the water even though this was not the agreed procedure. B.X.C.B.H/S.8.17.

August 108/82: Fatality. Reported as heart attack whilst diving alone. Given EAR during helicopter lift to hospital but died in operating theatre.
X.X.P.Sh.H/S.13.14.17.57.

August 109/82: Bend. No details. B.X.H.X.A/S.11.

August 110/82: Fatality. Press reports indicate novice had DV failure at 30m. Shared with buddy to about 12m but then novice carried out buoyant ascent. Buddy did not surface and was later found dead at 30m. I.X.X.Sh.H/F.*30*.1.2.3.16.17.33.54.61.

August 111/82: Mild bend, no details.
X.X.X.B.H/S.*X*.9.12.13.

August 112/82: Spinal bend. BSAC Branch dive using US Navy Tables. Reported to have missed 140 minutes of stops. Full report outstanding.
B.X.C.B.H/S.*X*.11.64.

August 114/82: Diving cylinder left standing upright. Passing diver catches knife in bottle harness and falling bottle breaks diver's toe. B.X.C.O.A.20.31.60.

August 115/82: Solo diver lost boat cover when engine failed. Boat rescued by fishing vessel after using red flare. Inshore lifeboat picked up diver after search.
X.X.X.B.H/S.8.13.15.21.45.57.

August 118/82: Dive planned to 36m for 20 mins with appropriate stops. Diver failed to monitor air and on running out carried out buoyant ascent, ditching set on the way. Carried out re-entry decompression on instructions from boat skipper. No ill effects. B.3.C.B.H/S.*36*.10.64. [DIP comment: re-entry decompression is not recommended].

August 119/82: Drowning man rescued by BSAC member. No detail. B.18.22.

August 122/82: Spinal bend with classic 'staggers' symptoms after following dives

Day 1 (a) 20 mins @ 120 ft 2 min stop @ 20ft.
(b) 1 hour interval
(c) 20 min @ 120 ft 2 min stop @ 20 ft.
(d) One 72 cu ft bottle at 60 ft to decompress

Day 2 (a) 20 mins @ 130 ft 2 min stop @ 20 ft.
(b) 1½ hour interval
(c) 20 min @ 130 ft. 2 min stop @ 15 ft.

Symptoms after first day of severe pain in neck and elbow. Collapsed after second with complete disorientation. Extensive recompression required. Casulaty has had no formal diving training and does not use tables for diving! O.O.P.B.H/S.11.43.

August 123/82: Diver taken to recompression chamber with suspected bends after "15 to 20 minutes at 25m". No detail, Coastguard Report only.
X.X.X.B.H/S.*25*.11.

August 124/82: Inflatible rescued by inshore lifeboat after engine failure and firing flare.
B.X.C.B.H/S.8.13.15.45.

August 126/82: Lone diver reported to be two hours overdue by his wife. Coastguard initiated search by fishing boat, helicopter, divers and shore party. Wife later reported to have left in her car. No sign of mising diver or report of him coming ashore. Assumed to have come ashore.
X.X.X.X.H/S.13.14.15.21.31.57.

August 127/82: Fishing vessel reported a lost diver. Helicopter scrambled but diver recovered by own boat.
X.X.X.B.H/S.13.14.21.55.57.

August 128/82: Divers reported to have lifted live high explosive shells. B.X.C.B.H/S.43.

August 130/82: Overweight diver sank from 10 to 24 m. Rescued by buddy using victim's ABLJ in controlled ascent B.3.C.B.H/S.*24.5*.18.23.28.30.

August 135/82: Helicopter search for mising diver who eventually found own way ashore. Coastguard report only. X.X.X.B.H/S.13.14.15.

August 140/82: Bend after less than 23 min at 23m. Recompressed after helicopter lift to chamber. Previous bend history. B.2.C.B.H/S.*23*.11.14.42.

August 149/82: Two teenage snorkellers commended by police for their location of a body in 3m of 'cold murky water'. B.Sn.P.Sh.H/F.16.18.

September 1/82: Exhausted diver in difficulty on surface. X.X.X.X.H/S.*X*.29.

