The British Sub-Aqua Club

National Diving Committee
Diving Incidents Report
2011

Compiled by

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

Introduction

This booklet contains the 2011 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 sports diving incidents occurring to divers of all affiliations, plus incidents occurring worldwide involving BSAC members.

The 2011 'Incident Year' ran from 1st October 2010 to 30th September 2011.

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/YEAR 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,
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Acknowledgements

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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.

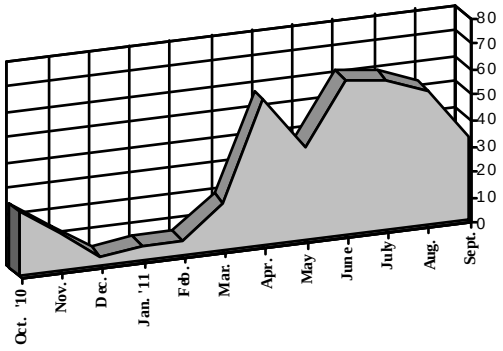
Overview

2011 has seen 375 UK diving incidents reported. This is entirely in line with recent years, as the graph below shows. The number of incidents reported rose progressively during the 90s to peak at around 440 incidents per year. In recent years this number has dropped back a little and is now, typically, around 380.

Number of reported incidents

The distribution of reported incidents by month is shown in the following chart and it follows the normal pattern, with 71% of the dives taking place in the summer months. This pattern reflects the fact that much more diving is conducted in the summer than in the winter. The spike in April and dip in May is a little unusual but Easter was in April and we had some very good weather at that time, which, no doubt, encouraged more people to go diving.

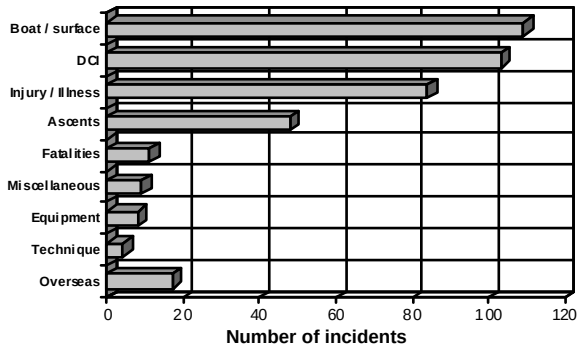
Incidents by month



Incidents by category

The incident database assigns all incidents into one of nine major categories, and the following chart shows the distribution of the 2011 incidents into those categories.

Categorisation of the year's incidents



108 'Boating and Surface' incidents were recorded in the 2011 incident year making it the biggest single category; it is ten years since this group has topped the list. This category mainly comprises of problems with boat engines (engine failure and out of fuel) and lost diver(s). There had been a strong downward trend in the ten year period starting in the late 90s but in recent years the numbers have jumped back up and this year's record continues that trend.

The next largest category is DCI with 103 incidents reported. Normally this is the largest group and the total this year is very much in line with the average of previous recent years.

The third category is 'Illness and Injury' with 84 incidents reported. The bulk of this is thought to be cases of DCI. But these cases are reported through the RNLI and their reports do not specifically record DCI, they often just state 'Diver illness'. For this reason it is not possible to distinguish cases of DCI from other diver ailments. This category is about 20% higher that the average of recent years but this is not thought to be significant.

'Ascents' is the fourth category and this involves incidents where divers have made an abnormal ascent but avoided DCI or other injury. This category peaked in 2006 and has been steadily falling since that time. It is good to see that this trend has continued in the 2011 incident year. 48 'Ascent' related incidents were reported and one has to go back to 1999 to find a lower number. A lot of effort has been put into improving diver buoyancy control and these numbers reflect the beneficial changes that have been made.

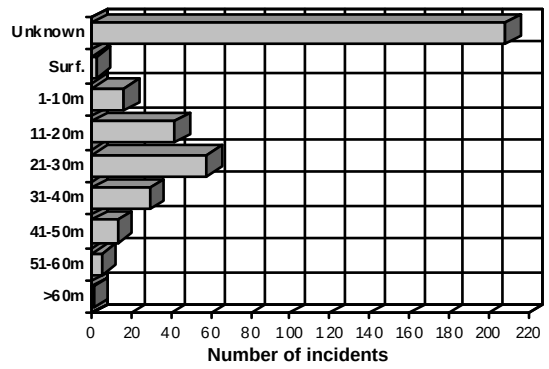
The last category to be mentioned specifically is 'Fatalities' and although the numbers are quite small it is, of course, the most serious. This year saw 11 diver fatalities; this is substantially lower than the average of the preceding ten years which was 15.8.

More analysis on these key incident categories is given later in the report.

