

The British Sub-Aqua Club



NDC Diving Incidents Report 2001

Compiled by

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Diving Safety and Incidents Advisor



Introduction

This booklet contains the year 2001 Diving Incidents Report, produced by The British Sub-Aqua Club (BSAC) in the interest of promoting diving safety. It is important to note that it contains details of UK diving incidents occurring to divers of all affiliations, plus incidents occurring worldwide involving BSAC members.

Report Format

The majority of statistical information contained within this report is also shown in graphical form. Please note that all statistical information is produced from UK data only and does not include Overseas Incidents unless noted as 'All Incidents'.

The contents of this report are split into an overview of the year, and then the details of nine incident categories plus some historical analyses. The various sections can be found as shown below:-

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Within each category the incidents are listed in the order of their occurrence, not necessarily that of Incident Reference. They are laid out in the following form:

MONTH/YR OF INCIDENT **INCIDENT REF.**
Brief Narrative of Incident.....
.....

The nature of many diving incidents is such that there is usually more than one cause or effect. Where this is the case the incident has been classified under the more appropriate cause or effect. For instance an incident involving a fast ascent, causing decompression illness, will be classified under 'Decompression Incidents'.

*Brian Cumming,
BSAC Diving Incidents Advisor,
October 2001*

Acknowledgements

Data for this report are collected from several different sources. I would like to extend my thanks and appreciation to the following for their assistance in its production and in ensuring its completeness:

Jo Dilly, Coastguard Sport Diving Liaison Officer

Peter Bradley, Sea Safety Liaison Officer, Royal National Lifeboat Institution

and, in particular, all of those divers and other sources who have taken the trouble to complete Incident Reports and share their learning experience with others.

Finally, to Dr. Yvonne Couch for proof reading this report

Overview

2001 has seen a continued rise in the total number of incidents that have been reported. In the 2001 incident year (October 00 to September 01 inclusive) 458 incidents have been analysed, compared with 417 in 2000, and 382 in 1999.

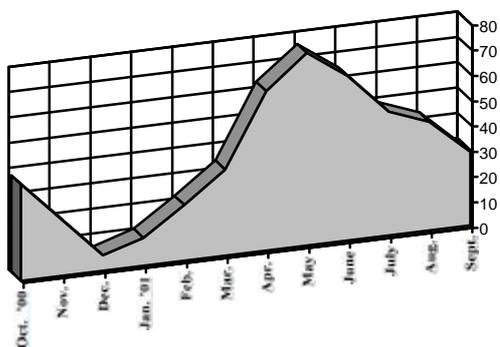
The incidents database was closed two weeks earlier this year than is normal in order to meet the earlier timing of the Diving Officers Conference. The effect of this will have been to reduce the number of incidents recorded in the year due to the delay in reports being processed. It is estimated that a further 25 incidents would have been recorded if the database had been closed at the same time as in previous years. Thus it can be estimated that the number of incidents reported has grown by about 25% over the last two years. This does not necessarily mean that more incidents are taking place. Our data capture has certainly improved and the wider publication of the report will have increased divers' awareness and this is likely to have encouraged the reporting of more incidents.

We can be very sure that we record all UK incidents involving a fatality since these are high profile events involving the emergency services. Information from these sources, together with that provided by our members, coaches, and press articles, ensures that we are alerted to all UK diving deaths.

We can be equally sure that we do not have a full record of all of the other types of incident. If the emergency services are not involved and if those involved do not send in details of an incident then it will go unrecorded. It is impossible to assess just how many incidents are unrecorded but it must be a significant number. Thus, apart from the fatalities, this report should be treated as a sample of the types of problems that divers encounter, not a definitive record.

The distribution of these reports is shown in the following chart. As can be seen, 66% of these incidents have occurred in the summer period. This is totally consistent with previous years, reflecting the increased number of dives that take place during the warmer weather.

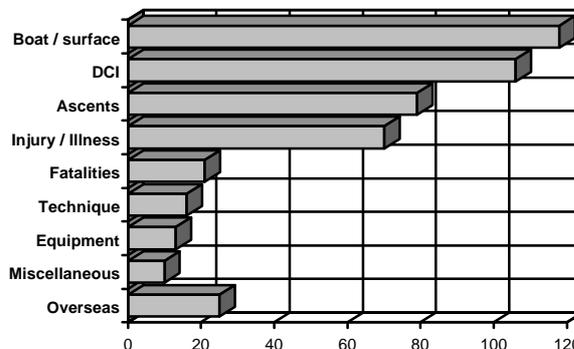
Monthly breakdown of all incidents - 2001



Incidents by category

The incident database categorises all incidents into one of nine major categories, and the following chart shows the distribution of the 2001 incidents into those categories.

Categorisation of the year's incidents



This chart indicates 21 incidents involving fatalities, one of which was a double fatality.

The highest number of incidents relates to 'Boating and Surface' incidents, and this is consistent with previous years, apart from last year.

The second highest category of incident relates to Decompression Illness (DCI). Last year saw DCI incidents move into the top position; this year it returns to its normal position of the second most common type of incident.

Last year the number of 'Boating and Surface' incidents was 15% lower than normal and the number of DCI incidents was 25% higher than normal. This year both of these categories are in line with their previous norms.

Last year a 20% reduction in the number of lost divers was identified. These incidents typically involve divers who, upon surfacing at the end of their dive, find themselves out of contact with their boat, and very often a long and expensive search takes place, almost always successfully. This year sees that trend continue, with the number of lost divers being 35% lower than 2000 and 50% lower than 1999. This subject has been highlighted in many previous reports and presentations on diving statistics, and it is hoped that this is a real trend indicating that divers and dive marshals are taking more care with this issue.

Engine failure, however, shows a marked increase. 71 cases are reported, a 36% increase from last year, the highest number ever.

Fatalities

2001 has been a very bad year for fatal incidents. There have been 22 UK fatalities of which 9 involved BSAC members.

The average number of BSAC UK fatalities over the previous 10 years was 6.3, so the 2001 figure represents a 43% increase.

The average number of non-BSAC UK fatalities over the same period was 9. The 13 non-BSAC fatalities in 2001 represents a similar increase.

There is no obvious cause for this increase. An analysis of the factors involved does not show any new trends; the nature of these incidents is in line with previous years, there has just been more of them.

The causal factors behind the UK fatalities can be summarised as follows:-

- One case involved a diver who suffered a heart attack whilst under water.
- Five cases involved deep dives.

One of these cases involved a double fatality where a diver got into difficulties and a second diver, who went to assist, also failed to return.

One case involved a diver, using a rebreather, who dived alone to 120m.

- Two other cases involving rebreather divers occurred when they became separated from their buddies during the ascent from a dive. In both cases the divers did not surface and, despite searches, were not found.
- Three cases involved divers who found themselves in rough water. One was thrown against rocks and two others succumbed to the effects of large waves.
- Three cases involved divers who had run out of air (one of these is also included in the above 'rough water' group).
- One case involved a diver who was diving solo from the shore and his loss was not realised until the following day.
- One case involved a diver who removed his cylinder to enter a wreck, and became trapped.
- One case involved a trainee diver who inhaled water, spat out her mouthpiece and lost consciousness under water.
- One case involved a person who was diving without a weightbelt and made a rapid ascent from 46m.

This leaves five remaining cases where there is simply insufficient information to draw any conclusions with respect to the causes. All involved divers who got into difficulties whilst conducting apparently normal dives and, although they were recovered from the water, failed to survive. It is possible that these incidents include other cases of divers becoming seriously ill whilst underwater (e.g. heart attack) but this is not yet known.

Rebreathers are involved in four of the fatalities, and the report contains four other, non-fatal, rebreather related incidents. Three of these involve divers who became hypoxic. As you will read, unconsciousness follows swiftly and it is probably only the swift action of others that saved us from a further three fatalities. A high level of training, practice and attention to detail is required when using all diving equipment – especially rebreathers.

Incident depths

The following chart shows the maximum depth of the dive during which incidents took place, summarised into depth range groupings.

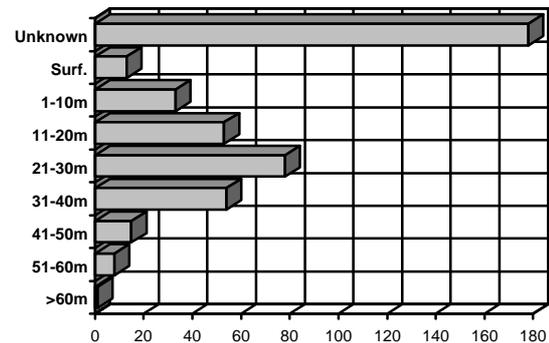
The pattern is very similar to that normally seen and reflects the amount of diving that takes place in these depth ranges.

Depth continues to be a significant feature of diving incidents. 9 of the reported incidents where the depth is known involve dives to over 50m, and, as reported above, 5 of these resulted in fatalities. 8 of these incidents were in the 51 to 60m range and one incident involved a dive to 120m.

The BSAC advises that no dive should be deeper than 50m, and that dives to 50m should only be conducted by divers who are appropriately trained and qualified.

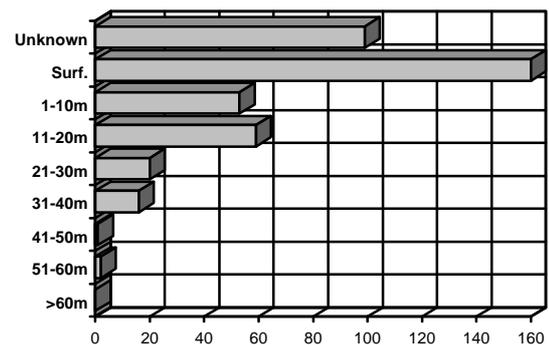
The recommended limit for divers trained to Sports Diver standard is 35m and then only when they have received appropriate training for diving at this depth.

Maximum depth of dive involving an incident



The next chart shows the depth at which the incident started. Inevitably the data is biased towards the shallower depths since many incidents happen during the ascent or at the surface. Critical among these are the DCI cases where almost always the casualty is out of the water before any problems are noted. This partially explains the large occurrence of 'surface' cases as this includes divers with DCI who have left the water.

Depth at which an incident started



Other surface incidents involve boats and boating incidents. As reported earlier, incidents involving engine problems have increased dramatically over previous years.

Inadequate maintenance is certain to be the cause of many of the engine problems. Just over 50% of engine problems occurred in March, April and May, when the boats are probably being used for the first time after a winter's lay off. It seems divers are putting to sea in boats that are inadequately prepared.

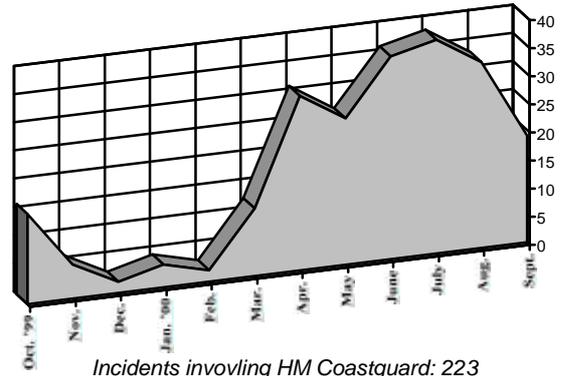
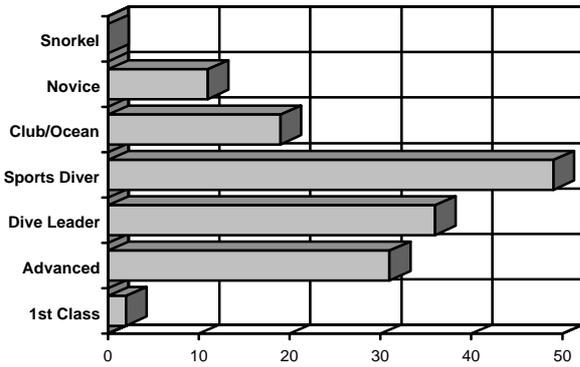
Saving money by avoiding an engine service can be a costly mistake. Engine failure, with divers underwater, often results in lost divers since the boat is no longer able to recover them. These divers are then left floating at the surface until discovered. The search operation is often very extensive with lifeboats, other craft and helicopters deployed to find the missing divers.

Diving boat owners are urged to plan an adequate engine service before they begin a new diving season.

Diver Qualifications

The next two charts show the qualification of those BSAC members who were involved in reported incidents.

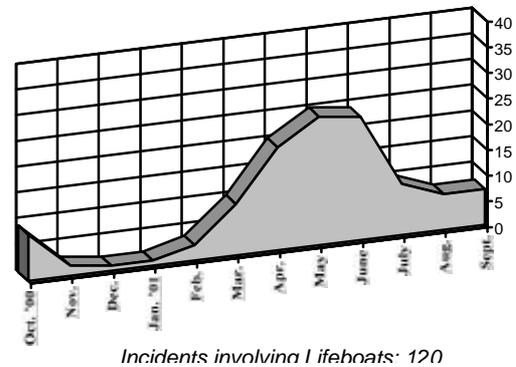
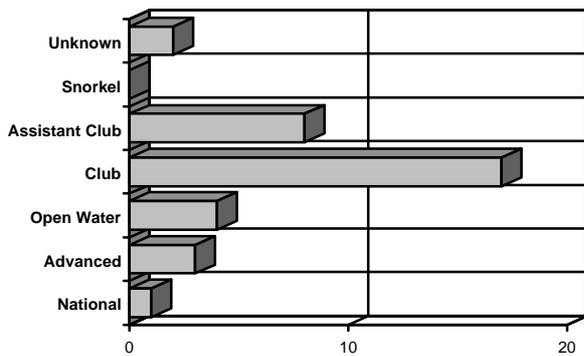
Qualification of the divers involved in incidents



It is important to note that these divers were involved in the incident but this does not necessarily mean that they suffered the effects of it. Some were involved as rescuers or in some other indirect way.

Divers' use of RNLI facilities by month

Qualification of instructors involved in incidents



An analysis of incident by diver qualification shows that no grade of diver, from novice to instructor, is immune to problems. It is all too easy to make the assumption that only inexperienced divers get into problems, but the chart shows that this is not so. Although the data suggest that divers at the level of Sports Diver are the most prone to problems one must be careful in the interpretation of these data. The picture is clearly distorted by the numbers of members that we have at each of these grades. It is very probable that the largest single group of members are Sports Divers, hence the high incidence of problems.

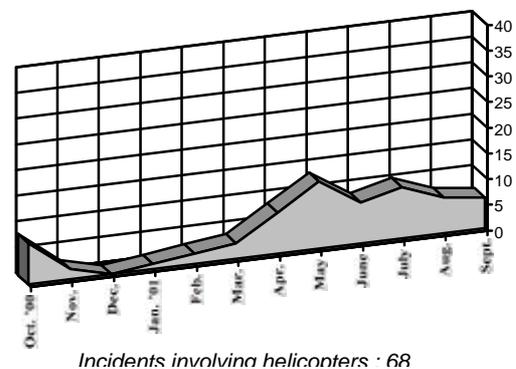
Divers' requirements for SAR helicopters is significantly down over previous years. Our average call on helicopters in the last three years has been over 90, this year the number of incidents involving helicopters was 68, no doubt a welcome cost save for the emergency services. Helicopters are tasked to support the search for missing divers and to transport divers with DCI to recompression facilities. As mentioned earlier, both of these categories of incidents are lower than in previous years, hence the reduced demand for helicopter support.

The distribution of these qualification data conforms to the pattern seen in previous years.

Divers' use of SAR helicopters by month

Divers' use of the Emergency Services

Divers' use of the rescue services shows a monthly distribution aligned to the distribution of all incidents, and is clearly correlated with the number of dives that are taking place. Our demands upon the Coastguard service were typical for the year, as were our calls upon the services of the RNLI.



UK Incidents involving the Coastguard agency - Monthly breakdown

Decompression Incidents



The BSAC database contains 106 reports of DCI incidents, some of which involved more than one casualty. When these multiple cases are counted the result is 116 incidents of DCI.

In 2000 there were 134 cases of DCI recorded and in 1999 the number was 86; this year falls between the two.

An analysis of the causal factors associated with these cases indicates the following:-

- 42 involved diving to deeper than 30m
- 34 involved rapid ascents
- 19 involved missed decompression stops
- 17 involved repeat diving

Some cases involved more than one of these causes.

The report includes several cases of 'Diver illness' reported by the RNLI and whilst the nature of this illness is not recorded it is very likely that these are further cases of DCI.

As reported many times before, poor buoyancy control is at the heart of the majority of these cases. Divers are failing to correctly control their ascent, especially in the critical last 10m zone and ending up with rapid ascents and/or missed decompression stops. Very often the diver is using a drysuit and is unable to prevent a buoyant ascent.

Better training is clearly indicated and Diving Officers, Training Officers and Instructors should work to ensure that the skills of their trainees are particularly well practised in this area.

Several of the incidents involve divers using unfamiliar equipment and ending up with buoyancy problems. It is important to familiarise oneself with new equipment in a safe environment prior to using it in more challenging circumstances.

Whenever possible it is safest to ascend from the dive using a shotline; this will provide the diver with the opportunity to stop and correct a buoyancy problem before an uncontrolled ascent and accompanying pressure reduction takes place; once a rapid ascent is underway it is very hard to stop.

In Conclusion

The 2001 incident year has been a very poor one from the perspective of UK fatalities. 22 deaths is equal only to 1998 and the highest number recorded in the last 25 years. Fatalities of BSAC members is our highest for over 10 years, and fatalities of non-BSAC members is the second highest in over 25 years.

An analysis of the data has not highlighted any major new concerns. Most of the incidents reported within this document could have been avoided had those involved followed a few basic principles of safe diving practice. Those that I would emphasise, as I have done before, are:-

- Dive within your limits.
- Build your experience gradually.
- Practice the basic skills until you are faultless, and then keep in practice.
- Plan and equip yourself correctly for the dive.
- Maintain constant vigilance whilst involved in diving activities and be ready to act quickly as soon as things start to go astray.
- Ensure that equipment is fully and correctly serviced (both diving and boating).

Please read the detailed reports in this booklet carefully and use them to learn from others' mistakes. They have had the courage and generosity to record their experiences for publication, the least that we can do is to use this information to avoid similar problems.

Finally, if you must have an incident please report it on our Incident Report form, available free from BSAC HQ or via the BSAC Internet website.

As always, your anonymity is assured – great care is taken to preserve the confidentiality of any personal information recorded in BSAC Incident Reports.



Fatalities

October 2000

01/001

Two divers conducted a wreck dive in a maximum depth of 51m. They descended the shotline and secured it to the wreck and then entered the wreck. After 20 min one of the pair indicated that they should ascend. The other diver returned the OK signal but did not follow. The first diver returned to the wreck and signaled again through decking in the wreck, the other diver responded but did not leave the wreck. After 35 min the first diver was low on air. He deployed a delayed SMB and made his ascent. He completed stops at 9m and 6m. He ran out of air during a stop at 3m and he surfaced having missed 30 min of decompression stops. At the surface he called for assistance, was recovered into the boat and placed on oxygen. The emergency services were alerted. Four lifeboats and an RN helicopter undertook a search but failed to locate the lost diver. A further underwater search was made 7 months later. His body was finally recovered from the wreck, at a depth of 53m, by fellow divers, 10 months later.

October 2000

01/002

A diver using a drysuit descended with his buddy to a wreck in a depth of 46m. The diver was diving without a weightbelt. They rose to the top of the wreck where the diver without the weightbelt experienced buoyancy problems. He hung inverted from the wreck. His buddy tried to release air from the suit and to bring him upright. His buddy tied him to the wreck and looked around for something to act as a weight. He was unsuccessful and decided to try to use a reel and line to make a controlled ascent to the surface. The buddy cut the line securing the buoyant diver to the wreck. The buoyant diver then made a rapid ascent to the surface. He ascended from 40m in 40 seconds. He surfaced unconscious. He was airlifted to hospital but attempts to revive him failed.

October 2000

01/003

An instructor and four students were participating in a dive using trimix. They descended a shotline to a depth of 50m. At this point one of the students attached a distance line and he and his buddy moved down to 54m. The buddy did not like the low visibility conditions and they turned round to return. At this point the first diver started to panic. The instructor was with two other students at the bottom of the shotline and saw that there was a problem. He went to help. He assisted the buddy back to the line but could not find the panicked diver. He marshaled the group up the shotline to 42m and then re-descended to find the lost diver. He discovered him at 59m, he was on his back and apparently not breathing. He attempted to lift this diver but could not. He attached the line to him and returned to the shotline. He led the ascent including necessary decompression stops. Once at the surface the alarm was raised. The missing diver's body was later recovered by police divers.

February 2001

01/078

A student diver under training got into difficulties whilst ascending from a 7m dive. He was recovered to the shore and first aid was administered. He was airlifted to hospital where he was pronounced dead on arrival.

February 2001

01/090

The police were notified of a missing diver. His vehicle was located near a dive site; it had been there since the previous day. Police and Coastguard attended the scene and conducted a

search in conjunction with a lifeboat and a Navy helicopter. The diver's body was recovered from the seabed. It is believed that he had been diving alone.

