The British Sub-Aqua Club

NDC Diving Incidents Report

2002

Compiled by

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Diving Safety and Incidents Advisor

Published by The British Sub-Aqua Club in the interests of diving safety

Introduction

This booklet contains the 2002 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,
November 2002

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:

Ken Bazely, National Diving Liaison Officer, HM Coastguard

Peter Bradley, Sea Safety Liaison Officer, and
Derek Scrivener, Service Information Data Quality Supervisor,
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.

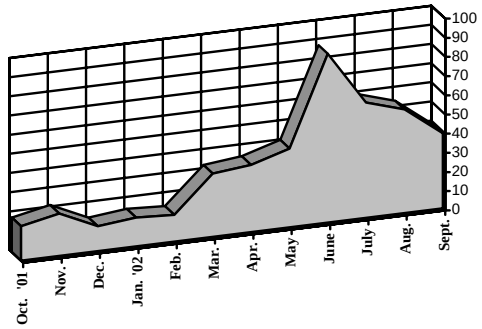
Finally, to Dr. Yvonne Couch for proof reading this report

Overview

2002 has seen a levelling in the total number of incidents that have been reported. In the 2002 incident year (October 01 to September 02 inclusive) 432 incidents have been analysed, compared with 458 in 2001, and 418 in 2000.
We are very confident 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 reported incidents is shown in the following chart. As can be seen, 65% 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. The peak in June is slightly abnormal, and it seems to be largely due to an unusually high number of boat engine failures. It is quite possible that many boats were put back on the water in June, after being unused through the winter, and without being correctly prepared.

Monthly breakdown of all incidents - 2002



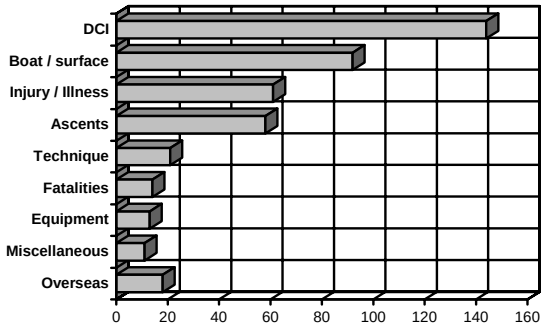
Incidents by category

The incident database categorises all incidents into one of nine major categories, and the following chart shows the distribution of the 2002 incidents into those categories.

The highest number of incidents relates to 'Decompression Illness (DCI)' and this represents a change from the pattern of recent years. In three of the last four years 'Boating and Surface' incidents has been the largest category of incidents. Over the previous four years these incidents have accounted for 29% of the total number of reported UK incidents. This year this percentage has fallen to 22%. 'Boating and Surface' incidents typically involve engine failures and/or lost divers (often the two are related), and the BSAC has repeatedly highlighted the importance of correct engine servicing and of carrying and use of surface marker and detection aids to prevent divers from becoming separated from their boats; let's hope that this reduction in the number of incidents reflects a growing awareness of the importance of these issues.

Whilst 'Boating and Surface' incidents have reduced, incidents relating to 'DCI' have grown dramatically. In the four years from 1998 to 2001 the average number of DCI incidents reported was 105 per year. In the 2002 incident year this number grew to 144, an increase of 37%. Now we know that we do not capture all of the DCI incidents in the database and some of the increase could simply be better reporting, but my belief is that this category has shown a concerning increase over previous years.
An analysis of DCI incidents is included later in this overview.

Categorisation of the year's incidents



Fatalities

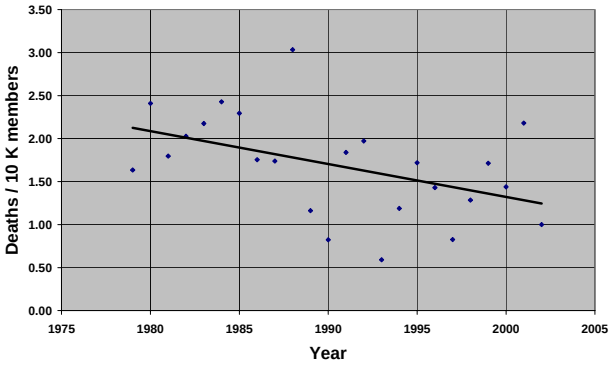
The 2002 incident year started out looking as if it might become a very bad one for fatal incidents with 2 deaths in November 01 and 3 in December 01. When you consider that fatalities in December are quite unusual you will understand why, in January this year, we were predicting a gloomy outcome for the year. Fortunately this prediction did not come true, indeed the 2002 incident year has seen a significant improvement over previous years. When we closed the database at the end of September there had only been 14 fatal sports diving incidents in the UK. Of these only 4 were BSAC members.
The high number of fatalities in the last quarter of 2001 has been more than offset by a reduced number of fatalities in 2002, with a total of 9 in the first three quarters of the year.

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

- Six cases involved depths greater than 50m.
  Two of these involved solo diving.
  One involved a rebreather.
  One involved a buoyant ascent from depth.
- One case involved a diver who suffered a heart attack after becoming unwell in a swimming pool.
- Three cases involved separation. In two of these cases the casualty was later found unconscious underwater.
- Two cases involved divers panicking because of problems with mask and regulator.
- One case related to a rapid ascent precipitated by a problem with a delayed SMB.
- One case where there is simply insufficient information to be able to draw conclusions.

In previous reports I have highlighted a trend of increasing safety within our membership and this year's figures continue to support these findings. When we look at the number of BSAC fatalities per ten thousand members a falling trend can be seen from 1980 onwards. During this period our fatal incident rate has been halved. Considering that in the same timeframe we have seen the advent of faster boats and better equipment that have greatly expanded the boundaries of adventurous diving, this increase in safety is something for which all BSAC members should take credit.

BSAC members' fatality rate



At the time of writing (mid November 02) I am unaware of any UK fatality so far in the last quarter of the year. So, barring a disaster in the last 6 weeks of the year (and the Christmas period is usually very quiet), the 2002 calendar year will go on record as the one of the safest in recent years.
Latterly diving has received some heavy criticism for its worsening safety record and I trust that this greatly improved statistic will receive as much attention.

I always feel a little awkward when commenting on improving fatality trends, clearly each one of these events is a tragedy and the target should be zero. We certainly must not be complacent, but equally we should recognise when improvements to safety are indicated.

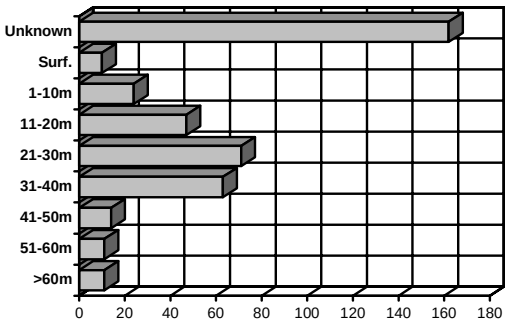
Incident depths

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

The pattern of depths in the 0 to 50m range is very similar to that normally seen and reflects the amount of diving that takes place in these depth ranges. However the number of incidents reported in the greater than 50m ranges continues to grow. 22 incidents involve dives to greater than 50m and this is the highest number ever recorded in this category. Of these 22 6 (27%) were fatalities. The message is very clear – Diving at depth brings much greater risk and deep incidents are far more likely to be serious ones.

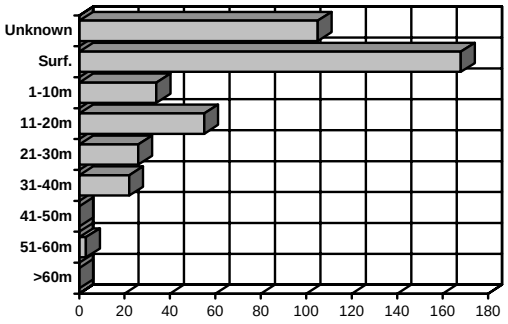
The BSAC advises that no air dive should be deeper than 50m, and that dives to 50m should only be conducted by divers who are appropriately trained and qualified.
The recommended limit for divers trained to Sports Diver standard is 35m and then only when they have received appropriate training for diving 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.
Other surface incidents involve boats and boating incidents.

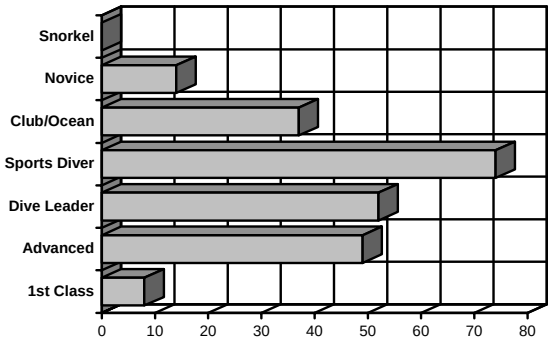
Depth at which an incident started



Diver Qualifications

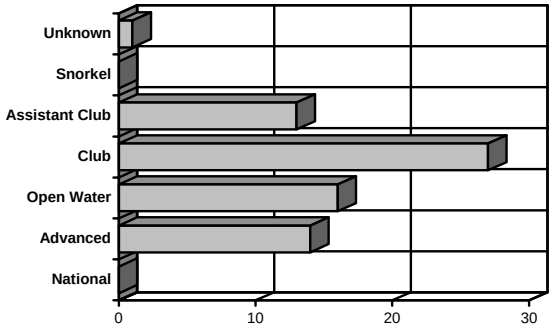
The next two charts show the qualification of those BSAC members who were involved in reported incidents.

Qualification of the divers involved in incidents



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.

Qualification of instructors involved in incidents



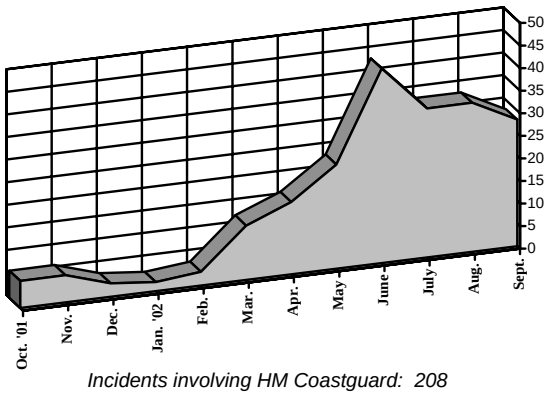
An analysis of incident by diver qualification shows that no grade of diver, from novice to instructor, is immune to problems. It is all too easy to make the assumption that only inexperienced divers get into problems, but the chart shows that this is not so.

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

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 inline with those of recent years.

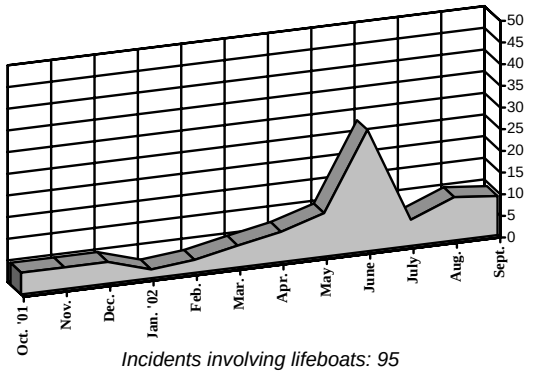
UK Incidents involving the Coastguard agency - Monthly breakdown



Incidents involving HM Coastguard: 208

Our call upon the RNLI in the 2002 incident year is down on previous years. Over the previous four years the RNLI has been involved in an average of 120 incidents per year, this year it was only 95.

Divers' use of RNLI facilities by month

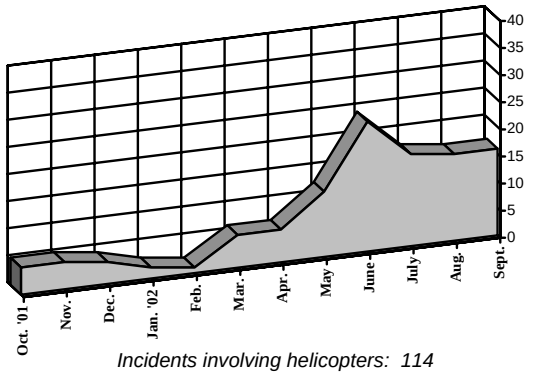


Incidents involving lifeboats: 95

Divers' requirements for SAR helicopters was significantly higher than in previous years. The average over the preceding four years was 87 recorded incidents involving a helicopter, this year it was 114.

Helicopters are tasked to support searches for missing divers and to transport divers with DCI to recompression facilities. As mentioned earlier, cases of DCI have increased significantly in 2002 and this will have contributed to the rise in helicopter call outs.

Divers' use of SAR helicopters by month



Incidents involving helicopters: 114

Decompression Incidents

The BSAC database contains 144 reports of DCI incidents in the 2002 incident year, some of which involved more than one casualty. When these multiple cases are counted the result is 168 cases of DCI.

In 2001 116 cases of DCI were recorded, 134 in 2000 and 86 in 1999. As stated earlier, the 2002 increase is worrying.

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

- 57 involved diving to deeper than 30m
- 40 involved rapid ascents
- 30 involved missed decompression stops
- 22 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 by the RNLI 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.

Delayed surface marker buoys (SMB) have been implicated in a number of incidents including at least one of the fatalities. Typical problems are loss of buoyancy control whilst deploying the SMB, jammed reels, tangled lines and free flowing regulators. These problems can result in a rapid ascent to the surface. The very piece of equipment that is supposed to increase the safety of an ascent is having just the reverse effect.
Clearly much more training and practice is required in the use of this system. If possible the reel should be fastened to the bottom (rock or wreck) during the deployment and it should not be attached to a diver so that, in the last resort, it can simply be abandoned if there is a problem.

The safest ascent will always be with a correctly deployed shotline but this, of course, is not always appropriate or possible.

In Conclusion

Key conclusions are:-

- A continuation in the trend of increasing safety for BSAC members as indicated by the fatality rate of BSAC members over the last 20 years.
- 2002 calendar year is anticipated to have the lowest UK fatality rate for many years.
- A reduction in the number of boating and surface incidents.
- A significant increase in reported cases of DCI.
- A continuing increase in the number of incidents related to very deep diving.

Most of the incidents reported within this document could have been avoided had those involved followed a few basic principles of safe diving practice. The BSAC has recently published the latest revision to the booklet 'Safe Diving'. This is available to all, free of charge.

Remember you can never have too much practice and the further you stay away from the limits of your own personal capabilities the more likely you are to continue to enjoy your diving.

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 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

November 2001 02/009

Three divers conducted a dive to a depth of 60m. One of the divers did not return to the surface. A search took place involving a police helicopter, police divers and an ROV. The diver's body was recovered the following day from a depth of 95m. It is thought that the diver had been on a ledge at 60m and had somehow dropped down to 95m. (Newspaper report only).

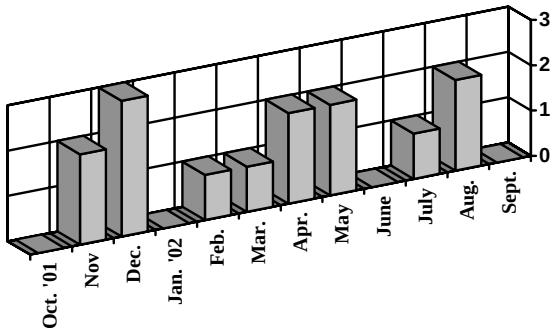
November 2001 02/016

Three divers began their dive by descending a shotline. At 27m they passed a group of four divers who were ascending the line. During this maneuver the regulator of one of the three was knocked from his mouth. This diver attempted to recover the regulator but ended up using his pony cylinder regulator and decided to return to the surface. This diver was recovered into the boat. The other two continued to the bottom of the shot. The depth was 31m and the visibility approximately 3m. They watched a lobster for a short time but then realized that the third diver was not with them. They looked around for him and then one of the pair signaled that they should return to the shotline. However visibility was now low due to disturbed silt. The divers faced each other and agreed to surface. At 15m one of the pair prepared to deploy his delayed SMB. During this time they became separated. The diver with the SMB looked around and then made his way to the surface. His total dive time was 13 min. He was recovered into the boat. The third diver did not resurface. The Coastguard was alerted and an extensive search was conducted. This diver was not found.

December 2001 02/024

A group of divers were engaged in a night dive. It is believed that one of the group surfaced when a torch failed and that he then re-descended. Later, this diver was found unconscious on the seabed at a depth of 10m. His torchlight aided his location. He was recovered from the water and resuscitation techniques were applied. The casualty was taken to hospital by ambulance but failed to recover. His dive computer indicated a maximum depth of 16m. When found, his weightbelt was in place and his air cylinder contained 60 bar. (Newspaper report only).

UK Fatalities - Monthly breakdown from October 2001 to September 2002 incl.



December 2001 02/037

A group of three divers became separated during a dive. One surfaced and raised the alarm. Other divers entered the water to search and one of them found the missing pair at a depth of 39m. One was unconscious with no weightbelt and the other was attempting to lift him to the surface. The casualty had no buoyancy and the other diver was not able to lift him. The rescuing diver used his own drysuit direct feed to put air into the casualty's drysuit. They were then able to lift him to the surface. Other divers assisted and he was brought to the shore. The casualty was not breathing and had no pulse. Resuscitation techniques were applied. The emergency services were alerted and the casualty was airlifted to hospital but he failed to recover.

December 2001 02/038

A party of five divers undertook a dive to 50m. One of the group failed to return to the surface. Members of his party and others conducted a search for him but were not successful. His body was recovered the following day by police from a depth of 55m. (Newspaper report only).

February 2002 02/062

A diver was spotted floating motionless just below the surface of a quarry by people passing near by. These people alerted three other divers in the area who went to assist. They climbed down a steep slope and pulled the diver to the shore. He had no regulator in his mouth and showed no signs of life. They removed the diver's cylinders. They noted that he had two contents gauges, one reading 160 bar and the other 140 bar. They were able to inflate his drysuit and BCD. They also noted that his computer recorded a maximum depth of 57m, that a stop at 12m had been missed and that an alarm was sounding. They were unable to land him on the steep slope so another diver towed him to a landing point. The rescuing diver administered EAR during the tow. The emergency services were alerted. The diver was landed and oxygen assisted resuscitation techniques were applied. Emergency services attended the scene but were not able to save this diver. It appears that this diver was diving alone.

March 2002 02/072

A diver deployed a delayed SMB. The dive boat moved towards the buoy. The buoy then disappeared and the diver did not surface. The emergency services were alerted and a search initiated. Very poor weather conditions hampered the search efforts. His body was found 17 days later by police using an ROV. (Coastguard & RNLI reports).

April 2002 02/087

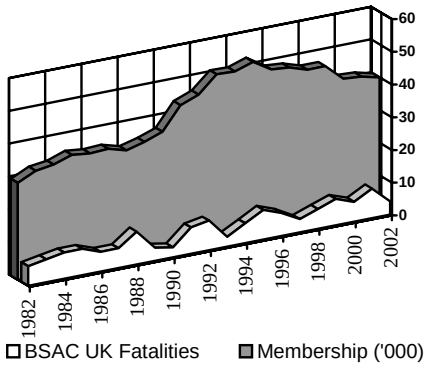
A diver was involved in drysuit training in a swimming pool. She lost consciousness underwater. She was taken to hospital where she suffered two heart attacks and died two days later.

April 2002 02/086

An instructor and two divers made a dive to a maximum depth of 20m. The regulator of one of the three 'froze' and gave no air. He started to use the alternative air source of one of the other two. It is believed that the donor diver then panicked and the regulator of the third diver was knocked from his mouth. The diver with the 'frozen' regulator made an ascent to the surface and raised the alarm. Other divers, who were already diving in the area, found the donor diver lying, unconscious, on

his back, on the bottom and the third diver swimming round. They noted that his contents gauge read 120bar, but they were not able to inflate his BCD or drysuit. He had a harness type weightbelt and they were not able to release this. They brought the unconscious diver to the surface using their own buoyancy. The third diver made his way safely to the surface. The casualty was recovered into a boat and resuscitation techniques were applied. He was taken to hospital but failed to recover.

