DIVING INCIDENTS REPORT

Chris Allen - NDC Incidents Adviser

"Those of you who heard my presentation of the 1989 Incidents Report at last year's DOC may remember that I began by describing the background against which the statistics had been collected. I did this because it is very important, when making comparisons with previous performances, not to be misled by apparent trends in the figures for which outside factors could be responsible.

Last year was a record breaking summer, leading to more dives being done. There were also changes in the quality of information received from some of our reporting sources. This year, in an attempt to quantify the number of dives done in order to effect a fair comparison with 1989, we have repeated our informal survey of air compressor stations on the South Coast. We have also carried out a 1 in 10 survey of the membership by means of a questionnaire sent out with Diver Magazine. This was only sent out in September, so the analysis of all the results has not yet been completed but the preliminary indications from both surveys are that slightly fewer dives have been made this year compared with last. With perhaps the exception of the month of June, we have again had a reasonable summer and I estimate that more than 1.5 million man-dives have been performed in the UK this year.

As far as reporting goes, I am pleased to say that our links with the Coastguard are operating well again, following the hiccup that we had in 1989 and we have received a steady flow of information. We have also received good information from DDRC, and other recompression facilities, on the cases that they have dealt with. This year, unfortunately, the Institute of Naval Medicine has been unable to supply me with the details of the cases they have treated, or advised on, in time for inclusion in my report. This is disappointing since last year was the first year that we felt we had close to 100% data capture in this area. However, I still hope to receive the information later in the year and hope we will be able to get back on track in 1991.

So now you know the background, what about the statistics themselves? Before looking at them, I must give you my standard Incidents Report health warning! Please don't forget that, though the purpose of this presentation is to concentrate on those dives in which something went wrong, these dives are the minority. The vast majority of dives pass off safely and successfully. We are putting under the microscope only a small fraction of dives, about 0.1%, where something went wrong.

So enough of the preamble. Let us turn to the statistics and look first of all at the general pattern of incidents.

The first chart (Figure 1) shows the breakdown of incidents by type. In 1990 a total of 207 incident reports were received and analysed. This contrasts with the 244 reports received in 1989. Breaking them down into their categories shows that 9 were fatalities - a reduction from 12 last year - 80 were decompression sickness cases - a sharp drop from 137 last year - and 34 were boating/surface incidents - an increase from the 24 received last year.

The monthly breakdown of incidents (Figure 2) shows a typical seasonal pattern, with most incidents occurring in May through to August, though compared to last year May and June are down and August is well up, reflecting the difference in the weather pattern compared to last year.

If, in similar fashion, we examine the depth range of incident occurrence (Figure 3), we see that most incidents occur on the surface. However, there does seem to be a trend for more incidents to occur in the 31-40 metre depth range. Last year the 21-30 metre range was where most underwater incidents occurred. This year 31-40 metres has taken over. Though I wouldn't want to make any extravagant claims for the significance of this when dealing with variations in relatively small numbers, I do believe that many divers underestimate the risks and overestimate their own ability to cope with 40m+ dives. Such dives are the province of the experienced diver who is fit, well prepared and properly organised, because the margin for error is so much less at such depths.

Each year, a number of incidents result purely from divers diving too deep. In this category, this year's prize for sheer lunacy is jointly awarded to two divers who both dived to over 80m, seemingly only because it was there. One diver decided to see the New Year in by making a solo night dive to 84m! In the second case a diver on a planned dive to 30m just carried on down, leaving his buddy behind, and eventually reaching 80m. Interestingly, in both cases the divers were found out by the evidence of their dive computers and were both dealt with in a most responsible manner by their respective branches.

Having looked at breakdown by type, month and depth, let us now look at the breakdown by qualification. Figure 4 is made up of the 99 divers whose qualifications were accurately known. Again the pattern is typical and, as much as anything, probably reflects the number of divers in each grade. First Class divers again had a nil return and a breakdown of the Instructor category shows that National Instructors also recorded no incidents. I will leave you to interpret this particular piece of information for yourselves. I'm sure it must tell us something about their diving abilities, or the amount of diving they do, or their honesty!

The final chart (Figure 5) in this part of my presentation shows the Divers' Use of Emergency Services in 1990. All the graphs show an increase over last year's figures. However, the bulk of the information used to prepare this chart comes from reports received from the Coastguard. Because we had a blip in their reporting system last year, 1989 was untypical. In my view, a more realistic trend is obtained if you can ignore the '89 points and draw a straight line between '88 and '90. That would show a small increase in Coastguard involvement and small decreases in the involvement of the Lifeboat, Ambulance and Police services. Nevertheless divers were involved in 50 helicopter call outs in 1990.

Hopefully, that gives you a feel for the overall pattern of incidents in 1990. I would now like to look in more detail at the individual categories.

As I said earlier, the number of fatalities is down to 9 this year from 12. This is the second year running that we have recorded a downward trend and it is particularly pleasing to note that, of those 9, only 3 were BSAC members.

If we look at the plot of Fatalities against Membership (Figure 6), we can see that this year we have recorded the lowest number of BSAC fatalities for many years, 13 years to be exact. If we also take the size of our membership into account, this represents

the second best performance ever. Of course, this is good news but encouraging though it may be, one fatality is one too many and we must always aim to have none at all. We should also not yet get too carried away, since we are talking about very small numbers and, though it is welcome to report this low total, once again, I would not want to place too much emphasis on the significance of the trend.

I'd like to turn now to the decompression sickness category. As many of you will be well aware, there has been a lot of publicity in recent years surrounding the number of cases of decompression sickness, with apparent increases being blamed on dive computers, new tables and the like. It is, therefore, particularly pleasing to be able to report a sharp drop in the number of recorded cases this year, down from 137 to 80. Now my position has always been, and still is, that one of the biggest factors affecting the number of cases of decompression sickness is the number of dives done. I have also insisted that improved reporting has been a factor in recent years. This year I recognise that there will have been some under-reporting, because we don't yet have all the data from the Institute of Naval Medicine, and that probably, overall, fewer dives will have been done. However, even allowing for these factors, there has been a sharp drop this year, something which a comparison of figures from individual chambers readily confirms. For example, DDRC, one of our most reliable indicators, treated 28 DCS cases this year compared with 47 in 1989 and 34 in 1988.

Personally, I have no doubt that our efforts over the past 3 years to highlight the problems of decompression sickness, both at this Conference and through Diver Magazine and the NDC Bulletin, together with the learning opportunities which the introduction of the BSAC (88 Tables have presented us with, have contributed to this very welcome lower figure.

If we look at the breakdown of the cases recorded this year (Figure 7) we see that a large proportion - some 45% - occur on dives deeper than 30 metres. A similar proportion occur inside established decompression tables or dive computers.
b b n
Incidentally, for the purists, I must point out that this is not a true pie chart in that the totals of all the factors add up to more than 80 which is the total number of cases. Some cases figure more than once - for example, if DCS occurred following a deep dive with a fast ascent and missed stops that case would be counted in each of those categories.

As I highlighted last year, many of the problems which occur on decompression dives such as missed stops, or running out of air, occur because of inadequate planning and this is still an area which can be improved.

We also see this when we look at Boating/Surface incidents and cases involving lost divers. Take, for example, the case of a group of well-organised divers who earlier this year were preparing to dive at a popular location when four divers surfaced close by, apparently without boat cover. When they were picked up it was found that their boat was anchored a mile away - unattended. Having re-united those divers with their boat, our original party returned to their site and began kitting up. As they did so, two more divers popped up close by, again without cover. These divers, who were from a charter boat about a mile away, didn't even know the name of the vessel they were diving from! When they too were transferred back to their boat it transpired that the skipper knew he had lost contact with the divers but was not unduly concerned and was not endeavouring to search for them. It was only good fortune that the lack of forethought and general lack of awareness by both groups of rescued divers didn't turn out to have more serious consequences.

In diving, a small incident, which on its own would not be a problem, can quickly become life threatening when other things also start to go wrong at the same time. We have come to call this the Incident Pit. Once you start to fall in the sides become steeper and steeper very quickly and it becomes much more difficult to escape.

An example of a number of small errors almost leading to a fatal accident was the case of a keen novice diver from one of our overseas branches. She was preparing to dive from a hard boat. She had a little too much weight on and had also not realised that the cylinder she was using was heavier than the one that she normally used. Whilst getting ready to dive she slipped and fell and her cylinder slipped out of her stab jacket. She was helped up and her jacket was re-assembled, during which time it would appear that her air was turned off. It was very hot and as the boat was crowded she decided to enter the water to cool off, fit her fins and do her checks. When she jumped in she sank straight to the bottom with her air turned off and no fins on! She was actually underwater for several minutes before another member of the party dived down and brought her to the surface. Although she was unconscious and not breathing, she was quickly resuscitated and made a full recovery.

Another case which, happily, also ended safely, though it might so easily not have done, involved a diver who had made a dive to 60 metres in a quarry. As he began to ascend his regulator began to free flow. He decided (at 55 metres!) to take his set off and turn it off, switching to his pony bottle and spare regulator, his thinking being that he would probably be able to turn his main set on again in shallower/warmer water. Unfortunately he got in a tangle with his equipment, his mask flooded and he began to take in water and to ascend quickly. Somehow he managed to stop his ascent and sort himself out a bit better, by which time he was at 25 metres. At this point his pony bottle ran out! Fortunately he managed to turn his main set back on, replace his equipment and after performing his required stops, he surfaced a much wiser man!

Turning to incidents involving equipment, there have been a number of instances again this year where people have collapsed suddenly due to tight neck seals and it is worth reminding people of such dangers. Sudden unconsciousness on the surface is bad enough, if it happens in the water it can be fatal.

As a result of a number of reports which have been received in the last couple of years involving air supply problems at depth, the NDC has also altered its advice on the long- standing practice of turning cylinder valves fully on and then back half a turn. Several incidents have occurred where air has been turned off by mistake and then on by half a turn. This often permits air to flow at the surface, but causes problems at depth where the restriction to the flow means the diver does not get enough air. Our current advice is that cylinders should be turned fully on to avoid the possibility of this mistake.

Talking about air supply takes me neatly to the miscellaneous category which, this year, contains a number of reports of serious carbon monoxide poisoning. Although we stress the dangers in training, it is actually quite rare to find air which is dangerously contaminated. This year we have had a number of incidents, mostly centred around one particular compressor station.