March 2001

01/092

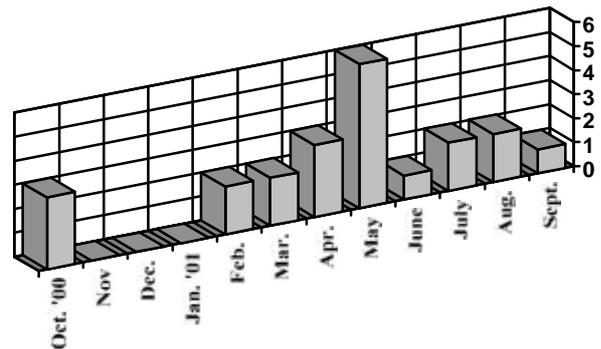
A group of trainee divers assembled at 6m and began an descent to 18m. One of the group experienced an ear problem at 10m, an instructor waited with her. She got to 14m but seemed nervous. The instructor took her to a cliff face to act as a reference point. The trainee is thought to have swallowed water which caused her to panic. She spat out her regulator. The instructor replaced it and purged it, but the trainee would not accept the regulator. They were in mid water and sinking. The instructor started an ascent and they got to 6m. At that point the instructor lost her grip on the trainee and made a rapid ascent to the surface. The trainee sank. A search was started and the trainee was found on a ledge at 7m some 10 - 15 min later. Resuscitation techniques were applied and the trainee was taken to hospital. She was kept on a life support machine for a week but failed to recover.

March 2001

01/111

Two divers had completed a night dive. They were at the surface when they were hit by a big wave. One of the pair managed to climb onto the rocks but the other struck his head on the rocks and is believed to have lost consciousness. The Coastguard was alerted by shouts for assistance and a lifeboat was launched. The lost diver was found. Both were airlifted to hospital but the injured diver was pronounced dead on arrival. (Coastguard report)

**UK Fatalities - Monthly breakdown
from October 2000 to September 2001 incl.**



April 2001

01/125

A diver was nearing the end of his second dive of the day. At 20m he showed his contents gauge to the dive leader; it showed 80 bar. They launched a delayed SMB and made a normal ascent to 6m where the diver was found to be low on air. He took the dive leader's alternative air source. He sank a little but was recovered to the surface. No decompression stops were required. At the

surface he complained that he could not breathe. This condition was made worse by the swell and waves. The buddy offered his alternative air source once again to assist the troubled diver. This diver then lost consciousness. He was recovered into the boat and resuscitation techniques were applied during the trip to the shore. The casualty was taken by ambulance to hospital where he was declared dead on arrival. The cause of death was reported as acute DCI

April 2001

01/126

A diver surfaced after a dive and was waiting at the surface to be collected by his boat. He was engulfed by a wave and swept away. He was later recovered into his boat and resuscitation techniques were applied. He was airlifted to hospital where he was pronounced dead.

April 2001

01/133

Two divers conducted a dive to a maximum depth of 20m. 39 min into the dive, at a depth of 17m one of the divers indicated that he had 50 bar remaining. The buddy signaled that they should ascend a wall to a depth of 12m. From here they moved to a mooring buoy line to use this as a reference to ascend. On the way to the mooring buoy the diver with 50 bar collected some scallops and put them in a bag attached to his jacket. At the bottom of the line the diver had 35 bar. They ascended to 6m and conducted a 2 min safety stop. There was no current and visibility was good. Both divers achieved neutral buoyancy during the stop. They then ascended to the surface. At the surface the diver who had been low on air lay on his back with his regulator out of his mouth saying 'I need air, I need air'. The buddy offered his alternative air source but the troubled diver pushed it away, he then sank below the surface. The buddy dumped the air from his jacket and dived down after him. He caught him at 2m and tried to inflate his BCD with the direct feed hose. It did not work. It is believed that the cylinder was empty. The buddy used his own jacket to bring them to the surface. Back at the surface the troubled diver said that the scallop bag was heavy and the buddy ripped it from his BCD. Whilst doing so they sank again. The buddy again used his own BCD to bring them back to the surface. At the surface the troubled diver grabbed the regulator from the buddy's mouth, but it would not reach him and it fell out of reach. The buddy let go of the other diver and found his own alternative air source. The other diver sank once more. The buddy followed him again and when he reached him he tried to release his weightbelt. The distressed diver was wearing a harness type weightbelt and the buddy was not able to undo the velcro straps. The distressed diver then grabbed the buddy's alternative air source from his mouth. The buddy took in some water and released the other diver to replace his regulator. He then shot to the surface and the distressed diver sank to the seabed, apparently unconscious. At the surface the buddy's main regulator was free flowing and although he could see the other diver, 8 m below, he only had 10 bar and was not able to dive again to recover him. He shouted for assistance, and several divers from the same group entered the water, from the shore, to assist. After a brief search the casualty was located in 8m of water by one of the rescuing divers. This diver found that there was no air in his BCD cylinder, he saw bubbles coming from the shoulder dump and freed the dump cord to allow the valve to close. He could not find an inflator for the casualty's drysuit. The casualty was wearing a harness type weightbelt and this had slipped around his body. Another diver released one of the weights from its pouch and the casualty was lifted to the surface. He was towed ashore and resuscitation techniques were applied. One of the casualty's fins was missing and this was later found floating at the surface. An ambulance was called and arrived within 15 min and resuscitation was continued for approximately another 40 min. A doctor pronounced the casualty dead at the scene and he was airlifted away.

BSAC Fatalities against membership 1982-2001 (UK fatalities only)



May 2001

01/301

A trainee diver on his second open water dive panicked and made an uncontrolled ascent to the surface. At the surface he pulled the corrugated hose off of his BCD and was thus unable to inflate it. He was wearing a 16 kg weightbelt and this was not released. The diver then sank back to the bottom. Another diver brought him to the surface and the alarm was raised. The diver was brought ashore and resuscitation commenced. The diver was taken to hospital and placed on a life support machine. He died some weeks later.

May 2001

01/155

Two divers were completing a rebreather dive to a maximum depth of 50m. One of the pair prepared and deployed a delayed SMB. When he looked for his buddy he was not to be seen. The Coastguard was alerted and an extensive air and sea search, involving two lifeboats and two warships, was conducted. The missing diver was not found.

May 2001

01/156

Two divers undertook a dive to a wreck in a depth of 65m. The divers descended a buoy line that had been previously tied to the wreck. They reached the deck of the wreck at a depth of 60m. Both were using air. They explored the wreck and on their return to the buoy line one of the pair appeared to fall unconscious. The buddy started to lift the unconscious diver using a controlled buoyant lift. During the ascent the diver regained consciousness and fought his buddy away. He then tried to inflate his suit but lost buoyancy and began to sink. The buddy continued his ascent and deployed an SMB to complete his decompression stops. Others at the surface realized that only one diver was decompressing and searched the surface for the other. The single diver surfaced after a total dive time of 50 min. The Coastguard was alerted that the other diver was missing. 2 min after the first diver surfaced two other divers entered the water and descended the buoy line. At the wreck the visibility was about 4m but there was no ambient light. There was a strobe attached to the buoy line. They saw a fin and found the missing diver lying in a recess on the deck of the wreck. There were no signs of life. They attempted to inflate the diver's BCD and drysuit but this had no effect. They attempted to lift him but were not able to. One of the pair prepared a delayed SMB to mark the position of the diver. Their activities had stirred up the silt and visibility reduced to zero. The diver with the SMB rose out of the silt cloud. She noted that 11 min had elapsed and this was the limit of their planned dive. She decided that it was

time to ascend. She abandoned the delayed SMB to avoid becoming tangled in it and swam to the torch light of her buddy. She signaled to the buddy that they should ascend. At this time the buddy had his pony cylinder in his hand and was pointing and shouting. She was not able to understand the signals. The pony cylinder was known to contain nitrox 60. She offered her alternative air source but the buddy indicated that he did not want it. The buddy's torch was hanging from his arm and rotating; the light blinded the other diver. Again she signaled the ascent but the buddy continued to shout and signal. She took hold of the buddy and attempted to put some air in his suit to begin the ascent, but he pushed her off and went back into the silt to the lost diver. With a fading torch and an elapsed time of 14 min the diver began her ascent. She waved her torch in the direction of her buddy as a marker. She made an ascent to the surface completing a total of 25 min of decompression at 9, 6 and 3m. A helicopter and two offshore and several inshore lifeboats were at the scene. A fifth member of the party then entered the water and descended to the wreck. At the deck of the wreck he spent a few minutes orientating himself and then began to look around. He found the body of the first diver about 3m from the buoy line. One fin was missing and there were no signs of life. He moved towards the body and then noticed a torch beam to his right, he turned and found the second diver lying half in a hold, he also showed no signs of life, he shook him but there was no response. This diver appeared to have a rope wrapped around one of his legs. With his bottom time running out the fifth diver began his ascent to the surface. Fog then descended and further action was called off. Three of the party were taken ashore by lifeboat. Later Navy divers arrived to recover the missing divers but a flooding tide and low underwater visibility prevented them from locating the divers' bodies. The divers' bodies were recovered six days later by a Navy team using an ROV.

May 2001 01/160

Two divers entered the water and descended to the seabed at a depth of 16m. They carried a surface marker buoy. One of the pair indicated that he wanted to ascend. The other diver started to wind in the SMB line and then noticed that the first diver was now lying on his back on the seabed, motionless and with his mouthpiece out of his mouth. The buddy tried to replace the regulator but was not able to do so. The buddy lifted the casualty to the surface using the casualty's drysuit. The dive duration was 5 min. At the surface the buddy signaled distress and the divers were quickly recovered into the boat. The casualty was unconscious and not breathing. Resuscitation techniques were applied and the Coastguard was alerted. The casualty was airlifted to a recompression facility from where he was taken to a hospital. He was later declared dead. The diver was found to have suffered a pulmonary barotrauma.

May 2001 01/165

A diver became trapped in a wreck at a depth of 34m. This diver had removed his air cylinder to allow him to enter the wreck. His buddy surfaced to raise the alarm and returned with a spare air cylinder. In the poor underwater visibility he was unable to relocate the missing diver. A search was conducted by a helicopter, a lifeboat, a warship and other craft but the diver was not found. The diver's body was recovered by police divers six days later.

June 2001 01/190

Two divers were waiting to enter the water when the alternative air source of one of the pair began to free flow. The regulator was switched off and then on again but it continued to free flow. The diver requested that the cylinder be switched off and stated that he would conduct a shorter dive using the other cylinder and regulator. They conducted a normal dive to a maximum depth of 27m. At the end of the dive the buddy began to deploy a delayed

SMB. He noticed that the diver who had had the free flow problem was having difficulty controlling his buoyancy and that he was floating upwards. The buddy tried to pull the other diver down. However the buoyant diver was carried to the surface. The buddy followed quickly and found the buoyant diver face down, at the surface, with no regulator in his mouth. He summoned help and other divers from the boat jumped in to help. The diver was recovered into the boat and resuscitation techniques were applied. Total dive duration was 16 min. The Coastguard was alerted and the casualty was taken to the shore by lifeboat. He was later declared dead. The buddy was placed on oxygen and taken to hospital from where he was released the following day. A post mortem indicated that the casualty had suffered a heart attack.

July 2001 01/218

A group of divers planned to dive a wreck at a depth of 120 to 130m. They expected to use a shotline that had previously been placed on the wreck. When they arrived at the site the shot buoy was not visible. They placed a new shot. The first diver entered the water. 10 min later a second diver entered the water and started his descent. He soon resurfaced having received a message that was 'passed up the line' that the shot was not on the wreck. By this time the original shot had surfaced as the current slackened. The second diver went down the original shotline. Other divers followed him. These other divers subsequently reported that the two shots were tangled at 80m. The second diver failed to resurface. A search was mounted involving the Coastguard, two lifeboats, a helicopter and other craft but no trace of him was found. This diver was using a closed circuit rebreather. The lost diver's body was recovered 4 weeks later.

July 2001 01/237

Two divers were ascending from a dive to 30m. At 15m they deployed a delayed SMB. One of the pair became tangled in this line and the divers were separated. The buddy surfaced and raised the alarm. A helicopter and two lifeboats were tasked to search for the missing diver but he was not found. The missing diver was using a rebreather.

August 2001 01/255

A pair of divers were at a depth of 15m. One of the pair began to experience problems controlling his buoyancy and hung onto some ropes on the seabed. When he let go he started to ascend. He vented air from his drysuit and was showing no signs of distress. His buddy waited for him to re-descend. When he didn't she ascended to find him unconscious at the surface. The casualty was recovered from the water and resuscitation techniques were applied but the casualty failed to recover.

August 2001 01/261

A diver experienced breathing difficulties during a dive. He was towed to the shore by his buddy. Medical assistance was called but the casualty rapidly deteriorated and was pronounced dead at the scene.

September 2001 01/287

A diver surfaced unconscious from a drift dive and then sank again. An extensive search involving two lifeboats, a helicopter and eight private and commercial vessels failed to locate the missing diver.

Decompression Incidents

October 2000**01/321**

A dive to 25m/45 min followed by a second 22m/45 min dive led to this diver suffering DCI. He was transported by road to a hyperbaric unit. (Coastguard report).

October 2000**01/135**

Two divers completed a dive to 16m. One of the pair released a delayed SMB, but the homemade reel failed and he was lifted rapidly to 7m. They completed a 5 min stop at 6m and then surfaced. Total dive duration was 40 min. This diver then conducted a second dive to a maximum depth of 15m. The boat was recovered onto its trailer with a lot of effort from this diver. He then experienced a minor dizziness whilst changing and later discovered a skin rash. He sought medical advice and a possible skin bend was diagnosed. He was not advised to seek recompression treatment.

October 2000**01/322**

A diver with suspected DCI was evacuated to a hyperbaric unit by RAF helicopter. (Coastguard report).

October 2000**01/323**

A 20m dive for 25 min resulted in this diver complaining of tingling in the foot. She was airlifted to a hyperbaric unit for treatment. (Coastguard report).

October 2000**01/324**

Medical advice from Coastguard was sought by this diver after DCI symptoms appeared following 50m dives (with a fast ascent) over the past 2 days. (Coastguard report).

October 2000**01/328**

A rapid buoyant ascent from 57m (dive time 35 min), due to inflation of 'wings' BCD. Oxygen given on the surface for 20 min. This diver started to lose feeling in the legs and arms, had a headache and was vomiting. He was airlifted to a hyperbaric unit by Coastguard helicopter. (Coastguard report).

October 2000**01/329**

A 20m dive for 44 min, with a one minute stop, led to this diver experiencing 'pins and needles' in the legs. He was taken to a hyperbaric unit by ambulance. (Coastguard report).

October 2000**01/320**

A diver who had surfaced too quickly was taken to a recompression facility for treatment. A full recovery was anticipated. (Newspaper report only)

October 2000**01/029**

Two divers completed a dive to 32m and deployed a delayed SMB to make their ascent. During the ascent one of the pair felt light and struggled to control her buoyancy. At 10m she lost control and made a rapid ascent to the surface missing 7 min of decompression stops. Her buddy completed his stops. The buoyant diver was recovered into the boat and placed on oxygen. She developed a tingling in her hands. The Coastguard was alerted and the diver was airlifted to a recompression facility for treatment. It was later found that the undersuit, which had a smooth finish, had blocked the drysuit dump valve thus preventing

the expanding air from escaping.

October 2000**01/330**

Two divers were transported by ambulance to a hyperbaric unit following a fast ascent and DCI. Both dived to 21m for 24 min but made a fast ascent from 17m. (Coastguard & RNLI report).

November 2000**01/053**

A diver completed a dive to 39m for 61 min including 22 min of decompression stops. 2 hours 30 min later he dived again to 35m for 57 min including 22 min of decompression stops. The following day, 18 hours later, he dived again to 35m for 61 min including 22 min of decompression stops. After this dive he noticed a rash on the arm and shoulder of his left arm. He was placed on oxygen and the rash disappeared. He sought medical advice and received recompression treatment. His companion's computer had cleared 5 min before his. At 3m he had exercised slightly because of a problem with the shot and he may have been dehydrated.

November 2000**01/331**

A dive to 33m and fast ascent led to suspected DCI and evacuation by inshore lifeboat to a hyperbaric unit. (Coastguard & RNLI report).

November 2000**01/048**

Two pairs of divers were conducting a dive to 32m. One of the divers was undertaking the dive as part of deep dive training. During the ascent this diver had a problem with her regulator. She changed to her alternative air source. She started to panic and the instructor brought her to the surface. At the surface she appeared to be well but then she became unconscious. She was given recompression treatment and then transported to a hospital with a recompression chamber.

November 2000**01/060**

Two divers conducted a dive to 42m. Both divers were using independent twin 10 litre cylinders. One of the divers noticed that one of his cylinders was only at 160 bar prior to the dive. He started with this cylinder and when it reached 50 bar he changed to the second cylinder. Towards the end of the dive, at a depth of 20m, he ran out of air on the second cylinder and switched back to the first. However this cylinder gave him no air. He was too far from his buddy to seek assistance so he made a fast, free, ascent to the surface, missing decompression stops. His buddy followed, making a slower ascent but also missing stops. On reaching the surface the diver who had been out of air was placed on oxygen and the Coastguard was contacted. Medical advice was sought and they were advised to attend a recompression facility as a precaution. Both divers were taken to the recompression facility by lifeboat where they were given precautionary recompression treatment. The only symptom experienced was a slight pain in the elbow of the buddy.

November 2000**01/332**

A diver was taken to a hyperbaric unit by ambulance after complaining of tingling and aching shoulder following a dive. (Coastguard report).

March 2001**01/101**

A few minutes into a dive, at a depth of 20m a diver's regulator

began to free flow. His buddy brought him to the surface. They made a very fast ascent. The diver with the free flow experienced a loss of balance and a violent headache. He was given oxygen and made an initial recovery, but then the condition worsened. The diver was given recompression treatment and then transferred to hospital. He was later discharged after medical examination.

March 2001 01/256

Two divers conducted a wreck dive to a maximum depth of 21m. Towards the end of the dive they were at 16m and one of the pair indicated that something was wrong. The other diver deployed a delayed SMB and they made their ascent to the surface. The dive time was 36 min to 6m and no stops were required. At the surface the troubled diver was very disorientated and she and her buddy were recovered into their boat. The diver was placed on oxygen and attempts were made to contact the Coastguard. However their radio did not work correctly and they used a mobile phone provided by other divers. The two divers were taken by lifeboat to a recompression facility where the casualty was given treatment. She was released 24 hours later having made a full recovery. A vestibular DCI was diagnosed. The casualty had been using nitrox 25.

April 2001 01/129

Two divers were airlifted to hospital with suspected DCI after a rapid ascent. (Coastguard report)

April 2001 01/124

The Coastguard was alerted when two divers were missing after a 42m wreck dive. A lifeboat and a helicopter were tasked to search, and two other lifeboats, which were on exercise, and another dive boat went to help. The divers were located at the surface by the helicopter and recovered by one of the lifeboats. As the emergency services left the area the same group reported two more missing divers. They were located by the assisting dive boat and taken ashore by one of the lifeboats. The helicopter was recalled to airlift one of these divers to a recompression facility for possible treatment.

April 2001 01/151

With a surface interval of 20 hours 41 min from a previous dive, a diver conducted a dive to 26m for 40 min with a 1 min stop at 6m. 2 hours 31 min later she dived to 18m for 33 min with a 1 min stop at 6m. 20 hours 30 min later she dived again to 40m for 32 min with stops for 1 min at 9m, 3 min at 6m and 4 min at 3m. The stops on this last dive were longer than indicated by her dive computer. 30 min after surfacing she noticed a pain in her left breast. The pain worsened over the next 2 hours to become a burning sensation. The top part of the breast was covered with a mottled red rash, it irritated and was very painful. She began to breathe oxygen. After 1 hour the rash had virtually gone and the pain had reduced. After a further 2 hours the pain had gone. The following day she sought medical advice and was advised to report to a recompression facility. She was recompressed. There was a mild residual discomfort and she received two further sessions of recompression on subsequent days. No further improvement was effected.

April 2001 01/132

During a dive to a maximum depth of 36m a diver became tangled in line. The time spent untying her resulted in this diver and her buddy surfacing having missed decompression stop because of a lack of air. The Coastguard was alerted and the divers were taken by lifeboat to a recompression facility for treatment. (Coastguard report)

April 2001 01/351

Following a 38m dive, diver displayed symptoms of DCI. Transferred privately to hospital. (Coastguard report).

April 2001 01/136

A diver was involved, as a student, in a search and recovery course. He completed two dives, the first to a maximum depth of 8m for a total time of 21 min and the second to a maximum depth of 7m for a total duration of 48 min. During these dives multiple ascents and descents were made to effect the various searching and lifting tasks. The diver became very cold towards the end of the second dive. During the final ascent he felt dizzy but this passed. After the dive he was involved in the recovery of heavy equipment. Later, about 90 min after leaving the water, whilst driving home, he noticed a deep seated ache in his lower right thigh, just above his knee. The pain grew in intensity. The following morning he awoke to find that he had just a mild ache, but by the time he arrived at work the pain had fully returned. He sought medical advice and he was referred to a recompression facility. He received two sessions of recompression treatment. The treatment resolved the symptoms for a while but he was left with a minor pain that increased during the day with activity.

April 2001 01/131

A diver became ill during a dive and surfaced missing decompression stops. The Coastguard was alerted and the diver was taken to the shore. There he was taken by ambulance to hospital and then on to a recompression facility for treatment.

April 2001 01/356

Diver suffering DCI following 30m dive - transferred by ambulance to recompression chamber for treatment. (Coastguard report).