BSAC Fatalities against membership 1982-2002 (UK fatalities only)



May 2002 02/112

A diver dived to 60m using a rebreather. He was seen to surface and then sink back down. He did not resurface. An extensive air and sea search was carried out but the diver was not found.

May 2002 02/129

A diver using tri-mix failed to surface after a solo dive to 60m. An extensive search was conducted by helicopter, lifeboat and divers but no trace of the missing diver was found. (Coastguard and RNLI reports).

July 2002 02/170

A diver was at a depth of 15m conducting mask clearing training drills. He suffered a panic attack and lost consciousness during the ascent. He was recovered into the boat and resuscitation techniques were applied during the return to the shore. They were met by an ambulance and resuscitation attempts continued. The diver was taken to hospital but failed to recover.

August 2002 02/213

Two divers surfaced rapidly from a 48m dive, whilst trying to deploy their delayed SMB. The line became jammed at 30m. One diver cut the line but both divers rose rapidly to the surface. Both receiving lung injury, one was fatally injured. (Coastguard report).

August 2002 02/249

Three pairs of divers were diving on a wreck in a maximum depth of 66m. Towards the end of the dive one pair made their way to shotline, at the top of the wreck, at a depth of 58m. At this point one of the pair became inverted with too much air in the legs of his drysuit. Despite his buddy's attempts to help, he made an inverted ascent to the surface without decompression stops. His dive time was 28 min. He was recovered into the boat and resuscitation techniques were applied. The Coastguard was alerted and he was airlifted to hospital, where he was pronounced dead. The other divers made a normal ascent. Cause of death was pulmonary barotrauma.

Decompression Incidents

October 2001 02/296

Within 10 min of coming ashore, shore diver experienced pain in left shoulder. Drove home, but was persuaded to seek medical attention - medical advice obtained by doctor from the hyperbaric unit and diver transferred there by helicopter. First dive to 60m, normal ascent, 1.5 hours later - dived 40m for 10 min bottom time/15min stop. (Coastguard report).

October 2001 02/295

MRCC advised by doctor that he was aware of a diver resident at a local hotel in difficulties. Diver was diagnosed as having a type 2 neurological DCI and was apparently unable to stand. MRCC requested to alert hyperbaric unit for arrival of diver. (Coastguard report).

October 2001 02/012

A diver made a 35 min dive to a maximum depth of 36m. He made a slow ascent. 20 min after surfacing he had chest pain, difficulty breathing and his lips were going numb. He was given oxygen and taken by helicopter to hospital. From there he was taken to a recompression facility for treatment. A spinal bend was diagnosed.

October 2001 02/014

A diver undertook a series of dives to a maximum depth of 45m. He then dived to 41m for 53 min which included 22 min of decompression stops. During the ascent from this dive he got to 9m and then started to re-descend. This descent was halted at 23m and the diver made his way up to 5m for the decompression stops. The redescent had been caused by other divers pulling down on the shotline and sinking the buoy. Upon surfacing this diver felt a tingling in his wrist. His wrist had a speckled red rash. He was placed on nitrox 80 and the boat returned to harbour. The rash extended to include his arm. The emergency services were alerted and he was taken by ambulance to hospital on oxygen. He was then taken to a recompression facility for treatment.

October 2001 02/298

Dive boat reported two divers having made a rapid ascent from in excess of 35m. Divers were transferred by helicopter to a recompression chamber for treatment. (Coastguard report).

October 2001 02/036

A diver conducted a 36 min dive to 15m. 3 hours 52 min later he dived again to 23m for 49 min with a 2 min stop at 7m. The following day he dived to 16m for 10 min, 13 min later he dived to 14m for 33 min, and finally 2 hours 35 min later he dived to 22m for 47 min with a 1 min stop at 7m. This diver had suffered from diarrhea for 3 days and had drunk little water. 2 hours after surfacing from the last dive he noticed a tingling sensation in his right arm which spread to his right leg. He had a meal and a beer and the symptoms disappeared. 7 hours after surfacing the symptoms returned to his right arm and both legs, he also had a tingling on his right scalp. He was placed on oxygen and the Coastguard was contacted. The diver was taken by lifeboat to a recompression facility where he received treatment. Another member of the same party conducted a similar series of five dives. 20m for 48 min including a 1 min stop at 6m, after a surface interval of 3 hours 46 min she dived to 23m for 70 min with a 6 min stop at 6m. 19 hours 15 min later she dived to 22m for 15 min with a 4 min stop at 6m. 20 min later she dived to 11m for 20 min with a 2 min stop at 4m and then, after 2 hours 35 min, she dived to 24m for 49 min with a 3 min stop at 6m. That evening she noted a pain in her left elbow but put it down to a strain. On the third day she dived to 25m for 34 min with a 5 min stop at 6m and finally, after an interval of 3 hours 6 min, she dived to 17m for 47 min with a 3 min stop at 6m. The elbow pain persisted. The following day the pain was still present and she sought medical advice. She was placed on oxygen and transported to a recompression facility for treatment which resolved her symptoms.

October 2001 02/020

A diver conducted an 18 min dive to a depth of 9m. 4 hours 26 min later he dived to 21m for 29 min. During the second dive the diver's ascent was delayed due to the deployment of a delayed SMB. During the ascent he developed cramp and surfaced missing 20 sec of decompression stop. Whilst getting from the boat to the beach, in surf, the diver fell twice. After de-kitting the diver complained of fatigue in his legs. He later received decompression treatment and was expected to make a full recovery.

October 2001 02/059

Two divers surfaced from a dive having missed decompression stops. The Coastguard was alerted and a lifeboat was tasked with taking the most serious case to a recompression facility. Whilst this was happening two other members of the dive group also experienced symptoms of DCI. The three remaining cases were airlifted to another recompression facility for treatment. (Coastguard report).

November 2001 02/021

A diver completed a dive to 45m for 70 min including 31 min stops. The diver was using air with nitrox 50 for decompression. Back on the boat she felt unsteady and after 20 min she developed a rash on her right arm, across her shoulders and down her left arm. After 45 min the rash and blotchy skin subsided. That evening she developed a pain in her arm muscles. She did not dive the following day. That evening she made contact with a recompression facility and was given a series of recompression treatments. This treatment resolved her symptoms.

November 2001 02/433

Dive RHIB reported diver with DCI symptoms. Evacuated by rescue helicopter to hyperbaric chamber. No other details. (Coastguard report).

November 2001 02/046

Three divers conducted a dive to a depth of 34m. During the ascent from this dive, one of the divers became positively buoyant and was carried to the surface missing 30 min of decompression. One of the other divers also surfaced with her. The third diver completed the planned stops. The two who had missed stops were given oxygen. The diver who had come up with the buoyant diver developed a pain in his shoulder. He sought medical advice and received recompression therapy.

November 2001 02/027

A diver conducted a 62 min dive to a depth of 52m including 37 min decompression. He dived on trimix and decompressed with nitrox 50. During the dive he became out of breath due to

exertion. At the surface he had a severe headache. In the boat he was placed on oxygen. 20 min later he experienced shoulder pain. The Coastguard was alerted and the diver was flown to a recompression chamber. A 6 hour treatment resolved his symptoms. The diver reported that there were (unstated) 'aggravating' factors.

November 2001 02/080

Two divers undertook a wreck dive to a maximum depth of 33m. When one of the pair was at 100 bar the other signaled that they should ascend and started to deploy a delayed SMB. She attached the wrong karabiner to the SMB and whilst the second diver inflated the SMB she started to ascend. To avoid being carried to the surface she let go of the reel. The other diver then prepared and deployed her SMB, whilst doing so she descended 4m. At the beginning of their ascent their computers indicated the need for a 25 min stop at 3m. They conducted a 6 min stop at 6m. At this point one of the divers had 17 bar remaining and the other was suffering from the cold. They made an ascent to the surface missing a 20 min stop at 3m. Once back in the boat they were placed on oxygen for about 20 min. The following day one of the pair experienced an ache in her knees. She sought medical advice and was directed to a hyperbaric facility where she received recompression treatment.

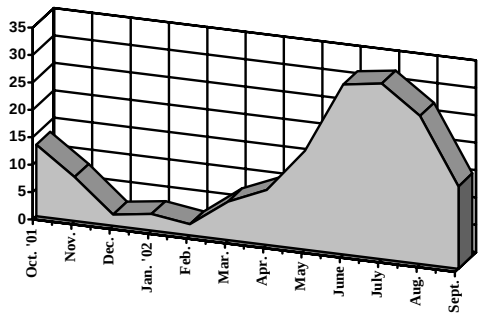
November 2001 02/028

A diver completed a 41m dive to a maximum depth of 36m. An hour after the dive he was sick, he had the onset of tingling and disorientation. He was offered oxygen but refused it. Medical advice was sought and the diver was taken to a recompression chamber for treatment. The diver sustained a trauma to his ear. It is reported that he was tired before the dive and had drunk six pints of beer the night before.

November 2001 02/052

A diver conducted a dive to a maximum depth of 35m for a duration of 1 hour. 2 hours later she dived to 20m for 30 min. 1 hour after this dive she developed an itching red area at the top of her arm. She was advised to drink fluids and seek medical advice if it got worse.

Decompression incidents by month



December 2001 02/049

A diver made a 35 min dive to 20m. 1 hour 47 min later he dived to 29m for 36 min. Later, whilst driving home he started to experience a burning sensation in his back. He became unsteady and disorientated. He was driven back to the diving centre and medical advice was sought. He was placed on oxygen and airlifted to a recompression facility. After two sessions of recompression therapy his symptoms fully resolved.

December 2001 02/041

Two divers conducted a dive to 20m for 31 min including a 2 min stop at 6m. At the beginning of the dive they dived to 8m then resurfaced before continuing. 3 hours 40 min later they dived again, this time to 17m. At the bottom of the shotline they became separated in low visibility. Both divers started to ascend. Both lost control of their buoyancy and they made fast ascents; one to 2m and the other to 1m. Their total dive time was 5 min. One of the divers experienced a nose bleed and was placed on oxygen. During the journey home he felt a dull ache in his left shoulder. The following morning the ache had gone but returned after exertion. He sought medical advice and received two sessions of recompression.

January 2002 02/031

A diver completed a 35 min dive to 8m. 2 hours later she dived again. At 6m her regulator began to free flow. She refused her buddy's alternative air source and he dropped her weightbelt to bring her to the surface. At the surface the diver was in distress and not able to breathe properly. She was a mild asthmatic but her inhaler did not seem to help. She was placed on oxygen and recovered quickly. She was taken to hospital for examination and then sent to a recompression facility for treatment.

January 2002 02/082

A diver dived to a maximum depth of 35m. He made a 2 min stop at 6m and surfaced with a total dive time of 45 min. 2 hours 2 min later he dived again. This time he dived to a maximum depth of 20m and made a 5 min stop at 6m. His total dive time was 52 min. 30 min later he noticed an ache. Several hours later the ache had become a pain and the diver sought medical advice. He was driven to a recompression facility whilst breathing nitrox 36 and he received three courses of treatment.

January 2002 02/053

A diver conducted a dive to a maximum depth of 22m. At 16m she indicated that she was cold and the dive was terminated. The divers ascended and completed a 3 min safety stop at 6m. The total dive duration was 23 min. At the surface the diver was unresponsive and rapidly became unconscious. She was recovered into a boat. She was not breathing and had no pulse. Resuscitation techniques were applied and the diver recovered. She was taken by helicopter to a recompression facility for treatment. She is reported as having suffered a near drowning and sustained a lung injury. A full recovery was expected.

February 2002 02/167

A diver conducted a 28 min dive to 25m with a 3 min stop at 6m. 2 hours 41 min later she dived to 35m for 33 min with a 1 min stop at 6m. Later that day she suffered from bad coordination, slurred speech, the inability to focus on tasks and a headache. She sought medical advice, a cerebral DCI was diagnosed and she was recompressed. 30 min into the treatment her symptoms resolved.

February 2002 02/075

Three divers conducted a dive to 35m. One of the divers' regulator began to free flow. The dive leader offered his alternative air source but this was rejected. The other diver attempted to assist. The diver with the free flow began to panic. The dive leader took control of the situation and brought the panicking diver to the surface. They made a fast ascent and the diver with the free flow was without air and unconscious at the surface. The alarm was raised and a boat launched to assist. Resuscitation techniques were applied and the casualty

had regained consciousness by the time the ambulance arrived. The casualty was taken to hospital and then to a recompression facility for treatment. He was reported to be making a full recovery.

March 2002 02/078

Two divers conducted a dive to 20m and then moved onto a shelf at 6m towards the end of the dive. Here they did some training drills. When they left the water one of the divers noticed an abnormal feeling in his feet. Within a few minutes his legs 'felt like lead'. The emergency services were contacted and the diver was taken to a recompression facility. He received two sessions of treatment and made a good recovery although some residual abnormal sensation remained in his feet.

March 2002 02/091

A diver conducted a 17 min dive to a maximum depth of 17m. During the ascent she became inverted and made a very rapid ascent to the surface. She was given fluids and monitored for signs of DCI. Monitoring was stopped after 12 hours at which point she was symptom free. 30 hours after the incident she felt unwell and noted a rash on her chest. She sought medical advice and was taken to hospital and from there to a recompression facility for treatment. A neurological DCI was diagnosed.

March 2002 02/095

A diver conducted a series of ten dives over a seven day period with no diving on day two. On the last day he conducted two dives. The first was to a maximum depth of 29m for a total time of 32 min and the second, after an interval of 3 hours 31 min, was to 22m for 27 min. During the ascent from the second dive his buddy was too buoyant and they made a faster than normal ascent to the surface, missing a planned safety stop at 6m. 4 to 9 hours after this last dive, the diver felt a minor ache in his right shoulder. 18 hours after the last dive he awoke to find the ache has worsened and that he had an ache in his right shoulder, left elbow and wrist, and a slight numbness and tingling in his hands. He contacted the Coastguard for advice and reported to his local hospital. From there he was transferred to a recompression facility for treatment. His symptoms quickly resolved.

March 2002 02/107

Two divers conducted a dive to 32m for 30 min with a 3 min stop at 6m. 1 hour 42 min later they dived to 22m for 34 min with a 3 min stop at 6m. Later that evening one of the pair complained of a severe and worsening pain in his right shoulder, blotchy skin on both shoulder blades and numbness and 'pins and needles' in his right hand and fingers. He was placed on oxygen and medical advice was sought. He was taken to a recompression facility for treatment. His symptoms were quickly resolved. His buddy was also recompressed as a precaution.

March 2002 02/096

A diver conducted a 31 min dive to a maximum depth of 20m. After the dive he felt 'pins and needles' in both legs. He was placed on oxygen which eased his condition, but he then felt light headed. He was taken to a recompression facility where he received treatment.

March 2002 02/309

Following free flow of air, female diver made a rapid ascent. Medical advice obtained and dive RHIB transferred casualty to hyperbaric unit. Oxygen administered as soon as DCI symptoms appeared. (Coastguard report).

March 2002 02/101

A diver conducted a 10m dive for 23 min and then 5 hours 39 min later he dived again to 10m for 30 min. The following day he dived to 10m for 25 min and then 4 hours 6 min later he dived to 14m for 25 min. During the ascent from this last dive he practiced a controlled buoyant lift on his buddy. The ascent was fast. During the ascent he got cramp in his left calf. Later that day he noticed a pain in his left elbow. The pain increased and he sought medical advice. He was placed on oxygen and taken to a recompression facility for treatment. The following day he noticed pain in his elbow again and was given a second recompression treatment. This did not resolve the problem and a muscle / tendon problem was diagnosed.

April 2002 02/253

Two divers made a dive to a maximum depth of 33m. After 30 min one of the pair was down to 80 bar and signaled the ascent. They deployed a delayed SMB. During the ascent, at 17m, one of the divers lost control of his buoyancy and ascended quickly to 12m. They stopped at 12m to regain control. They started to ascend once more and this diver lost buoyancy control again, this time ascending from 8m to the surface. 2 hours later he noted a minor pain across his back and shoulder blades. He was placed on oxygen and the Coastguard was alerted. The diver was taken by helicopter to a recompression facility where he received five treatments over the next two days.

April 2002 02/313

Diver developed symptoms within 24 hours after diving two dives. Casualty transferred from hospital to hyperbaric unit. (Coastguard report).

April 2002 02/254

Two divers conducted a dive to 10m. Over 3 hours later they dived again, with another diver, this time to 22m. After 35 min one of the group deployed a delayed SMB. During the ascent one of the divers who had dived earlier lost control of his buoyancy at 16m and rose to the surface in 50 sec. He signaled distress and was recovered into the boat. His computer indicated missed decompression stops. He was placed on oxygen and the Coastguard was alerted. The others made a normal ascent. The diver was taken by helicopter to a recompression facility for treatment.

April 2002 02/316

Two divers reported to have missed decompression stops and transferred by nearby dive vessel to hyperbaric unit for treatment. (Coastguard report).

April 2002 02/318

One of a party of shore divers had suffered a rapid ascent and was experiencing DCI symptoms. Medical advice obtained and casualty transferred to hyperbaric unit by air. (Coastguard report).

April 2002 02/323

Shetland CG reported having a decompression incident, no further details. (Coastguard report).

April 2002 02/116

Three divers dived to a maximum depth of 36m. At 20m they deployed a delayed SMB. The buoy sank back down and one of the divers became tangled in the line. The divers made a fast ascent. One of the group tried to slow the ascent and his regulator began to free flow. Their total dive time was 28 min.

Two of the divers developed symptoms of DCI and were recompressed.

April 2002 02/322

Dive vessel reported via VHF Ch16 a diver exhibiting symptoms of DCI. Diver and buddy airlifted to shore where ambulance transferred them to recompression chamber. (Coastguard report).

May 2002 02/326

Female diver transferred to hyperbaric unit after suffering DCI symptoms. Had dived 13m for 27 min and 14m for 31 min from a rowing boat. (Coastguard report).

May 2002 02/126

A diver suffering from DCI and her buddy were flown by helicopter to a recompression facility for treatment. (Newspaper report only).

May 2002 02/286

Two divers, father and son, were separated on a dive. Son made a rapid ascent and missed some decompression stops. Casualty airlifted and father airlifted to nearby ambulance for transferal to recompression chamber. Both divers required treatment. (Coastguard report).

May 2002 02/327

Upon surfacing from 19m dive, diver displayed symptoms of DCI. Casualty airlifted and transferred to recompression chamber. Note: Casualty used ventolin inhaler before commencing dive. (Coastguard report).

May 2002 02/160

Two divers made a dive to a maximum depth of 30m. After 24 min they launched a delayed SMB and began their ascent. The SMB line became tangled on the wreck and the divers descended again to free it. This action caused their decompression requirements to increase. They ascended slowly to 6m where they stopped for 1 min. One of the pair ran low on air and used the alternative air source of the other diver. Their computers indicated the need for a 12 min stop at 3m but they had insufficient air for this. They surfaced missing decompression stops. One of the divers developed symptoms of DCI and was placed on oxygen. The Coastguard was alerted and the diver was taken back to the shore. The diver was taken by helicopter to a recompression facility for treatment.

May 2002 02/328

Shetland CG reported a diver with suspected DCI treated in ICIT recompression facility, no further details (Coastguard report).

May 2002 02/193

A diver conducted a dive to 17m. During the dive he had problems with his mask flooding. After about 32 min he tilted his head back to clear his mask again and his regulator began to free flow. He decided to end the dive and he made an ascent to the surface which took him about 4 min. About 45 min later he felt his wrist 'tighten'. His wrist felt sore but he assumed that he had sprained it. The following day the wrist problem was still evident and he sought medical advice. He reported to a recompression facility and he received two sessions of treatment which resolved the problem.

May 2002 02/330

Shetland CG reported having a decompression incident, no further details. (Coastguard report).