In one case a diver became distressed and breathless underwater and had to be brought to the surface by her buddy. On the surface she was still weak and breathless and was flown to DDRC for hyperbaric oxygen treatment. That same weekend, two other divers in the same area complained of being weak, dizzy and having disturbances of vision. On the surface they were confused, uncoordinated and their speech was slurred. They too were flown to DDRC for hyperbaric oxygen treatment. Later tests found over 2000 ppm of carbon monoxide in their cylinders (the BSAC recommended limit is 5 ppm)! In a third incident a diver became dizzy and completely disorientated on a dive to 15 metres. Though he surfaced immediately, he has only vague recollections of the ascent and of being taken to shore. Fortunately none of these dives were particularly deep, if they had been, the higher partial pressures of carbon monoxide which would have been encountered could easily have lead to sudden unconsciousness underwater.

The lesson for us all is that dangerously contaminated air can still occur and that we therefore need to be vigilant. If you suspect your air is contaminated do not take a chance and dive, you could easily end up with something more serious than a bad taste or headache. Incidentally, the rogue compressor concerned was quickly shut down and an investigation launched into the cause.

Though you might find it difficult to believe, being Incidents Adviser isn't all gloom and doom. Many of the reports I receive also involve good practice by the rescuing divers.

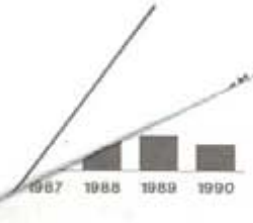
One such case this year involved a group of army divers on an expedition to Norway. Just as they were finishing for the day they were alerted by a Norwegian diver whose buddy had been trapped underwater by a rock fall. A rescue operation was quickly launched with air being taken down to the diver who was trapped. The rock, which weighed over 1000 kg, was moved with the aid of lifting bags and the unconscious and badly injured diver was brought to the surface and given EAR until he was evacuated by rescue helicopter. The rescue attempt was first class and deserved a better outcome but unfortunately the diver's chest injuries were so severe that he died later. We will be presenting BSAC rescue awards later to some of those involved.

Those then, very briefly, were some of the incidents in the 1990 Incidents Report. I hope that all of you will find the full report useful, there is a copy in each delegate folder and I would encourage you to ask yourselves whether some of the incidents reported could have happened to you or your branch. If so, spend some time thinking what you can do to prevent them happening.

The other thing I would like to ask is that you help me with the supply of information. The quality of the report depends not only on the quality of the reports I receive from you but also on the quality of our survey information. Please return our survey questionnaires if we send you one. In the near future a further survey is being carried out focussing on health related issues and the differences between male and female divers. Though organised independently, this project is being assisted by the BSAC and I would encourage you to participate. We can never have too much information.

Finally do remember that our sport is actually a very safe one. Overall we have had a very good year from a safety point of view but we must never be complacent. The best way to avoid featuring in the 1991 statistics is to plan thoroughly, watch your depth and, above all, be aware. Safety awareness is the key and we must all try to think ahead and anticipate potential problems so that, if they do occur, they can be dealt with promptly whilst they are still small and controllable.

Thank you for your attention this morning."



APPENDIX A – Diving Incidents Report

Incidents have been grouped according to type under **eight** categories:

Fatalities, Decompression Sickness, Boating/Surface Incidents, Ascents, Technique, Equipment, Illness (no reports received in this category in 1990) and a **Miscellaneous** Section containing False Alarms, Ear Problems, etc.

Within each category the incidents are listed in the numerical order of their allocated reference number. The nature of many diving incidents, of course, involves an 'Incident Pit' situation with more than one cause. For example, a bend may have been the result of a buoyant ascent which may, in turn, have been the result of a regulator malfunction. In this example you will find the incident listed under 'Decompression Sickness.'

Wherever possible each report is identified by date as well as reference number. The depth is given in the report only when it is relevant, as is other information such as qualification of the diver, location etc. The only 'Letter Code' attached to each incident report, relates to membership.

B=BSAC Member. I=Member of Independent Club or Non-BSAC Diver. U=Membership unknown.

BSAC/NDC DIVING INCIDENTS REPORT

FATALITIES/INJURIES/ ILLNESS	1986	1987	1988	1989	1990
01 Fatality	15	8	16	12	9
02 Embolism	10	6	7	12	9
03 Decompression sickness	52	69	89	137	80
04 Injury caused	6	9	13	8	12
05 Illness involved	13	5	9	7	3
06 Ear problems/damage	6	4	8	8	5
07 Hypothermia	2	4	2	0	1
08 Unconsciousness	5	5	10	7	12
09 Resuscitation	5	5	7	6	4
10 Breathlessness	5	6	6	11	5
11 Narcosis	8	4	2	2	1
TECHNIQUE					
12 Aborted dive	6	7	9	15	14
13 Assisted ascent	9	8	7	16	17
14 Buoyant ascent	14	12	12	19	12
15 Free ascent	–	1	6	2	2
16 Other ascent	–	1	1	4	5
17 Lost diver(s)	21	34	24	15	21
18 Buoyancy/weight	10	8	8	8	10
19 Carelessness	29	35	13	11	16
20 Ignorance	27	24	4	4	8
21 Disregard of rules	22	28	13	10	7
22 Malice	3	–	2	1	0
23 Out of air	9	8	12	35	17
24 Pre-dive check	1	2	4	2	4
25 Rough water	14	9	10	6	6
26 Bad seamanship	5	4	10	4	9
27 Good seamanship	1	0	1	0	0
28 Good practice	6	7	5	3	0
29 Separation	7	6	14	6	5
30 Trio diving	7	3	9	9	8
31 Training drill	4	9	5	7	8
32 Training inadequate	10	5	4	5	2
33 Sharing involved	5	6	7	13	14
34 Deep dive (30m+)	43	51	54	40	41
35 Low U/W vis.	2	3	2	3	2
36 Low surface vis.	2	1	0	0	1
37 False alarm	4	2	2	2	1
38 Solo dive	4	6	4	0	3
39 Divers underwater	117	109	37	50	59
40 Divers on surface	37	44	54	35	46
41 Nets	1	1	1	1	2
42 Cold water	13	7	4	8	2

EQUIPMENT	1986	1987	1988	1989	1990
43 Boat problems	4	3	8	2	5
44 Motor problems	3	4	7	0	7
45 Regulator performance	11	7	7	11	9
46 Equipment faulty	18	19	12	17	12
47 Equipment fitting	7	6	7	7	5
48 Equipment use	4	6	7	3	3
49 Equipment wear	4	2	0	0	3
50 Equipment inadequate	3	5	3	2	2
51 Ropes	3	5	1	2	1
52 SMB absent	5	7	0	3	1
53 SMB inadequate	4	3	2	1	1
54 SMB contributed	2	6	5	4	1
55 Propellor	2	0	2	2	1
56 ABLJ/BC/Stabjacket	5	3	0	4	1
57 Dry suit	9	4	8	5	5
CHANCE					
58 Fire/explosion	0	3	0	0	1
59 Foul air	0	1	0	0	5
RESCUE SERVICES					
60 Ambulance	–	26	30	20	26
61 Police	–	15	19	10	14
62 Helicopter	–	42	58	45	50
63 Coastguard	–	66	69	50	74
64 Lifeboat	–	29	29	16	27
DECOMPRESSION SICKNESS ANALYSIS					
65 Recompression chamber	–	63	81	152	91
66 Recompression U/W	–	3	3	2	0
67 Within tables/computers	–	29	21	56	41
68 Rapid ascent	–	6	9	28	20
69 Repeat diving	–	12	27	39	15
70 Deep diving (40m+)	–	20	15	32	19
71 BSAC/RNPL tables	–	25	13	10	5
72 Inaccurate use	–	11	15	23	12
73 Computers	–	11	30	50	27
74 BSAC '88 tables	–	–	1	43	22
75 Flying or ascent to alt.	–	–	5	4	2
76 US Navy tables	–	–	–	8	2
77 Buhlmann tables	–	–	–	9	0
78 Missed stops	–	–	–	25	14
79 RN11 tables	–	–	–	2	4
80 Type 1	–	–	–	–	19
81 Type 2	–	–	–	–	43
82 Type 1 & 2	–	–	–	–	5