Incident depths

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

Maximum depth of dive involving an incident

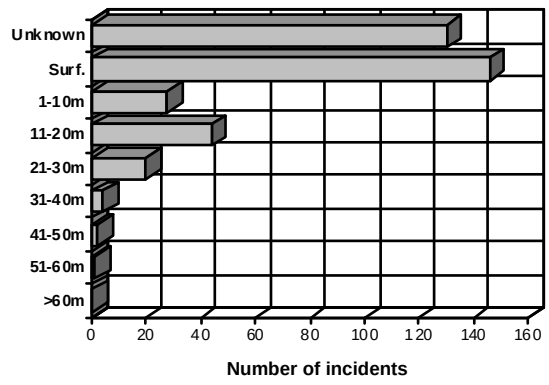


The pattern of depths in the 0m to 50m range is very similar to that normally seen and reflects the amount of diving that takes place in these depth ranges.
The number of incidents reported in the greater than 50m ranges is 6, a little lower than most previous years. However it is worth noting that 2 of these 6 incidents involved fatalities.

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.
BSAC recommends that helium mixtures are used for depths deeper than 40m and that mixed gas diving should be to a maximum depth of 80m. Mixed gas dives should only be conducted when the diver holds a recognized qualification to conduct such dives.
See the BSAC website for more details of these and other diving depth limit recommendations.

The next chart shows the depths at which incidents started.

Depth at which an incident started



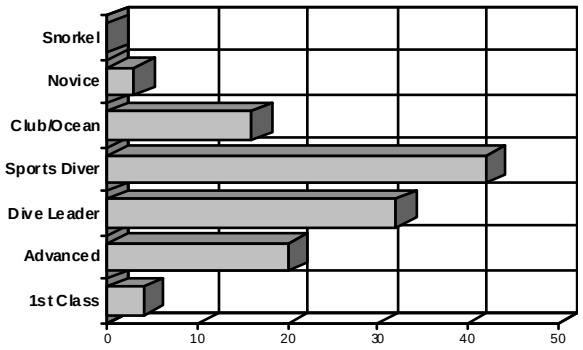
Inevitably the data are biased towards the shallower depths since many incidents happen during the ascent or at the surface. Critical among these are the DCI cases where almost always the casualty is out of the water before any problems are noted. This partially explains the large occurrence of 'Surface' cases as this includes divers with DCI who have left the water. Other surface incidents involve boats and boating incidents and divers who are lost but on the surface.

The depth profiles are consistent with previous years.

Diver qualifications

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

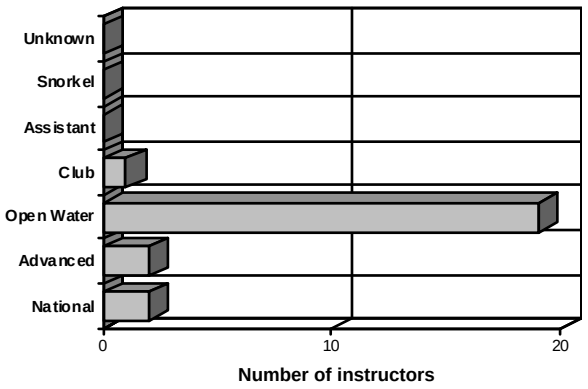
Qualification of the divers involved in incidents



These data are in line with the normal pattern of previous years and are thought to reflect the number of divers in these qualification grades.

The next chart shows an analysis of incident by instructor qualification and again it is consistent with previous years.

Qualification of instructors involved in incidents



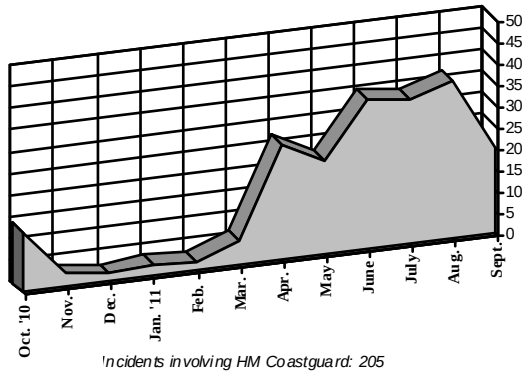
The low number for 'Club' instructor almost certainly reflects the fact that this qualification is no longer part of the instructor development programme.

Divers' use of the Emergency Services

Divers' use of the emergency 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.

205 incidents were reported to us by the Coastguard; this is entirely consistent with recent years.