September 18/82: Two divers on holiday advertised for dive buddies and were joined by a third. "We agreed that most of the time he would be diving by himself although on deeper dives on wrecks he would be accompanied by one of us ...." Dive profiles on first day indicate disregard of decompression tables. Third diver suffered paralysis after dive on second day and was recompressed.
2xB (1x ex-B).3.P.B.H.H/S.*19*.11.27.57.64.

September 26/82: Snorkel diver without knife ("he did not bother to take it with him") tangled in string. Freed by buddy. B.S.C.Sh.H/F.31.

September 46/82: Professional diver carried out four dives to 120 ft, total bottom time 60 mins during 90 minute period. Bend symptoms within 30 mins. Attempted re-entry decompression. Followed by dizziness, nausea and

vomiting. Recompressed for the fourth time! (Not included in analysis – professional diver).

September 121/82: Diver reported to have surfaced coughing blood after DV failure and 'assisted descent' from 30m. Helicopter lift to hospital.
I.X.C.B.H/S.*30*.2.7.12.13.14.33.

September 125/82: ABLJ direct feed fractured at connection to D.V. as diver reached into a wreck. Carried out free ascent. B.2.C.B.H/S.1.5.35.

September 131/82: Two lost divers rescued by helicopter after nearly three hours in the water. No surface marker buoy. Branch reported noted "the likelihood is that we will make it a club rule to use SMB's in the sea."
B.X.C.B.H/S.14.21.23.55.

September 132/82: Diver lifted from fishing vessel and transferred to decompression chamber by helicopter. He was paralized from the waist down after dive to 125 ft for 30 min. Still paralized after treatment.
X.X.X.B.H/S.*38*.11.13.14.62.

September 133/82: Diver recompressed after deep dive and pains in arm. Later diagnosed as trapped nerve.
B.X.X.B.H/S.*53*.11.62.65.

September 134/82: Perforated ear drum during 33m dive.
B.Sn.C.B.H/F.*33*.6.20.27.

September 136/82: Diver with minor bends symptoms picked up by helicopter and recompressed.
X.X.X.B.H/S.11.13.14.

September 138/82: Lost divers. Helicopter involved in search. Outcome not clear in report.
B.X.C.B.H/S.13.14.21.55.

September 139/82: Two divers trapped on rocks by heavy swell. Branch member snorkelled over from hardboat and assisted them back. B.X.C.B.H/S.18.23.

September 141/82: Diver fell out of inflatable whilst novice cox'n was attempting a crash stop. The cox'n was being supervised by a Branch member who had attended a Boat Handling Course. Diver suffered shock and cut wet suit. The diver suffered some disorientation during a dive later that evening. B.X.C.B.H/S.8.31.52.60.

[DIP comment – the Boat Handling Course does not attempt to train instructors and is only the first step towards becoming a skilled cox'n.

September 142/82: Diver needed stitches after slipping on hardboat and striking head on winch. B.3.C.B.H/S.20.

September 146/82: Two missing divers initiated helicopter search. Divers swam ashore. X.X.X.B.H/S.13.14.21.

September 148/82: Helicopter and cliff rescue team involved in the recovery of a diver trapped at bottom of cliff after becoming separated. X.X.X.X.H/S.13.14.23.54.

October 3/82: Inflatable towed in by police launch after engine overheated. B.–.C.B.H/S.8.45.

October 27/82: Dive leader forgot to allow for the effects of buddy's previous dive. As a result of a first dive of 10m for 65 mins and second dive of 26m for 35 mins, the buddy missed a large amount of stops. No ill effects.
B.Inst/S.C.B.A/S.*26*.31.

October 137/82: Boat trailer ran away down slip and struck diver severing artery in leg. BSAC branch member administered tourniquet until doctor and ambulance arrived. B.X.C.X.H/S.18.20.

Undated 47/82: Diver ran out of air during dive to 46m. Shared with buddy but during ascent they struck sirk hole wall dislodging mask. Further confusion over buddy's octopus rig and expanding air in ABLJ lead to a buoyant ascent. No after effects. Trio diving.
B.2.C.Sh.A/F.*46*.2.3.12.28.31 (or 46).47.58.61.62.63.

FREQUENCY OF INCIDENTS

The figures represent the number of times, each occurred in 1980, 1981 and 1982 respectively.