Figure 1
DIVING INCIDENTS BREAKDOWN – 1990

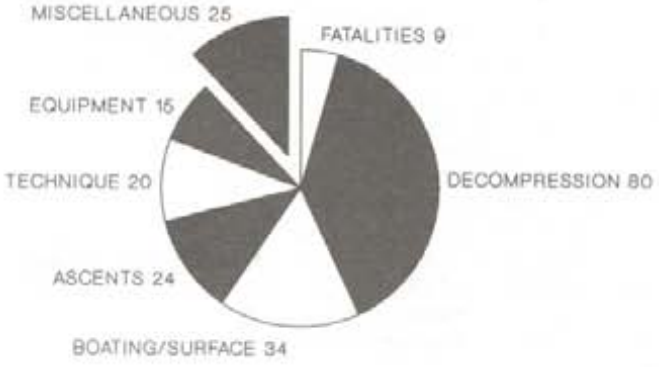


Figure 2
MONTHLY BREAKDOWN OF ALL INCIDENTS – 1990

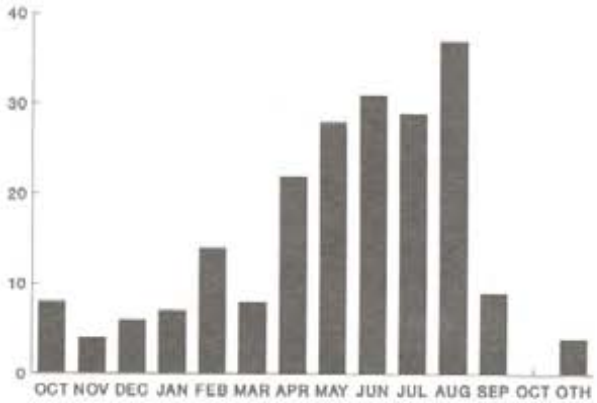


Figure 3
DEPTH RANGES & INCIDENT OCCURENCE – 1990

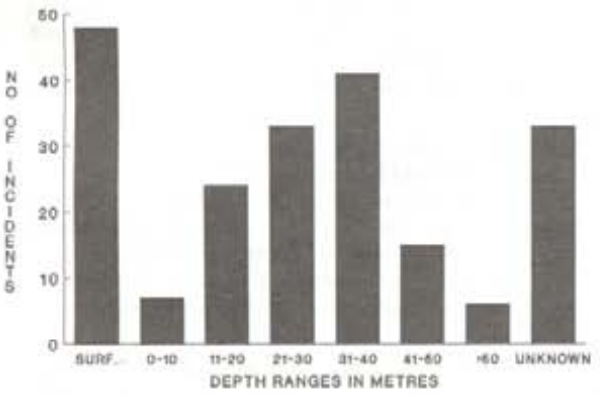


Figure 4
QUALIFICATION OF DIVERS

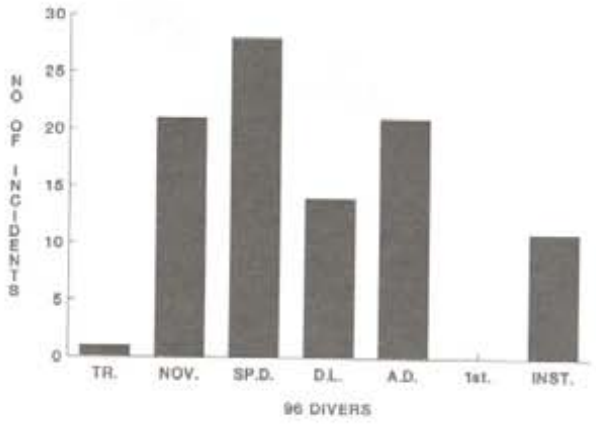


Figure 5
DIVERS' USE OF EMERGENCY SERVICES

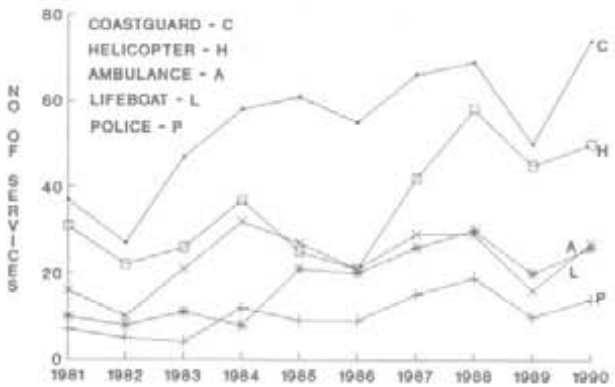


Figure 6
BSAC FATALITIES AND MEMBERSHIP 1981 – 1990

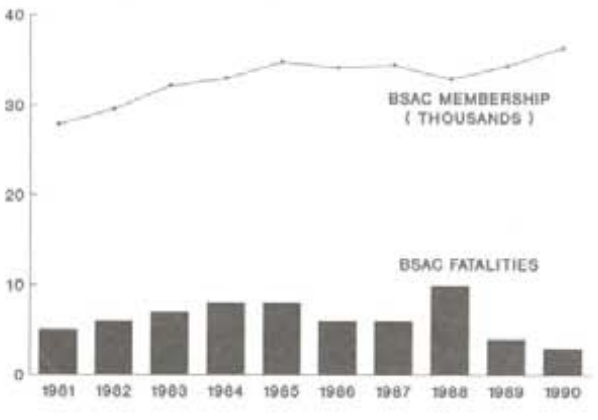
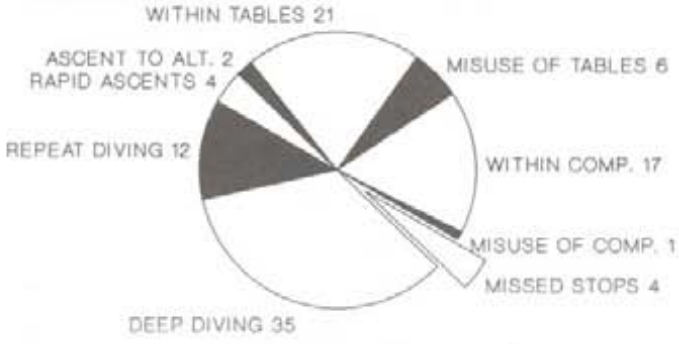


Figure 7
DECOMPRESSION SICKNESS ANALYSIS – 1990



TOTAL NO. OF CASES = 80

FATALITIES

03/90 Nov. 1989. During a shore dive to a shallow wreck site in Malta a pair of divers surfaced to check their position. On surfacing one of the pair was struck by a large pleasure boat and sustained fatal injuries. **B.**

11/90 Feb. 1990. A diver died when he became separated from his buddy on a deep dive in a quarry. The pair had planned to dive to 60m but became separated at 57m. His buddy surfaced, but the deceased failed to re–appear. Because of the extreme depths involved, recovery of the body was extremely difficult, it was eventually located and recovered from over 80m with the aid of submersible video camera. **B.**

12/90 Oct. 1989. A diver died on a dive in 5m of water when he became separated from the two other divers he was diving with. His body was found at the surface with his lifejacket inflated, his weightbelt off, his mouthpiece out and his mask off. Attempted resuscitation was unsuccessful. **U.**

26/90 March 1990. A party of 11 divers in an aluminium assault craft powered by a 4HP motor were proceeding to their dive site when the boat was swamped and overturned. The deceased was wearing full diving equipment ready to dive and was initially OK. However, it appears that he swallowed water, vomited and choked and died in spite of attempted resuscitation. Illness may also have been a factor. All of the remainder of the party were picked up safely. **I.**

50/90 June 1990. A diver who had been diving alone taking underwater photographs, surfaced, apparently in distress. He took off his mask and called for help but then sank below the surface. The body was brought back to the surface and resuscitation attempted without success. A post–mortem examination showed the cause of death to be a heart attack. Newspaper reports only. **I.**

60/90 Oct. 1989. A novice diver became distressed on his first open water dive at a depth of 3.5m. On returning to the surface he complained of chest pains and breathlessness. As his buddy towed him towards the shore he stopped breathing. Attempted resuscitation was unsuccessful. The cause of death was established as natural causes. **I.**

85/90 July 1990. A diver died during a wreck dive in Orkney. Verbal and press reports only – no further details. **I.**

86/90 July 1990. An apparently unqualified diver died when he got into difficulties on the surface at the end of a dive. Coastguard and newspaper reports only. No further details. **U.**

127/90 Aug. 1990. A diver died after apparently becoming unconscious underwater during a dive to 35m. His buddy initiated a buoyant ascent to the surface where attempted resuscitation was unsuccessful. He was evacuated by helicopter but was found to be dead on arrival. Cause of initial problem unclear. **B.**

DECOMPRESSION SICKNESS

01/90 Nov. 1989. After returning home following dives to 35m for 18 mins and 7m for 52 mins a diver experienced pins and needles and a warm feeling in his legs. He was recompressed at Stoney Cove for Type 2 DCS. **B.**

02/90 Dec. 1989. After a wreck dive to 40m for a 32 mins dive time followed by a total of 36 mins decompression at 9m, 6m and 3m a diver experienced wrist pain and some loss of strength in his grip. Initial diagnosis was a strained wrist due to a heavy twin set, but when the symptoms worsened he was recompressed at Dunstaffnage with full resolution. **B.**

06/90 Dec. 1989. Report of diver with decompression sickness. Preliminary incident report only. No further details. **B.**

09/90 Jan. 1990. After a dive to 41m for 20 mins using RN Table 11, a diver experienced pain in his left elbow and shoulder. He was recompressed at Hutton, but the next day pain returned and he had to be recompressed for a second time, this time with complete resolution of his symptoms. **B.**

17/90 July 1990. Following a series of seven dives in four days, a diver experienced symptoms of decompression sickness and was recompressed at Hutton. The symptoms first appeared approximately 16 hours after the patient had driven from Scotland to Wales, a journey involving an excursion to altitude. **B.**

18/90 Feb. 1990. A diver made a rapid ascent from a dive to 38m because of severe sinus pain. The following day he suffered numbness in his face, lips and fingers. He was recompressed for Type 2 decompression sickness at HMS Cochrane. **B.**

28/90 Feb. 1990. A diver suffered serious Type 2 decompression sickness following a dive to 27m in the Red Sea. Ten dives had been performed over the previous four days, the majority being to depths of around 17m. All dives were inside the dive computer being used and similar profiles were followed by the other party members with no ill effects. **I.**

33/90 April 1990. A diver suffered severe Type 2 decompression sickness almost immediately on surfacing from a dive to 50m in the Red Sea. The dive was escorted by a dive master using US Navy tables. After a bottom time of 12 mins a slow ascent was made with stops at 20m, 10m and 5m. Symptoms included paralysis in the legs. Oxygen was administered but difficulties were experienced in getting the patient to a recompression chamber. She was finally recompressed but needed further treatment in UK on return. **B.**

34/90 April 1990. Following a dive to 36m for 14 mins a diver experienced symptoms of Type 2 decompression sickness within 2 or 3 minutes of surfacing. He was transferred by helicopter for recompression at DDRC. **B.**

43/90 April 1990. A diver had discomfort in his elbow, knuckles and wrist following dives to 32m for 25 mins and 36m for 25 mins with a 6 hour surface interval. He initially thought he had strained his arm, but following medical examination 2 days later he was recompressed at Whipps Cross. Subsequently found to have a PFO. **B.**

64/90 Aug. 1990. Report of a diver being treated for Type 2 decompression sickness following a single dive to 33m for 23 mins with a 3 min stop at 6m. Recompressed at HMS Nelson. **B.**

67/90 May 1990. A dive boat reported a diver with symptoms of decompression sickness following a dive to 32m for 17 mins with a 2 min stop at 3m. Immediately on surfacing he experienced severe pins and needles in both legs. Oxygen was administered on board and he was air lifted to DDRC for recompression treatment. More local recompression facilities were unavailable. Coastguard Report only. **U.**

71/90 Oct. 1989. Immediately on surfacing from an apparently uneventful dive to 31m for 14 mins, a very experienced diver complained of loss of feeling in his right arm and shortly afterwards he became semi-conscious. He was recompressed at DDRC and made a full recovery. A PFO is suspected. **B.**

79/90 May 1990. Following a dive to 24m for a 29 mins dive time, a diver felt light headed and her legs felt weak. She also had a headache and numbness in her arms. She was not immediately diagnosed as suffering from decompression sickness but was thought to be suffering from a combination of sea sickness and hypothermia. She later reported to DDRC and was recompressed for Type 2 decompression sickness. **B.**