May 2002 02/132

A diver spent approximately 15 min at 34m and then ascended slowly with a 3 min stop at 3m. An hour later the diver had a skin rash and itching across her shoulder and stomach. She also experienced slight visual problems. She was placed on oxygen, which improved her condition. She was then taken to a recompression facility for treatment. This diver is believed to have a PFO.

May 2002 02/194

Three divers made a 35 min dive to 33m with a total of 7 min of decompression stops. The following day, 19 hours later, they dived again, this time to 28m for 52 min with a 3 min stop at 6m. The divers were using nitrox 36. About 1 hour 30 min after surfacing one of the group complained of an itchy shoulder. She was found to have a deep blue and red rash on her left shoulder and down the back of her left arm. She was placed on oxygen and the Coastguard was contacted. Advice was obtained from a recompression facility and she was airlifted for treatment. A further 90 min later one of the other two divers complained of 'pins and needles' in her legs and a numbness. The Coastguard was contacted again and both of the other divers were airlifted to the recompression facility. Both were found to have neurological DCI and they too were recompressed. One diver was recompressed twice, one three times and the third was recompressed a total of seven times.

May 2002 02/195

Two divers made a dive to 28m. With 3 min of no stop time remaining they deployed a delayed SMB. Whilst doing so they lost control of their buoyancy and started to make a rapid ascent. They managed to stop at 17m. At 15m, one of the divers, who was wearing a new drysuit, lost control of their buoyancy again and started to ascend rapidly. The other diver attempted to slow them down but they were both carried quickly to the surface, missing a planned safety stop. The ascent from 15m took 80 sec. The following day the diver who had tried to slow the ascent experienced pains in the joint of one finger. She sought medical advice and then went to a recompression facility where she received two sessions of treatment. She made a full recovery.

May 2002 02/127

Two divers completed a 38 min dive to a maximum depth of 32m. They carried out decompression stops as indicated by diving tables and a further 2 min as indicated by a computer that one of the pair was using. 20 min later, whilst climbing a ladder, one of the pair noted a numbness in his leg. He then reported a pain in his spine. The diver was placed on oxygen, laid flat and given fluids. The boat was maneuvered to a position where radio contact could be made with the Coastguard and assistance was requested. The diver was taken by boat and then lifeboat to a position where he could be picked up by a helicopter. Both divers were then flown to a recompression facility. The casualty developed balance problems. He was given recompression treatment. The buddy was found to be symptom free.

May 2002 02/209

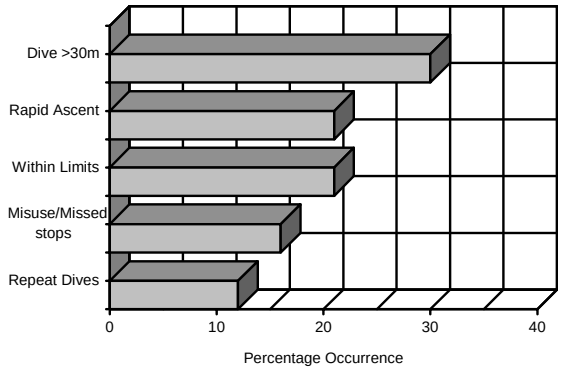
A trainee and another diver descended to the stern of a wreck. They then headed off in the wrong direction and moved into deeper water. At 30m the dive leader decided to deploy a delayed SMB and to ascend. During the ascent he lost control of his buoyancy and became caught in the SMB line. The other diver followed. He was dragged up at a fast rate. At 15m he

freed himself and slowed the ascent. However both divers came straight to the surface missing decompression stops. They were placed on oxygen. The Coastguard was alerted and both divers were airlifted to a recompression facility for treatment.

May 2002 02/142

Two divers surfaced too quickly and were taken by lifeboat to a recompression facility for treatment. (Newspaper report only).

Percentage analysis of factors involved in cases of DCI



June 2002 02/339

Skipper of dive boat reported diver with suspected DCI (dived 17m 32 min). Casualty suffering from cold and 'pins and needles'. Medical advice sought and casualty transferred to hospital for treatment via ambulance. (Coastguard & RNLI reports).

June 2002 02/341

Dive boat called for assistance, following diver surfacing with symptoms of DCI losing consciousness following a 60m dive. Airlifted to Poole recompression chamber by Coastguard rescue Helo. (Coastguard report).

June 2002 02/146

A diver conducted a 39m dive for 35 min with a 10 min stop at 6m. He was wearing a tight 3mm wetsuit top under his drysuit as the suit was leaking. After this dive he felt a little discomfort in his upper right arm. He put this down to the tight wetsuit top and the fact that he had earlier pulled up a 25kg shot from 40m. 3 hours 32 min later he dived again, this time to 31m for 35 min with a 4 min stop at 6m. After this second dive his arm still felt uncomfortable. Once ashore he sought medical advice and went to a recompression facility for treatment.

June 2002 02/197

Two divers completed a dive to a maximum depth of 53m. The dive leader used nitrox 25 and the other used air. They deployed a delayed SMB and started their ascent. They ascended quickly to 25m where the dive leader slowed the ascent. The dive leader switched over to his decompression gas, nitrox 40. Whilst doing so he became buoyant and rose rapidly. He was able to stop at 8m and tried to swim back down to his buddy. He became entangled in the SMB line and rose to the surface missing stops. At the surface he summoned help from the boat. He was placed on oxygen. The SMB line also became tangled around the boat's propellers. The line was cut free. The buddy reeled in the line, attached his lifting bag and completed 23 min of decompression stops before surfacing. Within 20 min of surfacing, the diver who had missed stops, noted the loss of hearing in one ear and a numbness across his stomach and down his left leg. The Coastguard was alerted and the diver was airlifted to a recompression facility. He received recompression therapy daily for the following week.

June 2002 02/147

Two divers undertook a dive to a maximum depth of 33m. After 14 min the dive leader signaled the ascent and deployed a delayed SMB. They started to ascend but at 27m the other diver was unable to release air from her drysuit and started a buoyant ascent. The dive leader grabbed hold of her but was unable to stop her making a rapid ascent to the surface. The dive leader stopped to conduct the necessary decompression. The buoyant diver was recovered into the boat and placed on oxygen. She experienced a tingling in her fingers and was taken by helicopter to a recompression facility for treatment. She made a full recovery.

June 2002 02/342

After diving to 55m for 23 min and missing decompression stops, diver displayed serious symptoms of DCI. Airlifted to hyperbaric unit for treatment. (Coastguard report).

June 2002 02/149

Divers surfaced from 34m having missed 12 min stop. Both were showing signs of shock and were given oxygen after taking medical advice. Both transferred by helicopter to hyperbaric unit for treatment. (Coastguard report).

June 2002 02/344

As a result of missing a decompression stop during a 24m dive, DCI symptoms were experienced by a diver the following day. After taking medical advice, he was airlifted to hyperbaric unit. (Coastguard report).

June 2002 02/215

Two divers descended to 35m. At this point one of their regulators began to free flow. Both made a rapid ascent to the surface. The diver with the free flow arrived first and although he showed no symptoms he was placed on oxygen. The following morning he developed a tingling in his hands and feet. He went to a recompression facility for treatment. The buddy was also examined but not recompressed. The following day the buddy developed shoulder pain and she too was recompressed. She was left with a tingling in her hand which resolved within a week.

June 2002 02/346

19 year old diver with suspected PFO airlifted to Orkney recompression chamber (ICIT) for treatment (Coastguard report).

June 2002 02/350

Diver surfaced from a 24m dive complaining of numbness and pain in the back, airlifted to Poole recompression facility for treatment. (Coastguard report).

June 2002 02/164

A diver was ascending from a dive to 72m, 22 miles offshore. At 30m he began to have convulsions and lost consciousness.

He floated to the surface where he was recovered into the dive boat. The Coastguard was alerted and a helicopter and nearby vessels were tasked to support. The diver was transferred to a hyperbaric unit. (Coastguard and Newspaper reports).

June 2002 02/352

Diver surfaced from a 70m dive 18 min suffering DCI dizziness and pain in knee, transferred to DDRC Derriford by R193; was using rebreather 10/50 Helium/Air. (Coastguard report).

June 2002 02/260

Three divers descended a shotline to a wreck in a depth of 38m. The dive leader had difficulty clearing his ears during the descent. At the bottom they connected a distance line and swam along the side of the wreck. After a while the dive leader signaled that they should rise up to the top of the wreck. One of the other divers did not respond. She was not moving and her eyes were wandering. The dive leader took hold of her and brought her back to the shotline. She took hold of the shotline and refused to let go or to ascend. With the third diver's assistance the dive leader forcibly restrained the troubled diver and they ascended. They completed 7 min of decompression stops during which the troubled diver was still confused and struggling. They finally surface missing 1 min of decompression stop. Once at the surface they were recovered into their boat. The diver remained confused for 30 min. The dive leader was found to have blood in his mask. Just under an hour after surfacing the dive leader noticed a pain in his right leg and the third diver had a pain in his shoulder. Both these divers were placed on oxygen and taken to a recompression facility for treatment.

June 2002 02/351

Diver at commencement of dive sank to 28m, was brought to surface by buddy on a lift bag, suffering a burst lung, blood around mouth suffering unconsciousness. Airlifted by R-VA to QAH Portsmouth. (Coastguard report).

June 2002 02/261

Four divers completed a dive to a maximum depth of 54m using trimix 18/45. They started their ascent after 25 min. They made 1 min stops at 30, 27 and 24m. They switched to nitrox 50 at 21m where they made a 5 min stop. They made 1 min stops at 18, 15 and 12m, a 3 min stop at 9m and an 11 min stop at 6m. After a surface interval in excess of 5 hours two of them dived again. They dived to 48m using trimix 21/35 and started their ascent after 35 min. They stopped for 1 min at 27 and 24m. They switched to nitrox 50 at 21m where they made a 5 min stop. They made 1 min stops at 18, 15 and 12m, a 4 min stop at 9m and a 13 min stop at 6m. Shortly after surfacing one of the divers noticed that his arms felt achy, with flu-like symptoms. He was placed on oxygen for 25 min. This relieved the symptoms slightly. He also noted blotches and wiggly lines in his vision. He continued to feel weak and tired. The following morning he still felt weak and had pains in his legs. He sought medical advice and attended a recompression facility. He and his buddy were recompressed.

June 2002 02/262

Four divers completed a dive to a maximum depth of 55m using trimix 18/45. They started their ascent after 25 min. They made 1 min stops at 30, 27 and 24m. They switched to nitrox 50 at 21m where they made a 5 min stop. They made 1 min stops at 18, 15 and 12m, a 3 min stop at 9m and an 11 min stop at 6m. At the 6m stop one of the divers switched to oxygen. 15 min after surfacing he noted an ache in his right elbow. He breathed oxygen and drank water and the symptoms resolved. He made no further dive that day.

June 2002 02/178

A diver undertook a dive to a maximum depth of 74m. He became entangled and may have run low on air. He made a rapid ascent to the surface, missing decompression stops. He was airlifted to a recompression facility for treatment.

June 2002 02/353

Diver surfaced being sick and lapsing in and out of consciousness. Mobile phone used to alert CG. Recovered by Helo, taken with buddy to Poole recompression facility. (Coastguard report).

June 2002 02/216

Two divers completed a dive to 36m for 30 min. The following day, 18 hours later, they dived again, this time to 41m. Their bottom time was 25 min with the first stop at 27m and a total dive time of 67 min. They used nitrox 80 from 9m to the surface. Shortly after the dive, one of the pair felt a slight flush across his chest and then he became dizzy. He sat down and breathed nitrox 80. The boat returned to shore. The diver still felt dizzy and was unable to walk. He was placed on oxygen. He began to vomit and the emergency services were contacted. He was airlifted to a recompression facility where a neurological DCI was diagnosed. He received recompression treatments over the next five days. A test for a PFO was planned.

June 2002 02/354

Diver made a rapid ascent following a 29m dive for 38 min missing 26 min deco after becoming buoyant and unable to maintain buoyancy, airlifted to recompression facility at Hull. (Coastguard report).

June 2002 02/468

A diver suffering from a mild case of DCI was taken to hospital by helicopter. He was released the following day. (Newspaper report only).

June 2002 02/217

Two divers dived to 37m. At the bottom one of the pair signaled ascent. They returned to the surface. The diver had a panic attack and hyperventilated. Later that day he successfully dived to 15m for 30 min. The following day he dived to a wreck. They swam down the wreck towards the seabed at 45m. At 33m the diver again signaled ascent. His buddy could not calm him. They returned to the shotline. The diver started to panic and made a fast ascent to the surface. His buddy followed. At the surface he removed his mask and called for help. The buddy towed him to the boat. He was breathing but incoherent. He was assisted from the water. He was placed on oxygen and the buddy breathed nitrox 50. The skipper alerted the emergency services, arranged for other boats to collect the remaining divers and returned to the shore. They were met by an ambulance and both divers were placed on oxygen. The buddy developed a muscular pain in his left elbow and was taken to a recompression facility for treatment. The panicked diver did not develop symptoms.

June 2002 02/358

Dive boat calls for assistance after a diver surfaces from a 45m nitrox dive, complaining of pains in shoulder and headaches, met by ambulance and transferred to recompression chamber for treatment. (Coastguard report).

June 2002 02/361

After a rapid ascent from 35m two divers airlifted from dive boat JBC, taken to Poole hyperbaric chamber, treated for 7 hours,

one showing signs and symptoms of DCI. (Coastguard report).

June 2002 02/169

A diver made a rapid ascent from 35m. The Coastguard was alerted and medical advice was sought. The diver was flown by helicopter to a recompression facility for treatment. (Coastguard report).

June 2002 02/359

Diver made a rapid ascent from 12m after a 33 min dive, treated by paramedics on scene, transferred to DDRC by air ambulance. (Coastguard report).

June 2002 02/175

A diver was at the beginning of a dive at a depth of 28m. He signaled that he was unwell to his buddy and then made a rapid ascent to the surface. The total dive duration was 3 min. He was recovered into the boat and placed on oxygen. The diver suffered a DCI. The Coastguard was alerted and the diver was evacuated by helicopter.

July 2002 02/367

Following wreck dive depth unknown, diver airlifted by helo to Murryfield recompression unit possible DCI. (Coastguard report).

July 2002 02/202

A group of four divers completed a 16 min dive to 21m and then ascended to 10m to conduct an air sharing drill. One diver used the alternative air source of another and they ascended to 6m. This diver then resumed breathing from her own regulator and they went back to 10m to swap over. During the descent the diver who had been supplying air heard a bang and then felt dizzy, but he continued. He took the alternative air source of his buddy and they ascended once more. At 6m he was breathing very heavily and the donor diver found that her own regulator was not giving her enough air. At one point she inhaled water. She spat out the regulator and prepared to take the instructor's alternative air source. The other trainee switched back to his own regulator. The instructor gave the first trainee her own regulator back and it worked correctly. The group then surfaced from 6m in 20 sec. The following day the diver who had inhaled water developed a headache which continued into the next day. On this next day she awoke to find her right heel swollen and her big toe painful and tingling. She sought medical advice and attended a recompression facility for tests. A spinal DCI was diagnosed and she received two sessions of recompression treatment which greatly improved her symptoms. The other diver experienced ear pain during the journey home and he was subsequently diagnosed with a perforated eardrum.

July 2002 02/369

Two divers surfaced after completing a dive to 30m for 18 min with stops. Recovered by another dive boat, one diver developed symptoms of DCI and was visibly sick. Airlifted to recompression chamber in Poole. (Coastguard report).

July 2002 02/176

Three divers conducted a dive to a depth of 28m. After 22 min they deployed a delayed SMB. One of the divers' crab hook jammed the reel and he was dragged upwards. One of the others grabbed hold of this diver and released the jamb and the SMB was correctly deployed. They started their ascent. Then the diver who had been dragged upwards experienced a problem with his mask and began a rapid ascent. One of the others followed him for a short distance and then let him go and made a normal ascent. The troubled diver went straight to the surface. The other two completed a 3 min stop at 6m and a 1 min stop at 3m. The diver who had made the rapid ascent was recovered into the boat and placed on oxygen. The Coastguard was alerted and a helicopter tasked to assist. The diver developed pains in his legs and he was taken to a recompression facility where he received a series of recompression treatments over a number of days.

July 2002 02/203

Two divers conducted a dive to 39m. After 16 min they returned to the shotline to make their ascent. One of the pair pulled the shot weight onto the wreck and attached a lifting bag. They made a slow ascent to 6m to complete a 5 min stop that was indicated by one of their computers. Other divers were using the shotline and this made it difficult for the two decompressing divers to maintain their depth. With 1 min of stops remaining they deployed a delayed SMB and moved away from the shotline. Whilst deploying the delayed SMB they lost depth control and approached the surface. They terminated the dive and were recovered into their boat. Within minutes one of the pair developed a headache. He was placed on oxygen. He became dizzy and nauseous. The Coastguard was alerted and they were met by an ambulance on their return to harbour. The casualty and his buddy were taken to a recompression facility. The casualty received more than one recompression treatment. The buddy showed no symptoms and was released. Dehydration was thought to have been a significant factor in the DCI.

July 2002 02/371

Diver who was vomiting prior to a dive completed dive to 26m for 37 min, missed stops of 9 min at 3m. Diver and buddy airlifted to Poole recompression chamber. (Coastguard report).

July 2002 02/191

A diver completed a dive to a maximum depth of 31m for a duration of 30 min with a 1 min stop at 6m. Back on the boat he suddenly complained of chest pains and dropped to his knees. He was placed on oxygen. The pain quickly progressed to his back and he felt a numbness in his legs. The boat was met at the harbour by an ambulance and the diver and his buddy were taken to a recompression facility. The buddy showed no symptoms and was released. The casualty received a series of recompression treatments and was making a slow recovery. His computer did not indicate any problems with the dive profile.

July 2002 02/205

A diver ascended from a no stop dive to 34m. At 17m he lost control of his drysuit buoyancy and made a faster than normal ascent to the surface. He was unable to dump air fast enough from his suit. Once back in the boat he noticed that he had 'pins and needles' in his thumb. The diver was placed on oxygen and the Coastguard was alerted. Once back ashore he was taken by ambulance to a recompression facility where he received treatment.

July 2002 02/372

Three hours after completing a dive to 33m 42 min, diver complained of headache, nausea, tingling, dive boat sought medical advice, advised to evacuate to recompression facility. (Coastguard report).

July 2002 02/244

A diver completed a 37 min dive to a maximum depth of 32m. Shortly after getting back into the boat he complained of a pain in the right side of his abdomen. This developed into a numbness and 'pins and needles' in his leg. He was laid down

and placed on oxygen. The Coastguard was alerted and a helicopter was tasked to assist. At this point mist descended and the helicopter was guided to the boat by continuous VHF radio transmissions. The diver and his buddy were taken to a recompression facility. The casualty received several recompression treatments. The buddy had no symptoms and was not treated.

July 2002 02/245

A diver completed a dive to a maximum depth of 46m. The dive time was 48 min which included 18 min of decompression stops. Early the following morning he woke with a bad pain in his shoulder. The Coastguard was alerted and the diver was taken by ambulance to a recompression facility where he was successfully treated.

July 2002 02/206

A diver suffering from lower back pain and 'pins and needles' in his legs was taken by helicopter to a recompression facility. (Newspaper report only).

July 2002 02/373

Following a dive to 40m 61min, 2.5 hrs later diver becomes unwell, suspected decompression illness, taken by ambulance to recompression facility. (Coastguard report).

July 2002 02/220

A diver conducted a series of ten dives over a five day period. Depths ranged from 17 to 35m and typically included decompression stops. On the sixth day, with an 18 hour surface interval, he dived to 34m. He started his ascent after 30 min and decompressed for 8 min at 6m. 23 min after surfacing, he felt a pain in the small of his back and, 5 min later, 'pins and needles' in his right leg. He was placed on nitrox 75. 15 min later the symptoms had gone. The Coastguard was alerted. Once ashore he was placed on oxygen and taken by ambulance to a recompression facility for treatment.