April 2001 01/355

DCI symptoms - airlifted to hospital. (Coastguard report).

April 2001 01/274

An instructor was engaged in a training dive with two students. They dived to a maximum of 9m. After 20 min one of the trainees experienced buoyancy problems, stirred up silt from the bottom and began to move down a slope. The instructor decided to stop the dive at this point. The trainee ascended too fast and the instructor tried to control this but they made a rapid ascent to the surface. The instructor had previously had spinal surgery that had left him with some residual numbness in his feet. The following day his legs felt heavy and he had pain in his arms. He sought medical advice and was referred to a recompression facility where he was recompressed the following day. He was advised to refrain from any further diving, even in a swimming pool.

April 2001 01/215

A diver conducted a 43m dive for 30 min, including a 2 min stop at 9m and a 5 min stop at 6m. 3 hours later he dived again to a maximum depth of 9m for a total duration of 28 min. Later that day he developed a headache. The following morning he felt ill and visited his local hospital. He was referred to a recompression facility where a neurological bend was diagnosed. He received recompression treatment and a full recovery was made. He was tested for a PFO but none was found.

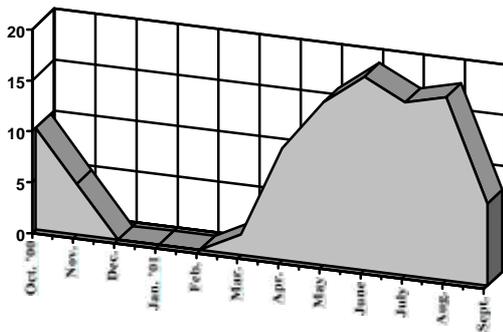
May 2001 01/361

After a 59m, trimix dive, diver displayed DCI symptoms. Diver and buddy transferred to hospital for treatment and observation. (Coastguard report).

May 2001 01/363

Diver missed decompression stops following 59 m dive. Displayed DCI symptoms and transferred to hospital. (Coastguard report).

Decompression incidents by month



May 2001 01/286

Two divers began a dive and descended to a depth of 12m. They were then caught in a current that carried them rapidly up to 6m, over rock and then down to 28m. They deployed a delayed SMB and made an ascent to the surface with a few minutes of safety stop at 6m. One of the divers' computers indicated a fast ascent warning. They dived the following day without a problem. Four days later one of the divers developed symptoms of DCI and sought medical advice. She was recompressed. Her buddy was contacted and she too had symptoms, and also reported to a recompression facility for treatment. Both divers received over twenty recompression treatments over a period of two weeks. Both showed signs of recovery and then subsequent deterioration. One of the pair went on a foreign holiday but became ill whilst away. She received treatment abroad but then discharged herself and made her own way home for further treatment. Spinal DCIs were diagnosed, both still have residual problems and have been advised not to dive again.

May 2001 01/366

Following 20m dive/54 min and 36m dive/29 min dive boat reported a sick diver who displayed symptoms of DCI. Treated in recompression chamber. (Coastguard report).

May 2001 01/368

Assistance called for by dive boat for diver with possible bends. Diver transferred to shore then on to hyperbaric chamber as a precaution. (Coastguard report).

May 2001 01/193

Two divers were at 25m. One of the pair experienced problems with the buoyancy control of his drysuit. He signaled his buddy to help. The buddy tried to release air from the suit dump valve, but it did not seem to work. The buoyant diver then signaled that he was OK. The buddy then deployed a delayed SMB and they started their ascent. As soon as they had left the bottom the buoyant diver began to rise rapidly to the surface. The buddy held on to him to try to slow the ascent. Both were carried rapidly to the surface. The dive time was 25 min to the start of the ascent. At the surface the buoyant diver was disorientated. He was recovered into the boat and placed on oxygen. He complained of a severe headache, chest pain and an itching of the right elbow. The Coastguard was alerted and the diver was airlifted to a

recompression facility for treatment. The buddy experienced no ill effects.

May 2001 01/372

Diver with suspected bends transferred to shore then on to hyperbaric chamber for treatment. Second dive of day to 30m - slightly deeper and longer than first dive. (Coastguard report).

May 2001 01/164

Two divers and an instructor were engaged in their second training dive of the day. The first dive was to 10m for 38 min. The second dive was 3 hours later, and they dived again to 10m. The trainees were practicing the use of alternative air sources and they planned to ascend to 6m. One trainee donated his alternative air source to his buddy but could not ascend as the auto dump of his drysuit kept releasing air. The instructor signaled that he should adjust this valve. The diver closed the valve fully and let air into his drysuit. He started a rapid ascent. He let go of his buddy who was able to recover his own regulator. The buoyant diver went all the way to the surface. The instructor and the other trainee made a normal ascent. At the surface the buoyant diver decided to re-descend to find his buddy. The instructor and the other trainee arrived at the surface and the instructor went back down the buoyant divers bubble trail to find him. They met mid water and returned to the surface. The buoyant diver then towed his buddy to the shore, as a training exercise. Back on the shore he felt unwell and was placed on oxygen. The Coastguard was alerted and the diver was taken by ambulance to a recompression facility where he received treatment. It was later learned that the diver had re-descended to 15m whilst looking for the buddy and instructor.

May 2001 01/229

Skipper of dive RHB reported a diver with possible symptoms of DCI. The casualty was transferred to a recompression chamber by CG helicopter and ambulance. (Coastguard report)

May 2001 01/273

Three divers completed a dive to 26m. There was a brisk current that required some physical effort to combat. During their ascent a fast ascent warning was indicated by one of their computers. They completed a 1 min stop and surfaced after 29 min. 10 min later one of the group began to feel 'pins and needles' and a numbness spreading from his toes up to his waist. He was placed on oxygen. The nearest recompression facility was 100 km away. The diver was recompressed in the water. This progressively dissipated the numbness. The diver's symptoms fully resolved but he later attended the recompression facility and was given a precautionary course of decompression treatment. He experienced no further problems.

May 2001 01/180

Two divers descended to 36m. At this point the regulator of one of the divers failed to supply him with air. He switched to his alternative regulator but this also failed to supply air. He signaled to his buddy that he wanted to ascend. The buddy was not aware of the problem. The buddy took hold of the diver's BCD air feed and put some air into the jacket. He started a slow ascent. The diver without air was desperate to breathe and used the BCD emergency cylinder to inflate the jacket. They made a rapid ascent to the surface. At the surface he struggled to breathe having swallowed water. He was recovered into his boat. He requested oxygen but there was a delay in supplying it as the key to the cylinder valve could not be found. He breathed oxygen for 25 min. He had a numbness in his wrist and a pain in his arm. By the time he was returned to the shore he was feeling breathless. He had blurred vision, numbness in his wrist and neck pain. He drove home on his own. The following morning he phoned a recompression facility for advice. He was taken to the

recompression facility and received two sessions of recompression therapy.

May 2001 01/167

A diver conducted a series of six dives over a three day period. This diver had no foot on his left leg and used an artificial aid when diving. On the fourth day he dived to 42m. After 15 min he ascended to 15m where he stopped for 2 min. He then completed a further 7 min decompression at 9m before making a slow ascent to the surface. The sea was rough and the diver had difficulty climbing the ladder back on to the boat. He fell on the ladder, twisting both legs and he was hit in the stomach by his camera. Other divers helped him to get into the boat. He was tired and cold and had a pain in his stomach. He was placed on oxygen for 20 min, followed by 5 min on air and then a further 15 min on oxygen. 7 hours later, whilst being driven home this diver felt lightheaded and a little unstable on his feet, he was also unable to urinate. Later his stomach pain increased and he became even more unstable, he also had some numbness. He reported to hospital. He was then taken by ambulance to a recompression facility for treatment. He received six sessions of recompression treatment and required further outpatient treatments. A spinal bend was diagnosed.

May 2001 01/230

A diver completed a dive to 14m for 40 min including a 3 min stop at 6m. 4 hours 15 min later he dived again to 9m for 30 min. 20 min into the second dive he deployed a delayed SMB. The line became partially tangled on the reel making deployment and retrieval difficult. There was also more surface current and the buoy pulled the diver away from his buddy causing him to have to swim hard. The following day he awoke with a tingling on his back. This was still present the next day. He sought medical advice and a possible skin bend was diagnosed. He received two sessions of recompression treatment.

May 2001 01/384

Diver displayed DCI symptoms following a rapid ascent from a 6m dive. Transferred to hyperbaric unit. (Coastguard & RNLI report).

May 2001 01/385

Skipper of dive vessel sought assistance for a diver with a skin bend. Second dive of the day to 29 m. Diver transferred by ambulance to recompression chamber. (Coastguard report).

May 2001 01/208

36 hours after a 35 min dive to 12m a trainee was reported to be suffering from DCI. She was referred to a recompression facility for treatment.

June 2001 01/388

Symptoms of DCI displayed by diver following a 28 m dive. Transferred to hyperbaric facility. (Coastguard & RNLI report).

June 2001 01/184

A diver was surfacing from a 24m dive. During the ascent he lost his weightbelt and made a rapid ascent with no stops. He was recovered into his boat and placed on oxygen. The Coastguard was alerted and a lifeboat was tasked to assist. The diver was transferred by lifeboat to a recompression facility for treatment. (Coastguard report).

June 2001 01/183

A diver surfaced from a 20m dive. He was in pain, had a blue face and difficulty breathing. The Coastguard was alerted and a

lifeboat and a helicopter were tasked to assist. The diver was airlifted to a recompression facility for treatment. (Coastguard report)

June 2001 01/205

A pair of divers conducted a dive to a maximum depth of 36m. One of the pair had a problem with her mask and they aborted the dive. At the surface this diver was very distressed by the incident. 1 hour 40 min later she started to show signs of DCI. She was placed on oxygen and taken by ambulance to a recompression facility for treatment.

June 2001 01/204

A group of three divers conducted a dive to a maximum depth of 35m. During the ascent one of the pair ran out of air. She took the alternative air source of one of her buddies. They then lost buoyancy control and made a fast ascent from 6m to the surface missing 10 min of decompression. Their dive duration was 40 min. They were placed on oxygen but, after 20 min, began to show signs of DCI. They went to a recompression facility for treatment.

June 2001 01/389

Report of a diver on the beach suffering DCI symptoms. Taken to hyperbaric unit by ambulance. (Coastguard report).

June 2001 01/391

Diver showing symptoms of DCI after missing stops following a 30m dive. Medical advice received and diver transferred to hospital for treatment. (Coastguard report).

June 2001 01/199

Two divers conducted a dive to a depth of 31m. One of the pair had forgotten to put on his weightbelt and during the dive he became positively buoyant. He grabbed his buddy's BCD and they both made a rapid ascent from 28m to the surface. Total dive duration 25 min. Both divers were recovered into their boat and placed on oxygen. One of the pair had white fingers on both hands and tingling in his hands. Their computers indicated missed stops. Both divers were taken to a recompression facility and recompressed. The diver who had shown symptoms was detained overnight and given a second recompression treatment the following day.

June 2001 01/394

Diver surfaced without completing his decompression stops (apparently due to inability to dump enough air in time). Transferred to recompression chamber for treatment. (Coastguard report).

June 2001 01/395

Rescue helicopter and inshore lifeboat assisted in the medivac of a diver suffering DCI - transferred to hyperbaric unit. (Coastguard & RNLI report).

June 2001 01/236

A diver completed a dive to 36m for a duration of 27 min including a 2 min stop at 3m. During this dive he had to swim against a current. After a surface interval of 59 min he conducted a second dive. This dive was to 29m for 28 min with a 6 min stop at 3m. His dive computer recorded increased air consumption during the first dive and an ascent rate alarm between 29m and 20m on the second dive. Shortly after the second dive he experienced pain in his upper left arm and shoulder. He initially thought that this was due to muscle strain. The pain increased during the night and early the following day he sought medical advice. He was given

recompression therapy and this resulted in a significant reduction in the pain. The DCI was at the site of a previous sports injury.

June 2001 **01/202**

Following a dive 31m/41 min and 35m/30 min diver suffering joint pains after surfacing. Treatment at recompression chamber. No missed stops. (Coastguard report)

June 2001 **01/240**

A diver conducted a dive to 33m for 45 min with a 10 min stop at 6m and a 1 min stop at 3m. 6 hours 30 min later she dived again to 31m for 38 min with 6 min at 6m and 1 min at 3m. Her computer and that of her buddy indicated no missed decompression. 90 min after the last dive she experienced skin itching, visual disturbances, and concentration and memory difficulties. She sought help from a recompression facility and received two sessions of recompression therapy. Four weeks later she was given the all clear to dive again.

June 2001 **01/242**

A diver completed a dive to 37m for 53 min including 17 min at 4m. 1 hour 38 min later he dived again, to 31m for 31 min with 3 min at 3m. After the second dive he noticed a pain in both his shoulders. He drank some water and the pain resolved. He put it down to muscular strain gained whilst launching the boat. 2 hours later the pain returned and fluctuated in strength for the following 7 hours. Early the following morning he was awakened by the pain which then lessened after 30 min. When he arose that morning he sought medical advice. DCI was confirmed and he was given three sessions of recompression therapy.

June 2001 **01/399**

On a wreck dive, diver made a rapid ascent and complained of stomach pains. Transferred to recompression chamber by helicopter. (Coastguard report).

June 2001 **01/234**

A diver completed a 28 min dive to 31m with a 3 min stop at 6m. 2 hours 59 min later she dived again, this time to 26m for 39m. She stopped at 6m for 2 min and 3m for 1 min. Some time after the dive, when ashore, she noted an itch and dull ache in her left shoulder. The Coastguard was contacted and the diver was taken by helicopter and ambulance to a recompression facility. She received a 5 hour recompression treatment. Her dive computer showed no reason for the DCI. It was a very hot day and this diver may have been dehydrated.

June 2001 **01/401**

CG helicopter evacuated a diver who had been entangled in nets over a wreck to the recompression chamber. Diver believed to have missed some 30 min of decompression stops (low air). (Coastguard report).

June 2001 **01/226**

Two divers completed a dive to 42m. During the ascent they stopped at 15m to deploy a delayed SMB. They then moved up to a planned 9m stop. At this point one of the divers felt too buoyant, she was able to dump air from her drysuit but still felt too light. She disconnected the suit direct feed and opened her neck seal. Air was dumped but she was now at 4m and unable to prevent herself from being carried to the surface. Her buddy completed the planned stops. The buoyant diver's dive duration was 26 min and she had missed 7 min of decompression stops. She was recovered into the boat and given oxygen and water. After 20 min she noted a pain in her right elbow. The Coastguard was alerted. An ambulance met them at the shore and she was given

intravenous fluids and taken to a recompression facility where she received treatment for 6 hours 45 min. Her drysuit inflator was subsequently found to have been stuck slightly open.

June 2001 **01/404**

Female diver (45 yr old) reported as having possible bends following a 27m dive. Subsequent transferal to hyperbaric unit for treatment. (Coastguard report).

July 2001 **01/405**

Self-referral of a male diver to hyperbaric chamber for treatment. (Coastguard report).

July 2001 **01/406**

Diver transferred from dive boat to recompression chamber suffering from suspected DCI. (Coastguard report).

July 2001 **01/407**

Report of a diver who had made a rapid ascent displaying DCI symptoms. Casualty airlifted to recompression chamber for treatment. (Coastguard report).

July 2001 **01/248**

A diver conducted a dive to a maximum depth of 53m. He planned to ascend after 20 min and conduct a 20 min stop on nitrox 64. However he was not able to control his buoyancy and made an ascent directly to the surface. It was later determined that the inflation valve to his BCD had been actuated by becoming trapped against a side mounted cylinder. The diver was able to climb into the boat. Shortly afterwards he developed stomach cramp and began to lose the feeling in his legs. He breathed nitrox 64 whilst the oxygen set was prepared. The Coastguard was alerted and the diver was taken by helicopter to hospital. He received two sessions of recompression treatment. The feeling in his legs returned but he still had pain in his legs and was unable to walk. He was released from hospital four days later with almost fully recovered feeling, regained bladder control and with 90% of his ability to walk. A spinal bend was diagnosed. It was anticipated that the casualty would make a good recovery but he was advised not to dive again.

July 2001 **01/410**

Diver transferred to hyperbaric unit after reporting DCI symptoms. (Coastguard report).

July 2001 **01/249**

Two divers conducted a dive to 45m for 33 min with a 1 min stop at 9m and a 3 min stop at 6m. 2 hours 30 min later they dived to 26m for 33 min with a precautionary 2 min stop at 6m. 20 hours later they dived again to 43m. After 25 min one of the pair began to feel ill and was sick. They started their ascent. She was sick again at 30m. They completed a 2 min stop at 9m and a 2 min stop at 6m. At this point she was repeatedly sick and made an ascent to the surface. Her buddy went with her. The sick diver was using nitrox 23 and had missed 17 min of decompression, her buddy was using air and had missed 27 min decompression. Both divers were placed on oxygen and the Coastguard was alerted. Medical advice was sought and the divers were taken by helicopter to a recompression facility. They exhibited balance problems and both were recompressed. The sick diver was given a seasickness pill that helped. The treatment resolved the symptoms. One of the doctors suggested that oxygen poisoning may have played a part in this incident.

July 2001 **01/411**

Dive support vessel reported a diver suffering from DCI symptoms possibly caused by error of judgment. Transferal to hyperbaric chamber. (Coastguard report).

July 2001 01/412

Self referral of a diver with possible DCI for treatment at hyperbaric unit. (Coastguard report).

July 2001 01/416

After missing decompressions stops following a dive to 36m dive, diver transferred to hyperbaric chamber for treatment. (Coastguard report).

July 2001 01/417

Medical advice arranged for diver, with subsequent treatment at hyperbaric chamber - following a dive to 43m. Diver complaining of shoulder pain. (Coastguard report).

July 2001 01/418

Female diver made a rapid ascent and suffered mild DCI symptoms. Medilink was made, oxygen administered and diver made a full recovery. (Coastguard report).

July 2001 01/420

999 call from dive boat mobile phone reporting a diver unwell following a dive to 36m. Diver transferred to hyperbaric unit for treatment. (Coastguard report).

July 2001 01/421

Diver described as being fairly fit, but with history of DCI transferred by ambulance to hyperbaric chamber for treatment following a dive to 34m. (Coastguard report).

July 2001 01/423

Treatment at hyperbaric chamber for diver with DCI symptoms. No apparent problems during the dives - 40m/18 min (Day 1) 36m/41 min (Day 2). (Coastguard report).

July 2001 01/426

A diver who missed decompression stops (cause unknown) was airlifted to recompression chamber for treatment for DCI. (Coastguard report).

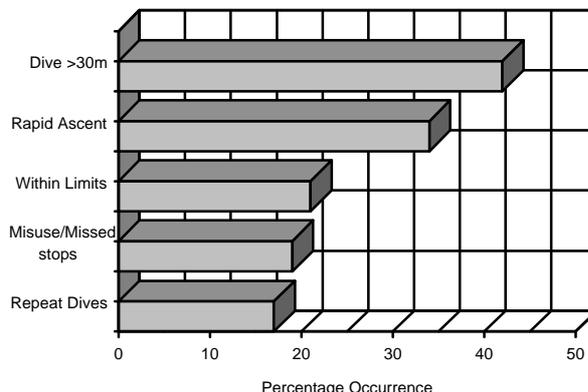
July 2001 01/428

Two divers suffering DCI were taken ashore by their dive RHIB then airlifted to hyperbaric unit for treatment. (Coastguard report).

July 2001 01/275

A pair of divers made a dive to 46m. They started their ascent with 8 min of decompression stops indicated on their computers. They made a steady ascent during which their decompression requirement rose to 15 min. At the surface one of the divers experienced difficulty taking his kit off and stated that he could not move his arms or legs. Other divers lifted him from the water and he was placed on oxygen. The Coastguard was alerted and a helicopter was sent to assist. The diver breathed oxygen for 14 min and then nitrox 60 thereafter. He was flown to a recompression facility where he received treatment. No problem was found with the dive profile downloaded from his computer. One week later his upper body had recovered and he had full movement in one leg and partial movement in the other.

Percentage analysis of factors involved in cases of DCI



August 2001 01/430

Dive vessel reported a diver complaining of leg cramps after surfacing, possibly related to DCI. Diver transferred to hyperbaric chamber for treatment. (Coastguard report).

August 2001 01/437

Following a 40m/54min dive - diver reported unwell. Subsequent transferal to hyperbaric chamber for recompression. (Coastguard report).

August 2001 01/438

Diving on air - 36m/49min the previous day - diver reported tingling in side. Transferal to hyperbaric chamber for recompression. (Coastguard report).

August 2001 01/283

A female diver suffered a suspected epileptic fit following a 10m dive. Oxygen administered and subsequent transferal to hospital. (Linked to 01/284) (Coastguard report)

August 2001 01/443

Following two dives to 13m and 10m, symptoms of DCI were experienced by diver. Immediate evacuation was carried out following medical advice with treatment at recompression chamber. (Coastguard report).

August 2001 01/442

Diver displaying DCI upon surfacing, administered oxygen by his dive club after a dive to 38m. Club declined medical advice offered by HMCG. Subsequently persuaded to obtain advice from hyperbaric unit and diver transferred to nearby hospital for treatment and monitoring. (Coastguard report).