89/90 June 1990. Ten hours after a dive to 12m for 55 mins a diver flew back to the UK. One hour into the flight she experienced ankle joint pain, tingling of her right leg and arm

and loss of mobility in her right hand. The symptoms worsened to include tunnel vision and loss of hearing. The pilots descended from 40,000' to 20,000' and increased the cabin pressure. On arrival in London she initially had no symptoms but some tingling in her right leg returned and she was recompressed at Alverstoke. **I.**

91/90 July 1990. On surfacing from a dive to 41m for a total dive time of 19 mins with a 2 mins stop at 6m, a diver experienced symptoms of Type 2 decompression sickness. He was flown by helicopter to NSMC at Great Yarmouth and recompressed. **B.**

having exhibited a classic skin bend. No treatment was necessary. On further medical investigation the diver was found to have a PFO. **B.**

98/90 June 1990. A diver experienced mild symptoms of Type 2 decompression sickness during a trip to Southern Ireland. Not recognising the symptoms he continued to dive twice a day for a further four days with no additional symptoms. On return to the UK he consulted HMS Nelson and was recompressed at Gosport. **B.**

99/90 June 1990. Following a dive to 34m a diver complained of a pain in her shoulder and neck which was attributed to muscle strain as she had pulled herself trying to climb the ladder in a strong current. When the condition did not improve she was medically examined and neurological tests were performed. These were negative but the next day the diver reported altered sensation on her left side. She was recompressed at Aberdeen which resolved the Type 2 symptoms though some shoulder pain remained. **B.**

105/90 July 1990. After a dive to 9m for 55 mins, which involved some lifting exercises and several ascents and redescents, a diver experienced symptoms of Type 2 decompression sickness. He was within the no-stop limits of RN 11 Tables. He was recompressed at North Dock Hospital, Sunderland with full resolution of symptoms. **B.**

106/90 July 1990. After dives to 34m and 14m a diver had pins and needles in her left hand and a sore left elbow. This was attributed to heavy lifting of gear and boats and the following day she dived again to 16m and 14m. Symptoms returned and she was recompressed at Pembroke Dock for Type 2 decompression sickness. **B.**

107/90 July 1990. A diver, who had not dived for seven years, had symptoms of Type 2 decompression sickness after a dive to 11.4m for 56 mins. He was recompressed in Jersey, after which his symptoms improved. **I.**

109/90 Aug. 1990. Following a dive to 33m for a dive time of 23 mins, a diver complained of a headache. It was found that his cylinder contained contaminated air, but when some hours later he complained of pins and needles, he was recompressed at Seaton. **B.**

112/90 Aug. 1990. Following two dives to 29m a diver experienced itching and bruising around his upper abdomen. He was diagnosed as having a skin bend for which no treatment was necessary. The diver recognises that his smoking and being overweight may have contributed. **B.**

116/90 Aug. 1990. Preliminary Incident Report of diver with Type 2 decompression sickness who was recompressed at Douglas on the Isle of Man. No further details. **B.**

120/90 July 1990. After a dive to 27.6m for 26 mins with stops at 6m and 3m, a diver experienced pins and needles in his left leg and blurred patchy vision. He was flown by helicopter to Alverstoke for recompression. Tiredness and dehydration may have been factors. **B.**

123/90 Aug. 1990. A diver was recompressed on Guernsey following two dives using RNPL/BSAC Tables. He had miscalculated his decompression requirements and therefore missed stops. He was treated successfully for Type 1 decompression sickness. **U.**

126/90 Sept. 1990. Report of a diver suffering from Type 1 decompression sickness following two dives without accurate recording of time or depth (no watch or depth gauge). The individual concerned has been bent on at least one previous occasion as well as suffering other serious diving accidents whilst working as a professional diver, but continues to disregard safe diving practices. **U.**

128/90 Sept. 1990. Following dives to 32.7m and 23.6m a diver exhibited serious symptoms of Type 2 DCS, and was recompressed on Guernsey. His buddy had followed the same profiles and had no symptoms. The diver affected had consumed ten pints of beer the previous evening and a further pint of beer between dives. **U.**

129/90 June 1990. Following a decompression dive to 45m a diver had symptoms of Type 1 DCS but did not report them. After two further dives to 35m and 25m the symptoms worsened and he was recompressed on Guernsey. **U.**

130/90 June 1990. Following a dive to 30m for 36 mins a diver experienced pain in his left shoulder and was recompressed for suspected Type 1 decompression sickness. He had dislocated his shoulder three weeks previously and this may have been a factor. **U.**

145/90 July 1990. Coastguard Report of a diver being transferred by police helicopter from Newhaven to Alverstoke for treatment of suspected decompression sickness. No further details. **U.**

147/90 July 1990. Coastguard Report of a diver with Type 2 decompression sickness being transferred to DDRC for recompression treatment. Casualty had apparently missed stops after a dive to 32m and had some paralysis. No further details. **B.**

148/90 Aug. 1990. Coastguard Report of a diver with decompression sickness being air lifted to Alverstoke for recompression treatment. No further details. **U.**

149/90 Aug. 1990. Coastguard Report of two divers with suspected decompression sickness following uncontrolled ascents from 32m. Casualties made their own way to Faslane for recompression treatment. No further details. **U.**

152/90 Aug. 1990. A diver with severe Type 2 decompression sickness was taken by helicopter to Alverstoke for recompression. He had been doing a drift dive to a maximum depth of 35m with a bottom time of 28 minutes. **I.**

153/90 Aug. 1990. A diver contacted the local dive shop complaining of pains in his arms. They in turn contacted the Coastguard who arranged for transport by lifeboat to the Millport recompression chamber nearby. Symptoms occurred two hours after a dive to 33.6m for 23 minutes. Coastguard Report only. No further details. **U.**

154/90 Aug. 1990. Coastguard Report of a diver with a spinal bend being transferred by helicopter to Faslane for recompression treatment. No further details. **U.**

156/90 Aug. 1990. Coastguard Report of a diver with mild symptoms of decompression sickness being transferred by helicopter to Faslane for recompression treatment. No further details. **U.**

157/90 June 1990. Report of a diver being recompressed at Stoney Cove for Type 2 decompression sickness, following a single dive to 37m for 20 mins with a 1 minute stop at 6m. No further details. **B.**

158/90 Aug. 1990. A father and son buddy pair made a dive to 34m for 34 minutes. They had lost track of time underwater and only performed 3 minutes of stops. The father ran out of air and had to share during the stop. On surfacing the son complained of pain in both elbows and assistance was summoned. Both were airlifted to Alverstoke for recompression treatment. The father was also recompressed though he had no symptoms. The son made a full recovery. **B.**

160/90 June 1990. After dives to 30.2m and 23.9m a diver complained of dizziness and nausea. He was given oxygen at the quayside and was taken by air ambulance to Sunderland for recompression treatment. Symptoms were not resolved and subsequent medical examination suggests an ear infection may have been the cause. **B.**

161/90 Aug. 1990. A diver complained of pain in his shoulder and elbow following dives to 32.1m and 36.3m. He was recompressed at DDRC for Type 1 DCS. His buddy had no symptoms. Tiredness may have been a contributory factor. **B.**

162/90 Aug. 1990. Report of a diver being recompressed at HMS Nelson for Type 2 decompression sickness following a dive to 28m for 35 mins. It is known that this individual had two previous bends in 1989 but there are no further details. **B.**

163/90 April 1990. Report of a diver being recompressed at

HMS Nelson for suspected Type 2 decompression sickness. No further details. **B.**

164/90 Aug. 1990. On surfacing from a dive to 21.1m a diver complained of a blinding headache. He was given oxygen and taken to hospital by ambulance before being transferred by helicopter to DDRC where he received recompression treatment for a cerebral bend. **B.**

96/90 April 1990. Following a dive to 20m with a slightly fast ascent a diver noticed a pronounced skin rash on his chest and back. He visited DDRC as a precaution and was diagnosed as having exhibited a classic skin bend. No treatment was necessary. On further medical investigation the diver was found to have a PFO. **B.**

98/90 June 1990. A diver experienced mild symptoms of Type 2 decompression sickness during a trip to Southern Ireland. Not recognising the symptoms he continued to dive twice a day for a further four days with no additional symptoms. On return to the UK he consulted HMS Nelson and was recompressed at Gosport. **B.**

99/90 June 1990. Following a dive to 34m a diver complained of a pain in her shoulder and neck which was attributed to muscle strain as she had pulled herself trying to climb the ladder in a strong current. When the condition did not improve she was medically examined and neurological tests were performed. These were negative but the next day the diver reported altered sensation on her left side. She was recompressed at Aberdeen which resolved the Type 2 symptoms though some shoulder pain remained. **B.**

105/90 July 1990. After a dive to 9m for 55 mins, which involved some lifting exercises and several ascents and redescents, a diver experienced symptoms of Type 2 decompression sickness. He was within the no-stop limits of RN 11 Tables. He was recompressed at North Dock Hospital, Sunderland with full resolution of symptoms. **B.**

106/90 July 1990. After dives to 34m and 14m a diver had pins and needles in her left hand and a sore left elbow. This was attributed to heavy lifting of gear and boats and the following day she dived again to 16m and 14m. Symptoms returned and she was recompressed at Pembroke Dock for Type 2 decompression sickness. **B.**

107/90 July 1990. A diver, who had not dived for seven years, had symptoms of Type 2 decompression sickness after a dive to 11.4m for 56 mins. He was recompressed in Jersey, after which his symptoms improved. **I.**

109/90 Aug. 1990. Following a dive to 33m for a dive time of 23 mins, a diver complained of a headache. It was found that his cylinder contained contaminated air, but when some hours later he complained of pins and needles, he was recompressed at Seaton. **B.**

112/90 Aug. 1990. Following two dives to 29m a diver experienced itching and bruising around his upper abdomen. He was diagnosed as having a skin bend for which no treatment was necessary. The diver recognises that his smoking and being overweight may have contributed. **B.**

116/90 Aug. 1990. Preliminary Incident Report of diver with Type 2 decompression sickness who was recompressed at Douglas on the Isle of Man. No further details. **B.**

120/90 July 1990. After a dive to 27.6m for 26 mins with stops at 6m and 3m, a diver experienced pins and needles in his left leg and blurred patchy vision. He was flown by helicopter to Alverstoke for recompression. Tiredness and dehydration may have been factors. **B.**

123/90 Aug. 1990. A diver was recompressed on Guernsey following two dives using RNPL/BSAC Tables. He had miscalculated his decompression requirements and therefore missed stops. He was treated successfully for Type 1 decompression sickness. **U.**