July 2002 02/374

Following a dive to 69m, 2 hours later diver complains of feeling of unwell, headache, pinpoint pupils and loss of feeling. Diver airlifted to recompression facility for treatment. (Coastguard report).

July 2002 02/375

Two divers reported direct to recompression chamber, treated for 6 hours, no further details. (Coastguard report).

July 2002 02/221

A diver descended to a depth of 25m. Soon into the dive he heard air filling his BCD and he began to make a buoyant ascent. He dumped air as fast as he could and slowed his ascent at 4m. He was carried to the surface without a stop. His dive duration was 10 min. He got back into the boat and drank water. The following morning he felt unwell and sought medical advice. He went to a recompression facility and was recompressed, with a further treatment the following day.

July 2002 02/376

Following rapid ascent from 35m after 15 min, misses 1 min stop. Diver experienced tingling in one hand, transferred to chamber by ambulance. (Coastguard report).

July 2002 02/208

A diver completed a 39 min dive to a maximum depth of 31m; her computer did not indicate stops. 3 hours 56 min later she dived again, this time to 27m for 36 min and again no stops were indicated. During the dive she suffered a bad neck seal leak. 30 min after this dive she began to feel nauseous. She attributed this to sickness suffered during the previous 3 days caused by her taking antibiotics. 2 hours later she passed over a 300m high mountain pass on her journey home. She experienced hot itchy skin on her upper arm and shoulder; this was where the leak had occurred. The following day she sought medical advice and received three recompression treatments over the next three days for a neurological DCI. Tests for a PFO were planned.

July 2002 02/434

Two divers made a normal ascent from a 30m dive 20 min. One complained of joint pain and 'pins and needles' in legs, placed on oxygen, airlifted to DDRC by rescue Helo. (Coastguard report).

July 2002 02/379

Dive boat reports diver on board suffering from suspected decompression sickness, following a 32m dive for 43 min inc 9 min at 3m stop, missing 10 min of stops. Taken by land ambulance to recompression facility. (Coastguard & Newspaper reports).

July 2002 02/380

Diver made an uncontrolled ascent from 26m, became sick and disoriented on the surface, airlifted to recompression facility for treatment. (Coastguard report).

July 2002 02/381

Dive vessel called Shetland CG informing of two divers with suspected decompression illness, both met by ambulance and taken to recompression facility for treatment. (Coastguard report).

July 2002 02/382

Female diver surfaced, displayed signs of mild DCI, administered oxygen, airlifted by helo to recompression chamber in Poole. (Coastguard report).

July 2002 02/383

Diver surfacing from 30m dive 22 min, 8 min deco, having made repetitive dives all week, complained of 'pins and needles' in leg, casualty was airlifted to recompression facility for treatment. (Coastguard report).

July 2002 02/224

Two divers made a dive to 30m. During the dive one of the pair experienced problems with a leaking mask. After 30 min and with 3 min decompression indicated they made their ascent up a shotline. They started their decompression stop at 7m. The diver was still experiencing problems with his mask when it was kicked off by another diver using the shotline. The diver panicked and made a rapid ascent to the surface followed by his buddy. They were recovered into the boat. Both computers indicated a fast ascent warning and 15 min missed decompression. The panicked diver noted a problem with his elbows. Both were placed on oxygen and the Coastguard was alerted. The divers were airlifted to a recompression facility where the diver with symptoms was successfully recompressed.

July 2002 02/384

Diver airlifted from dive boat following a rapid ascent from 28m.

Diver showed signs of DCI, was barely conscious on surface. (Coastguard report).

July 2002 02/386
Diver makes a rapid ascent from 36m after a 35 min dive missing 15 min of stops, dive boat met ambulance alongside and transferred casualty to recompression facility. (Coastguard report).

August 2002 02/265
Diver complained of joint pain following a series of dives. The first was 35m for 27 min and the second was 27m for 43 min. Diver and buddy airlifted to Poole recompression chamber for treatment. (Coastguard report).

August 2002 02/266
A diver suffering from DCI was taken by lifeboat and ambulance to a recompression facility for treatment. (Newspaper report only).

August 2002 02/246
A diver completed a dive to 37m for 36 min with 9 min of decompression stops. 2 hours 19 min later she dived again. This time to 26m for 37 min with a 2 min decompression stop. Back on the boat she felt 'pins and needles' in her left hand, she thought that this was due to a tight cuff on her drysuit. 2 hours later her shoulder felt sore when touched. She had a rash and bruising on her skin, which spread over her back and trunk. She sought medical advice and went to a recompression facility for treatment. The diver was thought to have been dehydrated due to an earlier stomach problem and diarrhea.

August 2002 02/388
Dive boat calls for assistance, for two divers suffering from suspected decompression illness, vessel met by ambulance, divers transferred to recompression facility. (Coastguard report).

August 2002 02/229
A diver suffering from DCI was treated at a recompression facility. (Newspaper report only).

August 2002 02/292
A diver completed three dives over a two day period. The first to 37m for 41 min with a 2 min stop at 9m and a 14 min stop at 6m. The second, 3 hours 54 min later, was to 31m for 47 min with a 2 min stop at 9m and a 15 min stop at 6m. The third, 20 hours later, was to 37m for 47 min with a 3 min stop at 9m and a 17 min stop at 6m. Following this dive she felt generally unwell and lightheaded. She was placed on oxygen for 50 min and the symptoms resolved. The following morning she had a 'strange sensation' in her upper arms and back and felt 'muzzy headed'. She sought medical advice and received three sessions of recompression treatment. Her symptoms were resolved and she was advised that it was probably the second dive which caused the problem.

August 2002 02/389
Diver surfaced from 57m dive, missing 12 min of stops, developed 'pins and needles' in left side, airlifted to Queen Alexander's Hospital Portsmouth. (Coastguard report).

August 2002 02/390
Belgian diver reports a feeling of unwell following a dive to 45m for 45 min on air. Dive boat met by ambulance transferring casualty to recompression facility. (Coastguard report).

August 2002 02/391
Diver completed dive to 36m for 7 min; 50 min after surfacing complained of dizziness, giddiness and was losing consciousness, treated by dive boat skipper oxygen, evacuated by rescue Helo to DDRC, suspected DCI incident. (Coastguard report).

August 2002 02/248
A diver completed an 83 min dive to 42m including a total of 39 min decompression. He dived using nitrox 26 and decompressed on nitrox 80. Several hours later he noticed a skin rash on his right arm. He sought medical advice and went to a recompression facility where he received three treatment sessions.

August 2002 02/212
A diver surfaced from a trimix dive, in a quarry, to a depth of 106m. He called for help as he had missed 60 min of decompression stops. Other divers came to his assistance. This diver wanted to do in water recompression and was given a 10l cylinder with nitrox 40. A diver from another party descended with him to 6m. The Coastguard and a recompression facility were alerted. A cylinder of nitrox 80 was located and taken down to the recompressing diver. A slate was used to communicate with the diver and he expressed concern for his buddy. Bubbles were spotted and two divers went to investigate. They found the other three members of the first diver's group decompressing at 17m. They were low on gas and further gas supplies were taken to them by others. When the emergency services arrived the diver was brought to the surface and placed on oxygen. He was airlifted to a recompression facility for treatment. The other three divers surfaced safely.

August 2002 02/399
Diver admits self to recompression chamber for treatment, treated for 2.3 hours. Readmitted next day same treatment! (Coastguard report).

August 2002 02/401
Diver surfaced mid channel with suspected DCI, airlifted to Queen Alexander Hospital for treatment. (Coastguard report).

August 2002 02/267
Two divers with suspected DCI were taken by lifeboat to a recompression facility. (Newspaper report only).

August 2002 02/476
A diver dived to 70m using mixed gas. At 30m he is reported to have suffered a convulsion after switching to the wrong gas, which was too oxygen rich, to decompress. His buddy sent him to the surface where he arrived unconscious. He was recovered into the boat and was subsequently airlifted to a recompression facility for treatment. He is reported to have made a full recovery. (Newspaper report only).

August 2002 02/232
Dive boat reports diver surfacing suffering from DCI following a dive to 22m. Airlifted to Poole recompression facility. (Coastguard report).

August 2002 02/231
Two divers were treated for DCI. (Newspaper report only).

August 2002 02/271

A diver completed a 51 min dive to 35m including 12 min of decompression stops. 90 min later he experienced abnormal vision and could not focus properly. He sought medical advice and received recompression treatment.

August 2002 02/237

A diver using nitrox 34 dived to 27m for a total of 37 min with 7 min of decompression stops. On the journey home he felt very tired. The following morning his left arm ached slightly. The day after that his feet and fingers felt numb and tingled. He sought medical advice and received three sessions of recompression treatment over a period of three days.

August 2002 02/405

Dive boat 'Tina' called for assistance, after diver made rapid ascent, was unconscious at surface. Airlifted to hospital, transferred to recompression chamber for treatment. (Coastguard report).

August 2002 02/240

Two divers made a rapid ascent from 57m after 25 min missing 30 min of stops. They were airlifted to DDRC hyperbaric facility at Plymouth. (Coastguard report).

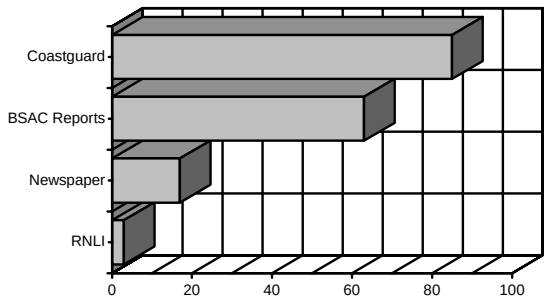
August 2002 02/406

Diver surfaced with possible bends, placed on oxygen, airlifted to Aberdeen RI. (Coastguard report).

August 2002 02/407

15 year old French diver self admitted to recompression facility, treated for 4.45 hours. No further details. (Coastguard report).

Decompression data source analysis



September 2002 02/409

Dive boat reported having diver complaining of joint pain, 'pins and needles' in hand following 63m dive for 40 min, which included 20 min bottom time. Diver and buddy airlifted to DDRC Derriford. (Coastguard report).

September 2002 02/274

Two divers were completing a dive to a maximum depth of 33m. At 10m one of the pair noticed that the delayed SMB line was caught around his arm. Whilst resolving this problem the diver was distracted and lost control of his buoyancy. He made a fast ascent to the surface missing decompression stops. His total dive time was 34 min. He was recovered into the boat and placed on oxygen. His buddy made a normal ascent. The following day the diver who had made the fast ascent became concerned about DCI and he sought medical advice. He received recompression treatment and his symptoms were fully resolved two days later.

September 2002 02/290

A diver conducted two dives on the second day of a diving trip. The first was to 31m for 31min with 5 min of decompression stops. 1 hour 59 min later he dived again. This time to 21m for 36 min with 4 min of decompression stops. 10 min after surfacing he noticed a pain in his shoulder. He had a red rash and itching on his bicep. He was placed on oxygen and the Coastguard was alerted. The diver and his buddy were taken by helicopter and ambulance to a recompression facility. The diver with symptoms was treated, his buddy was not.

September 2002 02/411

Diver self admits to recompression facility, treated for 6 hours in chamber, no further details. (Coastguard report).

September 2002 02/415

Diver surfaces from a 27m dive 31min complaining of shoulder pain, met by ambulance, transferred to recompression facility, treated for 5 hours. (Coastguard report).

September 2002 02/418

Diver surfaced from 34m dive 20 min complaining of back pains, and pains in left shoulder and arm. Dived from own boat with buddy leaving the 38ft boat unattended. Casualty airlifted to DDRC Plymouth, buddy left to bring dive boat back to shore. (Coastguard report).

September 2002 02/277

A diver completed a dive to 43m then switched to nitrox 45 to decompress and conducted a 15 min stop at 4m. His total dive time was 42 min. 3 hours 29 min later he dived again. This time to 31m. He conducted 4 min of decompression on nitrox 25 at 4m. His total dive time was 33 min. One hour later he complained of 'pins and needles' in his right leg. He was given oxygen and water. The Coastguard was alerted and the diver was taken by ambulance to a recompression facility. He was successfully treated for a neurological DCI.

September 2002 02/423

Following a 999 call to Falmouth Coastguard, a dive centre reported having a diver suffering from suspected DCI. Diving doctor recommended airlift to recompression facility, casualty transferred to Navy Helo R-193, taken to DDRC Plymouth. (Coastguard report).

September 2002 02/280

Two divers completed a dive to a maximum depth of 26m. They ascended by a shotline and no stops were indicated by their computers. Their total dive time was 33 min. Immediately after leaving the water one of the divers complained of pains in his head and neck. He felt sick and vomited. He was placed on oxygen. The boat journey back to harbour was 90 min. On shore he had balance problems. He was taken to hospital and from there to a recompression facility for treatment.

September 2002 02/426

Diver complained of dizziness 20 min after a 45 min dive to 27m, airlifted to recompression facility by Coastguard Helo for treatment. (Coastguard report).

September 2002 02/427

Dive boat called Portland CG by mobile phone, reported having a male diver with symptoms of DCI. Diver airlifted by Coastguard Helo to Poole recompression facility for treatment, buddy also accompanied casualty. (Coastguard report).

September 2002 02/429

Dive boat reports having a diver aboard suffering from suspected decompression sickness, airlifted to recompression facility. (Coastguard report).

September 2002 02/288

Two divers completed a dive to 40m with a 3 min stop at 3m, 1 min longer than their computer indicated. Later one of these divers complained of a pain in her shoulder. She was found to have a red rash on her shoulder. She was placed on oxygen and the emergency services were alerted. The diver and her buddy were flown to a recompression facility. The diver with symptoms was given two sessions of treatment. It is thought that the diver's DCI could have been exacerbated by viral infection which had caused her to become dehydrated. She was also found to have a ruptured eardrum, although this was not considered to be related to this incident.

September 2002 02/467

A diver suffering from DCI was placed on oxygen and taken by lifeboat to a recompression facility for treatment. (Newspaper report only).

Injury / Illness

October 2001 02/010

A diver completed a dive to 30m. 2 hours later she made a second dive, this time to 18m. 1 min into this dive she coughed her regulator out and would not replace it. Her buddy brought her to the surface. Some time later she complained of chest pain. She was placed on oxygen and taken to hospital. She received intensive checks and was discharged later that day.

October 2001 02/011

A diver made a series of three dives. First to 19m for 10 min. 1 hour later she dived again to 21m for 35 min, then a further hour later she dived to 21m. About 15 min into this third dive she experienced a problem with her ear and then made a rapid ascent to the surface. Her buddy followed. At the surface she was very distressed and had a lot of pain in her ear. She was placed on oxygen and taken to hospital. It was discovered that this diver had pressurized air trapped in her middle ear. The ear drum was intact. There were no signs of DCI. She was discharged from hospital the same evening.

November 2001 02/022

A diver completed a 20 min dive to a maximum depth of 11m. After the dive she was cold and had numb feet and 'pins and needles'. Her neoprene drysuit was very tight. Her suit was removed and she was warmed. She was placed on oxygen as a precaution. Her symptoms resolved.

November 2001 02/025

A trainee diver conducted a series of three dives. The first to 20m for 23 min with a 1 min safety stop. The second dive was to 19m for 25 min with a 3 min safety stop, and the third to 19m for 19 min. The intervals between the dives were 2 hours and 2 hours and 7 min respectively. During the third dive he experienced problems clearing his ears. He made a slow descent. At 18 m he indicated a problem with his ear and the trainee and his two buddies made an ascent to the surface. This ascent was slightly faster than normal. On the surface the trainee stated that his ear had suddenly become painful at depth. There was blood in his mask, his hearing was dull and his ear was still painful. Medical advice was sought and a ruptured ear drum was diagnosed.

November 2001 02/026

A trainee diver conducted three dives. The first two were 10m for 30 min and 6m for 30 min. As she descended on the third dive she experienced ear pain at 2m and the dive was aborted. The diver was taken to hospital and a ruptured eardrum was diagnosed.

November 2001 02/079

Two divers undertook a wreck dive to a maximum depth of 32m. When one of the pair had 100 bar left they settled onto the wreck to deploy a delayed SMB. The SMB line became tangled and the diver dropped the uninflated buoy which fell into the wreck. They abandoned this buoy and used the delayed SMB of the other diver. By this time they had run into decompression time. Whilst ascending they found the SMB midwater. They put more air into the buoy and sent it to the surface. At the 6m stop one of the pair had only 40 bar. They finished their stops and did a 3 min safety stop at 3m. When the dive leader's computer had cleared he signaled that they should surface. Once back in the boat it was noted that the other diver's computer showed that stops had been missed. After a surface interval of 1 hour 55 min, the dive leader dived again to a maximum depth of 17m. After 40 min they started their ascent and conducted a 3 min safety stop at 6m. The following day this diver noted a tingling in his back and down his left leg. He sought medical advice and attended a hospital. A trapped nerve in his spine was diagnosed.

December 2001 02/050

Two divers were descending to a depth of 18m when one of the pair experienced a pain in his ear. They aborted the dive. The ear pain continued.

December 2001 02/045

A diver conducted a 26 min dive to 20m. Later that day he made a surface swim to the second dive site. During the swim he became unwell and exhausted. The dive was aborted.

January 2002 02/034

A diver conducted a 33 min dive to 26m. 1 hour and 54 min later he dived again, this time to 21m for 28 min. He then felt ill and began to vomit. He was placed on oxygen for 20 min and monitored for signs of DCI.

January 2002 02/054

A diver completed a 22 min dive to a maximum depth of 19m. After the dive he experienced bruised and swollen hands. It is thought that new cuff seals fitted to his drysuit were too tight. After 20 min his hands had recovered.

January 2002 02/055

A diver participating in controlled buoyant lift training conducted an ascent from 15 to 6m. She made a second attempt which resulted in a fast ascent from 6m to the surface. At the surface she was cold and complained of a headache. She left the water and was placed on oxygen and wrapped in blankets. She later recovered. This diver had been wearing a semi-drysuit in water at 5 deg. C.

January 2002 02/214

A diver involved in pool training slipped at the poolside and fell into the pool. Her diving cylinder struck the pool edge and damaged tiles. She was pulled out of the water over the broken tiles and received a deep cut to the back and a smaller cut to the front of her left leg. She was taken to hospital for treatment.

February 2002 02/302

Report via mobile phone indicating a diver onboard a dive vessel had badly lacerated hand and fingers. Injuries sustained whilst diving on a wreck and not wearing gloves. Casualty taken ashore and transferred by ambulance to hospital. (Coastguard report).

March 2002 02/097

A diver was leaving the water by a slipway. He fell and fractured his ankle.

April 2002 02/102

A diver was preparing to enter the water down a slipway when he fell. He broke both lower bones in his right leg. He was taken by ambulance to hospital for treatment.

April 2002 02/115

A child was participating in a 'try dive' session in a pool. She had grommets in her ears. She indicated that she wanted to surface and complained of feeling dizzy. She was helped from the pool and given oxygen. Later she again complained of dizziness, her respiration rate was increased and she felt cold. She was placed back on oxygen. Her respiration rate increased and she felt 'pins and needles' in her hands and feet. Her respiration rate rose to 40 per min and her heart beat to 160 per min. She breathed into a bag to try to slow her respiration rate. She was taken to hospital where a number of tests were carried out. She suffered a seizure. Drugs were administered and she quickly recovered.

April 2002 02/106

Whilst at the surface, a diver struck his head against another diver's air cylinder. His head was cut and he was taken to hospital for treatment.

April 2002 02/317

Three divers airlifted to recompression facility after raising the alarm by whistling, one diver detained after bursting ear drum. (Coastguard report).