August 2001 01/445

Call on VHF radio from dive vessel reporting unwell male diver who had made a rapid ascent from 36m. Diver insisted he was OK - but following medical examination, diver transferred to hyperbaric chamber for 6 hours recompression. (Coastguard report).

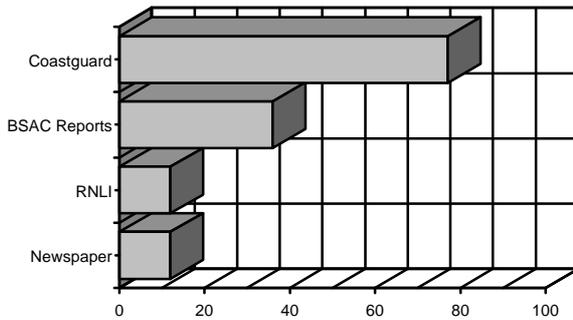
August 2001 01/446

Male diver sought medical advice following repetitive diving for a week and several deep dives, after suffering shoulder pains. Recompression advised. (Coastguard report).

August 2001 01/298

Two divers with symptoms of DCI were airlifted to hospital. (Newspaper report only)

Decompression data source analysis



August 2001 01/278

Two divers completed a dive to 39m for a duration of 42 min including 13 min of decompression stops. Both their computers cleared before they surfaced. 1 hour 30 min later one of the divers noticed that her stomach felt tender and painful and that a blotchy rash was developing. She was placed on oxygen. The rash spread to cover her torso, shoulders and upper arms. She had stomach and shoulder pain. The Coastguard was contacted and the diver was driven to a recompression facility where she received treatment. She was released the following day. The dive did not involve strenuous activity and their computer dive profile showed no abnormal events. The diver was planning to be assessed for a PFO.

August 2001 01/281

A diver completed a dive to 37m for a duration of 72 min including 4 min at 6m and 24 min at 3m. At the surface he noticed a pain in his left shoulder. He was placed on oxygen for 30 min and the pain cleared. He drove home but then noticed that his arm was starting to colour and the pain returned. He sought medical advice and was taken by helicopter to a recompression facility where he was treated for a type 2 DCI.

August 2001 01/279

A diver completed a dive to 46m for a duration of 43 min. She completed the decompression stops indicated by her computer plus an extra stop at 9m, 2 min extra at 6m and 3 min extra at 3m. 1 hour 30 min later she noticed an itching on her left elbow, and a red rash. A few minutes later her shoulders felt tender. She was placed on nitrox 70 and drank some water. The rash went after about 1 hour leaving her with a slight tenderness of her upper left arm. This tenderness continued for the next few days. She then sought medical advice and was recompressed. Her symptoms were resolved and she was referred for a PFO test.

August 2001 01/280

A diver completed a dive to 37m and conducted the stops indicated by his computer plus an additional 5 min. His dive duration was 40 min including 3 min at 6m and 15 min at 3m. 1 hour 30 min later he noticed a rash on his left arm. He drank some fluids and was returned to the shore. 30 min later the rash had gone. He took more fluids and breathed nitrox 50. No other

symptoms were experienced. He accompanied another diver suffering from DCI to a recompression facility and joined this diver in the recompression chamber as a precautionary treatment. (Linked to 01/279).

August 2001 01/291

A diver completed a series of six dives over a period of three days to a maximum depth of 30m. On the third day he dived to 31m for 30 min with a 5 min stop at 6m. 2 hours 27 min later he dived again, this time to 15m for 45 min with a 3 min stop at 6m. The diver used a computer and started his ascent when there was a 3 min decompression stop showing. This had cleared by the time he reached 6m but he completed a 3 min safety stop. Whilst driving home after the last dive he noticed a 'twitch' in his right elbow. Later his arm became weak and he started to lose sensation. He developed a tingling in his fingers and some numbness. He contacted a recompression facility and a colleague with an oxygen set. He was placed on oxygen and taken to the recompression facility. The diver received three treatments over a period of four days after which no further treatment was necessary.

August 2001 01/453

Diver with suspected bends given oxygen, then airlifted to hyperbaric chamber for treatment. Dive to 41m 34 min - nitrox 27. (Coastguard report).

August 2001 01/452

Dive vessel requested assistance for a diver who had missed a decompression stop. Diver had 'bent' own computer the previous day and had been working on a borrowed one until his cleared! Recompression at chamber - 3 hours. (Coastguard report).

August 2001 01/317

Assistance rendered to a diver with suspected DCI by RNLI LB. Subsequent transferal to hyperbaric chamber. Dived 30m for 47m. Previous day's dive - 50m for 1 hour. (Coastguard report)

August 2001 01/297

A 15 year old diver surfaced from a dive to 31m and complained of a pain in his knee joint. He was flown by helicopter to a recompression facility for treatment.

September 2001 01/292

A diver commenced a dive with a trainee. The trainee became tangled in the shotline near the surface. They sank to 8m and then came back up to 3m. The dive leader freed him and they sank quickly to 11m. The dive leader began to lift the trainee. The trainee then inflated his suit and they made a rapid ascent to the surface. The dive was aborted. 2 hours 10 min later she dived again, this time to 14m for a duration of 36 min. 2 hours 10 min later she dived again to 19m for a total duration of 29 min, including a 2 min stop at 6m. The following day she dived to 30m for 26 min. The following day she felt 'pins and needles' in her right calf muscle. This went when she walked, but returned later that day. She sought advice from a recompression facility and undertook a precautionary recompression treatment. Dehydration and the proximity of her period were cited as potentially exacerbating factors. The treatment resolved her symptoms.

September 2001 01/457

Following a 22m/36 min dive - diver complained of sore joints. Oxygen administered then casualty submerged to 27m!. Diver subsequently transferred to recompression chamber for treatment. (Coastguard report).



September 2001 01/458

Rapid ascent made by diver after running out of air at 26m. Despite having practiced rescue drills 3 days earlier, this diver made no attempt to air share, but bolted for the surface. Diver airlifted to recompression chamber for treatment - buddy (who had made a controlled ascent) required no treatment. (Coastguard report).

September 2001 01/293

Two trainees and an instructor dived to 20m to conduct controlled buoyant lift practice. One trainee lifted the other to 6m and then re-descended to repeat the exercise. The lifts were slightly faster than normal. They finally stopped at 6m for 6 min before surfacing. 18 hours after the dive one of the trainees experienced a 'twinge' in his knee. This diver had suffered a trapped nerve in this knee 20 years earlier and it occasionally gave problems. The following day the condition had worsened and he sought advice from a recompression facility. He was advised to take a painkiller to see if it eased. The pain remained and he was given a precautionary treatment. The condition was not resolved.

September 2001 01/300

A diver surfaced, unconscious, from a dive to 42m. A diver from another group, that was diving the same site, entered the water and recovered the casualty into their boat. They started to resuscitate the casualty, alerted the Coastguard and rushed the casualty to the shore. The casualty was taken to hospital where he was treated for DCI. It is believed that the diver's BCD self-inflated causing a rapid ascent.

September 2001 01/296

A pair of divers conducted a dive to a maximum depth of 41m. One of the pair forgot to fit his weightbelt. After 20 min he noticed that he was very buoyant and becoming more so. His buddy held on to him to prevent him from ascending. The divers used a buddy line and deployed a delayed SMB to make their ascent. The ascent accelerated beyond control and the buoyant diver released the buddy line and ascended to the surface on his own. His buddy completed the required stops. The buoyant diver was recovered into the boat and placed on oxygen. The buddy was safely recovered after completing his decompression. The buoyant diver then reported pains in his arm and numbness. The Coastguard was alerted and the divers were flown by helicopter to a recompression facility. The buddy also developed slight symptoms of DCI. Both received decompression treatment and both made a full recovery.

September 2001 01/315

A diver suffering from DCI was flown by helicopter to a recompression facility. (Newspaper report only)

September 2001 01/463

Rapid ascent following a dive to 54m - missing 17 min decompression. Airlifted to hyperbaric unit for treatment. (Coastguard report).

Injury / Illness

October 2000

01/018

A diver completed a 28 min dive to 30m. At a depth of 3m, he aborted the dive because he felt sick and thought that there was an air quality problem. Once out of the water he was placed on oxygen and recovered after 15 min. Subsequent analysis revealed no problems with the air.

He sought medical advice and was taken to hospital. No problem was found and he was discharged 1 hour later.

November 2000

01/045

Two divers completed a 22 min dive to a maximum depth of 20m. Upon surfacing they swam 100m to the shore. At the shore one of the pair collapsed. The diver was barely conscious. He was given oxygen and slowly recovered. A doctor attended and the casualty was taken to hospital by ambulance from where he was later discharged. This diver had only one leg and it is thought that he may have become exhausted during the surface swim.

October 2000

01/013

A diver experienced damage to his eyes during a dive. He sought medical advice which prevented lasting effects of this injury. It is thought that mask squeeze may have been the cause.

October 2000

01/019

Two divers dived to a maximum depth of 17m. On their way back up, at a depth of 9m, one of the pair experienced a problem with his ear and began to panic. They aborted the dive. The diver with the problem had had a recent major ear infection. He was advised to seek medical attention. No other ill effects were reported.

November 2000

01/050

Two divers made a dive to 35m for 15 min. They made a slow ascent to 20m where they stayed for a further 10 min. They then made a slow ascent to the surface over a period of 9 min. Once out of the water both were well. 45 min later an incident occurred and these two divers ran to see if they could help. Very soon afterwards one of the pair felt dizzy and was sick. He was given oxygen. He was taken by ambulance to hospital and then flown to a recompression facility where he was given precautionary recompression treatment.

October 2000

01/033

A diver was carrying a diving cylinder through the changing room of a swimming pool. He was carrying the cylinder horizontally. As he moved off of some anti-slip matting he fell. The cylinder landed half on him and half on the ground. The diver received a back injury and the cylinder pillar valve was damaged. The diver was taken to hospital from where he was subsequently discharged with pain killers.

November 2000

01/055

Two divers and an instructor were conducting a drill to practice an air sharing ascent. Using an alternative air source they started at 10m and planned to stop at 6m. During the ascent they lost control of their buoyancy and continued up to 4m. One of the pair then over-compensated and they both sank rapidly back to 10m. At the bottom one of the pair experienced a problem with his ear as he had not cleared it during the rapid descent. The instructor brought him towards the surface but the ascent became rapid and she released him at 5m. He rose to the surface and she waited for the other diver and then completed a normal ascent. At the surface the diver complained of ear pain. It started to get better but 3 hours later the pain had returned and he went to hospital. A badly bruised eardrum was diagnosed and the diver was advised not to dive for 3 months.

October 2000

01/011

Two divers were practicing air sharing between 15 and 6m. At 9m one of the pair experienced a problem with her left ear. Her buddy brought her to the surface using a controlled buoyant lift. She sought medical advice and ear damage was confirmed.

October 2000

01/031

A diver completed a dive to 12m for 34 min. 1 hour 40 min later she dived again to 6m for 39 min. Later that day she complained of an ear problem and felt dizzy and sick. She was also very cold. She was taken to hospital and an ear infection was diagnosed. This problem responded to medical treatment.

December 2000

01/064

Whilst conducting training on weightbelt removal in the water a trainee received a cut to his right thumb.

November 2000

01/040

A diver slipped and fell face down on a landing stage. Her left hand became very swollen. An ambulance was called but she declined to go to hospital.

December 2000

01/069

A snorkel diver entered a swimming pool using a stride entry. As he hit the water the glass in his face mask shattered. He received a bad cut to one of his fingers and had to seek hospital treatment. A witness affirmed that the stride entry had been correctly performed.

November 2000

01/037

An instructor and five students were conducting a deep dive as part of a training course. At 30m one of the students started to panic. He felt as if he was 'breathing in metal and then water'. He tried to breathe from his alternative air source but had the same problem. He then shared air with the instructor who brought him safely to the surface. The rest of the group made their way back up to 5m where they conducted a safety stop. One of the group had difficulty controlling his buoyancy and moved up and down in the water. In doing so he hurt his ear. Once out of the water he experienced ear pain and a discharge from the ear. He was taken by ambulance to hospital.

January 2001

01/071

A diver undertook a 1hour 30 min flight. 12 hours later he dived. Later, after the dive, he felt unwell. He sought medical advice and was taken to hospital. He then left the hospital before being examined.

November 2000

01/062

A diver surfaced from a 32 min dive to 22m. He conducted a 3 min stop at 6m. At the surface he experienced difficulty in breathing.

January 2001

01/075

A trainee diver undertook a dive with an instructor. They progressed down a sloping bottom to a depth of 8m. 15 min into the dive the trainee suddenly experienced breathing problems. The instructor used a controlled buoyant lift to bring him to the surface. He was brought ashore and given oxygen. He was taken by ambulance to hospital and underwent a series of tests. No

problems were found but an X ray showed a pocket of gas in his stomach. He was discharged from hospital. It is thought that the diver may have been swallowing air whilst diving and that may have caused part of the contents of his stomach to have been regurgitated and inhaled.

January 2001 01/072

Two divers were conducting a dive at a depth of 20m. One of the pair then tapped his buddy on the shoulder and indicated that they should ascend. As they started to ascend the diver who had given the signal then lost consciousness. His buddy brought him to the surface and towed him to the shore. The total dive time was 12 min. The diver was taken to hospital where he recovered. Medical tests were ongoing at the time of the report.

January 2001 01/076

A diver using a rebreather successfully completed a dive and shut down the set. This diver and others were trying to recover some equipment from the water but some ropes became snagged 2 to 3m below the surface. The diver re-entered the water to free the ropes. In his haste he failed to correctly switch on the rebreather's electronic control system. He did not allow the electronic system to get past the calibration screen. He was thus breathing 8% oxygen. He pulled himself down to the tangle and then returned to the surface. At the surface he was seen to be in difficulties, apparently struggling to keep himself upright. He struggled for about 10 seconds and then, suddenly, fell deeply unconscious. Others recovered him into the boat. Oxygen was administered and the emergency services were called. He was taken to hospital and recovered consciousness two days later and was reported as making a good recovery. The diver had suffered from hypoxia.

February 2001 01/088

A trainee diver had a problem clearing his ears during a descent. At a depth of 14m he and his instructor decided to abort the dive. They ascended to the surface. The trainee suffered a headache from which he recovered in an hour.

February 2001 01/087

An instructor and a trainee were 5 min into a dive at a depth of 10m. The trainee lost his regulator and started to panic. The instructor took control and using his alternative air source, he brought the trainee to the surface. At the surface the trainee was not breathing very well. He was recovered from the water and placed on oxygen. An ambulance was called and the casualty, who had recovered a little, was taken to hospital for a check up.

February 2001 01/097

A diver completed a 20 min dive to 20m. Upon surfacing he was found to have suffered from mask squeeze and had two black/red eyes. He went to hospital and was discharged after an examination.

March 2001 01/102

A diver under training undertook the second dive of the day as part of a group of four. At the end of the dive he had difficulty surfacing and, at 4m, he started to go back down and to swim away. One of the other divers got to him and brought him quickly to the surface, missing planned safety stops. The diver was very distressed and was placed on oxygen. After 20 min he complained of tingling in his hands and forearms. He was taken to hospital from where he later discharged himself.

March 2001 01/103

Four divers descended to a depth of 30m. One of the divers' regulators began to free flow. Another diver offered his alternative air source but this was pushed away. The diver with the free flow then made an ascent to the surface without air. His buddy went with him. At the surface he was unconscious and not breathing. He was given oxygen and quickly recovered. He was taken to hospital and discharged later that day.

March 2001 01/114

Two divers completed a 32 min dive to a maximum depth of 22m. At the surface they were so cold that they were unable to swim to the shore. They were treated for hypothermia and recovered.

March 2001 01/107

Two divers completed two normal dives. The first to 21m for 29 min, and the second 1 hour 39 min later to 21m for 33 min. 1 hour later one of the pair started to get 'pins and needles' in both legs. She was very cold. She was given oxygen and, as she warmed up, normal sensation returned. She was advised to seek medical attention.

March 2001 01/113

Four divers were at a depth of 35m. One of the group felt that she had water in her regulator and switched to her buddy's alternative air source. At this point one of the divers' regulators began to free flow. They made an ascent to the surface during which the diver who had had the initial regulator problem breathed a water air mix. At the surface she was distressed. She was recovered from the water and placed on oxygen. She complained of chest pain and was taken to hospital by ambulance. Outcome not known.

March 2001 01/166

A trainee conducted her first shore dive. The objective of the dive was to check buoyancy and to make two ascents. The instructor and trainee successfully completed the first ascent and the instructor stated that they should go down again for a second ascent. The trainee was unable to locate the inflation valve for her BCD and, whilst struggling to locate it, she knocked her own regulator from her mouth. Water entered her mouth and she lost consciousness. Visibility was low and the instructor lost contact briefly. He located her on the seabed and brought her to the surface. He towed her to the exit point and other members of the party removed her from the water. She was not breathing. Resuscitation techniques were applied and the casualty quickly regained consciousness. She was taken by ambulance to hospital and kept overnight for observation. A full recovery was reported.

March 2001 01/121

A diver experienced a dislocated shoulder after a dive. During medical examination blood was noticed coming from his right ear. His ear had been damaged during the dive and was possibly perforated.

April 2001 01/345

Diver suffering from hypoxia airlifted to hospital after using new rebreather (on the surface - had not dived). (Coastguard & RNLI report).

April 2001 01/169

A diver under training made a stride entry into a swimming pool.

His cylinder was not securely fastened and it struck the back of his head. He was taken to hospital and stitches were required to close the wound.

April 2001 01/140

After a 27 min dive to 21m a diver experienced a painful ear. The condition deteriorated quickly and he was taken to hospital by ambulance. He was later discharged after treatment.

April 2001 01/141

A trainee was on her first open water dive, at a depth of 6m. She began to panic and spat out her mouthpiece. The instructor brought her safely to the surface using a controlled buoyant lift. She suffered a cut lip.

April 2001 01/145

After a 38 min training dive to 21m a diver complained of being very cold and feeling faint. Once in a warm place he recovered. This diver had not eaten and was very tired prior to the dive.

April 2001 01/148

Divers conducted a series of dives. 21m for 19 min with a 5 min stop at 5m. 1 hour 3 min later to 30m for 35 min with a 5 min stop at 5m. 1 hour 53 min later to 6m for 23 min. One diver who had done two of these dives then complained of feeling light headed and was placed on oxygen for 15 min, after which she reported feeling well again. Then a second diver reported a skin irritation on both arms. He was given oxygen for 20 min and also reported a full recovery.

April 2001 01/152

An RHIB was traveling back to shore after a wreck dive. The sea conditions were rough and on two occasions the boat landed heavily after hitting a swell. Afterwards one of the divers complained of having hurt his back during one of the drops. He did not participate in the second dive of the day.

April 2001 01/172

A trainee and instructor dived to a depth of 15m. They then practiced various skills at 10m and 6m. The instructor demonstrated a controlled buoyant lift on the trainee from 4m to the surface. They then re-descended to 4m. The trainee experienced severe pain in her left ear. She signaled the problem and that she wanted to ascend. Both divers ascended to the surface and left the water. Once out of the water the trainee was sick. She sought medical advice. No problem could be found but some slight impairment of hearing remained and further medical examination was planned.

April 2001 01/195

A diver conducted his second dive of the day. He dived to a maximum depth of 12m for 22 min. After the dive he complained of a pain behind his eyes and the beginnings of a headache. He was placed on oxygen. Poor dive air quality was thought to have been the cause.

May 2001 01/480

Lifeboat launched to assist diver(s) with illness. Two persons brought in. (RNLI report).

May 2001 01/285

A diver and a trainee commenced a dive. There was a slight current running and the dive leader indicated that they should move

down to an underwater ledge. He dived and then turned to check the trainee. The trainee had not left the surface. He returned and gave the trainee more weight. He again dived towards the ledge. The trainee followed more slowly and experienced problems clearing his ears. He indicated the problem to the dive leader. At a depth of 6m the trainee began to inflate his BCD. The dive leader took control and brought him to the surface. They were recovered into their boat. The trainee complained of ear pain but declined advice to seek medical attention. The following day he was still in pain and reported to a hospital. His ear was found to be bruised and swollen.

May 2001 01/228

A diver was standing on a poolside dismantling some diving equipment. He inverted a BCD to drain water from it. A 2kg weight fell from the BCD pocket and struck his toe. The toe nail was dislodged. First aid was given. The toe was subsequently X-rayed and found to be broken.

May 2001 01/380

Shore diver suffered cramp, unable to make shore unaided, assisted by buddy and nearby diver. (Coastguard & RNLI report).

May 2001 01/220

Two divers surfaced after a 35 min dive to 25m. They completed a 3 min stop at 6m, although this was not required by their dive computers. At the surface one of the pair felt very cold as he had suffered a leaking drysuit zip. The sea was choppy and he over inflated his BCD which caused squeeze on his chest. This diver removed his mouthpiece to tell his buddy that he felt uneasy when a large wave washed over him. He swallowed seawater and dropped his mouthpiece. He reached for his buddy's alternative air source but was unable to get it into his mouth. He started to panic and lifted his mask to try to resolve the problem. He was then carried underwater again and swallowed more seawater. The next thing that he remembers is being lifted into the boat. He was placed on oxygen. The Coastguard was alerted. He was transferred to a faster boat and taken ashore to a waiting ambulance. He was taken to hospital from where he was released later that day. It was subsequently found that his hood had moved upwards covering his mouth and thus preventing him from using the regulator.