126/90 Sept. 1990. Report of a diver suffering from Type 1 decompression sickness following two dives without accurate recording of time or depth (no watch or depth gauge). The individual concerned has been bent on at least one previous occasion as well as suffering other serious diving accidents whilst working as a professional diver, but continues to disregard safe diving practices. **U.**

128/90 Sept. 1990. Following dives to 32.7m and 23.6m a diver exhibited serious symptoms of Type 2 DCS, and was recompressed on Guernsey. His buddy had followed the same profiles and had no symptoms. The diver affected had consumed ten pints of beer the previous evening and a further pint of beer between dives. **U.**

129/90 June 1990. Following a decompression dive to 45m a diver had symptoms of Type 1 DCS but did not report them. After two further dives to 35m and 25m the symptoms worsened and he was recompressed on Guernsey. **U.**

130/90 June 1990. Following a dive to 30m for 36 mins a diver experienced pain in his left shoulder and was recompressed for suspected Type 1 decompression sickness. He had dislocated his shoulder three weeks previously and this may have been a factor. **U.**

145/90 July 1990. Coastguard Report of a diver being transferred by police helicopter from Newhaven to Alverstoke for treatment of suspected decompression sickness. No further details. **U.**

147/90 July 1990. Coastguard Report of a diver with Type 2 decompression sickness being transferred to DDRC for recompression treatment. Casualty had apparently missed stops after a dive to 32m and had some paralysis. No further details. **B.**

148/90 Aug. 1990. Coastguard Report of a diver with decompression sickness being air lifted to Alverstoke for recompression treatment. No further details. **U.**

149/90 Aug. 1990. Coastguard Report of two divers with suspected decompression sickness following uncontrolled ascents from 32m. Casualties made their own way to Faslane for recompression treatment. No further details. **U.**

152/90 Aug. 1990. A diver with severe Type 2 decompression sickness was taken by helicopter to Alverstoke for recompression. He had been doing a drift dive to a maximum depth of 35m with a bottom time of 28 minutes. **I.**

153/90 Aug. 1990. A diver contacted the local dive shop complaining of pains in his arms. They in turn contacted the Coastguard who arranged for transport by lifeboat to the Millport recompression chamber nearby. Symptoms occurred two hours after a dive to 33.6m for 23 minutes. Coastguard Report only. No further details. **U.**

154/90 Aug. 1990. Coastguard Report of a diver with a spinal bend being transferred by helicopter to Faslane for recompression treatment. No further details. **U.**

156/90 Aug. 1990. Coastguard Report of a diver with mild symptoms of decompression sickness being transferred by helicopter to Faslane for recompression treatment. No further details. **U.**

157/90 June 1990. Report of a diver being recompressed at Stoney Cove for Type 2 decompression sickness, following a single dive to 37m for 20 mins with a 1 minute stop at 6m. No further details. **B.**

158/90 Aug. 1990. A father and son buddy pair made a dive to 34m for 34 minutes. They had lost track of time underwater and only performed 3 minutes of stops. The father ran out of air and had to share during the stop. On surfacing the son complained of pain in both elbows and assistance was summoned. Both were airlifted to Alverstoke for recompression treatment. The father was also recompressed though he had no symptoms. The son made a full recovery. **B.**

160/90 June 1990. After dives to 30.2m and 23.9m a diver complained of dizziness and nausea. He was given oxygen at the quayside and was taken by air ambulance to Sunderland for recompression treatment. Symptoms were not resolved and subsequent medical examination suggests an ear infection may have been the cause. **B.**

161/90 Aug. 1990. A diver complained of pain in his shoulder and elbow following dives to 32.1m and 36.3m. He was recompressed at DDRC for Type 1 DCS. His buddy had no symptoms. Tiredness may have been a contributory factor. **B.**

162/90 Aug. 1990. Report of a diver being recompressed at HMS Nelson for Type 2 decompression sickness following a dive to 28m for 35 mins. It is known that this individual had two previous bends in 1989 but there are no further details. **B.**

163/90 April 1990. Report of a diver being recompressed at

HMS Nelson for suspected Type 2 decompression sickness. No further details. **B.**

164/90 Aug. 1990. On surfacing from a dive to 21.1m a diver complained of a blinding headache. He was given oxygen and taken to hospital by ambulance before being transferred by helicopter to DDRC where he received recompression treatment for a cerebral bend. **B.**

166/90 Aug. 1990. Coastguard Report of a diver being airlifted from an MFV with suspected decompression sickness and flown to NSMC at Great Yarmouth for recompression treatment. No further details. **U.**

167/90 Sept. 1990. A diver suffered a skin bend following dives to 36m and 24m. She did not immediately recognise the symptoms which gradually disappeared and she dived subsequently without problems. **B.**

168/90 Sept. 1990. Report of a diver suffering from Type 2 decompression sickness following a dive in Malta. Her maximum depth was reported to be 69m! No further details. **B.**

169/90 Oct. 1989. Recompression chamber report of diver with Type 1 DCS. No further details. **U.**

170/90 Nov. 1989. Recompression chamber report of diver with suspected Type 1 decompression sickness, though a soft tissue injury is not ruled out. No further details. **U.**

171/90 Jan. 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

172/90 May 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

173/90 May 1990. Recompression chamber report of diver with Type 1 decompression sickness. No further details. **U.**

174/90 May 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

175/90 June 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

176/90 June 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

177/90 June 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

180/90 July 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

181/90 July 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

182/90 July 1990. Recompression chamber report of diver with suspected Type 1 decompression sickness. No further details. **U.**

183/90 Aug. 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **U.**

184/90 Jan. 1990. Recompression chamber report of diver with Type 1 decompression sickness. No further details. **I.**

186/90 March 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **B.**

187/90 May 1990. Recompression chamber report of diver with Type 2 decompression sickness. No further details. **B.**

188/90 May 1990. Recompression chamber report of diver being recompressed for suspected decompression sickness after a dive to 42m. No further details. **B.**

189/90 May 1990. Recompression chamber report of diver being recompressed for suspected decompression sickness after a dive to 22m. No further details. **B.**

190/90 May 1990. Recompression chamber report of diver with Type 2 decompression sickness following a dive to 38m. No further details. **I.**

191/90 May 1990. Recompression chamber report of diver being recompressed for suspected decompression sickness following a dive to 42m. No further details. **I.**

192/90 June 1990. Recompression chamber report of a diver being recompressed for Type 1 decompression sickness following a dive to 50m. No further details. **I.**

193/90 June 1990. Recompression chamber report of a diver with Type 1 decompression sickness following a dive to 11m. No further details. **I.**

195/90 July 1990. Recompression chamber report of a diver being treated for Type 2 decompression sickness following a dive to 54m. No further details. **B.**

196/90 Aug. 1990. Recompression chamber report of a diver being treated for Type 2 decompression sickness following a dive to 20m. He appears to have been outside the tables, but there are no further details.

197/90 Aug. 1990. Recompression chamber report of a diver with Type 2 decompression sickness following a dive to 23m. No further details. **I.**

198/90 Aug. 1990. Recompression chamber report of a diver being treated for Type 2 decompression sickness following a dive to 50m. No further details. **B.**

199/90 Aug. 1990. Recompression chamber report of a diver being treated for Type 2 decompression sickness following a dive to 21m. No further details. **B.**

200/90 Sept. 1990. Recompression chamber report of a diver being treated for drowning and the chokes following a dive to 42m. No further details. **B.**

201/90 Sept. 1990. Recompression chamber report of a diver being treated for suspected decompression sickness after a dive to 21m. No further details. **B.**

202/90 Sept. 1990. Recompression chamber report of a diver being treated for Type 1 decompression sickness after a dive to 21m. No further details. **B.**

203/90 Sept. 1990. Recompression chamber report of a diver being treated for Type 1 decompression sickness following a dive to 40m which was inside the tables. No further details. **B.**

BOATING/SURFACE

07/90 Dec. 1989. Coastguard Report of two divers surfacing about two miles from their cover boat. The local lifeboat and Coastguard MRU were tasked to search and found the divers safe and well, having swum ashore. **U.**

32/90 April 1990. Following a report by a member of the public that a diver was being swept out to sea in Jack Sound, Milford Haven, an SAR helicopter and the local lifeboat were tasked to attend. The diver was located by the helicopter and winched safely on board. Coastguard Report only, no further details. **U.**

42/90 May 1990. The engine on a rigid hulled inflatable dive boat was not running smoothly and the branch equipment officer removed the cover to investigate. As he did so the engine caught fire. Other divers in the boat swam away and were picked up by other boats in the party. The fire was extinguished with a fire extinguisher from one of the other boats. **B.**

44/90 April 1990. As a party of divers were kitting up to dive, 4 divers surfaced close by, apparently without boat cover. Their boat was anchored unattended three quarters of a mile away. The divers were covered by a second boat from the first party whilst the anchored boat was collected and the divers picked up. **U.**

45/90 April 1990. Having just rescued the divers in incident 44/90, a party of divers were kitting up to dive when 2 more divers surfaced close by without boat cover. They were from a hard boat which was about three quarters of a mile away. The divers did not know the name of their boat, but were transferred safely back to it. The skipper did not know where the divers were, but was not endeavouring to search for them. **U.**

51/90 March 1990. A Pan Pan call was received by the Coastguard from a 6.6m RIB which had engine failure and required a tow. There were 8 persons on board. The boat was anchored and in no immediate danger. A nearby vessel towed the boat back to harbour. Coastguard Report only. No further details. **U.**

52/90 March 1990. An inflatable with seven divers on board had engine failure on the way to their dive site. After drifting for some time they anchored, but subsequently attempted to paddle back to shore when members of the party became cold. The boat was reported as overdue by the shore party and they were located by the lifeboat after a lengthy search. The search was made more difficult as the planned dive site had been changed to a different location on the journey out. Coastguard Report only. **U.**

53/90 April 1990. Following a report of a large inflatable, with divers on board, in difficulty in a 20' swell the Coastguard launched the nearest lifeboat and put an SAR helicopter on

standby. The inflatable, which was a well equipped 20' RIB, returned safely to harbour under their own power and the rescue services stood down. The inflatable had capsized in heavy seas but had been righted by the occupants. Coastguard Report only. **U.**