April 2002 02/136

Three divers conducted a controlled buoyant lift training drill from 6m to the surface at the end of their dive. They then re-descended to 6m to repeat the drill. During the second ascent the diver who was acting as the casualty felt that they were ascending too quickly and his ears would not clear. He felt very dizzy. At the surface his ears would still not clear and he went to see his doctor. A slight inflammation was found but no perforation. Two weeks later his ears were normal and he dived again.

April 2002 02/114

Three divers entered the water from a dive boat. One was slow to enter and rolled on top of another diver hitting her head. All divers were recovered from the water and the diver who had hit her head was found to have a bruise but was otherwise well. She did not complete the dive.

April 2002 02/319

Concern for diver with sinus bleeding. Medical advice obtained and recommendation to see GP on return to shore. (Coastguard report).

April 2002 02/324

Medical assistance required for injured diver close to shore. Casualty recovered by ILB and transferred to care of awaiting ambulance crew. (Coastguard report).

May 2002 02/119

A trainee completed his first open water dive and was conducting a surface swim prior to his second dive when he suddenly became very breathless. The instructor towed him to the shore. He was given oxygen and an ambulance was called. A blood clot on the lungs was diagnosed and it was stated that this was not caused by diving.

May 2002 02/123

Three divers commenced a dive to a maximum depth of 10m. At the bottom, one of the group indicated a problem with her air supply. One of the other divers located the troubled diver's alternative air source and offered it to her, but this was refused. She then signaled that the troubled diver should take her alternative air source but she could not release this. She therefore gave her own regulator and attempted to use her alternative air source. The alternative air source was not easily accessed and she was only able to use it upside down. Short of air she began to panic, signaled an ascent and swam to the surface. The third diver followed her to the surface and then returned for the second diver. She found her lying unconscious on the bottom. She was not able to replace the casualty's regulator. She brought her to the surface using a controlled buoyant lift. At the surface she began to give AV. The first diver to surface had raised the alarm and another diver swam out to help, she took over and continued tow and AV. The casualty vomited and began to breathe. The casualty was brought ashore and placed on oxygen. The emergency services were called and she was taken by helicopter to hospital from where she was discharged the following day.

May 2002 02/122

After a 30 min dive to a maximum depth of 22m a diver complained of feeling very faint and unwell. He was placed on oxygen for two 10 min periods with a 5 min break in the middle. This greatly improved his condition. A contaminated air fill was thought to be the cause.

May 2002 02/124

Two divers began a descent. They were unable to reach their shotline because of a current, so they descended without the line. At 20m it became very dark and at 30m one of the pair became agitated because they had not reached the bottom. He had hold of his BCD control and his depth gauge and he wanted to turn his torch on. His buddy shone his torch into his face and this made it harder for him to see. He indicated that he wanted to ascend. He began to feel 'quite paranoid' and started to get into a 'dreamlike state'. He became convinced that his buddy was continuing to descend and decided to ascend alone. He felt that he was losing control and still sinking. He released his weightbelt and tried to remove his BCD. He blew out most of the way to the surface. His depth gauge showed that at one point he had been at 48m. The buddy surfaced alone, making 3 min of decompression stops on the way. He too had dived to 48m. Both divers were recovered into the boat and the diver who had made a rapid ascent was placed on oxygen. The boat's radio had failed so they returned quickly to the shore. The Coastguard was alerted by phone and the casualty was taken by helicopter to hospital. He showed no signs of DCI. It is believed that the diver had suffered from nitrogen narcosis.

May 2002 02/150

A diver made a dive to 15m for 43 min with a 3 min stop at 3m. After the dive he complained of tingling and numbness in his left hand and arm. He had had new seals fitted to his drysuit and the wrist seals were very tight. He was placed on oxygen and monitored. After several hours he was rechecked, no symptoms were found and no further action was taken.

May 2002 02/450

Lifeboat launched to help with medical call. One person landed. (RNLI report).

May 2002 02/333

Female diver airlifted to hospital after displaying respiratory problems upon surfacing from a 26m dive. Not thought to be related to decompression. (Coastguard report).

May 2002 02/134

Three divers conducted a dive down an underwater cliff face to a

depth of 50m. On the ascent their computers indicated that no stops were required once they had reached 12m. They conducted a 3 min safety stop between 6 and 3m. Whilst traveling home, one of the divers noted a dull ache in his right thigh. Later he had a similar pain in his left bicep for about 5 min. He was placed on oxygen and sought medical advice. He was taken to a recompression facility where he received a precautionary recompression treatment. The diver had fallen earlier in the day and it was considered likely that it was this fall rather than a DCI that caused the symptoms.

May 2002 02/145

Three divers made a shallow dive, then, 2 hours 20 min later they dived again. They descended to a depth of 18m. One of the divers noticed that he had water in his mouth. He became apprehensive and settled on to the bottom to regain control. He found himself sliding down an incline and more water was present in his mouth. He tried to purge the water without success. He signaled ascent and put some air into his drysuit. He dumped air to control his ascent and rose slowly. He then felt the urgent need to breathe and put more air into his suit. He did not remember any more about the ascent until he found himself at the surface. His total dive time was 7 min. The other divers followed, with one of them trying to slow the ascent. At the surface the troubled diver was sick. He was recovered from the water, placed on oxygen and taken, by ambulance, to hospital. A small reddened area was found inside his right elbow joint and he was taken, by ambulance, to a recompression facility. He was given a 5 hour treatment but it was finally concluded that he had not suffered a DCI.

June 2002 02/171

Two divers were in an RHIB preparing to dive. One of the pair had difficulty locating a BCD strap, she stood up and her buddy assisted her. She then moved towards the rear of the boat to continue kitting up. She was wearing her cylinder and weightbelt. She slipped on the wet floor of the boat and fell backwards landing by the transom. As she fell she received an injury to her right knee. The dive was aborted, other divers were recovered from the water and the casualty was taken to hospital for treatment.

June 2002 02/340

After diving on air to 27m (54 min) female diver complained of cold, sickness and 'pins and needles' in hands. Medical advice sought and transferred from nearby harbour to local hospital for check up. All OK. (Coastguard report).

June 2002 02/153

A diver using a neoprene drysuit experienced problems with the buoyancy of his legs. He bought some ankle weights and made a second dive. During his second dive he lost control of his buoyancy, became inverted and made a rapid ascent to the surface. At the surface his buddy was unable to get his face out of the water. Other divers tried to help but could not right him. He was assisted from the water and he was not breathing. Resuscitation techniques were applied and the diver was airlifted to a recompression facility for treatment.

June 2002 02/154

A trainee diver surfaced from a 37 min dive to a maximum depth of 10m. She suffered from earache which got worse. She had experienced ear problems in a pool the night before. She sought medical advice and was given antibiotics.

June 2002 02/138

Two divers entered the water from a charter boat. They rolled into the water as directed by the skipper. One of the divers' legs was struck by the propeller, which was rotating. He shouted for help and was recovered into the boat. He had a serious laceration to the back of his right thigh. There was no first aid kit or oxygen available. A knife strap was used as a tourniquet to stem the blood flow. The diver was in shock and having problems breathing. The Coastguard was alerted and a lifeboat which was on exercise in the area was sent to assist. The lifeboat crew rendered first aid and escorted the boat back to harbour. The diver was taken by ambulance to hospital.

June 2002 02/159

A trainee and an instructor made a 20 min dive to 6m. During the ascent, at the end of the dive, the trainee lost control of her buoyancy and rose very rapidly to the surface. At the surface she was very distressed and coughing up blood-stained sputum. She was recovered from the water and placed on oxygen. An ambulance was called and she was taken to hospital. From there she was taken to a recompression facility for treatment. She made a full recovery.

June 2002 02/180

A diver performed a 17 min dive to a maximum depth of 38m. 1 hour after surfacing he complained of increasing discomfort in his shoulder and elbow. He was placed on oxygen and the Coastguard was alerted. The boat returned to the harbour from where the casualty was flown, by helicopter, to hospital. It was determined that he had not suffered a DCI and he was released.

June 2002 02/181

A trainee diver surfaced with chest pains. He was recovered from the water and given oxygen. An ambulance was called. The diver was examined and no problems were found. The diver refused to go to hospital. A tight fitting wetsuit was thought to have been the cause of the problem.

July 2002 02/466

Lifeboat launched to help with medical call. One person landed. (RNLI report).

July 2002 02/186

A diver completed a dive to 21m and then undertook alternative air source drills from 10 to 6m. Several ascents and descents were made. During the last ascent his ear 'clicked'. The diver left the water and his ear appeared to have been damaged. He was advised to seek medical assistance.

July 2002 02/185

After a 28 min dive to a maximum depth of 22m a diver experienced slight bleeding from his ear. He had had no problems during the dive except for noting a 'pop' on the ascent. He went to hospital where slight damage to his ear canal, but no perforation of the eardrum, was found.

July 2002 02/192

A pair of divers dived to a maximum depth of 21m. One of the pair was seen at 15m by a nearby diving instructor to be struggling to breathe properly. He went to her assistance, but could not calm her down. He could not see her buddy and sent his own buddy to look for her whilst he brought the troubled diver to the surface. The dive duration was 16 min. The diver was placed on oxygen and taken by helicopter to hospital. No injury was found and she was released later that day. The problem is believed to have been hyperventilation.

July 2002 02/473

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

July 2002 02/211

A pair of divers dived to a maximum depth of 23m. 12 min into the dive one of the divers experienced water entering her mouthpiece, she switched to her octopus alternative air source but this had the same problem. She tried to swim to the surface. Her buddy prevented her and offered his alternative air source. She refused this and then lost consciousness. The buddy brought the casualty to the surface using a controlled buoyant lift. They made a rapid ascent. The casualty was recovered into the boat. She was not breathing. She had a slow pulse and froth coming from her nose and mouth. AV was applied and the casualty quickly started to breathe spontaneously. She was placed on oxygen and regained consciousness within 10 min. The Coastguard was alerted and the casualty was brought ashore and then airlifted to hospital for treatment.

July 2002 02/223

An instructor and two trainees entered the water down a slipway and swam to a buoy. They descended to a platform at 6m. They began to conduct training drills. One of the trainees then started to pull herself up the buoy line. The instructor signaled that she should let go of the line and she fell backwards onto the platform. The instructor took hold of the diver and, using her BCD, brought her to the surface. The other trainee stayed with them. At the surface the instructor inflated the distressed diver's BCD. She spat out her regulator and said that she had had difficulty breathing. A boat was summoned and she was taken to the shore. She was placed on oxygen but still had difficulty breathing. The emergency services were alerted, she was taken by ambulance and then helicopter to hospital. X rays revealed the accumulation of air in her stomach. She was released the following day. Inspection of her regulator revealed a small split in the mouthpiece and it was thought that this led to her inhaling a water mist which led to air in her stomach.

July 2002 02/285

Two divers entered the water. One of the pair lost his mouthpiece and swallowed some water. They moved to the shotline and waited there a while for the diver to recover. They started their descent and the diver experienced problems clearing his ears. They reached the wreck at a depth of 31m. The diver then indicated to his buddy that he was not happy and wanted to ascend. They ascended slowly to 20m. At this point the diver took hold of his buddy's BCD. His eyes were partially closed, the colour had left his face and he had almost stopped fining. The buddy took hold of him, and inflated his own BCD bringing them quickly to the surface. The divers were assisted into the boat. Their total dive time was 14 min. Once in the boat the diver quickly recovered. He was subsequently examined in hospital where an X-ray indicated air in his chest cavity. Specialist advice subsequently suggested that this diver's inability to clear his ears, due to a partially blocked eustachian tube, might have contributed to the incident.

August 2002 02/226

A diver was participating in a deep diving training course. Soon into the dive, at a depth of 36m, the trainee failed to respond to signals. He then spat out his regulator. The instructor replaced the regulator and purged it. He then brought the trainee to the surface. The trainee recovered and was placed on oxygen. He is believed to have suffered from nitrogen narcosis.

August 2002 02/395

Diver had a panic attack at 10m, vomited, given oxygen, lifeboat attending, no further medical assistance reqd. (Coastguard report).

August 2002 02/397

Diver surfaces from a 30m dive of 35 min complaining of feeling unwell, dive boat met by ambulance and taken to a medical facility for treatment. (Coastguard report).

August 2002 02/234

A trainee diver completed a dive to 6m. After the dive he was found to have bloodshot eyes. Mask squeeze was suspected.

August 2002 02/402

Diver made rapid ascent from 23m following a 3 min dive to that depth, generally unwell with bloodshot eyes, met by ambulance, taken to recompression chamber, discharged without treatment. (Coastguard report).

August 2002 02/238

A trainee diver surfacing from a dive to 6m. She scraped her hand on a wall and suffered a deep cut to the palm of her hand. She was not wearing gloves. She went to hospital for treatment.

August 2002 02/273

Two divers completed a 20 min dive to 25m. One of the divers was climbing a ladder back into the boat when his weightbelt suddenly fell free. The weightbelt fell onto the other diver who was waiting at the foot of the ladder and struck her on the head. She received a cut to her head.

September 2002 02/242

Two pairs of divers descended a slope to a depth of 15m. At this point one of the divers felt dizzy and indicated that she wanted to ascend. One of the other divers brought her to the surface. At the surface she was distressed and was sick. She was recovered from the water, placed on oxygen and then taken by ambulance to hospital. She was kept in overnight for tests. An ear problem was suspected.

September 2002 02/269

A diver conducted a mixed gas dive to 70m. He switched to the wrong gas at 30m. This gas had too high an oxygen content and he suffered a convulsion. His buddy sent him to the surface and he was recovered unconscious into the boat. He was airlifted to a recompression facility where he recovered after treatment. (Newspaper report only).

September 2002 02/424

Following a shore dive with four other buddies, female diver sustained a bump on the head from unknown source, assisted to shore by a jet skier, no medical attention required. (Coastguard report).

September 2002 02/283

Two divers surfaced after a 75 min dive to a maximum depth of 7m. Shortly afterwards one of the pair felt slight 'pins and needles' in his hands. He quickly recovered.

September 2002 02/282

Two divers completed a 40 min dive to a maximum depth of 20m with a 1 min stop at 6m. After the dive one of the pair felt sick and was given oxygen. He subsequently recovered.

September 2002 02/281

A group of divers made a dive to 30m. During the descent one of the group inhaled water and this caused him problems breathing. He decided to abort the dive and made a hurried ascent to the surface as his breathing was becoming increasingly difficult. At the surface he was not breathing but responded to resuscitation. He was airlifted to a recompression facility for treatment and was then admitted to hospital from where he was released two days later.

September 2002 02/475

A diver discovered a block of dense, white, clean material whilst diving on a wreck, he did not realize that this was phosphorous. He placed it in his BCD pocket to investigate later. This diver then missed decompression stops and was placed on oxygen and the emergency services were alerted. Because of these events he forgot about the phosphorous. Exposed to air, it started to oxidize in his BCD pocket. After 30 min dense volumes of white smoke were seen to be coming from his BCD. Another diver picked up the BCD to throw it overboard. The phosphorous exploded scattering burning fragments around the deck. The drysuit of the diver who had picked it up was engulfed in flames, several large pieces landed on his back and another diver received extensive burns to the back of his hand that will require skin graft treatment. The diver whose suit was on fire jumped into the sea with his drysuit round his knees to extinguish the flames.

Boating & Surface Incidents

October 2001 02/297
Report of two missing divers resulted in scrambling of rescue helicopter and dispatching lifeboats and Coastguard team. Divers were found ashore safe and well. They had exited the water by mistake and flagged down a passing ambulance. First informant had lost sight of the surface marker buoys due to heavy swell. (Coastguard report).

October 2001 02/438
Lifeboat assisted in the search for missing diver(s). Others coped. (RNLI report).

November 2001 02/439
Lifeboat launched to assist swamped dive boat. Craft landed. (RNLI report).

November 2001 02/440
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

December 2001 02/441
Lifeboat launched to assist dive boat with engine problems. 8 people brought in. (RNLI report).

December 2001 02/060
Two RHIBs were returning from a dive site in the dark. One boat stopped to change fuel tanks and was swamped by a wave. Divers were transferred to the other boat. Further waves covered the boat's engines and one engine began cutting out. The radio was put out of action and the divers alerted the Coastguard using a mobile phone. A lifeboat and a helicopter were tasked to assist. The helicopter recovered the personnel from the swamped boat and stood by until the lifeboat arrived. The lifeboat towed the RHIB back to the shore. All were safely recovered.

December 2001 02/442
Two lifeboats launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

December 2001 02/048
Two divers entered the water from an RHIB to conduct a drift dive. They deployed an SMB. The second pair kitted up and one had a problem with a cylinder valve. Whilst distracted by this valve the boat party did not see the SMB of the first pair being dragged below the surface. They quickly realized that the SMB had gone and the second pair did not dive. After 35 min of waiting and searching they contacted the Coastguard. A helicopter and lifeboat were launched and the missing divers were quickly located by the helicopter. The divers were recovered into their boat and all were safely returned to the shore.

December 2001 02/443
Lifeboat assisted in the search for missing diver(s). Others coped. (RNLI report).

January 2002 02/300
Diver surfaced and drifted away from diving vessel, the vessel had a fouled propeller. Helicopter scrambled to assist. Meanwhile, the propeller had been cleared and the diver recovered. (Coastguard report).

January 2002 02/301
VHF call relaying report of missing diver. Multiple search and rescue units tasked, casualty subsequently located and reported safe and well an hour later. (Coastguard & RNLI reports).

January 2002 02/444
Lifeboat launched to assist dive boat with engine problems. Others coped. (RNLI report).

February 2002 02/304
Two divers reported overdue. Two helicopters scrambled, lifeboat and inshore lifeboat launched and Coastguard dispatched - other vessels in vicinity assisted. Divers located by helicopter, cold but safe. Divers reported surfacing to find they were separated from support craft. Surface marker buoys had been used. (Coastguard & RNLI reports).

February 2002 02/303
Dive vessel suffered engine failure due to flat battery. Subsequently towed to safety by ILB. (Coastguard & RNLI reports).

March 2002 02/447
Lifeboat launched to assist dive boat in adverse conditions. Others coped. (RNLI report).

March 2002 02/306
Concern was expressed for safety of three shore divers who appeared to have a problem returning to shore due to sea conditions. Divers recovered by ILB. No medical assistance. (Coastguard & RNLI reports).

March 2002 02/100
A group of divers conducted dives from two RHIBs at two different wreck sites. One of the boats' radio was not working and they agreed to keep in touch using mobile phones. Whilst keeping station on a wreck the engine of one of the boats kept cutting out. There was a current and the boat had to keep maneuvering. Whilst recovering their divers the engine cut out again and would not restart. They attempted to phone the other boat but got a messaging service. A third boat saw the problem and began to tow them to a harbour. They eventually made phone contact with the other boat and this second boat towed them back to their starting point. The Coastguard was alerted but no emergency services support was required.

March 2002 02/256
The outboard engine of a dive boat stopped because it ran out of fuel. The boat was anchored. A full fuel tank was connected but the engine refused to start. One of the divers removed the engine cover and removed a plug. Whilst checking for a spark this diver received an electric shock and this caused him to drop the plug and high tension lead overboard. They had no spare lead. A passing dive boat came to their assistance and towed them back to the shore.

March 2002 02/108
A small pleasure craft with five adults and one child on board began to sink and they contacted the Coastguard. The Coastguard broadcast an alert and three diving boats went to assist. A helicopter and a lifeboat were also tasked to assist. The casualties were all recovered from the water but one of the dive boats became over loaded and it too sank. All concerned were safely recovered to the shore where the casualties were met by an ambulance.

April 2002 02/312
999 call from dive RHIB stating they had been swamped with water and had suffered a complete loss of engine power. Vessel assisted by lifeboat. (Coastguard & RNLI reports).

April 2002 02/314
Two shore divers got into difficulties after becoming caught in an eddy. They both suffered exhaustion and one diver was transferred to hyperbaric unit as a precaution. The second diver was considered fit. (Coastguard report).