June 2001 01/207

A pair of divers conducted a dive to a maximum depth of 20m. Towards the end of the dive they planned to swim across a shelf at 6m to serve as a safety stop. During this swim one of the divers became distressed and surfaced. His total dive time was 30 min. He shouted for help and was quickly removed from the water. The diver was distressed, had difficulty breathing and was unwell. He was taken by ambulance to hospital where he was detained overnight.

June 2001 01/392

Buddy of a casualty who unfortunately had died on an earlier dive, reported as feeling unwell and computer went into 'SOS' mode. Oxygen administered and casualty transferred to hospital for monitoring. (Linked to 01/190) (Coastguard report).

June 2001 01/316

A rebreather diver changed the CO₂ absorbent in his rebreather. The following day he made a 51 min dive to 38m. Six days later he used it to dive to 31m for 55 min. The following day he dived to 39m for 45 min. During a decompression stop at 3m on the last dive he began to feel 'thick headed'. His breathing became erratic. He felt weak when climbing a ladder to reboard the boat. He breathed oxygen for 10 min. That afternoon he felt exhausted. CO₂ poisoning was postulated as the cause. The absorbent was

newly purchased. The rebreather was stored on a boat and absorbent channeling due to vibration or efficiency reduction through dampness were proposed as possible causal factors.

June 2001 01/233

A fully kitted diver slipped on wet grass whilst walking near the entry point of a lake. He received a sprained ankle. After resting he was able to continue with his diving.

June 2001 01/224

A diver completed a navigation exercise and then acted as a casualty for a controlled buoyant lift from 8m. He was towed for 50m during which EAR was practiced. During the tow the diver acting as the casualty inhaled some water and this made him cough. They rested for a few minutes and then swapped over. After a few meters the diver who had had the coughing bout was unable to continue towing. The other trainee and the instructor then started to tow him to the shore. During the tow the diver became breathless and started to cough up blood. An ambulance was called and the casualty was placed on oxygen. The casualty was then taken to hospital and a chest X-ray indicated that he had suffered a ruptured alveoli capillary due to water inhalation.

June 2001 01/203

A diver was surfacing from a trimix dive to 32m. He was conducting a decompression stop when a shoal of jellyfish were swept onto him. He was switching regulators and was severely stung around the face and neck, and inside his mouth. He was assisted into the boat and shortly afterwards began to show symptoms similar to DCI. The Coastguard was alerted and after medical consultation a helicopter was tasked with airlifting the diver to hospital for urgent treatment. He was not recompressed. (Coastguard report)

June 2001 01/493

Lifeboat launched to assist diver with illness. One person brought in. (RNLI report).

June 2001 01/403

Diver surfaced with head and eye pain. Transferred to hospital for assessment. (Coastguard report).

July 2001 01/244

Two divers were conducting a dive to 20m. One of the pair developed a headache and began to feel sick. They aborted the dive after 20 min. The ill diver was placed on oxygen for 20 min and recovered. It is believed that the air in the diver's cylinder may have been contaminated as it was filled by a compressor sited next to a main road during rush hour.

July 2001 01/409

Following medical advice, what were initially thought to be DCI symptoms were concluded to be due to alcohol/sea sickness. Medical treatment received - no recompression treatment required. (Coastguard report).

July 2001 01/245

A trainee completed a 26 min dive to a maximum depth of 5m. During the dive he had no problems. After the dive he had pain and bleeding from one ear. He was advised to seek medical advice. He did not have a cold.

July 2001 01/246

A diver conducted a dive to 6m for 30 min. 2 hours later she

conducted another 30 min dive to 6m. After this dive she complained of feeling sick and slightly dizzy. She had a rash at the top of her legs. She was placed on oxygen and diving medical advice was sought. She was advised to attend the local hospital. The diver thought that it might be a reaction to food eaten the night before.

July 2001 01/413

Shore divers caught attention by waving flag, indicating distress. Diver suffering numbness, sickness and exhaustion was transferred to recompression chamber for treatment. (Coastguard & RNLI report).

July 2001 01/415

Diver jumped into the water and developed chest pains - transferred to hospital for medical treatment. (Described as being overweight and unfit). (Coastguard report).

July 2001 01/422

Dive support vessel reported a diver suffering from chest pain despite following safe diving practice. Airlifted to recompression chamber for treatment. (Coastguard report).

July 2001 01/282

A diver completed a 30 min dive to a depth of 21m. Upon surfacing blood was seen to be coming from his ear. He was not aware of any problems during the dive. He was taken to hospital.

August 2001 01/429

Diver on re-breather passed out on surfacing, following a dive to 21m (thought to be oxygen starvation). Oxygen administered and medical attention obtained. (Coastguard report).

August 2001 01/269

An instructor and a trainee conducted a dive to a maximum depth of 20m. They started their ascent and at 16m, without warning, the trainee started to panic and rush to the surface. The instructor managed to control the ascent. At the surface the trainee was not breathing. He was recovered from the water and quickly responded to resuscitation. He was taken to hospital and released the following day.

August 2001 01/268

A student and an instructor were at 30m early in a dive. The student indicated that he was out of air and the instructor gave him his alternative air source. They started the ascent with other students. At 5m the instructor saw that the student was going blue and quickened the ascent. At the surface the alarm was raised and the student, who was unconscious, was placed on oxygen and resuscitation techniques were applied. He started breathing again and was taken to hospital. He was discharged 4 hours later. His cylinder was found to contain 180 bar.

August 2001 01/270

An instructor and a trainee had finished their dive and were about to leave the water by a slipway. Another trainee was entering the water and he turned around and threw himself backwards landing on top of the instructor from the first pair. The instructor was struck on the head by the cylinder of the other diver and knocked unconscious. The trainee with the instructor assisted him from the water with the help of others on the shore and the second trainee left to continue his dive. The casualty was taken to hospital. He was X rayed to determine if he had a fractured skull and a slight depression was found. He required ten stitches to close the wound in his scalp and he then discharged himself from hospital.



August 2001

01/439

Breathing difficulties experienced by diver following a 25 m dive. Oxygen administered, no signs of DCI. Subsequently transferred to hospital for monitoring and treatment. (Coastguard report).

August 2001

01/284

A diver was climbing the ladder to board a hardboat when her finger became trapped in a hinged part of the ladder. The boat rolled, causing the hinge to close, and the top of her finger was severed. The finger was recovered and the diver was flown to hospital where the finger was grafted back. At the time the hardboat was assisting with another diving incident. (Linked to 01/283)

August 2001

01/277

A pair of divers made a 15 min dive to 20m. Upon surfacing one was unconscious and the other felt unwell. The Coastguard was alerted and a helicopter and a lifeboat were tasked to assist. The lifeboat crew administered oxygen to the casualties until the helicopter arrived. The divers were flown to hospital and the lifeboat assisted the boat back to the shore. It is thought that the air in the divers' cylinders may have been contaminated with carbon monoxide. The cylinders had been filled by a petrol driven compressor in a garage.

September 2001

01/311

A diver completed a 16 min dive to a depth of 27m. Later he felt

unwell, but recovered after 20 min.

September 2001

01/307

A diver dived to a depth of 22m. During a gradual ascent he developed a pain in his left ear. No subsequent ill effects were experienced.

September 2001

01/305

A diver undertook a dive to a depth of 10m. Her ears felt swollen and seemed to be continually bubbling. She suffered mild disorientation. This diver suffered from eczema in her ears. She was advised to seek medical attention.

September 2001

01/310

A diver completed a dive to a maximum depth of 28m for a duration of 48 min, including a 3 min stop at 6m. 40 min after surfacing she reported a loss of hearing in her right ear and disturbed balance. One hour later she had recovered.

September 2001

01/302

A trainee diver experienced problems with his ears at a depth of 10m. The dive was aborted. At the surface he was sick and complained of pain in his ears.

Boating & Surface Incidents

October 2000

01/026

A diver conducting a wreck dive became separated from the rest of his party. The alarm was raised and two helicopters and two lifeboats undertook a search. The diver was recovered safely from the surface, by a lifeboat, two and a half miles from his entry point. (Newspaper report only).

October 2000

01/325

A dive RHIB with 4 POB suffered engine failure and was towed into port by a local pleasure craft. (Coastguard report).

October 2000

01/319

An RHIB with eleven people on board suffered engine failure. The craft was swept onto rocks and started to take on water. The crew got onto the rocks. The Coastguard was alerted and four lifeboats were tasked to assist. A passing fishing boat went to assist. This vessel collected all the crew and took the RHIB in tow. All were safely returned to harbour.

October 2000

01/007

With two divers in the water the engine of an RHIB cut out. The divers surfaced and swam to the boat. The engine could not be restarted. They radioed the Coastguard and a passing hardboat offered assistance. They were safely towed back to harbour. Subsequent examination revealed a loose wire.

October 2000

01/464

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

October 2000

01/326

A dive boat, with divers in the water, was reported broken down and in difficulties. A lifeboat recovered the divers and towed the dive boat in. (Coastguard report).

October 2000

01/327

A fishing vessel came upon 2 drifting divers. It picked them up and returned them to their dive boat. The dive boat was anchored and unoccupied some 0.5 miles from the divers found position. Diving like this is dangerous practice. (Coastguard report).

October 2000

01/465

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

October 2000

01/052

A pair of divers made a dive to a maximum depth of 39m. After 22 min they began their ascent. Each deployed an SMB and during the ascent they separated. One of the divers surfaced after a total of 48 min. He exchanged signals with the boat party and was picked up 10 min later. The other diver experienced a failure of the regulator on his decompression gas cylinder. He was using air as his dive gas and nitrox 38 for decompression. He reverted to his air supply and recalculated his decompression requirements. He released his SMB when it was jerked towards the surface by worsening sea conditions. Without an SMB the boat party was unable to locate the diver. They used their radio to make a Mayday call. They received no reply. They repeated the call, but, again, they did not receive a reply. They then spotted the

missing diver at the surface and recovered him safely. They attempted to cancel the Mayday call. On the way back to the shore they saw a lifeboat approaching. They contacted the lifeboat, which was responding to their call and reported that the diver had been found. No subsequent ill effects were experienced. The radio had been successfully checked prior to leaving shore. An aerial fault was suspected.

November 2000

01/333

Four divers in a RHIB were reported overdue. Prior to SAR action being taken, the RHIB returned safely. (Coastguard report).

December 2000

01/334

A lifeboat was tasked to a capsized diving RHIB. On arrival all occupants were safely accounted for. (Coastguard report).

January 2001

01/335

Two shore divers, one of which was unable to exit water due to sea conditions and exhaustion. Rescued by ILB. (Coastguard report).

February 2001

01/339

A dive RHIB suffered engine failure. Towed in by lifeboat (Coastguard report).

February 2001

01/338

Broken down dive RHIB - towed to safety by nearby vessel. (Coastguard report).

February 2001

01/337

Dive RHIB suffered electrical failure whilst at anchor. Eight divers on board. Six divers swam ashore to raise alarm and vessel towed to safety by nearby pleasure craft. (Coastguard report).

February 2001

01/238

Two divers made a brief dive to assess the entry and exit from a dory. Upon surfacing they passed equipment into the boat. The cox did not indicate any problem but when the divers got back into the boat they found that it was rapidly filling with water. One of the divers tried to motor the boat to get rid of the water but there was too much. The cox was not wearing a dive suit. The cox put on a buoyancy device and swam for the shore, which was near by. The two divers attempted to secure the equipment before the boat became totally swamped. A passer by called the emergency services and a lifeboat came to their assistance. The cox was taken to hospital suffering from hypothermia. The boat was recovered and it was found that the bungs were missing. These had been in place as the start of the dive and it is thought that they had been removed during the dive in an attempt to drain water from the boat.

March 2001

01/466

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

March 2001

01/197

Three divers were crossing a causeway having completed a shore dive. They were swept off by the sea and their shore cover called the emergency services. The divers were recovered by a boat and taken ashore.

March 2001 01/467

Two lifeboats launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

March 2001 01/469

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

March 2001 01/470

Two lifeboats assisted stranded diver(s). (RNLI report).

March 2001 01/468

Two lifeboats launched to assist dive boat with engine problems and missing diver(s). One person landed and craft escorted in. (RNLI report).

March 2001 01/340

Dive RHIB suffered fuel starvation - towed by ILB to Exmouth - 2 POB. No VHF. (Coastguard report).

March 2001 01/471

Lifeboat assisted stranded dive boat. Craft towed in. (RNLI report).

March 2001 01/341

Dive RHIB suffered engine failure - 6 POB. No radio carried on board. (Coastguard report).

a second pair also entered the water. This second pair were recovered into the boat 26 min later but the first pair were nowhere to be seen. The first pair had launched a delayed SMB at the time that the second pair were entering the water and it is thought that this distraction resulted in it not being seen. Worsening weather conditions made the SMB hard to see. The Coastguard was alerted and a lifeboat was launched. Another dive boat came to assist. This second boat discovered the missing divers safely at the surface. Both boats and the lifeboat moved into sheltered water and the divers were all transferred into the lifeboat which towed their RHIB back to shore. No ill effects were experienced.

April 2001 01/344

Broken down dive boat - assisted by another dive vessel. Six persons on board. (Coastguard report).

April 2001 01/472

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

April 2001 01/346

Dive boat with one person on board was towed to safety by ILB. Three other divers from the craft had come ashore unaided. (Coastguard & RNLI report).

April 2001 01/127

A group of divers were recovering an RHIB at a slipway. One diver was holding the boat at the water's edge. The car was manoeuvring the trailer to reverse down the slipway when the trailer became disconnected from the car. The trailer ran down the slipway, tow hitch first. The diver in the water was alerted by shouts from others and just managed to jump out of the way. The trailer struck the boat and one of the tubes was holed. No one was injured.

April 2001 01/475

Three lifeboats launched to assist dive boat with engine problems and divers swept away. Craft and crew brought in. (RNLI report).

April 2001 01/474

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

April 2001 01/476

Two lifeboats launched to assist divers, others coped. (RNLI report).

April 2001 01/347

Dive boat suffered engine failure. Four divers in water, one in boat - assisted by CG boat. (Coastguard report).

April 2001 01/348

Ignition problems on dive RHIB - two divers in the water - divers picked up and RHIB towed to safety by passing vessel. (Coastguard report).

April 2001 01/137

Four divers rescued from difficulty in adverse conditions by ILB. Further 16 divers assisted to shore. Weather conditions not conducive to diving. Dangerous practice. (Coastguard report)

April 2001 01/342

Suffering mechanical failure a dive RHIB was towed to safety by a LB and ILB. (Coastguard & RNLI report).

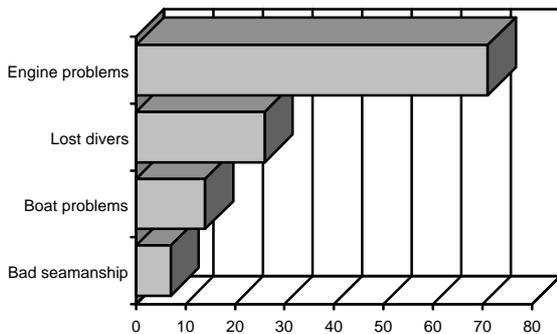
April 2001 01/343

Diver reported buddy, her son, missing. SAR units dispatched to search. Diver located - and made shore safely. (Coastguard report).

April 2001 01/130

A pair of divers entered the water in rough conditions. 14 min later

Analysis of boating & surface incidents



- April 2001** **01/182**
Two divers completed a wreck dive and surfaced. They discovered that their boat was some way from their SMB which they had deployed before surfacing. The divers signaled to the boat but it did not move towards them. Whilst they had been diving the engine had been switched off and upon attempting to restart it the ignition key was broken. An anchor was deployed and assistance sought by radio. Another boat recovered the divers.
- April 2001** **01/349**
Two shore divers rescued by ILB after being swept away by the tide and losing their bearings. (Coastguard & RNLI report).
- April 2001** **01/350**
Broken down dive boat - assisted by nearby craft. Managed to restart engine. (Coastguard report).
- April 2001** **01/477**
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).
- April 2001** **01/352**
ILB rescued two shore divers who were unable to exit water due to adverse conditions. (Coastguard & RNLI report).
- April 2001** **01/478**
Lifeboat launched to assist dive boat with fouled propeller. Craft towed in. (RNLI report).
- April 2001** **01/354**
Dive RHIB - engine failure - towed in by passing vessel. (Coastguard report).
- April 2001** **01/149**
Broken down dive boat (engine failure). Lifeboat and ILB assisted with transporting six divers and boat to shore. (Coastguard report)
- April 2001** **01/358**
Dive RHIB became separated from 4 divers following failure of GPS. Recovered by ILB. (Coastguard & RNLI report).
- May 2001** **01/479**
Lifeboat launched to assist divers, others coped. (RNLI report).
- May 2001** **01/359**
Diver separated from his buddy who was unable to locate him and raised the alarm. Helicopter eventually located diver safe and well. (Coastguard report).
- May 2001** **01/196**
An RHIB developed an engine problem with a pair of divers in the water. Those in the boat deployed an anchor to slow their drift and contacted the Coastguard. The divers surfaced to find the boat drifting away and out of hailing distance. They attached themselves to the shotline and erected a flag. A lifeboat was launched to assist. The divers were recovered into the lifeboat and the RHIB was towed back to the shore.
- May 2001** **01/362**
Dive RHIB broken down, towed to safety by lifeboat. (Coastguard & RNLI report).
- May 2001** **01/231**
A group of divers were diving from two RHIBs. The last pair entered the water and the cox of one of the boats asked the other boat to pick up these divers so that the first boat could return to the shore with a very seasick passenger. This conversation was not correctly understood and the second boat also returned to the shore. The divers surfaced from a 35 min dive to 30m to find that there was no boat to meet them. They made sure that their SMB was visible and waited. The mistake was realised and the second boat returned to recover the divers after they had been at the surface for about 10 min.
- May 2001** **01/364**
Report from dive boat which had broken down with fouled prop - six divers still in the water. A nearby RHIB recovered the divers and towed the vessel to safety. (Coastguard & RNLI report).
- May 2001** **01/365**
Broken down dive RHIB towed safety to shore by Inshore Lifeboat. Six persons on board. (Coastguard report).
- May 2001** **01/185**
Three divers completed a dive and surfaced to find their boat about half a mile away traveling at speed away from them. They inflated SMBs and used a whistle to try to attract the cox's attention, however they were not seen. The three divers started to swim towards the shore. They were spotted by another boat which recovered them and contacted the Coastguard to report that they had been found. Their own RHIB then returned to collect them. The divers had been using a SMB but the cox had lost sight of it. The cox had alerted the Coastguard and a lifeboat that had been in the area was tasked to assist.
- May 2001** **01/371**
Electrical fault in dive RHIB resulted in tow to safety by inshore lifeboat. Two persons on board. (Coastguard report).
- May 2001** **01/481**
Two lifeboats assisted a dive boat with engine failure and stranded diver(s). Crew and craft returned to shore. (RNLI report).
- May 2001** **01/482**
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).
- May 2001** **01/375**
Dive RHIB towed to safety by inshore lifeboat following breakdown. (Coastguard & RNLI report).
- May 2001** **01/373**
Two divers recovered from the water after becoming separated from their support vessel, which had broken down. (Coastguard & RNLI report).
- May 2001** **01/374**
Lifeboat towed dive RHIB to safety with four persons on board - vessel requested assistance following engine failure. (Coastguard & RNLI report).
- May 2001** **01/483**
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

May 2001 01/376

Reporting engine difficulties whilst returning from a dive site, assistance from a nearby lifeboat was declined. Dive vessel made it to shore unaided. (Coastguard report).

May 2001 01/485

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

May 2001 01/191

A search involving a lifeboat and two dive boats was instigated after a diver was reported missing. He was discovered 90 min later and safely recovered. (Newspaper report only).

May 2001 01/484

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

May 2001 01/378

Dive RHIB reported engine failure with three divers in the water. Assisted by nearby diving vessel and LB. (Coastguard & RNLI report).

May 2001 01/379

Six divers became separated from their dive boat. Assisted by nearby vessels and taken safely ashore. Numerous attempts to contact coxswain of the dive boat failed. (Coastguard report).

May 2001 01/381

After surfacing, divers separated from dive boat. Passing vessel picked them up and transferred back to dive party. (Coastguard report).

May 2001 01/382

Broken down dive boat towed to safely by inshore lifeboat after suffering engine failure. Six persons on board. (Coastguard & RNLI report).

May 2001 01/383

Nearby vessel towed dive RHIB to safety with four persons on board following engine failure. (Coastguard report).

May 2001 01/232

An RHIB with 6 divers aboard was moored to an anchor buoy over a wreck waiting for slack water. A large dive charter boat approached them and moved up wind and up tide of their position. This vessel dropped a shotline and then drifted back onto the RHIB. When this vessel was one meter from the RHIB it engaged forward propulsion and the anchor line of the RHIB was snagged in the large vessel's propeller. The bows of the RHIB were pulled down and then the painter parted. The skipper of the large boat apologized and invited the divers in the RHIB to use his shotline. All the divers entered the water. Two divers from the RHIB deployed a delayed SMB to conduct decompression stops. The shotline from the large vessel then parted; cut by abrasion on the wreck. The divers in the RHIB recovered this line and returned it to the large vessel. The large vessel then manoeuvred so close to the decompressing divers that they were able to see its rotating propeller and the remains of their line wound around it. All divers were safely recovered.