Code	Item	1980	1981	1982
1	Aborted dive	11	30	11
2	Assisted ascent	8	11	7
3	Buoyant ascent	5	15	14
4	Emergency ascent	6	5	1
5	Other ascent	6	15	2
6	Aural barotrauma	5	14	7
7	Pulmonary baratrauma	5	3	1
8	Boat trouble	19	29	19
9	Decompression sickness – not recompressed	3	5	1
10	Recompressed in water	6	3	3
11	Recompressed in chamber	13	26	32
12	Ambulance	4	10	8
13	Coastguard	25	37	27
14	Helicopter	12	31	22
15	Lifeboat	14	14	10
16	Police	2	7	5
17	FATALITY	13	12	9
18	Good practice involved	30	13	10
19	Illness	4	15	2
20	Injury	6	25	18
21	Lost diver(s)	23	21	15
22	Rescuer	11	5	4
23	Rescued	24	33	22
24	Resuscitation	8	7	3
25	Unconsciousness	9	1	5
26	Embolism	2	1	3
27	Pressure accident	3	52	54
28	ABLJ	10	10	10
29	Breathlessness	2	4	4
30	Buoyancy/weight	6	8	7
31	Carelessness	9	28	16
32	DV performance	9	3	6
33	Equipment - faulty	11	26	17
34	Equipment fitting	3	4	2
35	Equipment use	3	3	4
36	Equipment wear	1	0	0
37	Equipment inadequate	5	4	6
38	Fire/explosion	2	2	1
39	Foul air	0	2	0
40	Fuel	1	2	3
41	Hypothermia	1	6	0
42	Illness beforehand	10	5	4
43	Ignorance	4	5	6
44	Malice	1	2	0
45	Motor	6	18	6
46	Narcosis	6	4	1
47	Out of air	10	22	11
48	Pre-dive check	3	0	2
49	Repetitive diving	4	6	8
50	Ropes	0	0	2
51	Rough water	14	13	4
52	Bad seamanship	3	8	6
53	Good seamanship	0	0	0
54	Separation	6	14	9
55	SMB absent	9	12	8
56	SMB inadequate	5	5	2
57	Solo dive	12	26	10
58	Three diving together	4	13	7
59	Training drill	4	5	4
60	Training inadequate	4	3	11
61	Sharing	1	9	7
62	Deep dive (30m plus)	34	23	18
63	Low vis. underwater	1	1	3
64	Disregard of rules	9	24	14*
65	False alarm	5	2	2
66	Cold	5	6	7
67	VVDS	4	10	3

HISTORY OF DIVING FATALITIES

YEAR	MEMBERSHIP	BSAC DEATHS	(NON-BSAC)
1959	2,615	1	
1962	5,023	1	
1963	5,255	1	
1964	5,571	2	
1965	6,813	3	(0)
1966	7,979	1	(4)
1967	8,350	1	(6)
1968	9,241	2	(1)
1969	11,299	2	(8)
1970	13,721	4	(4)
1971	14,898	0	(4)
1972	17 041	10	(31)
1973	19,332	9	(20)
1974	22,150	3	(11)
1975	23 204	2	
1976	25,310	4	
1977	25,342	3	
1976	27,510	8	(4)
1979	30,579	5	(8)
1980	24,900	6	(7)
1981	27,834	5	(7)
1982	29,590	6	(3)

WHAT IS AN INCIDENT?

Any event involving divers or diving equipment in, or out of the water where the diver is killed, injured or subjected to more than normal risk.

INCIDENT REPORTS

If you would like to add to, correct or place a different interpretation upon any of these incidents, please put it in writing and send to the address below.

For new incidents, the minimum information that is of use consists of:

Date of incident

Name of victim(s)

Vicinity of incident

Nature of incident

All of this can be briefly stated on a Preliminary Incident Report Card. These are circulated by HQ to branches or can be obtained from the address below.

Much more use is the greater detail that can be set out on an Incident/Accident Report Form and one is sent out to all those who send in a Preliminary Incident Report Card.

COMMANDER M. R MARKS RN
MILBURY COTTAGE
24 SWANAGE ROAD
LEE-ON-THE-SOLENT
HANTS PO13 9JW

NAMING NAMES

Information obtained on incidents is treated confidentially and despite ferquent requests at the DO's Conference names are *never* quoted. The only exception to this is where an act of rescue or saving life merits recognition.