April 2002 02/109
With two divers underwater the engine of the dive boat stalled and would not restart. Wind was pushing the boat away from the dive site. The two people in the boat dropped an anchor and contacted other members of their party, who were ashore, by mobile phone. The divers surfaced and were able to swim to the boat. Another boat was dispatched by the shore party to tow the disabled boat back to the start point. No fault was subsequently found with the engine.

April 2002 02/320
Two divers reported to be in difficulties due to swell. Exhausted divers picked up by lifeboat and brought ashore. No medical assistance required. (Coastguard & RNLI reports).

April 2002 02/448
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

April 2002 02/321
Dive vessel breakdown due to fuel contamination. Towed to safety by nearby vessel. (Coastguard report).

April 2002 02/133
Three divers entered the water from a beach through heavy surf. They planned to swim underwater to a harbour wall. However, the compass that they were using had jammed and they missed the wall. They surfaced to find themselves a long way off course and in a current. They decided to swim to the harbour wall and exit there. They got on to a ledge on the outside of the harbour wall but found that ladders had been removed and they were unable to leave the ledge. Their shore party contacted the Coastguard once they were overdue. A harbour launch and a lifeboat were tasked to assist and the divers were safely recovered.

April 2002 02/325
Dive vessel reported with engine problems approaching harbour. Inshore lifeboat escorted vessel to safety. (Coastguard & RNLI report).

May 2002 02/125
An RHIB with eleven divers on board became swamped after a bung in the stern of the boat was accidentally removed. The Coastguard was alerted and a lifeboat and another dive boat went to their assistance. All were safely recovered to the shore. (RNLI & Newspaper report).

May 2002 02/329
Dive RHIB broke down suffering engine failure, remaining divers picked up by other vessel, RHIB's engine serviced only one week before. (Coastguard report).

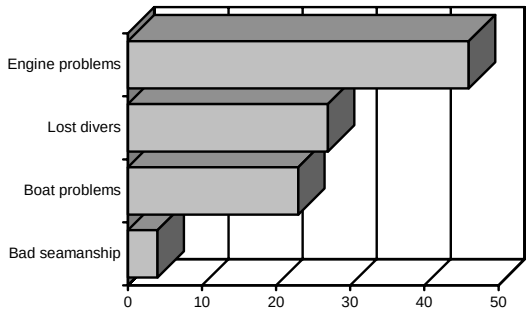
May 2002 02/336
Broken down dive boat. Towed to safety by nearby diving vessel. (Coastguard report).

May 2002 02/335
Broken down dive boat. Towed to safety by ILB. (Coastguard & RNLI reports).

May 2002 02/337
Dive boat reported drifting following engine failure. Ten divers in the water which skipper was unable to recover. Assistance rendered by nearby vessels and ILB towed vessel to shore. (Coastguard & RNLI report).

May 2002 02/143
The Coastguard was alerted when two divers failed to surface after a dive. A search was organized involving a helicopter, a lifeboat, three fishing vessels and shore teams. 2 hours 15 min after commencing his dive the first diver was found, by a fishing vessel, at the surface, 2.5 miles from his start point. 1 hour 15 min later the second diver was located by the helicopter 4 miles from the start point. The first diver was returned to his boat and the second taken to hospital suffering from the cold. The Coastguard reported that orange surface marker buoys deployed by the divers greatly assisted their location. (Coastguard & RNLI reports).

Analysis of boating & surface incidents



June 2002 02/469
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2002 02/453
Two lifeboats launched to assist dive boat with engine problems and missing diver(s). Two people landed and craft brought in. (RNLI report).

June 2002 02/452
Lifeboat launched to assist stranded dive boat. Others coped. (RNLI report).

June 2002 02/162
A lifeboat was launched to assist after a dive boat's engine failed with ten divers in the water. Other craft and a Customs' RHIB also went to assist. The divers were recovered into the various boats and the lifeboat took the disabled dive boat in tow. On the way back to the harbour the Customs' boat also suffered an engine failure and this too was taken in tow by the lifeboat. All were safely recovered. (Newspaper report only).

June 2002 02/454
Lifeboat launched to assist dive boat with fouled propeller. Others coped. (RNLI report).

June 2002 02/161
The engine of a dive boat failed. Three divers became separated from the boat. A lifeboat was launched to assist and the divers were safely located and recovered. (RNLI & Newspaper reports).

June 2002 02/456
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2002 02/156
The engine of a dive boat cut out, without warning at 20 knots. The engine would not turn over and could not be restarted. Those on board attracted the attention of a passing fishing vessel which took them in tow. After 10 min a larger vessel took over and towed them back to harbour. The engine had been serviced 3 months earlier.

June 2002 02/457
Two lifeboats launched to assist stranded dive boat. Craft brought in. (RNLI report).

June 2002 02/163
A diver surfaced from his dive in dense fog. He could not see the boat and they could not see him. When he was 30 min overdue the dive boat contacted the Coastguard. A search was organized involving two lifeboats, a helicopter, two naval vessels, two range safety boats and other craft. The diver was found 40 min later by one of the searching boats and returned to his party. (Coastguard & RNLI reports).

June 2002 02/355
Search carried out for diver reported missing after failing to surface with two other divers. Subsequently found safe and well having finned to nearby shore. (Coastguard & RNLI report).

June 2002 02/458
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2002 02/459
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2002 02/356
Two divers were reported overdue, after surfacing away from their shotline, following a 15m dive for 55 min; divers had been dropped off by boat (not dive boat); returned to shore on their own volition, search called off as located by Bigbury CRT. (Coastguard & RNLI report).

June 2002 02/470
Two lifeboats launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2002 02/357
Unable to start engine, drifted away from dive party, divers recovered by Newhaven LB, towed to Newhaven. (Coastguard & RNLI reports).

June 2002 02/460
Two lifeboats launched to assist stranded dive boat and divers. Others coped. (RNLI report).

June 2002 02/360
Dive boat 'Eclipse' in danger of swamping was observed as she recovered 6 divers, returning to Selsey total of 14 pob. (Coastguard report).

June 2002 02/362
Dive boat called on mobile telephone informing CG that they had run aground on Chesil Beach leaving 2 divers in the water, both making their own way to shore, monitored by CG helo R_WB. (Coastguard report).

June 2002 02/461
Lifeboat launched to assist leaking and swamped dive boat. Craft and twelve persons brought in. (RNLI report).

June 2002 02/201
A group of divers loaded equipment on to a dive boat in preparation for a day's diving. The divers noted that there was little freeboard at the back of the boat where there were stern doors. They traveled to the dive site and on the way water came in the back of the boat and flowed across the decking. One of the boat's engines cut out and the skipper decided to return to the harbour. Water was now reaching the cabin doors. A little later water entered the cabin and the skipper contacted the Coastguard, he also radioed for an RHIB to come out to assist them. The divers attempted to bail the water out and they put overboard any diving equipment that would float. The RHIB arrived and diving cylinders were passed into it. Water then began to enter the forward cabin and the second engine cut out. The lifeboat arrived and attempted to pump out the water, but it was flowing in too quickly. Everyone climbed onto the lifeboat. A line was attached to the swamped dive boat which then sank. The boat was later salvaged and further diving equipment was recovered.

June 2002 02/182
At an inland dive site, divers and windsurfers were using the water at the same time. Site rules stated that every dive group should carry an SMB and that other water users should keep at least 20m from an SMB. One of a group of three divers became separated from the group, and the SMB, and surfaced 50m away. A sailboard traveling at speed missed this diver by 1m.

June 2002 02/363
Dive boat 'Rib Tickler' reported taking water, taken in tow by another vessel back to North Berwick escorted by ILB. (Coastguard report).

June 2002 02/364
Dive boat broke down, becoming swamped, towed into Brighton marina by LB. (Coastguard report).

June 2002 02/366
Dive boat suffered engine failure after trying to assist another RHIB with a tow, was blown ashore before rescue services could get to scene. (Coastguard report).

June 2002 02/462
Lifeboat launched to assist dive boat with engine problems. Others coped. (RNLI report).

June 2002 02/463
Two lifeboats launched to assist leaking and swamped dive boat. Others coped. (RNLI report).

June 2002 02/464
Lifeboat launched to assist dive boat with engine problems. Craft towed in. (RNLI report).

June 2002 02/465
Lifeboat launched to assist swamped dive boat. (RNLI report).

June 2002 02/365
Dive boat suffered engine failure, was being towed by another RHIB, made no headway, LB launched to assist. (Coastguard report).

July 2002 02/368
Mayday call received from dive boat reporting three divers 20 min overdue. Picked up safe and well by another vessel. (Coastguard report).

July 2002 02/472
Lifeboat assisted in the search for missing diver(s). (RNLI report).

July 2002 02/207
A dive boat with six divers on board was on its way to a dive site when unusual vibrations were noted from the outboard engine. These became worse and the engine was shut down. It became clear that the problem could not be resolved at sea. The boat was anchored and the Coastguard was contacted. A lifeboat was tasked to assist and the disabled boat was towed back to harbour. A gearbox failure was suspected.

July 2002 02/378
Dive boat reports finding empty dive RHIB, flag up, two sets of dive gear in it! 150hp blue Avon RHIB, on return two divers refused to give their names. (Coastguard report).

July 2002 02/377
Dive boat suffered gear box failure, 8 divers + 1 crew. Towed to Dale by other dive boat. (Coastguard report).

July 2002 02/263
The propeller from an outboard engine was lost when reverse gear was engaged. The Coastguard was alerted and the boat was towed to shore. The propeller was later recovered by other divers.

July 2002 02/385
Two divers adrift, yacht stands by at request of Coastguard, as divers refused assistance, re-united with own vessel, all well, no medical assistance required. (Coastguard report).

August 2002 02/387
Pair of divers surfaced together, became separated, one buddy returned ashore to raise the alarm, missing diver recovered by lifeboat, no medical assistance required. (Coastguard report).

August 2002 02/230
The Coastguard was alerted when two divers were 10 min overdue. Two lifeboats, a helicopter and a shore team were tasked to search. The two divers made their own way safely ashore and the search was called off. (Coastguard report).

August 2002 02/392
Two divers reported 20 min overdue by dive boat, various resources used. ILB eventually recovering them safe and well. (Coastguard report).

August 2002 02/398
Small inflatable anchored all empty; shortly after report was received lone diver surfaced, gave OK signal, climbed into boat. (Coastguard report).

August 2002 02/400
Dive boat reported having ran aground on a sand bar, ILB tasked, eventually the RHIB re-floated in own time. (Coastguard report).

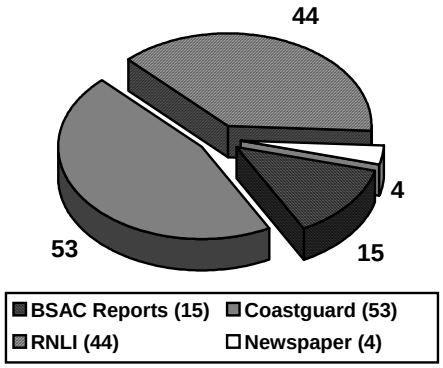
August 2002 02/289
Two RHIBs were returning from a dive. Their route took them close to shore and in a location where there was wind against tide. They found themselves in large and confused waves. One of the boats made it through into calmer water but the other was capsized, throwing the four people on board into the water. The other boat maneuvered to meet up with them in calmer water. The capsized boat's anchor had deployed and a diver entered the water to cut this line. The boat was then righted and towed back to the shore. All persons returned safely.

August 2002 02/233
Two pairs of divers made a drift dive in a depth of 10m. The first pair surfaced and took over control of the boat, allowing the pair in the boat to dive. When this last pair surfaced they could see the boat a long way off but they were not seen by those in the boat. The sun was low in the sky and this made them difficult to see. When it was realized that they were overdue the emergency services were alerted and a helicopter and a lifeboat were tasked to search. The divers were quickly located and safely recovered into their boat. They had been using an SMB but the boat crew had lost sight of this soon after they dived.

August 2002 02/403
Dive boat reports breaking down, taken in tow by Penlee LB Newlyn. (Coastguard report).

August 2002 02/404
Two divers reported missing by dive boat, 1 hour 10 min after they were expected to surface; after extensive search both found safe and well; got further out than expected. (Coastguard report).

Boating & surface incident report source analysis



September 2002 02/410
Dive boat hit submerged object, continued on passage towards Falmouth, sank off Manacle rocks, two persons and a dog recovered by rescue helo, transferred to hospital. (Coastguard report).

September 2002 02/413
Dive boat reports two divers missing, exact position and time not established, hampering searching vessels and CG Helo. Divers recovered safe and well by Lyme Regis ILB, divers suffering no ill effects, unclear as to why adrift. (Coastguard report).

September 2002 02/414
Dive boat broke down 7 nm out to sea, unable to recover divers, and persons left aboard not knowing how to restart engine, divers recovered by RNLI. (Coastguard report).

September 2002 02/412
Dive boat asked for assistance, at anchor 500m off Flamborough Head being swamped, not able to restart engine, eventually restarted engines and escorted into port by LB. (Coastguard report).

September 2002 02/417
Dive boat reports two divers missing, last seen 60 min ago; after extensive search by many resources, divers found safe and well by passing pleasure craft. (Coastguard report).

September 2002 02/416
Dive boat towed into port by AWLB. (Coastguard report).

September 2002 02/287
Two divers surfaced after their dive to find that their boat was nowhere to be seen. They used flags and whistles to try to attract the attention of other boats but they were not seen. 2 hours from the start of the dive they were found by the emergency services. The dive boat cox had been seeking shelter during their dive and when he went to find them after 40 min they were not where he thought they would be. They used an SMB but the boat did not follow it.

September 2002 02/419
Broken down dive boat fired flare to alert problem. Lifeboat on exercise alerted by boathouse to flare, attended boat with starter motor failure, recovered three divers and towed vessel to shore. (Coastguard report).

September 2002 02/420
999 call to Portland CG reported two divers being swept away in a current from the shore, rescue Helo was scrambled and talked down to the divers by the first informant. Kept under observation as the divers were recovered by passing fishing vessel. (Coastguard report).

September 2002 02/421
Broken down RHIB, called Portland CG on 999, reported having 4 pob, towed to shore by assisting vessel. (Coastguard report).

September 2002 02/422
Mayday received by Portland CG from broken down RHIB, with three divers in the water. Coastguard rescue helicopter tasked, and ILB, divers made shore unaided, dive boat towed to shore by RNLI. Kill switch faulty. (Coastguard report).

September 2002 02/425
Two shore divers adrift picked up by vessel, returned to shore, no medical attention required. (Coastguard report).

September 2002 02/430
Broken down dive boat towed toward shore by an independent rescue craft, handed over to ILB for return to shore. (Coastguard report).

Ascents

October 2001 02/013
22 min into a dive to 21m a diver lost control of her buoyancy and made a rapid ascent to the surface. She experienced a nosebleed but no other ill effects.

October 2001 02/051
A diver conducted a dive to a maximum depth of 22m. At 11m she lost control of her drysuit buoyancy and made a fast ascent to the surface. Total dive time was 25 min. The diver, who was new to drysuit diving, suffered no ill effects.

November 2001 02/023
Two divers made a dive to 30m. After 2 min one of the pair had difficulty breathing and they made a rapid ascent to the surface. No subsequent ill effects were experienced.

November 2001 02/299
Diver surfaced missing decompression stops (due to lack of weight). Displayed no symptoms, put on oxygen for 30 min after consulting with diving officer and told if no symptoms within 24 hours, all should be OK. (Coastguard report).

November 2001 02/061
A diver made an emergency ascent from 20m. He was transferred by lifeboat to a recompression facility for observation. (Newspaper report only)

January 2002 02/032
A diver was at a depth of 24m. His drysuit cuff dump did not dump air and he made a rapid ascent to the surface. No subsequent ill effects were reported.

January 2002 02/068
Two divers conducted a dive to a depth of 19m. One of the pair planned to practice breathing from his BCD emergency cylinder. He switched over to the BCD air supply and after about 1 min he switched back to his normal regulator. During this process he rose off the bottom and he inverted to swim back down. He was buoyant and started to ascend. He attempted to dump air from his BCD. He righted himself at 13m and again tried to dump air, but the BCD had no air in it. At 10m he fully opened the auto dump valve on his drysuit but he was unable to stop the ascent. He was carried to the surface. His total dive time was 10 min. His computer showed no error. He was recovered into a rescue boat and taken to the shore. His buddy surfaced 3 min later. No subsequent ill effects were experienced.

February 2002 02/073
Two divers undertook a dive to a maximum depth of 15m. At a depth of about 8m they conducted a training drill using an alternative air source. During this practice one of the divers swallowed some water, started to panic, and made a rapid ascent to the surface. No subsequent ill effects were reported.

March 2002 02/305
Rapid ascent by two divers who had started a normal ascent from 24m. Problem occurred at 11m, when one of divers lost control of his buoyancy equipment . Both divers airlifted to shore for transferal by ambulance to hyperbaric unit. (Coastguard report).

March 2002 02/090
Two divers dived to a maximum depth of 21m. At 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.

March 2002 02/092
Two divers were diving at 34m when the regulator of one of the pair began to free flow. He made a controlled ascent to 15m, using an alternative air source, then a fast ascent to the surface. No ill effects were experienced.

March 2002 02/093
Two divers were diving at 35m when the regulator of one of the pair began to free flow. They made a rapid ascent to the surface. Both divers were placed on oxygen. No ill effects were experienced.

March 2002 02/104
Three divers failed to conduct the required decompression stops and the Coastguard was alerted. The divers were flown by helicopter to hospital. At hospital they were placed on oxygen. No symptoms of DCI were found. (Newspaper report only)

March 2002 02/098
Two divers were at a depth of 36m when the regulator of one of the pair began to free flow. He switched to his buddy's alternative air source and they ascended to 20m. From here he made a buoyant ascent to the surface. The diver was placed on oxygen. No ill effects were reported.

March 2002 02/252
Divers made a dive to a maximum depth of 35m. Underwater visibility was poor. During the ascent they deployed a delayed SMB. At a depth of 13m one of the divers was unable to control his buoyancy and he made a rapid ascent to the surface, missing decompression stops. He was using a new pony cylinder and this was his first sea dive of the year. He believes that his buoyancy adjustment may have been wrong and that difficulty with an SMB reel may have distracted him. He was placed on oxygen but experienced no subsequent ill effects.

March 2002 02/311
Ambulance called for two divers who had carried out a rapid ascent from 20m. No medical treatment administered. (Coastguard report).

March 2002 02/310
Medical advice obtained for two divers who had effected a rapid ascent from 20m. Although displaying no DCI symptoms, oxygen was administered and divers transported to local hospital for monitoring. (Coastguard report).

April 2002 02/105
A diver completed a dive to a maximum depth of 16m. At 10m she deployed a delayed SMB using an octopus regulator. This regulator was snagged by the SMB and the diver was dragged rapidly to the surface. She was given fluids and placed on oxygen. No subsequent ill effects were reported.

April 2002 02/111

A diver was observing two other divers who were involved in a training drill, ascending from 15 to 6m. The two divers lost control of their buoyancy and they made a fast ascent. The watching diver ascended even faster as he tried to keep up with them. He was placed on oxygen for 15 min as a precaution. No subsequent ill effects were experienced.

April 2002 02/128

Two divers conducted a 31 min dive to a maximum depth of 36m. They were unable to locate the shotline to ascend so they deployed a delayed SMB. They ascended to the surface missing decompression stops. No subsequent ill effects were experienced.

April 2002 02/135

Two divers conducted a wreck dive to a depth of 33m. One of the divers began to run low on air during the ascent. They started to air share and whilst doing this the other diver became entangled in the shotline. They sank back down to 18m as they tried to free the entangled diver. They ascended again and conducted safety stops of 1 min at 6 m and 1 min at 3m. They finally surfaced safely.

April 2002 02/117

A trainee and an instructor were conducting regulator removal skills at a depth of 6m. The trainee panicked and made a fast ascent to the surface. She suffered no subsequent ill effects.