June 2001 01/386

Distress call from dive boat reporting two missing divers. Divers

SMB had caught on a shotline and abandoned, second SMB only partially inflated. Both divers located safe and well by nearby vessel. Both divers were well equipped, having strobe lights and torches ready to deploy when darkness arrived. (Coastguard & RNLI report).

June 2001 01/198

A dive boat stood by to assist a yacht that had lost its rudder. The crew of the yacht made a Pan Pan call to the Coastguard and a lifeboat was launched to tow them to harbour.

June 2001 01/486

Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2001 01/487

Two lifeboats launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2001 01/192

A dive boat skipper contacted the Coastguard to report that he had 12 divers in the water and that his boat was taking in water. A lifeboat and a helicopter were tasked to assist. Three other dive boats also assisted. These boats recovered the divers. A pump was winched aboard the leaking boat and all were safely recovered to the shore.

June 2001 01/223

On the return journey from a dive site an RHIB ran out of fuel. The crew had difficulty connecting the fuel hose to the spare fuel tank. The boat was drifting towards some rocks so the anchor was deployed. Fuel was poured into the main fuel tank from a jerry can. The engine was restarted and the boat continued. The engine then cut out for a second time outside the harbour. Another boat towed them into the harbour. It was subsequently found that the spare fuel can had contained diesel fuel. The engine was subsequently successful run with the correct fuel.

June 2001 01/489

Lifeboat launched to assist swamped dive boat. (RNLI report).

June 2001 01/396

Diver reported buddy missing following separation during ascent. SAR units tasked to locate the missing diver, who swam safely to shore during the search. (Coastguard & RNLI report).

June 2001 01/490

Lifeboat assisted stranded dive boat. (RNLI report).

June 2001 01/397

Inshore lifeboat towed dive RHIB to safety with four persons on board - suffered from engine failure. (Coastguard & RNLI report).

June 2001 01/491

Lifeboat launched to assist divers, two persons landed. (RNLI report).

June 2001 01/400

Dive RHIB suffered damaged propeller shaft and was unable to retrieve their divers in the water. ILB retrieved the divers and towed the RHIB to shore. (Coastguard & RNLI report).

- June 2001** **01/241**
 With two divers in the water the engine of an RHIB failed. The boat was anchored and the Coastguard was informed. A lifeboat was tasked to assist. They recovered the two divers and towed the RHIB into harbour.
- June 2001** **01/243**
 With three pairs of divers in the water an RHIB suffered an electrical failure and the engine stopped. The engine would not restart and the fixed radio was without power. A hand held radio was not able to reach the Coastguard. The cox therefore fired two red flares. A lifeboat attended and called a second boat. The divers were safely recovered by the lifeboats and the RHIB was towed back to harbour.
- June 2001** **01/216**
 Two divers were reported missing after a wreck dive. The Coastguard was alerted by another boat as the boat from which the divers were missing did not have a working radio. The divers had been missing for 45 min before the alarm was raised. The divers were safely recovered.
- June 2001** **01/402**
 Two divers adrift following dive RHIB engine failure. Inshore LB picked up divers and returned to parent vessel. (Coastguard & RNLI report).
- July 2001** **01/318**
 Two divers had completed their dive and were waiting at the top of the shotline. A fast moving RHIB hit both divers. One was hit on the arm and cylinder and the other on her shoulder and cylinder. The driver of the RHIB was seen to look back but did not stop. Both divers were safely recovered from the water and were not seriously injured.
- July 2001** **01/259**
 Two divers completed a dive to 28m for a total duration of 31 min, including a 1 min stop at 6m. 5 hours 11 min later they dived again, this time to 21m for a total duration of 37m. No decompression stops were indicated during their ascent. At 3m one of the pair felt sick. At the surface she became very weak and was not able to hold onto the boat. She was assisted back on board. Her legs felt heavy and began to tingle. Her lungs felt as though they were stretching. She was placed on oxygen and taken to the shore. The Coastguard was contacted by radio and the casualty and her buddy were taken by helicopter to a recompression facility. The casualty was given three sessions of recompression treatment. No predisposing factors were identified.
- July 2001** **01/254**
 An RHIB was returning from a dive site, at speed, with 5 persons on board. This was the first time this boat had been used this year. Prior to the trip preparatory work on the boat had revealed a problem with the emergency stop switch, which had been resolved. The engine had been difficult to start but had then run for over 2 hours. Without warning the engine cut out. Attempts were made to restart the engine and the Coastguard were alerted. The engine could not be restarted and the Coastguard tasked an inshore lifeboat to assist. Flares were used to guide the lifeboat to their position. The boat was towed back to the shore. Just as they reached the shore, they succeeded in restarting the engine.
- July 2001** **01/494**
 Lifeboat launched to assist divers, others coped. (RNLI report).
- July 2001** **01/252**
 The Coastguard was alerted when two divers were 45 min overdue from a dive. A helicopter and two lifeboats were tasked to search. The divers were safely recovered 5km from their boat. (Coastguard report)
- July 2001** **01/495**
 Lifeboat assisted in the search for missing diver(s). Others coped. (RNLI report).
- July 2001** **01/424**
 Assistance requested by dive RHIB following engine failure and reduced visibility. Lifeboat towed 20 miles to safety. Six persons on board. (Coastguard & RNLI report).
- July 2001** **01/496**
 Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).
- July 2001** **01/258**
 Two divers were driving an RHIB to a slip way to recover the boat. They approached a yacht and the people on the yacht shouted to them for assistance. They noticed a body face down in the water, without a lifejacket. They approached the casualty who was now recovering consciousness. They recovered him into the boat and gave first aid treatment to a deep cut on his temple. They contacted the Coastguard and took the casualty to the shore where they awaited an ambulance. The casualty was taken to hospital and released the following evening. He had been struck by the jib and knocked into the water unconscious. The yacht had been unable to manoeuvre close enough to pick him up. They had thrown him a life preserver but he was not able to respond at the time.
- August 2001** **01/434**
 Dive RHIB reported engine failure with two divers in the water. LB/LB assisted and recovered divers and towed RHIB to safety. (Coastguard report).
- August 2001** **01/435**
 Following a large crack appearing in the hull, dive RHIB took on water and utilized pumps. The vessel then ran out of fuel due to running of pumps. Assistance provided by lifeboat and vessel towed to safety. Divers were well prepared with appropriate safety equipment. (Coastguard report).
- August 2001** **01/433**
 Dive boat with crew were swamped in adverse conditions. Nearby vessel assisted in towing RHIB to safety. (Coastguard report).
- August 2001** **01/436**
 Rescue boat towed broken down dive RHIB with six persons on board to safety - vessel had suffered gearbox failure. (Coastguard report).
- August 2001** **01/440**
 Overdue dive RHIB report. Vessel returned to shore safe and well, prior to deployment of SAR units. (Coastguard report).
- August 2001** **01/290**
 An RHIB was returning from a dive at a speed of approximately 20 knots. The oil warning alarm began to sound intermittently. The

engine was stopped and the alarm was investigated. The oil tank was found to contain oil and the system seemed to be in good order. Water ingress was suspected. They continued their journey. 5 min later the alarm began to sound continuously and the engine note changed. The engine was shut down. A cut was found in the oil supply line and the divers felt that the engine would be at risk from any temporary repair. They made a Pan Pan call and a private motor yacht came to their assistance. They were safely towed ashore.

August 2001 01/441

Dive boat requested assistance from a nearby vessel reporting that she had suffered engine failure. Attempts to repair engine were unsuccessful and crew of four were taken aboard assisting vessel and duly returned to shore later. (Coastguard report).

August 2001 01/448

Two divers, separated from their boat, were picked up by passing dive RHIB and returned to their vessel. (Coastguard report).

August 2001 01/447

Dive RHIB reported running out of fuel following a leak. Broadcast made and assistance rendered by nearby vessel which supplied fuel for a safe return to shore. (Coastguard report).

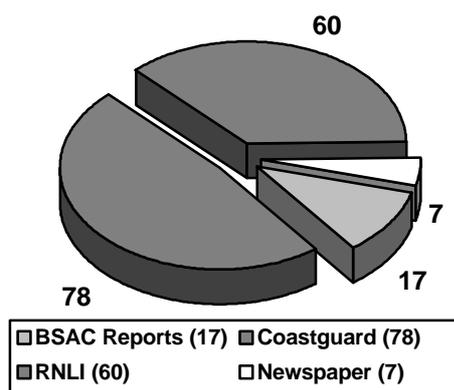
August 2001 01/450

Engine failure of dive boat resulted in drifting from dive site. Consequently, two divers became separated from the boat upon surfacing. Divers drifted two miles up tide due to time lapse in calling for assistance. SAR units deployed - divers found safe. (Coastguard report).

August 2001 01/451

Lifeboat stood by to assist a dive vessel that had broken down. Vessel managed to restart engine and made its way back to launch site. (Coastguard report).

Boating & surface incident report source analysis



September 2001 01/454

Inshore lifeboat tasked to assist four divers who had been separated from dive RHIB. Divers safely recovered by parent vessel. (Coastguard report).

September 2001 01/294

Divers were decompressing at a depth of 4m when several large powerboats, that were engaged in a race, passed over the top of them. The attending dive boat was displaying three A flags and the dive boat skipper attempted to position his boat to protect the divers. Those on the dive boat signaled the powerboats to stay clear, one of the powerboat drivers responded with a rude gesture. No injuries were sustained.

September 2001 01/455

Dive boat with five divers aboard reported machinery failure. ILB launched to assist but a nearby vessel towed the craft to safety prior to ILB arrival. (Coastguard report).

September 2001 01/456

Inshore lifeboat tasked following a report of three divers cut off by the tide on an island close to the mainland. Divers had been swept by the tide onto the island - one of them had broken a fin and would have been unable to make shore unaided. Divers returned to the mainland by the ILB and re-joined the other members of their diving party. (Coastguard report).

September 2001 01/459

Dive RHIB called for assistance following engine failure and taking in water. Inshore lifeboat towed stricken vessel back to shore. (Coastguard report).

September 2001 01/461

Two divers missing following a drift dive (SMB carried). Located safe and well by dive RHIB. (Coastguard report).

September 2001 01/460

Report by dive support vessel of two missing divers resulted in mobilization of SAR units. Both divers located safe and well by lifeboat. (Coastguard report).

September 2001 01/299

A diver failed to return to the surface as expected. The dive boat had no VHF radio and the mobile phone that they had did not work in the area of the incident. The boat returned to the shore to raise the alarm. The Coastguard initiated a search. Numerous fishing vessels and a helicopter sought the missing diver. He was located by Forward Looking Infra-Red equipment on the helicopter 2 hours before nightfall and safely recovered. The diver reported that several fishing vessels had passed close to him but, with no surface detection aids, he could not attract their attention. (Coastguard Report)

September 2001 01/444

Inshore lifeboat towed dive vessel to safety after it suffered mechanical breakdown. (Coastguard report).

September 2001 01/462

Report by a dive RHIB of an unattended diver in the water. Vessel stood by until parent RHIB located and diver picked up. (Coastguard report).

Ascents

October 2000

01/008

A diver was conducting a dive at a depth of 17m when he started to feel uncomfortable. His mask started to flood and he began to panic towards the surface. His buddy attempted to steady him but they made a fast ascent to the surface. Their dive time was 10 min. The panicked diver was given oxygen and suffered no subsequent ill effects.

October 2000

01/014

Two divers completed a dive to 24m for 34 min. They were conducting a stop at 6m when, after 1 min, one of the pair lost control of his buoyancy and dropped back down to 14m. He then made a fast ascent to the surface. No subsequent problems were reported.

October 2000

01/012

After a 22 min dive to 20m a diver experienced problems with air in her drysuit and made a fast ascent from 6m. No subsequent ill effects were experienced.

October 2000

01/030

Two divers were conducting an air sharing exercise at a depth of 18m under the supervision of a third person. One of the pair started to panic and made a rapid ascent to the surface. No subsequent ill effects were experienced.

November 2000

01/063

Two divers completed a dive to a maximum depth of 36m. One of the pair lost control of his buoyancy at 6m and rose to the surface missing decompression stops. His buddy followed. No subsequent ill effects were experienced.

November 2000

01/039

At a depth of 18m a diver got a mouthful of water and started to panic. Her buddy brought her to the surface. They made a faster than normal ascent. Their maximum depth had been 22m and the dive duration was 16 min. No subsequent ill effects were experienced.

November 2000

01/032

A diver was conducting a deep dive to 32m as part of a training course. On the way back up, at a depth of 22m, he was low on air. He attempted to use his buddy's alternative air source but didn't clear the regulator. He panicked and made a fast ascent to the surface. It is thought that he might have suffered from nitrogen narcosis. No subsequent ill effects were experienced.

November 2000

01/044

A diver made a first dive in the UK and her first in a drysuit. At 20m she lost control of her buoyancy and made a fast ascent to the surface. Her buddy also made a fast ascent. No subsequent ill effects were experienced.

November 2000

01/046

A diver was 9 min into a dive at a depth of 17m when he lost control of his buoyancy and made a rapid ascent to the surface. The maximum dive depth was 19m. The diver stated that the inflation unit of his BCD had developed a fault. He was given oxygen and experienced no subsequent ill effects.

November 2000

01/049

A trainee was conducting buoyancy control drills in a depth of 7m. She breathed in water and panicked. She made a fast ascent to the surface. No subsequent ill effects were experienced.

December 2000

01/061

Two divers conducted a dive to a maximum depth of 22m. They moved up from 18 to 12m. One of the pair lost control of his buoyancy and made a rapid ascent to the surface. He was wearing a semi-drysuit. The following day he had a knee pain but it was believed to have been due to an earlier injury.

December 2000

01/070

A diver was at a depth of 33m when the regulator of his alternative air source started to free flow. He and his buddy ascended up a slope to 28m and then made an ascent directly to the surface. The ascent was fast and at the surface the diver with the free flow had difficulty breathing and started to panic. Total dive time was 11 min. An hour later he was fine and no subsequent ill effects were reported.

December 2000

01/074

A diver completed a 32 min dive to a maximum depth of 7m. 2 hours 30 min later she dived again to 20m. 5 min into the dive she had difficulties with buoyancy control and made a rapid ascent to 10m. She regained control during the final 10m to the surface. After the dive she suffered from a nose bleed, but was otherwise unhurt.

January 2001

01/073

Two divers were conducting a dive at a depth of 21m when the regulator of one of the pair began to free flow. He tried to use his buddy's alternative air source but was not able to clear it. He began to panic and made a fast ascent to the surface. No subsequent ill effects were reported.

January 2001

01/118

An instructor and two trainees were at a depth of 15m when the regulator of one of the trainees began to free flow. He was offered an alternative air source by one of the other divers but they became separated. The diver with the free flow realised that he was low on air and made a fast ascent to the surface. No subsequent ill effects were experienced.

February 2001

01/094

Two divers descended to a depth of 15m. At this point the regulator of one of the pair began to free flow. She made a fast ascent from 10m. At the surface she was sick and very shaken. No further problems were experienced.

February 2001

01/157

Two divers conducted a dive to a maximum depth of 28m. They began their ascent when one of the divers had 70 bar remaining. At 19m one of their computers indicated that they had 2 min of no stop time remaining. The diver with 70 bar struggled to control his buoyancy. He tried to control both his drysuit and his BCD. He became very negatively buoyant and sank back down to the seabed at 23 m. His buddy went after him and helped him to control his buoyancy. At 14m the troubled diver lost control again and made a fast ascent to the surface. His total dive duration was 37 min. The other diver completed a 9 min stop at 3m, as indicated by his computer. The buoyant diver was recovered into the boat and placed on oxygen for 15 min. No subsequent ill

effects were experienced.

February 2001 01/096

Two divers conducted a night dive to a maximum depth of 19m. The regulator of one of the pair began to free flow. He switched to his alternative air source. He became lost and made a rapid ascent to the surface. His buddy surfaced in a shocked state. Both divers were given oxygen, and no subsequent ill effects were experienced. Total dive duration 20 min.

February 2001 01/119

Two divers were 15 min into a dive at a depth of 30m. The regulator of one of the pair began to free flow and they made a fast ascent to the surface. No subsequent ill effects were experienced.

March 2001 01/098

A diver was one of four trainees with an instructor. They dived to 17m conducting a drysuit dive as part of an advanced course. The trainee felt uncomfortable and began to panic. He made a fast ascent and was unconscious briefly at the surface. He was very sick. He had been eating shortly before the dive. He was given a medical examination and found to be alright.

March 2001 01/100

Two divers conducted a dive to a maximum depth of 21m. At 20m the regulator of one of the pair began to free flow. They managed a controlled ascent to 11m at which point the ascent became very fast. Dive duration 8 min. No subsequent ill effects were experienced.

March 2001 01/122

Two divers completed a dive to 32m. After 20 min they started their ascent. One of the pair attempted to switch to nitrox 32 at 18m, but the regulator did not seem to be working correctly and he switched back to his main regulator. He examined the nitrox regulator and it started to free flow. Neither he nor his buddy could prevent the free flow and in the confusion of bubbles they sank back to the seabed, at a depth of 27m. The diver with the free flow saw that he only had 30 bar remaining in his main cylinder, and he started to breathe from his buddy's alternative air source. This regulator was tugged from his mouth and he took a mouthful of water. He took a tighter grip on the regulator. Both divers ditched bags of scallops which they were carrying and this made them positively buoyant. They made a rapid ascent to the surface. The divers were recovered into their boat and placed on nitrox 72 and 73. Their computers indicated that they had missed 10 min of decompression stops and that they had ascended from 27m in 1 min. The Coastguard was alerted and a helicopter was tasked to assist. Both divers were airlifted and placed on oxygen. They were taken to a recompression facility and received a 5 hour treatment. Both were released from hospital the following day and neither suffered any symptom at any time.

March 2001 01/105

An instructor was assessing two trainees. The three gathered at the bottom of a shotline at a depth of 15m. They planned to practice the use of an alternative air source from 15 to 6m. One of the trainees removed his mouthpiece and indicated 'out of air'. The other trainee offered his alternative air source but they had become separated and the first diver was left without a regulator. The instructor gave this diver his alternative air source, he then located the diver's own regulator and returned it to him. In the mean time the other trainee's regulator began to free flow and he was unable to breathe from it. He started a free ascent. The instructor swam after him, but was unable to vent air from his drysuit and made a fast buoyant ascent. At the surface the alarm

was raised. The second trainee made a normal ascent up the shotline. The first trainee was placed on oxygen. All the divers were kept under observation but no subsequent ill effects were experienced. The water temperature was 4 deg C.

March 2001 01/117

A diver experienced a regulator free flow, 4 min into a dive, at a depth of 18m. He made a fast ascent. No subsequent ill effects were reported.

March 2001 01/116

Three divers commenced a deep training dive. At 17m one of the group experienced a problem with his face mask and swallowed water. He was unable to resolve the problem. The dive was aborted and he ascended, faster than normal, with the instructor. No subsequent ill effects were experienced.

March 2001 01/120

Two divers completed a 26 min dive to a maximum depth of 23m. Towards the end of the dive they became disorientated, and confused. They lost buoyancy control and made a fast ascent to the surface. No subsequent ill effects were experienced.

April 2001 01/123

The Coastguard was alerted after a diver made a rapid ascent. A lifeboat and a helicopter were tasked to assist and the diver was airlifted to a recompression facility. The diver was reported to have escaped injury. (Coastguard report)

April 2001 01/138

A pair of divers were surfacing after a dive to 22m. One of the pair was using a reel and line. This diver lost control of his buoyancy and made a fast ascent to the surface from 17m. Dive duration 25 min. No subsequent ill effects were experienced.

April 2001 01/139

A pair of divers were surfacing after a dive to 20m. One of the pair was using a new drysuit. This diver lost control of his buoyancy and made a fast ascent to the surface from 10m. Dive duration 24 min. No subsequent ill effects were experienced.

April 2001 01/142

Two divers were surfacing after a 33 min dive to 22m. One of the pair lost control of his buoyancy and made an uncontrolled ascent to the surface, missing a 3 min decompression stop at 3m. No subsequent ill effects were experienced.

April 2001 01/143

Two divers completed a 26 min dive to 21m. At 6m they deployed a delayed SMB and one of the pair switched to a 3l cylinder which was thought to contain her decompression gas. This cylinder was found to be empty. She switched back to her main regulator which then began to free flow. She became tangled in the buoy line and made a fast ascent to the surface. No subsequent ill effects were experienced.

April 2001 01/144

Two divers were ascending from a 29 min dive to 36m. At 6m one of the pair lost control of his buoyancy and made a fast ascent to the surface, missing a planned 3 min decompression stop. No subsequent ill effects were experienced.

April 2001 01/146

Two divers were ascending from a 26 min dive to 35m. At 20m

one of the pair lost control of his buoyancy, with air in his drysuit boots, and made a fast ascent to the surface, missing a planned 12 min decompression stop. No subsequent ill effects were experienced.

April 2001 01/147

A group of three divers were ascending from a 26 min dive to 21m. At 15m one of the group ran out of air. She attempted to take the alternative air source of one of the other divers but was unable to clear the mouthpiece, as she did not know how to purge it. She panicked and all three made a rapid ascent to the surface. No subsequent ill effects were experienced.