54/90 April 1990. Following a 999 call reporting a diver in difficulties on the surface, the Coastguard launched the local lifeboat and requested an SAR helicopter. The diver reached the shore unaided just as the rescue services arrived. Coastguard Report only. **U.**

55/90 April 1990. Two divers were observed to be having difficulties returning to shore because of a heavy swell around the rocks. The inshore lifeboat was launched and picked them up safely. One of the divers required treatment for a broken finger. Coastguard Report only. **U.**

57/90 April 1990. A sea and air search was launched when a dive boat reported two divers overdue. A yacht assisting in the search reported seeing two divers on the shore. They were identified as the missing divers and returned by lifeboat to their vessel after being checked by the doctor on board the lifeboat. Coastguard Report only. **U.**

58/90 May 1990. Following a VHF call from a dive boat reporting two of their divers missing, a sea and air search was initiated. The two divers were recovered by a yacht assisting in the search and transferred to a police launch, which returned them to shorewhere they were reunited with their party. It would appear that the divers had surfaced out of sight of their cover boat and drifted away. Coastguard Report only. **U.**

59/90 May 1990. A fishing vessel reported seeing a red flare in the vicinity of where they had previously seen a party of sports divers. The Coastguard asked them to investigate and, on arrival at the scene, they discovered two broken down inflatables with three divers ashore on a nearby island. All were safe and well and the fishing vessel recovered the divers and their equipment. Coastguard Report only. **U.**

61/90 May 1990. Three divers were reported by a motor vessel as having been sighted, apparently being swept out to sea. The vessel picked up the three divers who were tired, but safe and well. They were transferred to the inshore lifeboat which returned them to shore. Coastguard Report only. **U.**

62/90 May 1990. A diver was injured going to the assistance of another diver who was being washed against the rocks. He was picked up by the inshore lifeboat which took him to the nearest harbour, where he was transferred to a waiting ambulance and taken to hospital. He had a suspected broken arm. Coastguard Report only. **U.**

63/90 April 1990. A fishing vessel reported a diving inflatable with four divers missing. A search was initiated and both pairs of divers were recovered. One of the divers was slightly hypothermic. The four divers were transferred back to shore by lifeboat. The diveboat had six divers in the water and had lost contact with four of them. The club involved have reviewed their dive practices and have bought better SMBs as well as a VHF radio. One of the pairs involved had also made an assisted ascent. **B.**

68/90 May 1990. A Coastguard lookout noticed three dive boats apparently searching for something and asked their local patrol boat to investigate. On arrival it was found that two divers had been separated from their boat and had been picked up by a passing yacht. Coastguard Report only. **U.**

76/90 Oct. 1989. A BSAC branch overseas using a 20(dive boat were in collision with a local Coastguard boat. The Coastguard boat had been observed approaching at high speed, but at the last minute it turned to starboard and struck the dive boat. Two members of the diving party were injured and trapped beneath the Coastguard boat which had mounted the dive boat with the force of the collision. **B.**

83/90 April 1990. Report of a diver being rescued by SAR helicopter after having fallen out of an inflatable. It was reported that the inflatable could not pick the diver up because conditions were too rough. No further details. **U.**

95/90 June 1990. A diver was injured when he made a backward roll to enter the water from a moving rigid hulled inflatable. He appears to have struck his head on his pillar valve resulting in a fractured skull and at the same time burst an eardrum as a result of the sudden water pressure. **B.**

100/90 June 1990. A party of divers in an inflatable had engine failure and were unable to restart the engine. They were towed back to shore by another boat from the same party. **B.**

104/90 July 1990. A party of divers gave assistance to a rigid hulled inflatable which had engine trouble whilst covering divers. The engine had been shut off to save fuel and could not be restarted. The boat had no anchor and was drifting. Although the problem was fairly simple to rectify, the boat did not have the correct tools. Eventually the boat was towed ashore, a distance of about 1.5 miles. Other boats in the vicinity appeared to be reluctant to give assistance. **B.**

135/90 June 1990. Report of two divers surfacing a quarter of a mile from their cover boat and being lost on the surface for an hour and a half before being picked up by a Naval Patrol Vessel. Coastguard Report only. **U.**

136/90 June 1990. Following a Mayday call reporting two lost divers, an air sea search was commenced using an SAR helicopter and two lifeboats. A short while later the divers were picked up safe and well by a local vessel. Coastguard Report only. **U.**

137/90 July 1990. A solo diver was seen to be in difficulties 50 yards offshore. He had been diving in 7m and had no buoyancy compensator. At the surface he had removed his mouthpiece and choked on swallowing water. A member of the public swam out and rescued him using a torpedo float. The Coastguard had alerted an SAR helicopter on receipt of a 999 call. Coastguard Report only. **U.**

138/90 June 1990. Following a report of red flares being sighted, the Coastguard scrambled an SAR helicopter to investigate. It was found that a party of five divers had experienced engine failure in their inflatable. Three of them who had swum ashore were picked up by the rescue helicopter and the remaining two members of the party were towed ashore in the inflatable by another diving boat. Coastguard Report only. **B.**

139/90 June 1990. Following a call to the Coastguard informing them of two lost divers an air sea rescue search was commenced. The divers were located after about 40 minutes by the local lifeboat and were safe and well. Coastguard Report only. **U.**

140/90 June 1990. A member of the public reported seeing two divers in difficulties drifting offshore. The Coastguard launched the local lifeboat and tasked an SAR helicopter to the scene, but on arrival they found the divers had been picked up by their own cover boat. Coastguard Report only. **U.**

141/90 June 1990. In response to a red flare from a diving inflatable, the Coastguard requested nearby dive boats to investigate. They reported that the inflatable was broken down and had two divers missing. An air sea rescue search was commenced, but shortly afterwards the missing divers were reported to be safe and well ashore. They had apparently swum to shore to raise the alarm but the flare had been fired before they arrived. Coastguard Report only. **U.**

143/90 July 1990. The Coastguard launched an air and sea search following a report from a dive boat of two missing divers. Three lifeboats and an SAR helicopter joined the search. The divers were found safe and well by one of the party's dive boats after a short interval. **U.**

144/90 July 1990. Two divers drifting on the surface were spotted by a Coastguard lookout. An SAR helicopter was called to the scene and picked the divers up about 2.5 miles away from their cover boat. The divers were safe and well and were returned to their boat by the helicopter. Coastguard Report only. **U.**

146/90 July 1990. Following receipt of a 999 call, reporting a missing diver, the Coastguard launched an air and sea search. The diver was picked up by a motor cruiser approximately 2.5 miles away and transferred via helicopter to the beach. Coastguard Report only. **U.**

150/90 Aug. 1990. Following a 999 call from a member of the public, two divers were picked up by a motor vessel called to assist by the Coastguard. They had become separated from their cover boat which, at the time of the rescue, was still unaware that they had divers missing. Coastguard Report only. No further details. **U.**

151/90 Aug. 1990. An inflatable with two divers missing contacted two nearby dive boats and asked them to contact the Coastguard. The three boats then commenced a search of the area and the divers were quickly found safe and well. The divers were half a mile from their cover boat when found and did not have flares, SMBs or flags. Coastguard Report only. **B.**

ASCENTS

10/90 Jan. 1990. Two divers made a rapid shared ascent to the surface from 20m after air failure. Preliminary Incident Report only, no further details. **U.**

31/90 March 1990. A diver made a rapid ascent to the surface from a dive to 9m when he was unable to control his buoyancy. Three days later, having complained of a stiff neck and feeling unwell, he was recompressed at DDRC. Further tests are being carried out to try and establish whether the cause was an embolism or PFO. **B.**

40/90 April 1990. Towards the end of a dive to 32m to gain deep diving experience, a novice diver's contents gauge suddenly fell from 110 bar to 50 bar. The diver began to ascend quickly and in spite of the efforts of the buddy, the ascent became uncontrolled. Both divers were OK on the surface but had missed a 1 minute decompression stop. **B.**

47/90 Feb. 1990. A party of three divers went much deeper than originally planned on a dive in the Lake District. At 42m one of the divers indicated he had only 80 bars left. They began to ascend and at 20m he ran out of air. A successful assisted ascent was made to the surface. At the surface one diver had 2 bars left, one was completely out of air and the third had 60 bars. All three had identical cylinders. **B.**

48/90 May 1990. On a second dive to 19m both divers ran out of air at the same moment! They both made relatively fast free ascents. Because their first dive had been deep they both breathed oxygen for 15 minutes back on the boat. One of the pair experienced itching and stiffness of joints. He was recompressed as a precaution at Whipps Cross but this had no effect on the symptoms. **B.**

49/90 March 1990. During a dive to 26m, in a trio, a novice diver had difficulty breathing and thought he had run out of air, although he subsequently appears to have had 70 bars remaining. He grabbed the dive leader's mouthpiece and began swimming to the surface. The dive leader had an octopus, which he managed to use, at the same time bringing the ascent under control. All three divers reached the surface safely. **B.**

66/90 May 1990. A diving vessel reported a diver on board with breathing difficulties and coughing up blood. The local diving doctor was taken to rendezvous with the vessel by the lifeboat. He arranged for the patient to be transferred to hospital for treatment of a suspected burst lung. Coastguard Report only. **U.**

73/90 Oct. 1989. A diver ran low on air during a dive to 30m. The dive leader made an assisted ascent with him using his octopus but they had problems controlling their buoyancy close to the surface. Having dumped air to try and stop at 6m they sank back to 12m and then made a rapid ascent all the way to the surface. Contributory factors were a lack of dive fitness and inadequate pre-dive preparation. **B.**

75/90 Aug. 1989. After a gentle dive to 22m for 18 mins followed by a slow ascent, a very experienced diver became unwell a few minutes after surfacing. He became weak and paralysed on his left side and also began to feel weak on his right side. The patient reports that he noticed an immediate improvement in his condition when his legs were lifted. He was evacuated by helicopter and recompressed as a result of which he made a full recovery. It is thought that he suffered an air embolism. **B.**

78/90 May 1990. A young novice diver on his third open water dive had problems with a leaking mask. He also found himself overweight and had difficulty finning against the current. In trying to clear his mask it came off and he lost his regulator when water went up his nose and made him cough. He appears to have become unconscious but was brought to the surface by his buddy using a buoyant ascent where he recovered fully. **B.**

81/90 Oct. 1989. Following a dive to 13m for 40 mins a diver carried out her safety and rescue skills test. Several ascents were made to 6m, both sharing and as buoyant lifts. Following the last ascent she experienced a pain in her chest and had to be rescued. The pain subsided with time and on medical examination she was diagnosed as having suffered mild emphysema. **B.**