May 2002 02/140

A diver was 11 min into a dive at a depth of 27m. He noticed that his regulator was hard to breathe from for two breaths and then it failed to supply any air. He reached for his autoair regulator but this gave him a mouthful of water. He then used his pony regulator, from which he got air. He was panicked and made a rapid ascent to the surface. He was not able to inflate his BCD or his drysuit. This ascent was completed in 1 min. At the surface he shouted for help and was recovered into a boat. His buddy made a normal ascent when he realized that they had become separated. The panicked diver was placed on oxygen. He was later taken to hospital for a check up. He was given more oxygen. The diver experienced no ill effects. No fault was found with his regulator.

May 2002 02/151

A trainee and an instructor were at a depth of 7m. They were conducting regulator exchange drills when the trainee panicked and swam for the surface. The instructor controlled the ascent. She was given oxygen as a precaution and no subsequent ill effects were reported.

May 2002 02/137

A trainee on his second open water dive was at 6m conducting regulator removal drills. He put the regulator in upside down then struggled to get it the correct way up. He swam rapidly for the surface. He was in an extremely distressed condition and was taken by ambulance to hospital as a precaution. He was released later that day.

May 2002 02/144

An instructor and two trainees made a dive to 21m. At the end of the dive they planned to do a training drill using an alternative air source. The instructor noted that one of the trainees was low on air and signaled the ascent without doing the drill. Shortly after the trainee who was low on air gave the 'out of air' signal. The instructor was uncertain if the trainee really was out of air. She passed him her alternative air source which he initially took. He then began to panic, apparently unable to breathe from this regulator. He started to fin for the surface. The instructor went with him trying to supply air. At 8m she let go of the trainee who continued to the surface. The other trainee was very buoyant and he too made a rapid ascent to the surface. All were safely recovered from the water and the first trainee was given oxygen. No subsequent ill effects were experienced.

May 2002 02/196

Two divers completed a dive to a maximum depth of 23m. They prepared a delayed SMB, and whilst doing so one of the pair became inverted. The air in his drysuit moved into his legs and he started to ascend. His buddy tried to stop him but both rose rapidly to 13m where the buddy let go. The buoyant diver was carried to the surface. The air forced his fins off and he was unable to right himself. He was quickly recovered into the boat and he was placed on oxygen. His computer which had shown 5 min of no stop time at the bottom showed a 5 min missed stop at the surface. The diver breathed oxygen for 1 hour and then nitrox 65 for another hour. He was monitored for symptoms of DCI but none were seen and no further action was taken.

June 2002 02/152

Two divers conducted a dive to a maximum depth of 31m. As they reached the end of their no stop time they prepared to deploy a delayed SMB to make their ascent. The SMB reel jammed with 3 to 4m of line released and the diver released her hold on it. There was a slight current and the line became entangled with her pillar valve and she was dragged upwards. She managed to free herself and achieve neutral buoyancy at 18m. She switched to her nitrox 50 decompression gas. She saw her buddy's bubbles and swam over to rejoin him as he ascended. The buddy had deployed his delayed SMB. They conducted a 1 min stop at 18m, 2 min at 15m and a precautionary 10 min decompression stop at 6m. Their total dive time was 29 min. They surfaced safely and no subsequent ill effects were experienced.

June 2002 02/155

An instructor and a trainee made a dive to 6m. The trainee lost control of her buoyancy and rose to the surface. They re-descended and then the trainee's mask flooded. She made a very rapid ascent to the surface. She was very shaken and was placed on oxygen. No subsequent ill effects were experienced.

June 2002 02/166

A diver completed a 10 min dive to a depth of 35m. He deployed a delayed SMB to make his ascent. The SMB line caught around his regulator hose and dragged him upwards. The regulator was pulled from his mouth and the diver struggled to recover it. He was unable to prevent a rapid ascent directly to the surface. He was recovered into his boat and placed on oxygen. The Coastguard was alerted and the dive boat returned to the shore. The diver showed no symptoms of DCI but was taken to a recompression facility for a check up. He was not recompressed.

June 2002 02/172

A group of three divers made a dive to 21m for a duration of 40 min. As they prepared to ascend the weightbelt of one of the group became undone and fell away. Her buddies were unable to prevent her from making a rapid, buoyant ascent to the surface. Oxygen was obtained from an accompanying boat and given to the diver. Oxygen was administered for 90 min and the diver was monitored for symptoms of DCI. No symptoms were experienced and no further action was taken.

June 2002 02/158

Two divers made a dive to 7m. They became separated and surfaced. They re-grouped and continued the dive. They became separated a second time and one of the pair made a panic ascent to the surface. She had no apparent injury but was given oxygen as a precaution.

June 2002 02/345

After becoming separated from buddy on trimix dive to 57 m, diver made a rapid ascent from 30m, missing stops. Showed no symptoms of DCI, but put on oxygen and transferred to hyperbaric unit. (Coastguard report).

June 2002 02/347

Diver maked rapid ascent from 12m following a 49 min dive to that depth. Taken by ambulance to Poole Hospital for medical checks. (Coastguard report).

June 2002 02/348

Following a dive to 36m, diver surfaced with computer locked into SOS mode and tingling in hand. Medical advice taken and casualty transferred to local hospital for examination. Discharged shortly afterwards. (Coastguard report).

June 2002 02/199

A diver was conducting regulator exchange drills at a depth of 7m. The diver panicked and made a rapid ascent to the surface. A nearby diver came to assist and she was helped into a boat. She was given oxygen. No subsequent ill effects.

June 2002 02/148

Two divers made a dive to 21m. One of the divers used his drysuit to adjust his buoyancy. The inflator button stuck in and then fell apart. The diver made a very rapid ascent to the surface from 16m. He lost his fins and was left at the surface unable to help himself. A rescue boat came to his assistance and he was recovered from the water. He was placed on oxygen and suffered no apparent ill effects.

June 2002 02/349

Diver lost weightbelt at 20m, made a rapid ascent, placed on oxygen, no action taken, no resources used. (Coastguard report).

June 2002 02/174

Two divers had completed a dive to a depth of 20m. They prepared a delayed SMB and one of the pair used his alternative air source to inflate it. This regulator went into free flow and the DSBM was released. They could not stop the free flow and the other diver offered his alternative air source for use during the ascent. The diver giving air took hold of the diver with the free flowing regulator but in doing so he unknowingly prevented this diver from reaching the dump valve on his drysuit. This was not an auto dump. Bubbles from the free flowing regulator confused the divers who rose to the surface from 20m in just over 1 min. Both divers were recovered into their boat and were placed on oxygen. No symptoms of DCI were experienced and no further action was taken.

June 2002 02/179

Two divers made a dive to a maximum depth of 20m. At 15m one of the pair lost control of their buoyancy and made a rapid ascent to the surface. No subsequent ill effects were reported.

June 2002 02/183

Two divers were at a depth of 21m. One of the pair was using a hired drysuit and she experienced a problem with her fin. She lost control of her buoyancy and made a rapid ascent from 17m to the surface. No subsequent ill effects were reported.

July 2002 02/243

A diver lost control of his buoyancy whilst ascending from a maximum depth of 20m. He made an uncontrolled ascent from 10m to the surface. The diver was laid down, given fluids and oxygen. The Coastguard was alerted and the boat returned to the shore. The boat was met by an ambulance and the diver was examined by the paramedics. He was later released without symptoms. It is thought that his drysuit dump valve was blocked by his undersuit.

July 2002 02/184

Whilst kitting up, a diver noticed some sand inside the connector of her suit inflation hose. She cleaned it off, and then fitted and checked the valve. She then dived, descended down a sloping wreck from 5 to 17m. During the descent she used the valve to adjust the air in her drysuit. As she started the return swim she started to become buoyant and could hear air hissing. She tried to fin down to the wreck. She disconnected the feed hose from her suit but could not dump air as she was head down. She twisted to dump air from her cuff and tried to use her neck seal to dump air. She was unable to prevent an uncontrolled ascent to the surface. She was recovered into the boat and placed on oxygen. The boat returned to shore and the emergency services were alerted. She felt sick and unsteady but she had no symptoms of DCI. She was taken to a recompression facility but no operator was available. She was then taken to hospital from where she was later discharged.

July 2002 02/370

Diver made a rapid ascent from 25m after a 25 min dive. Lost buoyancy control due to drysuit not venting sufficiently. No symptoms, placed under observation by paramedic. (Coastguard report).

July 2002 02/188

Two divers dived to 30m. One of the pair suffered nitrogen narcosis and then made a rapid ascent to the surface. Total dive duration 6 min. No subsequent ill effects were experienced.

July 2002 02/189

A diver using a rebreather made a dive to a maximum depth of 23m. She and her buddy began to deploy a delayed SMB but discovered that the small inflator cylinder was empty. The rebreather diver lent forward and used her autoair alternative air source to inflate the SMB. As she did so she felt as if the right-hand side lung of the rebreather had become loose. This was checked and found to be normal. She still felt buoyant so she emptied air from her drysuit and excess air from the counter lung. They made a fast ascent to the surface. During the ascent the diver changed the set point of the rebreather from 1.3 to 0.7 and got ready to inflate her BCD in case she had a problem at the surface. The divers were safely recovered into their boat. The diver subsequently concluded that she must have accidentally inflated her BCD whilst trying to use the autoair to fill the SMB.

July 2002 02/190

Five divers made a dive to 35m. One of the group experienced a free flow of his regulator and his alternative air source. He made a rapid, free ascent to the surface. His total dive duration

was 6 min. No subsequent ill effects were reported.

July 2002 02/222

A diver made a descent to 35m. At the bottom she let some air into her BCD. Shortly afterwards she became aware that she was coming increasingly buoyant. She discovered that the valve to her BCD had jammed and was continuing to let air in. She disconnected the hose, but was not able to dump air fast enough to prevent a buoyant ascent to the surface. She breathed out during the ascent. No subsequent ill effects were experienced.

August 2002 02/247

A diver entered the water from a boat. In doing so he lost his face mask. He swam back to the boat for a second mask whilst his buddy waited at the top of the shotline. He used air during this swim and dived with 150 bar instead of the 220 bar that he started with. As he descended the mask began to fog. At the bottom his mask was badly fogged and he found it very difficult to see. By flooding the mask he was able to see briefly. He had 90 bar and his buddy had 140 bar. With his buddy's assistance he deployed a delayed SMB. He was becoming nervous and starting to hyperventilate. The divers ascended at a fast rate to the surface. They missed 6 min of decompression stops. Back on the boat both divers were placed on oxygen. The panicked diver's contents gauge read 0 bar. No subsequent ill effects were experienced.

August 2002 02/394

Dive RHIB 'Nocando' reported that one of their divers had made a rapid ascent from 15m after his regulator had become tangled. Second dive of the day. Diver was re-submerged and completed missed stops at 9, 6, 3m. 1st dive 34m 50 min, surface interval 2.5 to 3 hours. 2nd dive 24m 15 min. (Coastguard report).

August 2002 02/396

Diver made a rapid ascent from 28m missing all stops, administered oxygen and airlifted to Queen Alexander hospital, buddy also evacuated as precaution. (Coastguard report).

August 2002 02/284

Two divers dived to a depth of 14m. They carried out buoyancy checks and then followed a cable to a wreck. 7 min into the dive they exchanged OK signals. Shortly afterwards one of the divers lost a 6kg weight pouch from his weightbelt and was unable to prevent a buoyant ascent to the surface. The other diver soon realized that his buddy was missing and, after a brief search, he too returned to the surface. No subsequent ill effects were experienced.

August 2002 02/272

Two divers conducted a dive to a maximum depth of 35m. They were following a sloping seabed into shallower water. After 18 min in a depth of 25m they prepared a delayed SMB. One of the divers filled the SMB and in doing so became buoyant. He could not release air through his cuff dump as it had risen to his back and legs. He held on to a rock but was unable to right himself even with his buddy's help. He let go of the rock and attempted to regain control during the ascent. He failed to do so and was carried directly to the surface missing a 1 min stop at 6m and an 8 min stop at 3m. His buddy followed him up. The diver was recovered into the boat and placed on oxygen. No symptoms were experienced and he dived again the following day.

August 2002 02/241

Two divers were taken by helicopter to a recompression facility after they had surfaced too quickly. They showed no symptoms of DCI and were released without treatment. (Newspaper report only).

August 2002 02/408

Diver surfaced from a 30m dive missing 11min of stops. (Coastguard report).

September 2002 02/275

Two divers completed a 35 min dive. Near the end of the dive they spotted a lobster and stayed longer than intended to capture it. One of the divers had less than 50 bar. During the ascent they deployed a delayed SMB. The diver who was low on air changed over to his pony cylinder and in doing so lost control of his buoyancy. He ascended to the surface and then dived down to rejoin his buddy. He then became concerned about the amount of air that he had left and surfaced. He had no contents gauge on his pony cylinder. His computer indicated that he had missed 7 min of decompression stops. His buddy who was diving with nitrox 32 was within the limits of his computer. They were recovered into their boat and the diver who had missed stops was placed on oxygen and then nitrox 32 when the oxygen was used up. No adverse effects were experienced by either diver.

September 2002 02/278

A diver was a few minutes into a dive at a depth of 20m when he began to panic and signal that he wanted to ascend. Another diver helped him to the surface. The diver was very distress and he was placed on oxygen. He complained that his left leg and arm felt heavy and that he could not lift them. He was taken by ambulance to hospital but it is not thought that he was recompressed.

September 2002 02/432

Dive boat reports two divers surfaced missing 35 min of stops, third diver with chemical burns from object picked up on the seabed. Medi link established, all divers airlifted to hyperbaric chamber and burns unit. (Coastguard report).

Technique

November 2001 02/039

A pair of divers were at a depth of 18m. One of the pair attempted to put air into his BCD but experienced difficulty in doing so. He finned to the surface in a panic. Total dive duration 18 min. The BCD was hired. No subsequent ill effects were experienced.

November 2001 02/042

Two divers conducted a shore dive to a depth of 18m. They made a navigational error and one of the pair became short of air. They surfaced using the alternative air source of the other diver. At the surface they attempted to swim back to the shore but became exhausted. The tide turned against them and they held onto rocks on a headland. Their shore party alerted the Coastguard and a helicopter and a lifeboat were launched. The divers were found and rescued from the shore.

February 2002 02/076

Three divers made a dive to 20m. One of the pair was using an SMB for the first time. This diver became tangled in the buoy line and the line became tangled with wreckage. Her mask kept flooding and she decided to abort the dive. Initially the line prevented her from ascending but she managed to get free and made a fast, buoyant ascent to the surface. Her dive duration was 20 min. No subsequent ill effects were experienced.

March 2002 02/081

A pair of divers were at an approximate depth of 15m. One of the pair began to panic, spat out her regulator, inhaled some water and stirred up silt on the bottom. Her buddy was unable to release his alternative air source nor the weights from the panicked diver's integrated weight system. He used his suit and BCD to bring them both to the surface. At the surface he shouted for help. The casualty was recovered into a boat and brought to the shore. She was given oxygen and taken by ambulance to hospital. She was released 24 hours later.

March 2002 02/307

999 call reporting one a diving party of three had not surface. Helicopter tasked. Overdue diver surfaced 4 min later. All divers had been executing a circular dive, with 2 going one way and the third going the other (diving alone!!!) - intending to meet up at the end. The overdue diver got separated from the others due to very bad visibility at 30m and had completed extra recompression stops as a precautionary measure. (Coastguard report).

March 2002 02/099

A diver rolled off the side of a hardboat to enter the water. In the process her face mask struck one of the rungs of the boat's ladder. The mask protected her from injury.

March 2002 02/308

Diving buddies reached surface but realized they had misread computers and missed 16 min of decompression stops. Another diver made same mistake and missed 11 min of stops. All divers transferred to hospital as a precaution. (Coastguard report).

March 2002 02/255

Two divers dived to a maximum depth of 22m. After about 30 min they deployed a delayed SMB. The dive leader attached the reel to a rock and filled the buoy. The line became tangled and took some time to sort out. She then clipped the reel onto her buddy. The buddy had not used a reel before. Both divers had dumped air from their buoyancy devices before deploying the SMB. The buddy was now low on air. He struggled to control his buoyancy and the reel. At about 10m his regulator was hard to breathe from. He signaled that he was out of air, but he was slightly above the other diver and the signal was not understood. He then took her alternative air source and dropped the reel. The buddy took the reel and they made a controlled ascent. They had to pause at 6m to clear away another line that was obstructing their ascent. Both surfaced safely.

April 2002 02/118

A trainee and an instructor commenced a dive. The trainee had a problem with her mask and they surfaced to resolve this. They dived to the top of a wreck at a depth of 14m. They then descended down an anchor chain to the bottom. The trainee started to panic. The instructor brought her to the surface; their ascent was faster than normal. The instructor's computer indicated missed decompression but he had no symptoms of DCI. The trainee was unwell and was placed on oxygen. She was taken by ambulance to hospital where she was kept until late that evening for observation.

May 2002 02/120

Three divers conducted a dive to a maximum depth of 11m. When the dive leader noticed that the other two had about 50 bar remaining he led the way to shallower water to make an ascent. The regulator of one of the other divers was kicked from his mouth. He attracted the attention of the other diver who offered him his alternative air source. He did not take the regulator so the other diver pushed it into his mouth and brought him to the surface using a controlled buoyant lift. The instructor followed.

May 2002 02/130

Three divers entered the water via a harbour slipway. They planned to swim underwater to a buoy just outside the harbour entrance and then return. The divers swam outside the harbour and headed away. They surfaced, gave the OK signal to the shore party, and then they dived again. They continued to swim away from the harbour. The dive marshal on shore became concerned and contacted the local harbour control room. A police launch was tasked to assist. The divers surfaced and dived again. This time they made their way to some rocks. They finally surfaced and were escorted on their swim back by the police launch. All three were unharmed.

May 2002 02/258

Two divers made a dive to a maximum depth of 20m. A few minutes into the dive one of the pair felt that there was a problem with her regulator, she started to panic and to swim for the surface. Her buddy held on to her and repeatedly offered her alternative air source. The panicked diver rejected this and struggled to the surface. At the surface she quickly recovered. Her buddy towed her to the shore and she was assisted from the water. No subsequent ill effects were experienced by either diver. No problem was found with the regulator.

June 2002 02/157

An instructor and a trainee made a dive to 6m. After 10 min the trainee signaled that he wanted to go up. His mask was flooded. The instructor returned the signal but the trainee did not

respond. The instructor helped the trainee to the surface using a controlled buoyant lift. The trainee had previously experienced problems with mask clearing.

June 2002 02/259

A diver was descending a shotline to a wreck. During the descent he let go of the line to clear his mask and to dump air from his BCD. Whilst doing so he lost contact with the shotline and became separated from his buddies. The buddies surfaced. The lone diver continued to the seabed at a depth of 27m. At the bottom he attempted to locate the others by using his torch. He then heard the boat's engines being revved up. He understood this to be a signal to surface, which he did. All divers were safely recovered.

June 2002 02/200

A pair of divers prepared to enter the water. One went ahead and was below the surface before the second diver entered. The second diver expected his buddy to swim underwater to the shotline, which he thought would take them to a wreck at 20m. The second diver entered the water and followed his buddy. They did not find the shotline and at 25m the second diver had not caught up. At 30m the second diver was breathing very hard and his pulse was rising. They reached the seabed at a depth of 38m. The second diver was breathing very rapidly and his pulse rate was very high. He signaled that they should abort the dive and they started to ascend. They quickly got to 20m, at 14m their computers indicated no stops and they came straight to the surface. On the surface the second diver was hyperventilating and once back in the boat he breathed nitrox 50. After 15 min he had recovered. His computer indicated a fast ascent. He dived again later that day.