April 2001 01/150

A diver under training had dived to 10m for 9 min when he surfaced, rapidly, in distress, with his buddy. The buddy summoned the boat and the distressed diver was recovered from the water. Once in the boat he recovered and was later taken for a medical check up.

April 2001 01/353

Two divers missed stops during ascent. No DCI symptoms. Transferred to recompression chamber, treatment administered. (Coastguard report).

April 2001 01/170

Two divers were ascending after a 25 min dive to a maximum depth of 21m. One of the pair turned quickly and his mask came off. He made a fast ascent to the surface. His buddy made a normal ascent. No subsequent ill effects were experienced.

April 2001 01/357

Following a rapid ascent diver transported to hospital for observation. (Coastguard report).

April 2001 01/173

Two divers were 7 min into a dive to a maximum depth of 12m. At 7m the regulator of one of the pair began to free flow. He made a rapid ascent to the surface. The diver had cramp in his right knee and complained of feeling tired. No subsequent ill effects were reported.

May 2001 01/174

A group of three divers were 10 min into a dive at a depth of 21m. The regulator of the alternative air source of one of the divers began to free flow. This diver then began to breathe in water from her main regulator. Her buddy gave her their alternative air source and they made a rapid ascent to the surface. No subsequent ill effects were experienced.

May 2001 01/175

Two divers completed a dive to 29m for a duration of 29 min. Upon surfacing they noticed that one of their dive computers was flashing 'SOS'. They sought advice on the meaning of this and were advised that they must have made a fast ascent. They were also advised not to dive again that day, but one and a half hours later they conducted a second dive.

May 2001 01/159

Following a fast ascent a diver was transferred to DDRC for treatment. (Coastguard report)

May 2001 01/367

Following separation from dive buddy, diver made a rapid ascent.

Given oxygen and airlifted to hospital. (Coastguard report).

May 2001 01/369

Following a 35m wreck dive - diver complained of suspected bad air and also missed some stops. Airlifted to recompression chamber. (Coastguard report).

May 2001 01/176

Two divers dived to a maximum depth of 30m. One of the pair ran low on air so they started their ascent. During the ascent they started to share air and the diver who was low on air then lost a fin. They made a fast ascent to the surface. Total dive duration 39 min. No subsequent ill effects were experienced.

May 2001 01/177

A pair of divers were ascending from a dive to 36m. At 20m one of the pair started to feel uneasy. At 10m she felt that she was not getting enough air and took her buddy's alternative air source. They made a faster than normal ascent to the surface. Dive duration 11 min. No subsequent ill effects were experienced.

May 2001 01/370

Female diver airlifted to hospital following rapid ascent. Thought to be due to bad air or diabetes. (Coastguard & RNLI report).

May 2001 01/178

Two divers were ascending from a dive to 20m. At 6m they lost control of their buoyancy and made a faster than normal ascent to the surface. Dive duration 20 min. No subsequent ill effects were experienced.

May 2001 01/201

A diver conducted a dive to a maximum depth of 33m. She was using a new thicker undersuit and a new drysuit. The latter part of the dive involved a swim along the upturned hull of a wreck. During this swim the diver became buoyant and, with nothing to hold onto, made a rapid ascent to the surface. Her computer showed an ascent warning but no missed stops. Her buddy made a normal ascent. The buoyant diver was recovered into the boat and placed on oxygen for 10 min. No subsequent ill effects were experienced.

May 2001 01/168

A diver made an ascent at the end of his dive. At 10m he stopped and became tangled in surface marker buoy lines. He then made a rapid ascent to the surface. He was recovered into his boat and the Coastguard alerted. He was taken ashore and then taken by helicopter and ambulance to a recompression facility for examination. (Coastguard report)

May 2001 01/181

Two divers conducted a wreck dive to a maximum depth of 27m. Visibility was low and they attached a distance line to the shotline so that they could return. They planned to ascend with 5 min of no stop time remaining. They returned to the shot but took some time to disconnect the distance line due to extremely low visibility. They deployed a delayed SMB and started their ascent with a 1 min stop at 3m indicated. This stop requirement went away by the time they reached 10m. At 8m one of the pair lost control of his buoyancy and made a rapid ascent to the surface. His computer showed that a 5 min stop at 3m had been missed. The dive duration was 29 min. Back in the boat he was placed on oxygen for 50 min. No subsequent ill effects were experienced. It was suggested that the diver's undersuit prevented air escaping from the drysuit vent valve.

**June 2001 01/387**

Rapid ascent following loss of weightbelt from 36m (one diver). Medical advice obtained - transferal to hospital. (Coastguard report).

June 2001 01/217

A diver completed a 35 min dive to 19m and surfaced with a tissue code of G. 1 hour 30 min later he dived to a maximum depth of 21m. He planned a stop at 6m but lost control of his buoyancy and made an ascent to the surface missing stops. Total dive time 15 min. He suffered no subsequent ill effects.

June 2001 01/257

Two divers conducted a dive to a maximum depth of 28m. During the ascent they stopped to allow their computers to clear. One diver's computer cleared, the other's showed 2 min remaining. The diver with the clear computer was holding the delayed SMB reel and may have re-descended a little whilst waiting. Once the second computer cleared they ascended to the surface. At the surface the first diver's computer now showed missed decompression stops. No symptoms were present and the diver did not dive for the next 24 hours.

June 2001 01/393

Rapid ascent from 36m (one diver). Medical advice obtained - transferal to hospital. (Coastguard report).

June 2001 01/239

A diver conducted a dive to 37m. At 20m he suffered a jammed cuff dump and made a rapid ascent to the surface missing decompression stops. The dive duration was 23 min.

June 2001 01/390

Dive computers belonging to 3 divers displayed rapid ascent from 31m. Divers showed no symptoms and following medical advice, no action was taken. (Coastguard report).

June 2001 01/209

A pair of divers conducted a dive to a maximum depth of 17m. One of the pair experienced buoyancy control problems and his depth varied between 12 and 17m. He then made a fast ascent to the surface. Total dive duration 15 min. No subsequent ill effects were reported.

June 2001 01/260

A diver planned to dive to 28m using a 15l main cylinder, a 3l air pony cylinder and a 3l nitrox 50 pony cylinder. He planned to use the nitrox as the decompression gas, for added safety against DCI. As he entered the water the nitrox cylinder became detached from his main cylinder, he passed this cylinder back into the boat and continued the dive without it. He did not readjust his weights. 28 min into the dive the diver and his buddy were at 22m and launched a delayed SMB to begin their ascent. The diver's computer indicated a 15 min ascent time with stops at 3m. They stopped for 1 min at 9m and 2 min at 6m. The computer now indicated an 8 min ascent time. At this point the diver lost control of his buoyancy and ascended directly to the surface. He tried to re-descend but was not able to do so. He waited for his buddy and was then recovered into the boat. He breathed the nitrox 50 and refrained from further diving that day. He suffered no ill effects.

June 2001 01/212

Two divers conducted a dive to a maximum depth of 20m. One of the pair experienced a problem with his mask flooding and they made a faster than normal ascent to the surface. Total dive time 8

min. No subsequent ill effects were experienced.

June 2001 01/211

Two pairs of divers undertook a dive to a maximum depth of 35m. At this depth the regulator of one of the divers began to free flow. He tried to use his own alternative air source but it too began to free flow. He took the alternative air source of his buddy and they made a fast ascent to the surface. The other pair went with them. Total dive duration 15 min. No subsequent ill effects were experienced.

June 2001 01/253

A diver completed a 37 min dive to 21m with a 2 min safety stop at 6m. 6 hours 43 min later she dived again to a maximum depth of 17m. The second dive was a drift dive. After 20 min she and her buddy were at a depth of 15m. The buddy signaled ascent. The diver then struggled to correct a feet up attitude. Her buddy attempted to help but she was too buoyant and rose directly to the surface. The buddy managed to stop at 3m and surfaced later in a controlled manner. Both were recovered into their boat and the diver who had made the rapid ascent was placed on oxygen. Once on shore medical advice was sought via the Coastguard. With no symptoms present no further action was recommended.

July 2001 01/408

After missing decompressions stops following a 52m dive, two divers, fortunately, did not require recompression. They were, however, monitored for any further symptoms. (Coastguard report).

July 2001 01/414

Two divers who made a rapid ascent, but displaying no DCI symptoms, were transferred by ambulance to the recompression chamber for assessment. (Coastguard report).

July 2001 01/267

A diver dived to a maximum depth of 35m using nitrox 24. He planned a total dive time of 70 min. 32 min into the dive he started his ascent. During the ascent his drysuit dump valve stuck closed and he made a buoyant ascent to the surface. He was believed to have missed 35 to 40 min of decompression stops. The Coastguard was alerted and the diver was taken by helicopter to a recompression facility. He was recompressed and experienced no subsequent ill effects.

July 2001 01/250

Two divers made a dive to 20m. 2 hours later they dived again. This second dive was to 37m. They descended a shotline to the wreck and conducted their dive. After 18 min they began their ascent using a delayed SMB. At 6m they stopped but then sank down again to 21m. One of the divers used his BCD to regain buoyancy and they ascended again. They were unable to stop at 6m and rose directly to the surface missing an indicated 4 min decompression stop. One of the divers had blood coming from her nose. They were recovered into their boat and the diver who was bleeding was placed on oxygen. The Coastguard was notified and the RHIB returned quickly to the shore. They were met by Coastguards and two ambulances. Both were treated for a potential DCI and were released fully fit the following day.

July 2001 01/247

A diver made a 27 min dive to 26m. 1 hour 40 min later he dived again to 22m. He lost control of his buoyancy at 15m and decided to abort the dive. He made a fast ascent to the surface. He was shaken but otherwise unhurt.



July 2001 01/251

Two divers conducted a dive to a maximum depth of 39m. When one of the pair had 70 bar remaining they began their ascent. The other diver had 150 bar. They used a delayed SMB. During the ascent the diver who was low on air took the alternative air source of the other diver. They conducted a 10 min stop at 6m, then the second diver became low on air and signaled the ascent. The first diver used his own regulator again and the second diver made a fast ascent to the surface. The computer of the diver who had made the rapid ascent indicated missed stops, the other was clear. Both were recovered into the boat and the diver who had made the rapid ascent was placed on oxygen. They contacted the Coastguard and medical advice was sought. No symptoms were present in either diver and no further action was recommended.

July 2001 01/419

VHF call from dive boat reporting diver having made rapid ascent. No oxygen on board. Transferred to DDRC for treatment. (Coastguard report).

July 2001 01/425

Two divers who made a rapid ascent were transferred by ambulance to the recompression chamber for observation. (Coastguard report).

July 2001 01/427

Decompression stop missed by two divers and oxygen administered by dive boat. Diver transferred to recompression facility for assessment. (Coastguard report).

July 2001 01/263

A pair of divers were 23 min into a dive at a depth of 20m. At this point the alternative air source hose of one of the pair suddenly ruptured at the point where it entered the second stage valve. There was a loud bang and the diver was enveloped in bubbles. The diver switched to his pony regulator and his buddy turned off his main cylinder. During the confusion he had risen a few metres and he became inverted. He and his buddy tried to slow the ascent but he was carried to the surface. He was recovered into the boat and placed on oxygen. No subsequent ill effects were

experienced.

July 2001 01/271

A pair of divers had dived to a maximum depth of 35m. At 25m one of the pair lost control of his drysuit buoyancy and made a fast ascent. The dive duration was 10 min. No subsequent ill effects were experienced.

August 2001 01/431

Medical advice obtained for diver who had made a rapid ascent from a wreck dive. Diver monitored but no medical treatment required. (Coastguard report).

August 2001 01/432

On completion of dive, diver ran out of air during ascent. Air shared with buddy, who also ran out of air at 10m. Rapid ascent carried out. Oxygen administered after one diver complained of aching legs. Medical advice recommended immediate evacuation to recompression chamber. (Coastguard report).

August 2001 01/449

Medical assistance required for female diver and buddy following a rapid ascent from a wreck dive. (Coastguard report).

September 2001 01/308

Two divers completed a 20 min dive to a maximum depth of 22m. One of the pair became low on air and they started their ascent. At 15m the diver who was low on air lost control of his buoyancy and made a rapid ascent to the surface. There was some panic at the surface. This diver was given oxygen but was unharmed.

September 2001 01/306

A diver made a gradual descent to a maximum depth of 22m. She then lost buoyancy control and became separated from her buddies. She made a fast ascent to the surface. Her total dive duration was 17 min. No subsequent ill effects were reported.

September 2001 01/309

A trainee diver conducted a dive to 8m for 25 min, then 10m for 22m, and finally to 18m for 12 min. At 18m during the third dive he felt that he was unable to breathe. He made a fast ascent to the surface, partly without his regulator. No subsequent ill effects were reported.

Technique

October 2000

01/036

An instructor and two trainees entered the water to dive on an upturned wreck which was positioned in a harbour entrance. They dived to seaward and approached the wreck underwater. Their maximum depth was 17m. They attempted to swim over the top of the upturned hull but encountered a strong current. The instructor swam ahead and managed to cross the wreck. He turned to check the trainees but could not see them. They had failed to make headway in the current and were swept back and down to the seabed. The instructor allowed himself to be carried back over the wreck and retraced his steps. He could not find the others and he surfaced. At the surface he raised the alarm with a nearby dive boat. The two trainees made a normal ascent including a 1 min safety stop at 6m and they arrived at the surface 15m from the dive leader. All were safely recovered into their boat and no subsequent ill effects were experienced.

November 2000

01/047

Two divers were 22 min into a dive to a maximum depth of 24m. During the ascent, at a depth of 12m, one of the pair lost control of his buoyancy and sank back down to 16m. His buddy managed to gain control of the situation and brought him safely to the surface. No subsequent ill effects were experienced.

January 2001

01/081

Three divers conducted a dive to 32m. One of the trio lost his weightbelt during the dive but managed to retrieve and refit it. During the ascent, at 14m, the weightbelt slipped once more. They got to 10m and then began to sink back down again. They then made a faster than normal ascent to the surface. No subsequent ill effects were experienced.

February 2001

01/084

Two divers were 10 min into a dive to a maximum depth of 21m. At a depth of 20m the regulator of one of the pair began to free flow. They made a faster than normal ascent to the surface. No subsequent ill effects were experienced.

February 2001

01/085

A pair of divers entered the water. One of the pair had not dived for some time and the pair were advised by an accompanying instructor to limit their depth to 6m. They dived to 21m. At a depth of 20m, 8 min into the dive, the diver without recent experience felt nervous and was breathing heavily. His regulator began to free flow. He used his buddy's alternative air source and they made a safe ascent to the surface.

February 2001

01/095

A trainee was practicing the use of an alternative air source at a depth of 8m. He was unable to breathe from the instructor's regulator and, after three attempts, the instructor released the trainee's weightbelt and brought him to the surface. Both exhaled during the ascent and no subsequent ill effects were experienced.

March 2001

01/115

Three divers were conducting a dive to a depth of 36m. At 35m one of the divers kicked the mouthpiece of one of the others and this regulator began to free flow. This diver made a fast ascent to the surface missing 3 min of decompression stops. One of the buddies made a normal ascent including decompression. The third diver continued the dive alone and surfaced 20 min later. No

subsequent ill effects were reported.

May 2001

01/154

Two divers made a dive to 35m. At this point one of the pair had 100 bar in a 12l cylinder. They started to ascend and this diver quickly got down to 50 bar. At about 20m this diver ran out of air. His buddy passed him his alternative air source but he had difficulty breathing from it. They made a direct ascent from 20m to the surface. At the surface the alarm was raised but difficulty was experienced in keeping the diver who was out of air at the surface. He started to sink and to swallow water. He was recovered into a boat but appeared to have stopped breathing. An airway was established and he was given oxygen. The divers had missed decompression stops. The casualty was taken to hospital but was discharged later that day. The diver was wearing a membrane drysuit and a 16kg weightbelt.

May 2001

01/221

A diver was diving with a borrowed 15l cylinder, his pony cylinder, a camera and a new drysuit with an autodump valve. He dived to 12m for 30 min. At the end of the dive his buddy signaled that they should ascend. This diver then found that he was too heavy to leave the bottom. Air in his drysuit escaped through the dump valve and his BCD was full. His buddy lifted him to the surface. Their ascent was faster than normal. No subsequent ill effects were reported.

May 2001

01/153

Two divers conducted a dive to a maximum depth of 21m. 15 min into the dive, at a depth of 20m, one of the pair experienced difficulty getting air from her regulator. She took her buddy's alternative air source and they made an ascent to the surface. At the surface the diver with air problems was very distressed. It was subsequently found that the pillar valve had only been turned on a half to three quarters of a turn. The diver had noticed that her contents gauge fluctuated when she breathed but had thought that this was because she had a new regulator. No subsequent ill effects were experienced.

May 2001

01/179

A group of three divers completed a dive to a maximum depth of 21m. They planned to conduct some training drills at the end of the dive but one of the three ran out of air at 21m, 22 min into the dive. He made an ascent to the surface without air. At the surface he appeared not to be breathing, but he responded quickly to oxygen treatment. An ambulance was called but the casualty decided not to go to hospital.

May 2001

01/200

A pair of divers conducted a dive to a maximum depth of 29m. They planned to ascend the shotline when one of the pair reached 50 bar. However they were unable to find the shot and the diver with 50 bar became anxious about his air consumption. The other diver deployed a delayed SMB. The anxious diver was breathing excessively and his air got down to 10 bar. They made an ascent using the alternative air source of the other diver. The delay caused by the deployment of the SMB meant that they had to complete a 3 min stop at 3m which they did. No subsequent ill effects were experienced.

June 2001

01/213

Two trainees and an instructor were participating in an advanced diving course. They planned to dive to 36m. As they descended



one of the trainees felt uncomfortable and returned to the surface. He dived again and at 10m again felt uncomfortable and returned to the surface. His buddy stayed with him. At the surface he was in a panic and others went to assist. He later recovered and no ill effects were experienced. His gauges were found to have been in imperial units and it is thought that this confused the diver.

June 2001

01/235

A pair of divers conducted a dive to a maximum depth of 35m. Towards the end of the dive one of the pair spotted a crab. This diver had 70 bar air remaining and 1 min stop indicated. He stopped to collect the crab. At 18m his computer indicated a 10 min decompression requirement. They ascended to 4m and began their decompression stop. After about 5 min the diver with the crab ran low on air and had to surface. He was recovered into the boat and placed on oxygen. His buddy surfaced 1 min later having completed all stops as indicated by his computer. The diver who was low on air used up all of the oxygen. He did not dive again that day and experienced no subsequent ill effects.

July 2001

01/288

A trainee was practicing mask clearing at a depth of 5m. He had put his arm over his regulator hose and this was pulling the regulator from his mouth. The instructor indicated the problem to the trainee and offered his auxiliary regulator. The trainee spat out his own regulator but did not take the alternative. He attempted to rush to the surface. He tried to inflate his BCD but did not succeed. The instructor brought him to the surface where a full recovery was made. No subsequent ill effects were experienced.

September 2001

01/303

A trainee diver started coughing at a depth of 18m. She took her regulator from her mouth and would not replace it. Her instructor eventually got her regulator back in and brought her safely to the surface. No subsequent ill effects were experienced.

Equipment

October 2000**01/314**

Two divers were at a depth of 20m when the contents gauge of one of the divers became loose allowing air to escape. Her cylinder quickly emptied. Her buddy gave her his alternative air source and they made a safe ascent to the surface.

February 2001**01/086**

Two divers were 9 min into a dive, at a depth of 35m. The regulator of one of the pair began to free flow. They made an ascent which was slightly faster than normal. No subsequent ill effects were experienced.

February 2001**01/093**

Two divers had dived to a maximum depth of 21m. They ascended to a depth of 6m and had stopped on a ledge when the regulator of one of the pair began to free flow. They made a faster than normal ascent. No subsequent ill effects were reported.

March 2001**01/219**

A diving club took delivery of a new compressor. It was delivered with lubricants already in place and what was thought to be a spare filter. The compressor was used for three months, during which it ran for 12 hours. Divers used air from this compressor for pool and open water dives to a maximum depth of 20m. It was then used on an expedition and divers noticed contamination. Examination revealed that there was no filter in the filter tower. All the cylinders that had received air from this compressor were sent for cleaning.

March 2001**01/099**

A diver had dived to a depth of 29m. At 18m his regulator began to free flow. He was brought to the surface by another diver. No subsequent ill effects were experienced.

March 2001**01/104**

A diver lost her weightbelt at 20m and started a rapid ascent. She pulled her drysuit neck seal open and managed to regain control. No subsequent ill effects were experienced.

March 2001**01/106**

Two divers were at 18m when the BCD inflator of one of the pair stuck in the on position. They made a slightly fast ascent to the surface. No subsequent ill effects were experienced.

April 2001**01/158**

A pair of divers were 9 min into a dive at a depth of 28m. The control on the side of the second stage of the regulator of one of the divers snapped off. This regulator went into free flow and a rapid loss of air occurred. He swam to his buddy and took his alternative air source. They made a safe ascent to the surface. The regulator had been correctly serviced and it is thought that it had been damaged prior to the dive.