87/90 June 1990. Following dives to approximately 22m with inadequate time and depth recording, and including a rapid ascent to the surface, a diver became weak in both legs and arms and then became unconscious. He was taken to the local hospital before eventually being recompressed at Stoney Cove. Preliminary details only. **U.**

93/90 May 1990. During a dive to 20m a diver's direct feed to his drysuit jammed open and he began to ascend. Unable to stop his suit inflating he attempted to slow his ascent by doing forward rolls and venting as much air as possible. Unfortunately he lost his weight belt whilst doing this and made a fast ascent. On the surface he was conscious but distressed. The next day he suffered from pins and needles but this was diagnosed as shock and no recompression was necessary. He made a full recovery. **B.**

94/90 June 1990. On a planned dive to 39m for 20 mins which required decompression stops, a pair of divers failed to relocate the shot rope and then, having started to ascend free, one of the pair ran out of air at 20m. They shared to 10m where they separated and made buoyant ascents to the surface. They had missed 3 minutes of stops as well as having made a fast ascent and were flown to Aberdeen for precautionary recompression. **B.**

97/90 May 1990. A novice diver ran short of air towards the end of a dive to 30m for which a 1 minute decompression stop was required. He successfully shared using the dive leader's octopus and completed the ascent and the stop with no ill effects or problems. **B.**

110/90 Aug. 1990. During a dive to 19m a diver had problems when his suit inflation valve did not close. Air continued to enter his suit, causing him to begin to ascend feet first. His fins were blown off and he made a rapid ascent to the surface, fortunately without ill effect. **B.**

115/90 July 1990. Preliminary Incident Report of a diver who experienced a free flowing valve. He ran out of air during his ascent and following an abortive attempt at sharing, made a rapid buoyant ascent to the surface. No further details. **B.**

125/90 Aug. 1990. Twelve minutes into a dive, at a depth of 17m, a diver ran out of air. She made a successful, if slightly fast, assisted ascent to the surface. On investigation the lack of air was found to be due to her pillar valve only being turned on by half a turn. **B.**

142/90 Aug. 1990. Report of a diver being recompressed for a gas embolism following a dive to 32m for 17 mins with a precautionary 1 minute stop at 6m. He was recompressed at Whipps Cross and given further treatment at HMS Nelson. **B.**

159/90 June 1990. A diver made a buoyant ascent to the surface when he was unable to vent his new drysuit. He redescended to 6m and performed 3 mins of stops. Over the next 24 hours he was concerned about a pain in his leg and itching and attended hospital. The pain was diagnosed as being due to suit squeeze but he was recompressed at Alverstoke as a precaution anyway. **B.**

178/90 July 1990. Recompression chamber report of diver with cerebral arterial gas embolism. No further details. **U.**

179/90 July 1990. Recompression chamber report of diver with pulmonary barotrauma and cerebral arterial gas embolism. No further details. **U.**

185/90 Feb. 1990. Recompression chamber report of diver with an air embolism. No further details. **B.**

194/90 July 1990. Recompression chamber report of a diver being treated for an air embolism. No further details. **I.**

TECHNIQUE

08/90 Dec. 1989. During a branch diving trip over the New Year, one member of the party carried out a solo night dive

to 84m to see the New Year in!! He had told no-one where he was going and was only discovered when some other divers examined his dive computer and saw the recorded depth. He was counselled and disciplined by his branch but remained un-convinced he had done anything foolhardy. **B.**

19/90 Feb. 1990. On starting to ascend from a dive to 60m in a freshwater quarry, a diver's DV began to freeflow. At 55m he decided to take his set off, switch to his spare valve and pony bottle and switch his main set off. He got into a tangle with his equipment, his mask flooded and he began taking in water. Somehow he reached 25m where he sorted himself out at which point the pony cylinder ran out. He managed to turn his main set back on, replace his equipment and perform his stops successfully. **B.**

35/90 May 1990. Whilst ascending at the end of a dive to 34m a diver ran out of air at 15m. He shared using his buddy's octopus rig, but they both sank rapidly to 20m and had difficulty gaining enough buoyancy to ascend. They did ascend successfully but by this time the dive leader was also low on air and they were unable to perform their decompression stop at 6m. Neither subsequently exhibited any symptoms. It appears that the first diver was wearing too much weight which contributed to the problem. **B.**

39/90 April 1990. During a snorkel diving exercise a diver became distressed and was in danger of sinking. He was assisted ashore by other members of the party. It would appear that he was overweighted for the dive and that this resulted in overexertion and exhaustion. A contributory factor was that the divers, all novices, were not wearing any buoyancy aids. They had chosen not to wear the stab jackets which they normally used for diving, whilst snorkelling. **B.**

46/90 Oct. 1989. Preliminary report of a diver being recompressed at Millport as a precaution following a dive to 38m. No further details. **B.**

69/90 May 1990. A pair of divers missed a 3 minute decompression stop according to BSAC 88 Tables and also ascended too quickly. They appear to have failed to properly monitor either time or depth on the dive. Their errors were noted as a result of accurate log-keeping and they were monitored for symptoms of DCS and prevented from further diving. Neither diver had any ill effects. **B.**

70/90 May 1990. During an assessment dive in a three, all of whom had dive computers, a novice ran out of air. The first problem was that one diver left his computer behind and the two others had not remembered to switch theirs on, though one was registering. With the novice having only 50 bars left, the dive leader attempted to return to the entry point but went the wrong way. The supervising instructor brought the party up to 6m where the novice used an octopus to perform the stops indicated. **B.**

74/90 Nov. 1989. During a dive in the Red Sea a pair of divers planned to go to 40m. One of the divers decided to go deeper and though his buddy tried to stop him at 50m, he left his buddy and continued down alone to 80.2m! Although he claimed a maximum depth of only 39m when he returned to the boat, his true depth was indicated on his dive computer. The diver has been disciplined by his branch and required to repeat a number of relevant lectures and drills to educate him out of his recklessness. **B.**

82/90 April 1990. During a dive to 18m a diver ran out of air. It would appear that her contents gauge was faulty as she ran out of air at 10m with 20 bars still indicated on her gauge. A successful assisted ascent was made to the surface. Unfortunately, on arriving at the surface the two divers found they had become separated from their cover boat. (See Report 63/90 for full details). **B.**

88/90 June 1990. During a dive to 42m a pair of divers found a weightbelt and attempted to recover it. This proved difficult and it was eventually left behind. One of the divers subsequently ran out of air during his decompression stops and had to complete them using his buddy's octopus. Some of the required stops appear to have been missed but neither diver suffered any ill effects. **B.**

90/90 May 1990. Following problems with her mask during an underwater navigation exercise, a diver became distressed on the surface. She was rescued by boat and appearing shocked, was taken to hospital for a check-up, but had suffered no ill effects. **B.**

103/90 July 1990. Towards the end of a normal dive to 28m a party of three divers experienced problems when one of them found his weightbelt slipping off. All three sank back to the bottom trying to remedy the problem. One diver ran out of air and started to share his buddy's octopus. Shortly afterwards, this diver ran out of air and the pair of them made an uncontrolled buoyant ascent, missing required decompression stops. In spite of the missed stops the divers continued to dive again later in the day! **B.**

121/90 Aug. 1990. During a dive to 32m a diver ran out of air. He began a free ascent to the surface but was able to take his buddy's octopus at about 10m. The ascent was quite fast and required stops were missed. On the surface he was almost unconscious but quickly recovered. Neither diver had any other ill effects. **B.**

122/90 July 1990. On a dive to 39m, planned using BSAC 88 Tables, a diver was using his dive computer to monitor the dive. On arrival at 6m the computer required an 11 minute stop, but the divers had insufficient air and surfaced after a 5 minute stop. They were within BSAC 88 Tables and neither suffered any ill effects. **B.**

124/90 Sept. 1990. Report of divers missing required decompression stops. After a second dive using Table C of BSAC 88 Tables two divers trying to use the tables from memory were found to have missed 13 mins at 6m. Neither had any symptoms or ill effects. **B.**

131/90 Aug. 1990. A diver lost control of his buoyancy after dropping a porthole he was trying to lift from 39m. He made a rapid ascent to the surface, missing decompression stops and was disorientated. He was airlifted to hospital by helicopter but was found only to be suffering from shock. He was detained overnight for observation. **B.**

132/90 Aug. 1990. Following a wreck dive in 38m two divers failed to get back to the shot rope because of the increasing tide. They were forced to do 3 minutes of mid-water stops and on surfacing found themselves a long way from the cover boats in worsening sea conditions. Realising that they were overdue, the boats began to look for them on the surface and picked them up after about 20 minutes. **B.**

133/90 July 1990. During a dive to 35m, a novice diver, whose previous deepest dive was 18m, had problems with his demand valve. He was unable to reach his buddy's octopus and had to share conventionally. At 20m he blacked out and was brought to the surface by his buddy, but appears to have suffered no ill effects. **B.**

155/90 June 1990. A novice diver with an overseas branch had to be rescued and resuscitated after she had entered the water with her air turned off and had sunk to the bottom. She was wearing too much weight and had not allowed for the fact that she was using a heavier tank. Because of the heat she was intending to fit her fins and do her buddy checks in the water. Another member of the party brought her to the surface where she was given EAR. **B.**

205/90 June 1990. A diver ran out of air whilst trying to lift a shell case from a wreck. He shared his buddy's pony bottle but then found he could not dump air from his lifejacket due to a faulty dump arrangement and he surfaced, missing stops. He later visited DDRC but no treatment was necessary. **B.**

EQUIPMENT

04/90 Dec. 1989. Report of a diver making a rapid ascent to the surface after his drysuit direct feed jammed open. Preliminary incident report only. No further details. **B.**

05/90 Dec. 1989. Following a charity swim of approximately half a mile the participants were posing for a group photo when two divers felt dizzy and nauseous. One of the divers then became unconscious. In both cases it was found that the cause

of the problem was too tight a neck seal. Both divers recovered quickly once their neck seals had been removed. **B.**

14/90 Jan. 1990. During a holiday in the Red Sea a diver felt ill in the evenings after diving, with shaking and chest pains on breathing. He recalls noticing water spray in his mouth during dives but did not connect this with the problem until his return to the U.K. where he was diagnosed as having suffered Salt Water Aspiration Syndrome. His regulator, which was of the side mounted exhaust valve type, was only a few months old. **B.**