July 2002 02/251

Two divers made a dive to 32m. Prior to the dive one of the pair noticed that her regulator was hissing slightly and she decided to check her air more often during the dive. 22 min into the dive with 5 min of decompression indicated this diver had 90 bar remaining. They decided to ascend. The other diver then realized that his SMB reel had unwound around them and this took some time to resolve. The diver who was low on air then deployed her SMB and they began to ascend. During the ascent she passed the reel to her buddy as she was getting tired and breathless. At 6m she checked her air and found that she only had 20 bar remaining. She showed her buddy and he prepared his alternative air source. She was breathing heavily and the alternative air source did not supply enough air. She switched back to her own regulator. The buddy switched to his pony regulator. The breathless diver then switched back to the buddy's alternative air source but part of the regulator had fallen away and it would no longer work. She used his main regulator. By this time the buddy's computer had cleared. During this period the buddy unknowingly released the brake on the SMB reel and they dropped down to 9m. They re-ascended. The buddy decided to swap back to his main regulator and give the pony regulator to the diver who was out of air. She took a few breaths from this regulator and it then ran out; her computer showed 5 min decompression required. They decided to surface sharing the one remaining regulator. Both divers were monitored but no ill effects were experienced.

August 2002 02/270

Two divers entered a wreck in a depth of 39m. They found their way blocked and turned around. Whilst doing so the regulator of one of the divers began to free flow. The visibility went to zero and the diver with the free flow panicked. The divers became separated. Both managed to find their way out of the wreck and both deployed delayed SMBs and made, separate, safe ascents to the surface.

August 2002 02/235

Two divers were swimming on the surface at the start of their dive. One of the pair, who was wearing a membrane drysuit, had difficulty with her buoyancy and started to sink. She panicked and a boat came to her aid. Both divers were safely recovered from the water.

August 2002 02/293

Two rebreather divers descended their shotline to a wreck in a depth of 33m. Shortly into the dive another shotweight and line landed less than 2m away from them. They continued their dive, sheltering in the overhangs. On surfacing they asked the skipper of the other boat why he had dropped another shot, close to their own and whilst they were in the water. He had not considered the presence of rebreather divers and, seeing no bubbles, assumed it was safe. Their own cox had tried unsuccessfully to attract the attention of the other skipper to warn him.

August 2002 02/294

A rebreather diver and an open circuit air diver were diving on a wreck in a depth of 30m. Whilst they were down another dive boat arrived and threw in a shotline without checking that all was clear. Later, when these divers were carrying out decompression stops at 5m a dive RHIB ran over their shot buoy. Neither diver was hurt in these incidents.

September 2002 02/279

A diver ran out of air at a depth of 20m. Her buddy assisted her with an alternative air source. They made a faster than normal ascent to the surface. No subsequent ill effects were experienced.

Equipment

October 2001 02/056

Two divers dived to a maximum depth of 20m. 10 min into the dive, at a depth of 18m, the feed hose to the BCD of one of the divers burst, with a loud bang, close to the second stage. The other diver made his alternative air source ready. The air supply of the first diver was rapidly depleted and he made a fast ascent to the surface. The buddy followed at a slower pace. At the surface he gave the emergency signal and two boats involved with the group recovered the divers. No subsequent ill effects were experienced.

November 2001 02/040

A direct feed hose in use in a swimming pool was thought to be leaking. A person on the pool side connected the hose to a cylinder to check it. Part of the direct feed valve was then suddenly blown out of the valve body. This component hit the person's hand and then his face. It was found that this component had been incorrectly assembled.

January 2002 02/033

A diver conducted a dive to a maximum depth of 33m. At 20m his regulator began to free flow and he sank back down to 31m. It is thought that he then suffered narcosis. He made a faster than normal ascent to the surface. No subsequent ill effects were experienced.

January 2002 02/035

A diver was at a depth of 35m when his regulator began to free flow. He aborted the dive. His total dive time was 8 min. No subsequent ill effects were experienced.

February 2002 02/074

Two divers conducted a dive to 35m. The regulator of one of the pair began to free flow. He made a fast ascent to the surface. Total dive time 8 min. No subsequent ill effects were reported.

February 2002 02/063

Two divers dived to a maximum depth of 8m. One of the pair experienced a regulator free flow. He tried to take his buddy's alternative air source but his hood rose up to cover his mouth. He panicked and made a fast ascent to the surface. Other divers assisted them from the water and the diver was placed on oxygen. No subsequent ill effect was reported.

February 2002 02/077

Two divers made a dive to 20m. 17 min into the dive both regulators of one of the divers began to free flow. The other diver offered his alternative air source and they made a fast ascent to the surface. No subsequent ill effects were reported.

February 2002 02/089

Three divers began a dive to a depth of 24m. At 18m the regulator of one of the group began to free flow. The regulator was free flowing so violently that he could hardly keep it in his mouth. He switched to his pony regulator and in doing so they dropped down to 24m. His pony regulator then began to free flow. He made an ascent to the surface. During the ascent he lost contact with the other two divers due to the bubbles. They surfaced 1 min later. The water temperature was 4 deg. C. The main regulator had a history of free flow following a service and was returned to the manufacturer. The manufacturer did not identify any problem.

July 2002 02/187

Two divers completed a dive and were conducting a surface swim to leave the water. The BCD of one of the pair began to leak badly. The BCD would not hold air and the diver struggled to stay at the surface. They were picked up by boat. No subsequent ill effects were experienced.

July 2002 02/268

Two divers completed a 20 min dive to a maximum depth of 32m. They ascended the shotline to where they planned to carry out a practice decompression stop. Two cylinders and regulators had been lowered to the 6m stop but when the divers got there they found only one. The other cylinder had been quickly attached with two cable ties and these are thought to have been broken by the water movement resulting in the loss of the cylinder and regulator. The divers completed their dive safely.

July 2002 02/264

Two pairs of divers made a dive to a maximum depth of 35m using trimix 30/30. After 40 min one diver of one of the pairs deployed a delayed SMB and they started their ascent. At 21m they stopped. At this point the other diver of the pair also deployed a delayed SMB and they both switched to nitrox 50. When one of the divers turned on his decompression cylinder bubbles started pouring from the first stage. He was not able to resolve this problem. He turned this cylinder off again and they ascended to 18m. They spent 4 min at 18m and 5 min at 15m. They ascended to 12m and each breathed for 1 min from the buddy's nitrox 50 cylinder. They then ascended to 9m and each breathed for 4 min from the nitrox cylinder. They ascended to 6m where they commenced buddy breathing from the nitrox cylinder. The other pair of divers arrived at the same point and the diver without decompression gas buddy-breathed with one of the others to even out the gas consumption. They extended their planned 15 min stop at 6m by a few minutes and then surfaced. No subsequent ill effects were experienced. An 'O' ring was found to have blown out of the high pressure port of the leaking first stage.

August 2002 02/228

Two divers were at a depth of 21m. One of the pair experienced difficulty in keeping water out of her mask. She inhaled some of this water and became distressed. Her buddy brought her to the surface using a controlled buoyant lift. At the surface she was in a panic and the buddy towed her to the shore. No subsequent ill effects were experienced.

August 2002 02/227

Two divers were at a depth of 21m. One of the pair got water in her regulator. This caused her distress and she started to use her buddy's alternative air source. They made a fast ascent to 6m where they then remained for 15 min. No subsequent ill effects were reported.

Miscellaneous

October 2001 02/436
Lifeboat launched to assist dive boat. False alarm. (RNLI report).

February 2002 02/445
Lifeboat launched to search for missing diver(s). Probably a hoax. (RNLI report).

March 2002 02/446
Lifeboat launched to search for diver(s) swept away. False alarm. (RNLI report).

March 2002 02/250
Three divers descended to 20m for a drift dive. At the bottom one of the divers indicated that he was not happy. The dive leader attempted to establish what the problem was but got no reply. The dive leader brought the troubled diver back to the surface using a controlled buoyant lift. The other diver kept with them. They were recovered into their boat. The underwater visibility had been very low and the diver had felt as if he was spinning during the descent. No subsequent ill effects were experienced.

March 2002 02/110
Two divers completed a dive to 20m for 31 min. 5 hours 18 min later, they dived again. They descended to a depth of 19m. The site was uninteresting so they came back up a slope to 13m. At this point one of the divers coughed, broke the seal on his regulator, and ingested seawater, causing him distress. His buddy brought him to the surface using a controlled buoyant lift. The last part of the ascent was quicker than normal. No subsequent ill effects were experienced.

April 2002 02/449
Lifeboat launched to assist divers. Two persons recovered. (RNLI report).

May 2002 02/334
Report of two divers in the water, calling for help, ILB and CG tasked. Divers, part of a group, were located safe and well. Incident classified as a false alarm with good intent. (Coastguard report).

June 2002 02/338
Mayday call received from dive boat reporting overdue diver from wreck dive. Two minutes later, diver surfaced safe and well having become entangled and separated from buddy. No medical treatment required. (Coastguard report).

June 2002 02/451
Lifeboat launched to assist diver(s). False alarm. (RNLI report).

June 2002 02/474
Two instructors and two students were preparing three RHIBs for practical sessions during a boat handling course. As one pair were securing one of the boats alongside a jetty a man on a nearby yacht called to them for assistance. They went to investigate and found the man to be grey, cold and clammy and complaining of chest pains. The instructor stayed with the casualty and sent the student to get assistance. The other instructor and student then arrived. The student was a qualified nurse and believed that the casualty was suffering a cardiac arrest. They laid the casualty down and administered oxygen. They moved the yacht to a better position for access by the ambulance crew. When the ambulance arrived a defibrillator was used three times before a pulse was re-established. The casualty was taken to hospital and the divers secured the yacht. The casualty was reported to be recovering well.

July 2002 02/471
Lifeboat assisted in the search for missing diver(s). False alarm. (RNLI report).

Overseas Incidents

Fatalities

February 2002 02/085

Two pairs of divers and a guide entered the water to begin a dive. One pair began their descent and the guide descended with one diver of the other pair. The fourth diver was seen to be in trouble at the surface and the first pair re-ascended to assist. The diver was struggling, her mask was filled with blood and vomit and she had no regulator in her mouth. She began to make a rapid descent and one of the first pair took hold of her, replaced her regulator and pressed the purge; no air came out. He reached for her cylinder valve and found it was turned off. He turned it on. The casualty was not able to keep the regulator in her mouth. The rescuing diver held the regulator in place and brought her to the surface. At the surface he towed the casualty to the boat and after some misunderstanding the casualty was lifted out of the water. The other divers were recovered and the boat set off for shore. The casualty's breathing was laboured and she was vomiting. The casualty was placed on oxygen. When they reached the shore the casualty stopped breathing. Resuscitation techniques were applied. A nearby holidaymaker came to assist, stating that she was a doctor. There was no local doctor at this location. The assisting doctor took over the resuscitation but after a brief period stated that the casualty was dead. There was doubt over whether this diver had been wearing a weightbelt.

April 2002 02/094

A diver undertook a solo dive. He failed to surface at the planned time and 30 min later the alarm was raised. An aircraft and other divers conducted a search until nightfall. Police and others continued the search, unsuccessfully, for the next two days, at which point the diver was declared missing, presumed drowned.

July 2002 02/225

A diver had dived to a maximum depth of 42m. He was unconscious at the surface. Other divers assisted. He was not breathing. CPR and oxygen assisted AV were administered. The emergency services were called and arrived 45 min later. The diver was pronounced dead at the scene. A heart attack was suspected.

Decompression

March 2002 02/084

A diver completed his second dive of the day to a maximum depth of 14m for a duration of 51 min with a 3 min stop. After his dive he felt a tingling in his fingers and 'pins and needles' spreading towards the bicep of his left arm. The diver was laid down and given oxygen. The emergency services were alerted and he was taken to hospital. The diver continued to breathe oxygen and was given fluids. No recompression facility was available at this site. The diver was kept on oxygen over night. The following morning he was taken off of oxygen. 90 min later he again complained of a tingling feeling and was put back on oxygen. Arrangements were made to evacuate the diver to another site. This diver had experienced a DCI 5 years earlier.

April 2002 02/315

Following two dives and a rapid ascent, diver climbed a mountain and then did a further six dives (noticing symptoms of DCI improved on dive), then got progressively worse. Was abroad at the time. Flew home and required treatment at hyperbaric unit (24 hours). (Coastguard report).

Injury/Illness

October 2001 02/017

A group of divers descended to a wreck at 20m. They swam past the wreck and dropped over a ledge to a depth of 33m. One of the group was left somewhat behind the others and he finned hard to catch up. He became anxious and out of breath. His breathlessness increased to the point where he was unable to breathe properly and he made an uncontrolled ascent to the surface. He showed no symptoms but was placed on oxygen for 15 min as a precaution. He later found that he had 2 kg of unnecessary weight on his belt. He suggested that narcosis may have played a part. He was under stress from work related issues.

November 2001 02/047

Three divers conducted a dive to a maximum depth of 27m. They started their ascent up the side of a wreck. At 16m one of the divers indicated that all was not well and lapsed into a semiconscious state. One of the other divers lifted him to the surface with a controlled buoyant lift and summoned assistance. The casualty was recovered into the boat and placed on oxygen. Assistance was sought by radio and the casualty taken back to the shore. From there he was taken to hospital by ambulance and released later that day. No cause of the problem was identified.

December 2001 02/071

A diver had completed a 25 min dive to a maximum depth of 30m. He climbed a ladder to get back on the boat. At the top of the ladder he caught one of his fins and fell flat onto his face. He sustained cuts to his nose and suffered a nose bleed. He was able to dive again the following day.

May 2002 02/139

Five pairs of divers entered the water inside a reef. Three pairs swam through a cut that led to the outside of the reef and were caught by a strong and unexpected current. Two pairs were thrown on to the top of the reef by surf. These divers received cuts, bruising and coral burns. The other pair managed to get out beyond the surf line, where they surfaced and attempted to attract the attention of those in the boat. The boat operator would not go through the cut as he considered that the conditions were too rough. Another boat went through and recovered the divers. All were safely returned to shore.

June 2002 02/173

A trainee diver carried out mask clearing drills at a depth of 2m. He then attempted to re-descend for further training but experienced difficulty in clearing his left ear. Several attempts were made and he then experienced a severe pain in his ear. The dive was aborted and the diver sought medical advice. A perforation of the right eardrum was found and inflammation of

the left ear. He was given antibiotics. The diver had previously suffered a perforated eardrum whilst water skiing.

July 2002 02/204

A diver dived to 20m for 29 min. After a surface interval of 1 hour she dived again with two others. On reaching 18m she signaled that something was wrong. She looked dizzy and lethargic. One of the other divers took hold of her and brought her and the buddy to the surface. During the ascent the casualty became worse and was losing consciousness. She was recovered into the boat, laid down and placed on oxygen. The emergency services were alerted. The diver showed no signs of DCI but appeared hypothermic and in shock. She was covered and given water. The air temperature was 30 deg C., the surface water temperature was 25 deg C, but at depth it was 21 deg C. The casualty was of slim build and was only wearing a 3 mm shortie wetsuit. Once ashore she was taken to hospital and released 2 hours later.

July 2002 02/219

A diver was diving on a wreck at a depth of 25m. He cut the middle finger of his left hand on a jagged piece of wreckage. He returned to the shotline and made his ascent to the surface. The boat returned to shore and the casualty was taken to hospital where his finger required ten stitches.

September 2002 02/276

Two divers conducted a 25 min dive to 25m with a 2 min stop at 6m. After the dive they complained of headaches, nausea and 'dry retching'. Their skin was pale. Carbon monoxide poisoning was suspected and both divers were placed on oxygen and taken to hospital. Their diving cylinders and the compressors from which they were filled were quarantined for checks.

Boating / Surface Incidents

July 2002 02/218

Divers had entered the water from two boats. One boat waited at anchor and the other moved down tide. The moving boat was caught by a large swell and the wind, and it overturned throwing two people into the water. The other boat went to assist. The upturned boat was towed to a mooring and floating diving equipment from this boat was recovered. The upturned boat was righted. The engine of the capsized boat was cleaned with fresh water and restarted. The boats returned to shore and the lost equipment was identified. Some of the divers later went back to the site and recovered much of the lost equipment.

Ascents

October 2001 02/015

A trainee and an instructor were conducting a wreck dive to a maximum depth of 15m. The instructor let go of the trainee's hand to deploy a delayed SMB. The trainee then lost control of her buoyancy and made a rapid ascent to the surface. Her dive duration was 12 min. The instructor then realized that the trainee was missing and looked around for her. He then made a normal ascent. The trainee was placed on oxygen for 10 min. She exhibited no symptoms and the oxygen was stopped. No subsequent ill effects were experienced.

January 2002 02/070

An instructor and two trainees dived down a shotline to a depth of 15m. On the seabed they attached a distance line to the shot and swam a distance of about 30m. At this point the instructor noticed one of the trainees 2m off the bottom and apparently struggling with his BCD dump control. He passed the line to the other trainee and signaled him to wait. He swam to the buoyant trainee and attempted to dump air from his BCD, but it was empty. He located the trainee's drysuit dump and found it closed. He opened this valve but was unable to prevent them from being carried to the surface. At the surface the trainee was recovered into the boat. The instructor swam to the shotline, descended and returned to the second trainee. They surfaced together. The buoyant diver complained of dizziness and nausea and was placed on oxygen. Medical advice was sought and both buoyant diver and instructor were monitored for signs of DCI. No subsequent ill effects were experienced.

Technique

March 2002 02/083

A group of divers led by an instructor made a descent down a fixed line to a wreck. They grouped up on the side of the wreck at 16m. They explored the wreck and then stopped for a photograph. At this point one of the divers started to ascend. The instructor followed her up. At the surface the diver stated that she did not know how she had got to the surface. She was recovered into the boat and placed on oxygen as a precaution. The instructor returned to the group and brought them back to the line to make a normal ascent. The subject diver was given a medical check up but suffered no ill effects.

June 2002 02/198

A pair of divers were dropped into the water from their boat close to the shotline. Divers from an earlier dive surfaced and were being picked up when a distress signal was given by the pair who had just been dropped off. One of the pair felt over weighted and he was unable to reach his BCD inflator as it had become trapped behind his back. The hose was freed but it did not fill his BCD quickly and he dropped his weights. The boat finished recovering the divers who had surfaced and then went to assist the distressed diver. The pair were recovered into the boat and the distressed diver was placed on oxygen. He recovered after a short period.

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.

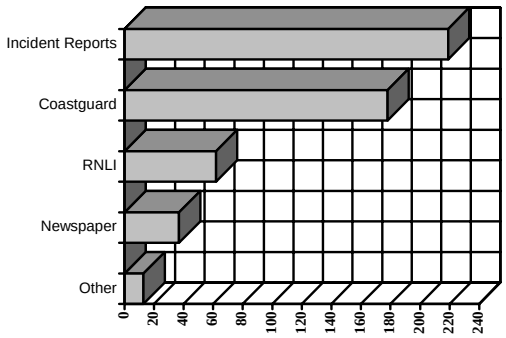
Incident Report Forms can be obtained free of charge by phoning BSAC HQ on ***0151 350 6200***
or from the BSAC Internet website.

Numerical & Statistical Analyses

Statistical Summary of Incidents

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Incidents Reported	199	123	263	385	351	315	397	452	397	439	465	452
Incidents Analysed	199	123	263	385	351	315	370	431	382	417	458	432
UK Incidents	170	98	236	322	318	295	349	404	357	384	433	414
Overseas Incidents	24	14	21	9	33	20	21	27	25	33	25	18
Unknown Locations	5	11	6	54	0	0	0	0	0	1	0	0
BSAC Members	111	110	146	164	157	136	101	135	128	113	122	149
Non-BSAC Members	18	13	19	8	20	4	29	52	47	52	94	55
Membership Unknown	70	0	98	213	178	175	219	217	182	219	217	211

Incident Report Source Analysis



Total Reports: 509
Total Incidents: 432

History of UK Diving Fatalities

		Number of Fatalities	
Year	**Membership**	**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
2002	**39960**	**4**	**10**

LIST OF ABBREVIATIONS USED IN INCIDENT REPORTS

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