April 2001**01/161**

Two divers entered the water from a boat and swam to the shotline. They started their descent and during this one of the pair realised that he had not switched his light on. Whilst trying to turn it on, he let go of the shotline and the current carried him away. His buddy followed. They made an erratic descent to the seabed. They swam up current in an attempt to find the wreck. During this swim the buddy became breathless and the other diver decided that they should abort the dive. He deployed a delayed SMB. He noticed that his buddy was unable to achieved positive buoyancy and was fumbling with his BCD direct feed. He handed the buddy the SMB reel and inspected the direct feed. He found that it was not connected properly and a covering sleeve made it difficult to connect. After a while he succeeded and they began their ascent. The buddy was now hyperventilating and apparently on the verge of panic. The buddy was finning hard and struggling with the reel. The other diver attempted to control the ascent rate. At the surface they inflated their BCDs and awaited pick up. The distressed diver left the water first but half way up the ladder he became exhausted and collapsed into the boat. He quickly recovered and no subsequent ill effects were experienced.

May 2001**01/171**

Two divers were at a depth of 32m. One of the pair used an alternative air source to inflate a delayed SMB. The regulator started to free flow and could not be stopped. They made a controlled ascent to 3m where they conducted a safety stop until the air ran out. At the surface the diver was badly shaken but recovered quickly once placed on oxygen.

June 2001**01/206**

A pair of divers were at 28m when one of their regulators began to free flow. He started a rapid ascent. His buddy then took control and brought him to the surface using her alternative air source. The diver with the free flow was given oxygen as a precaution. No subsequent ill effects were experienced.

June 2001**01/222**

Two divers conducted a dive to a maximum depth of 23m. One of the pair towed an SMB. They started their ascent and at 15m the diver with the SMB experienced difficulties. The direct feed hose had come off of her BCD and the corrugated hose to the BCD was leaking. The BCD had risen up preventing her from using her drysuit inflation control. Her buddy put air into her drysuit for her but it escaped through a cuff dump and an autodump valve. The diver with the buoyancy problem used the SMB line to lift herself up, but this line then broke. Her buddy then grabbed her and lifted her to the surface using a controlled buoyant lift. Both their computers showed a fast ascent warning. Total dive duration was 40 min. At the surface the buddy summoned the boat to assist.

June 2001**01/214**

Two divers conducted a dive to a maximum depth of 10m. They aborted the dive after 10 min because one of the pair was suffering from a tight neck seal. No subsequent ill effects were reported.

Miscellaneous

October 2000

01/313

Three divers were conducting a dive in a lake in low visibility. They were following a line laid on the bottom. One of the divers became separated. The other two looked for him briefly and then surfaced. The third diver continued alone, causing concern for the two at the surface. All three safely completed the dive.

January 2001

01/083

Two divers completed a 26 min dive to a maximum depth of 21m. At the end of the dive, at a depth of 2m, one of the pair felt that he couldn't breathe and began to panic. Assistance was summoned and the diver was recovered from the water. He recovered and was advised to seek medical assistance.

January 2001

01/082

A diver completed a 30 min dive to a maximum depth of 36m. She stopped a number of times during her ascent including 3 min at 4m and 1 min at 3m. 30 min after the dive she noticed a rash on her stomach. She was given oxygen and medical advice was sought. It was concluded that this was not a skin bend. After 5 min on oxygen the rash vanished. She was kept on oxygen for a further hour. No subsequent problems were experienced and no other treatment was given.

February 2001

01/336

Shore diver reported in difficulties with second diver close by. Both divers reached shore without assistance. (Coastguard report).

May 2001

01/360

Report from dive boat of two divers who missed shotline - possibly missing. Helo tasked but divers surfaced safe and well nearby. (Coastguard report).

May 2001

01/227

A fully kitted diver was standing in a car park. He lost his balance and landed in a sitting position on the bonnet and right wing of a parked car. The car received minor damage.

June 2001

01/488

Lifeboat launched to assist dive boat. False alarm. (RNLI report).

June 2001

01/398

999 call reporting concern for husband and son who were shore diving. Divers not surfaced for one hour. Minutes later, divers observed swimming ashore safe and well. (Coastguard report).

June 2001

01/492

Lifeboat launched to assist divers. False alarm. (RNLI report).

June 2001

01/210

A group of divers were descending. One of the group was unable to keep up with the instructors and aborted his dive. Maximum depth 20m, duration 6 min. He returned to the surface and raised the alarm. No subsequent ill effects were experienced.

Overseas Incidents

Fatalities

June 2001

01/186

An instructor was teaching on a rebreather course. He dived to a depth of 35m and is reported to have suffered an oxygen toxicity convulsion as he made his ascent. He died as a result of this event.

Decompression

October 2000

01/077

A diver on holiday conducted ten dives over a 5 day period. None of these dives were deeper than 35m. The tenth dive was one morning to a depth of 18m for 60 min with a 4 min stop at 6m. This dive was described as strenuous. That afternoon she dived again, to 24m for 50 min with a 4 min stop at 6m. 4 hours later she began to feel unwell. She sought medical advice and received three sessions of recompression treatment. A few hours after her last session she caught a flight home. On arriving in the UK she again developed symptoms of DCI and received a further session of recompression treatment. She then traveled to her home and again experienced symptoms of DCI. She attended a third recompression facility and received intensive treatment over a number of days. She made a full recovery.

November 2000

01/091

A diver completed a week's diving holiday. His penultimate dive was to 75m for 51 min with 10 min decompression. His last dive, 7 hours 31 min later, was to 28m for 43 min. He flew home the following day, over 24 hours later. During the flight he noticed a pain in his neck. He had only 4 hours sleep and felt tired. The following day he went to work and was engaged in lifting heavy objects. That evening he experienced pain in his chest, neck and both arms. He had 'pins and needles' and numbness in the back of both hands, a loss of appetite and nausea. He sought medical advice and was referred for recompression treatment. He made a complete recovery.

February 2001

01/497

A diver completed a diving course whilst on vacation over a five day period, typically diving two dives per day. On day four they dived to 18m for 45 min in the morning and the same in the afternoon. During the afternoon this diver ran out of air due to a faulty contents gauge. The diver signaled the instructor and took the instructor's alternative air source. At 8m the diver was instructed to make a free ascent to the surface, as this was part of the training course. That evening the diver undertook a night dive. The diver experienced ear problems during the descent, tried to ascend a little and returned, unintended, to the surface alone. The diver re-descended to join up with the buddy, became disorientated, began to panic and made several ascents and descents. Eventually the buddy was located and the dive continued. The following day the diver undertook two drift dives to a maximum depth of 18m. After these dives the diver noted a pain in the shoulder but put this down to a strain. No dives were made the following day and the day after the diver flew home. As the airplane descended this diver got 'pins and needles' in the legs and the legs went numb. The diver went to bed that night and awoke the following day with aches and pains and no sense of balance. Medical advice was sought and the diver was

recompressed for 7 hours. 4 weeks later this person still tired easily. This person has given up diving.

March 2001

01/109

An instructor was leading a dive with two trainees on a deep diving course. 8 min into the dive, at a depth of 30m, he experienced severe narcosis and decided to abort the dive. They ascended slowly to 5m where they completed a 3 min stop. 10 min later, in the boat, the diver experienced pain in his chest, fatigue, loss of mental faculties, pain in his right elbow and an itching on his right arm. 5 min later a skin rash developed. He was placed on oxygen and taken to a recompression facility. He was recompressed for 2 hours and the symptoms resolved.

April 2001

01/128

A diver conducted a series of two dives per day over a period of four days. On leaving the water at the end of the last dive he had to strain to get up the ladder onto the boat. Once on the boat he noticed that his legs felt abnormal; they moved involuntarily, he felt a 'bubbling sensation', and was unable to move them properly. He was placed on oxygen and taken to a recompression facility. He received five sessions of treatment over a nine day period. He made a good recovery. It was considered that a back injury, received several months earlier, had left him susceptible to a DCI.

May 2001

01/265

A diver dived to 23m for a total of 50 min, including a 3 min safety stop at 6m. 12 hours later he dived again. This time to 26m for 44 min with a 3 min safety stop at 6m. After this dive he experienced a headache on the left-hand side of his head. After a few minutes the pain went and was replaced by a pain in the back of his left shoulder. He decided not to make a third dive. His elbow also developed an ache. He had had a previous DCI and stated that he might have a recurrence. He was placed on oxygen and taken to a recompression facility. He was examined, advised to re-hydrate himself and then to return the following morning. The following morning the pain was still present and his forearm felt numb. He received five sessions of recompression treatment, after which the symptoms did not ease any further. He was unable to fly home for 12 days and undertook examination for a PFO. A probable PFO was diagnosed and further tests were being planned.

May 2001

01/162

A diver conducted a series of dives over a period of six days. On the final day he dived to a maximum depth of 26m for a total of 56 min. 3 hours 21 min later he dived again. This dive was to a maximum depth of 12m. Knowing that he was flying home the following day he planned to surface very slowly, spending time at 6m. Back at the boat he ascended to a weighted shotline that had been suspended from the boat. He hung onto this line for 6 min. The surface condition was rough and the diver was pulled up and down by the movement of the boat. Back on the boat he developed a severe headache. 35 hours later he flew home. During the flight he developed a pain in his elbow. By the time that he landed he also had a pain in his leg. His headache remained and he experienced some balance problems. The following day the symptoms remained and he sought medical advice. He was referred to a recompression facility and received four treatments over a period of five days. This resolved his symptoms.

July 2001

01/272

A pair of divers completed a dive to 37m. They conducted stops at 6m as indicated by their computers. They completed a further 1 min safety stop before surfacing. The dive duration was 38 min and they completed 12 min of decompression stops. The water temperature at depth was -1 deg C and 10 deg C at depths less than 10m. 30 min after the dive, one of the pair noticed a red rash and swelling above his right wrist. He then developed a swelling below his right elbow. He felt unwell. He was placed on oxygen, given fluids and taken to a recompression facility. They arrived at the recompression facility 25 min later and the diver felt a lot better. He was recompressed but this did not affect his symptoms. All symptoms were resolved 48 hours later. His buddy experienced no ill effects.

Injury/Illness

November 2000

01/041

An instructor was leading a 'try' dive. At a depth of 4m the trainee experienced problems with his buoyancy control. The instructor turned to help and in doing so he swept his left hand down. His hand touched a fan worm shell cast which was on an anchor lying on the seabed. The shell cut the base of three of his fingers. After the dive he sought medical advice and nine stitches were required to close the wounds.

March 2001

01/112

A group of six divers entered the water from a boat. One of the group went under the boat and came into contact with the propeller of one of the engines. The propeller was still turning and the diver received injuries to his arm and shoulder, his diving equipment was also damaged. The group left the water and assistance was sought by radio. The diver was taken ashore and then to hospital. He was treated for a broken collar bone, severe bruising of his right arm and cuts to his arm, shoulder and head.

April 2001

01/194

Six divers were moving diving equipment on a jetty when three large waves struck the jetty in quick succession. The equipment was washed into the water but the divers managed to hold onto the jetty. One diver injured his knee and another injured his fingers. When subsequently recovering the equipment from the water another diver was washed onto rocks which were covered in oyster shells and his shin was cut. He was taken to hospital where the wound was stitched.

May 2001

01/262

A diver conducted a series of, typically, two dives per day over a two week period with a one day break in the middle. Maximum depth was 30m. His last dive was to 30m for 58 min with a 3 min precautionary stop at 6m. His computer never indicated a decompression requirement during this dive. 53 hours later he made an 8 hour flight. After 7 hours on the ground another 4 hour 30 min flight was made. The following day he suffered severe 'pins and needles' in both hands. He was referred to hospital and placed on oxygen. He was released the following day with medication for a trapped nerve. The next day the symptoms

August 2001

01/289

An RHIB was underway to a dive site when rough seas were encountered. The divers decided upon an alternative, more sheltered, site. Whilst traveling to this site water started to enter the boat. They discovered that the joint between the starboard tube and the hull had failed. They commenced bailing and contacted the emergency services by radio. They began a slow return to the shore. The engine then started to cut out, although they were able to restart it each time. Two marine police boats

persisted and the diver was treated in a recompression chamber. His symptoms reduced. The symptoms reappeared the following day and he was recompressed again. The final diagnosis was a trapped nerve in his neck.

May 2001

01/187

A pair of divers entered the water. Immediately one got into difficulties and became unresponsive. The boat skipper called them back to the boat. One diver got out of the water and the skipper manhandled the unresponsive diver back into the boat. Other divers then started to surface from their dives and assisted with the casualty. She was given oxygen. She had had little to eat that day. Once ashore she was taken by ambulance to hospital from where she was subsequently discharged.

September 2001

01/295

A diver undertook a dive to 35m. He made a normal gentle descent on a shotline. He equalised his ears normally during the descent. At 35m he felt air rush out from his left ear. The dive was aborted and the diver sought medical attention. A perforation of the left ear was diagnosed. The diver had not been suffering from congestion. He had had wisdom teeth removed 6 weeks previously.

Boating / Surface Incidents

January 2001

01/080

A dive boat arrived at a dive site and the divers prepared to enter the water. At this point the engines cut out and could not be restarted. The fuel gauges showed empty. The cox stated that they did not read correctly but examination of the priming pumps and the fuel filters showed that there was no fuel. One of the divers repaired the broken VHF radio and they summoned assistance. Another boat assisted and they were safely towed ashore.

February 2001

01/089

Three divers entered the water at a remote island dive site. They dived in heavy sea conditions to a depth of 25m and surfaced after 20 min. They surfaced 100m away from their boat but were not seen and were not able to attract attention with their whistles. One boat stayed at the dive site and radioed for assistance. Another boat searched for them down current. The divers were found after 1 hour 50 min at the surface, 1.4 miles from their entry point. One of the group was suffering from the cold. Water temperature was 24 deg C. The journey back to the shore took 2 hours. The diver who had suffered from the cold was treated for mild hypothermia.

August 2001

01/276

A dive boat was being launched through surf from a beach. A wave hit the boat and turned it over. All of the occupants were thrown out. One suffered two broken ribs and a punctured lung. A lot of equipment was lost. The local Coastguard called the police and an ambulance. The occupants swam ashore. The casualty was transferred to hospital and released later that day.

came to their assistance. Equipment and personnel were transferred into the police boats. The engine then cut out and would not restart. They were taken under tow. A short distance from the harbour a major separation of the tubes from the hull took place. The boat, crew and equipment were all safely recovered to the shore.

Ascents

February 2001

01/108

Two divers completed a 20 min dive to a maximum depth of 16m. They deployed a delayed SMB to make their ascent. One of the divers then lost his weightbelt and made a rapid ascent from 14m to the surface. At the surface he was found to be tangled in line from the SMB reel. His buddy tried to stop the fast ascent, but stopped to make a precautionary 1 min stop at 6m before surfacing. The buoyant diver was recovered into the boat and placed on oxygen. This diver experienced no symptoms. He was given a medical examination and no problems were found.

April 2001

01/163

Two divers conducted a dive to a maximum depth of 14m. 11 min into the dive, at a depth of 11m, one of the pair experienced a problem with his ear. He signaled to the dive leader who stopped. The diver with the ear problem moved into a vertical position and then lost control of his buoyancy. He made a rapid ascent to the surface. The dive leader attempted to slow the ascent using a buddy line that was attached between them. At the surface the dive leader put air into the other diver's BCD and summoned the dive boat. The diver was recovered into the boat and placed on oxygen. Both divers were medically examined. No subsequent problems were experienced.

Technique

October 2000

01/051

A group of divers undertook a dive to a maximum depth of 45m. At the end of the dive one diver assisted the cox, who was also diving, to attach a lifting bag to the boat's anchor and sent it to the surface. They ascended with the anchor line and hung under the boat with all of the other divers who were decompressing. The diver who had assisted the cox used a crab hook to hold onto the line. Another diver used his BCD to rise to the surface but he held onto the line and dragged the others towards the surface. The diver with the crab hook struggled to release it and when he did he sank back down to 11m. He re-ascended to 6m and noticed the cox hanging at 6m on another line at the stern of the boat. The cox signaled for the diver to join him. He swam over and when he arrived the cox grabbed his alternative air source. He then realised that the cox was out of air and passed him his regulator. The cox's computer indicated that he needed 9 min of decompression. When this was completed the rescuing diver required a further 7 min decompression. He indicated that the cox should wait with him but he chose to make a free ascent to the surface. The rescuing diver completed his stops and made a safe ascent. All divers were safely recovered.

November 2000

01/054

A diver entered the water as part of a lead dive group. The plan was to descend a reef to a depth of 40m and then to ascend to be picked up by a following inflatable boat. The diver was buddied with the group leader. They descended to 40m. The guide then signaled that they should descend further to 50m. After 3 min at 50m the diver's computer showed that decompression was required and he started to ascend. His buddy, the dive guide, swam deeper. The diver signaled for him to ascend and stay close to him, but he did not comply. At 20m the diver showed the buddy his contents gauge and computer and indicated that he will need assistance. Again the guide swam away. The diver ascended to 9m and his computer indicated 17 min decompression, and his air supply was low. The guide returned and the diver then ran out of air. He took the guide's alternative air source, but after 3 breaths this also ran out and they were forced to surface. At the surface they had to wait 10 min, with others from their party, before they were picked up. Back on the main boat they discovered that other divers had also missed decompression stops. The divers insisted that the boat should return to the shore. Once ashore the diver sought medical advice and was given precautionary recompression treatment.

Equipment

October 2000

01/042

Two divers made a descent to a wreck in a depth of 20m. During the descent one of the pair attempted to put air into his BCD but it did not inflate and escaping air could be heard. He settled on the seabed and removed his BCD. He discovered a hole in the corrugated hose, close to the top. The dive was aborted and the pair made their way back to the surface. At the surface he had to be supported by his buddy whilst awaiting pick up by their boat. No subsequent ill effects were experienced.

May 2001

01/188

A pair of divers made a descent to 45m. At this depth one of the divers' regulators started to free flow. He took his buddy's alternative air source. Because he was unfamiliar with it and because it was on a short hose he breathed some water. The buddy gave him his main regulator and used the alternative air source himself. They made an ascent to the surface, including a 1 min stop at 6m. During the ascent they got an ascent rate warning from one of their computers. It was thought possible that air escaping from the free flowing regulator was becoming trapped in one of the divers' T-shirt; the regulator was moved clear. No subsequent ill effects were reported. It was subsequently found that a failure of the regulator first stage had occurred.



INCIDENT REPORTS

If you would like to add to, correct or place a different interpretation upon any of the incidents in this report please put your comments in writing and send them to the following address:

***The Incidents Advisor,
The British Sub-Aqua Club,
Telford's Quay,
South Pier Road,
Ellesmere Port,
Cheshire,
CH65 4FL.***

For new incidents please complete a BSAC incident report form and send it to BSAC HQ at the address shown above.

All personal details are treated as confidential.

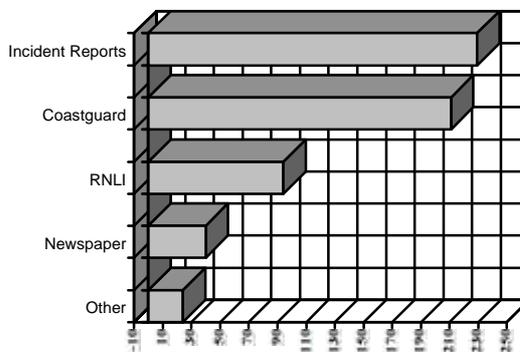
Incident Report Forms can be obtained free of charge by phoning BSAC HQ on **0151 350 6200**
or from the BSAC Internet website.

Numerical & Statistical Analyses

Statistical Summary of Incidents

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Incidents Reported	199	123	263	385	351	315	397	452	397	439	465
Incidents Analysed	199	123	263	385	351	315	370	431	382	417	458
UK Incidents	170	98	236	322	318	295	349	404	357	384	433
Overseas Incidents	24	14	21	9	33	20	21	27	25	33	25
Unknown Locations	5	11	6	54	0	0	0	0	0	1	0
BSAC Members	111	110	146	164	157	136	101	135	128	113	122
Non-BSAC Members	18	13	19	8	20	4	29	52	47	52	94
Membership Unknown	70	0	98	213	178	175	219	217	182	219	217

Incident Report Source Analysis



Total Reports: 598
Total Incidents: 458

History of UK Diving Fatalities

Year	Membership	Number of Fatalities	
		BSAC	Non-BSAC
1965	6,813	3	-
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
1991	43,475	8	9
1992	45,626	9	8
1993	50,722	3	6
1994	50,505	6	6
1995	52,364	9	9
1996	48,920	7	9
1997	48,412	4	12
1998	46,712	6	16
1999	46,682	8	9
2000	41,692	6	11
2001	41,272	9	13

LIST OF ABBREVIATIONS USED IN THE INCIDENT REPORT

AV	Artificial ventilation
BCD	Buoyancy compensation device (e.g. stab jacket)
CAGE	Cerebral arterial gas embolism
CG	Coastguard
CPR	Cardiopulmonary resuscitation
DCI	Decompression illness
DDRC	Diving Diseases Research Centre (Plymouth, UK)
ECG	Electrocardiogram
GPS	Global Positioning System
Helo	Helicopter
HMCG	Her Majesty's Coastguard
ILB	Inshore lifeboat
IV	Intravenous
LB	Lifeboat
m	Metre
min	Minute(s)
MRSC	Marine Rescue Sub Centre
PFO	Patent foramen ovale
POB	Persons on board
RAF	Royal Air Force
RHIB	Rigid hull inflatable boat
ROV	Remotely operated vehicle
RNLI	Royal National Lifeboat Institution
SAR	Search and rescue
SMB	Surface marker buoy
999	UK Emergency phone number