15/90 Feb. 1990. Whilst performing a navigation exercise at 10m, a novice diver sank to 20m because air was leaking from the dump valve of her stab jacket. The leak was sufficiently large that the direct feed was effectively useless. She was assisted to the surface by her buddy, using the emergency cylinder. The jacket was returned to the dealer who found a piece of the exhaust valve was missing. **B.**

16/90 Feb. 1990. A diver using a twin hose demand valve was practising mask and mouthpiece clearing. His demand valve freeflowed on removal as expected, but offered him no air on replacement in his mouth. He tried to clear it twice without effect and then made an assisted ascent to the surface using his buddy's octopus. **B.**

20/90 Feb. 1990. Whilst on a dive to 32m a diver's recently serviced demand valve failed. Neither the second stage or the octopus gave sufficient air and an assisted ascent was made to the surface with his buddy. **B.**

21/90 March 1990. A trainee connected his drysuit direct feed hose to the high pressure port of a club DV by mistake. When he turned his air on the hose ruptured with a loud bang. There were no injuries or other damage. **B.**

22/90 Jan. 1990. During a dive to 30m in the Lake District a diver's DV began to freeflow. He was able to make a normal ascent, but had run out of air by the time he reached the surface. **B.**

23/90 Jan. 1990. During a dive in a freshwater lake a diver's demand valve began to freeflow at a depth of 50m. He ascended normally as far as 30m whereupon an assisted ascent was made to the surface due to his air supply having been exhausted. **B.**

24/90 Feb. 1990. A diver made a free ascent to the surface from a depth of about 7m when the mouthpiece from her regulator became detached from the second stage. Her buddy offered to share but she preferred to make a free ascent. Subsequent examination showed the demand valve mouthpiece was a push fit only and was not secure. **B.**

36/90 April 1990. Report of an SMB becoming detached from its line due to a broken connection. The cover boat noticed the buoy was moving more quickly and shortly afterwards the divers surfaced without problem. Attempts to recall the divers were unsuccessful. **B.**

37/90 April 1990. Whilst attempting to adjust her buoyancy a diver's ABLJ failed at depth. The ABLJ mouthpiece fell off causing the jacket to deflate. She gained buoyancy by releasing her weightbelt and ascended to the surface without further problems. **B.**

41/90 May 1990. During ascent from a dive to 39m a diver's regulator failed and suddenly began to let in large amounts of water. He switched to his Air II and ascended normally. On inspection afterwards, it was found that the second stage cover was slightly unscrewed and that the diaphragm had distorted allowing water in. There appears to be a design weakness with this regulator. **B.**

77/90 Feb. 1990. During a fresh water dive to 24m a diver's second stage began to freeflow. He switched to his octopus and made a normal ascent to the surface with his buddy. No other problems were experienced but his cylinder was empty on arrival at the surface. **B.**

101/90 June 1990. During a dive to 30m a diver's demand valve started to freeflow. He and his buddy made a normal ascent to the surface by which time his air supply was almost exhausted. On inspection, the valve was found to have a faulty first stage seat. **B.**

MISCELLANEOUS

13/90 Feb. 1990. During a boat handling exercise a diver collapsed and had loss of memory. He was wearing a new drysuit with a thinsulate undersuit and it is thought that overheating during the quite strenuous drill was responsible. He was checked over in hospital and no other cause could be found. He made a full recovery. **B.**

25/90 March 1990. During descent a diver had pain in his sinuses. As he surfaced the pain became more intense and his mask filled with blood. Back on board the boat he collapsed and became unconscious. He was treated for shock and given oxygen. A rescue helicopter was mobilised but recalled when he began to recover. During the journey home whilst the casualty was asleep, there was a loud pop which woke him with a start. The pain was instantly relieved and he quickly recovered. **B.**

27/90 April 1990. Preliminary Incident Report received of problems experienced after a dive as a result of mask squeeze. No further details. **U.**

29/90 Feb. 1990. A snorkel diver attempting to dive to 5m didn't clear his ears on descent. At the bottom he experienced a sharp pain in his left ear and felt dizzy on surfacing. On attending hospital for a check it was confirmed that he had burst his eardrum. **B.**

30/90 Feb. 1990. During a dive to 21m a diver felt dizzy and made a buoyant ascent to the surface as he felt he was blacking out. He made a full recovery and it is thought that his problem was due to a combination of overheating and possibly low blood sugar. He had hardly eaten in the previous 24 hours and had spent quite a long time fully kitted prior to the dive in temperatures of around 23 degrees C. **B.**

38/90 May 1990. A diver became caught in monofilament netting during a dive to 15m. After some minutes trying to cut himself free he eventually abandoned his fins which were entangled in the net and made a rapid ascent to the surface. **B.**

56/90 April 1990. On receiving a 999 call that two divers on the surface were waving for assistance, the Coastguard started a search involving the local lifeboat and an SAR helicopter was also tasked. Shortly afterwards a second call was received to say that the divers had been signalling to their own boat which had picked them up. The boat had been on site, but out of view of the informant. False alarm with good intent. Coastguard Report only. **U.**

65/90 May 1990. A diver missed decompression stops when he was accidentally pulled to the surface by an unknown vessel. The Coastguard were contacted and made arrangements for the local diving doctor to examine the diver on return to the shore. He was found to have no symptoms. Coastguard Report only. **U.**

72/90 Aug. 1989. Following a dive to 18m a diver experienced a tight feeling in his throat. About an hour later he began to feel chilled with aches in his arms and lower back and a tight chest. He was found to have a temperature of 102 degrees. The local hospital diagnosed a bug and within 48 hours he had completely recovered. However, similar symptoms had been experienced on two previous occasions and further medical investigation suggests he has suffered from Salt Water Aspiration Syndrome. **B.**

80/90 Aug. 1989. On three separate occasions a novice diver appears to have frozen at around 20m. His breathing became rapid and he appeared to panic and was unable to help himself. On the last occasion he made a buoyant ascent to the surface. After each incident he appeared to have little memory of preceeding events. At his branch's request he has been stopped from diving pending a review by a Medical Referee. **B.**

84/90 July 1990. Press report of two divers becoming entangled in a gill net 9m underwater in a heavy swell. A helicopter was launched but the local lifeboat and another diver effected a rescue. No further details. **U.**

92/90 June 1990. During an Advanced Instructor Course one of the candidates woke with a pain in his shoulder, felt dizzy and was vomiting. He was given oxygen and after consultation

with a local medical referee and HMS Vernon, was taken by ambulance to the recompression chamber at Hutton. On arrival there he was given a detailed examination and diagnosed as suffering from a strained muscle or trapped nerve in his neck. **B.**

102/90 June 1990. On reaching the bottom at 22m a diver felt dizzy and returned to the surface with his buddy. He was subsequently found to have a burst eardrum. **B.**

108/90 July 1990. At about 18m on a planned dive to 25m, a diver felt dizzy and became distressed. She was assisted to the surface by her buddy where she was found to be physically OK, though shocked. A subsequent visit to her GP was unhelpful as he diagnosed that she had sustained a bend at depth! **B.**

111/90 Aug. 1990. A diver experienced some pain when he cleared his ears rather vigorously. He also suffered a nose bleed at the end of the dive. When seen by his GP it was found that he had a perforated eardrum. **B.**

113/90 April 1990. Preliminary Incident Report of diver suffering heat exhaustion and chest pains during full equipment test in pool. **B.**

114/90 1990. Preliminary Incident Report of diver suffering from a partial blackout underwater. No further details. **B.**

117/90 Aug. 1990. During a dive to 16m a diver became distressed and breathless and she was helped to the surface by her buddy. On the surface she was weak and breathless. She was flown by helicopter to DDRC where she was given hyperbaric oxygen treatment, having been diagnosed as suffering from carbon monoxide poisoning. **U.**

118/90 Aug. 1990. During a dive to 12m two divers complained of dizziness, weakness and visual disturbance. On the surface they appeared confused, uncoordinated, with slurred speech. They were both evacuated by helicopter to DDRC where they were treated withhyperbaric oxygen for carbon monoxide poisoning. Tests found 2,100 ppm of CO in one of the cylinders. Other cylinders filled at the same time were found to have between 800 and 2,600 ppm of CO. **B.**

119/90 Aug. 1990. During a dive to 15m a diver became dizzy and completely disorientated. He surfaced immediately, but has only vague recollections of his ascent, and being taken back to shore. He was given oxygen and transferred to DDRC by helicopter. Bad air was suspected as he had noticed an oily taste and when his cylinder was tested, high levels of carbon monoxide and carbon dioxide were found. **B.**

134/90 June 1990. Coastguard Report of man seeking medical attention for itching and headache following diving. No further details. **U.**

165/90 Aug. 1990. Whilst trying to straighten a bent harness buckle with his diver's knife, a diver sustained a deep laceration to his left index finger which required stitching. **B.**

204/90 July 1990. Recompression chamber report of a diver who was outside the tables on a dive to 25m. No treatment was necessary, but there are no further details. **U.**

206/90 Aug. 1990. Recompression chamber report of a diver attending for treatment of a sinus barotrauma. No further details. **U.**

207/90 Aug. 1990. Recompression chamber report of a diver attending for treatment of carbon monoxide poisoning. Chamber treatment was not necessary. No further details. **U.**

STATISTICAL SUMMARY OF ACCIDENTS AND INCIDENTS

ITEM	1986	1987	1988	1989	1990
Incidents reported	154	162	197	244	207
Incidents analysed	154	162	197	244	207
British incidents	146	142	173	170	189
Incidents abroad	8	16	15	14	14
Location unknown	0	4	9	60	4
BSAC Members	107	110	117	128	123
Non-BSAC Members	19	5	13	12	16
Membership unknown	28	47	67	104	68

All the above reports are based on information received between October 16th 1989 and October 12th 1990.

HISTORY OF DIVING FATALITIES

YEAR	MEMBERSHIP	DEATHS BSAC	DEATHS NON-BSAC
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	
1978	27,510	8	(4)
1979	30,579	5	(8)
1980	24,900	6	(7)
1981	27,834	5	(7)
1982	29,590	6	(3)
1983	32,177	7	(2)
1984	32,950	8	(5)
1985	34,861	8	(6)
1986	34,210	6	(9)
1987	34,500	6	(2)
1988	32,960	10	(6)
1989	34,422	4	(8)
1990	36,434	3	(6)