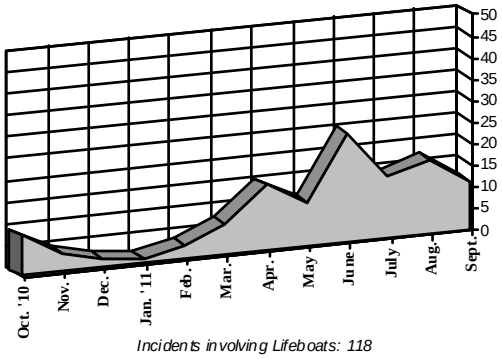
Incidents involving the UK Coastguard Agency - Monthly breakdown



Incidents involving HM Coastguard: 205

There were 118 incidents reported that involved the RNLI. Previous years had seen a steady decline in divers' need for lifeboat assistance. However the last three years have seen that trend reversed. The RNLI's main involvement with divers involves assistance with disabled boats, searching for missing divers and the recovery of divers with DCI. As pointed out earlier the 'Boat and Surface' category has risen and this will inevitably increase divers' calls upon the RNLI.

Divers' use of RNLI facilities by month

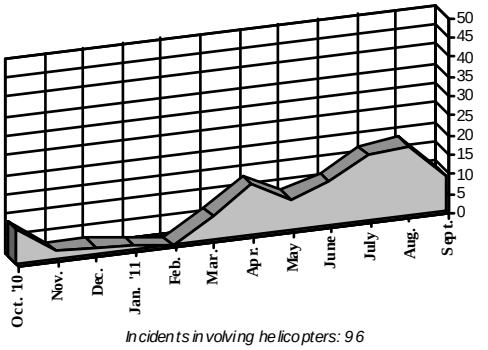


Incidents involving Lifeboats: 118

In 2011 96 incidents involved the use of helicopters. This is in line with the average of recent past years which is around 100 helicopter calls per year.

In diving related incidents helicopters are mainly tasked to support searches for missing divers and to transport divers with DCI to recompression facilities.

Divers' use of SAR helicopters by month



Incidents involving helicopters: 96

Fatalities

11 fatal incidents occurred in the UK during the 2011 incident year. This is well below the average of 15.8 fatalities per year over the previous ten years.
4 of these people were BSAC members. The previous ten year average for BSAC fatalities in the UK is 6.1 fatalities per year.
However, one shouldn't read too much into these reductions. A review of the past twenty years indicates that the number of annual fatalities can range from as few as 9 to as many as 25. This year the number of fatalities has been relatively low, but this, sadly, can not be interpreted as a downward trend.

Key factors associated with these fatalities can be summarised as follows:-

- One case involved a diver who suffered from a serious medical condition that led to his death. Additionally there are four other cases where it seems very likely that the diver suffered a 'medical event' whilst underwater, although evidence to substantiate this assumption is not currently available.
- Six cases involved a separation of some kind. Three of these cases involved divers who became separated during the dive, either deliberately or accidentally. Two cases involved separation during the ascent from a dive. In one case there is insufficient information to comment. Separation in itself is not a cause of death but death might have been avoided if the casualties' buddies had been with them and thus potentially able to help resolve any subsequent problems.
- Six cases involved divers diving in a group of three or more. Five of these six involved separation. It is clear that there is more opportunity for a diver to become separated and end up effectively diving solo if they are part of a group. In a buddy pair it is obvious when a separation has happened and the two divers usually react quickly. In a group it is possible for a separation to go un-noticed.
- Two cases involved dives to greater than 50m. One was to 55m and the other to 61m. Only six incidents were reported involving dives to greater than 50m; two of these were fatalities.
- Two incidents involved divers running out of gas. In one case a diver ran out during an ascent and was lost as a result. The second case involved a cave diver diving in a group of three; this diver somehow became separated from the others.
- Two cases involved a rapid ascent. In one case the diver had drysuit control problems and made a buoyant ascent that resulted in fatal DCI. In the second case the diver made a rapid ascent as a result of other problems.
- One case involved a cave diver (as described above). Cave diving is an activity in its own right but such incidents are included in our database for completeness.

Often multiple causes were involved in an incident and with many of these fatal incidents there is currently insufficient information available to be clear about the exact chain of events and specific root causes. Often new information comes to light (from coroners' inquests for example) after the publication of the annual report. Such information is added to the incident database for future research purposes.

Diver age has been highlighted in recent years as a feature of note in the year's fatal incidents, with a disproportionate rate of fatalities amongst older divers. This year sees a continuation of this trend; 8 (73%) of the 2011 fatalities involved divers over the age of 50. This is against a background of only 16% of the diving population being over 50 (from a BSAC UK site survey). The natural tendency is for health and fitness to decline with increasing age and the above numbers seem to indicate that divers need to pay more attention to these aspects as they grow older.
However, it is worth noting two additional points here:-

- Although 8 fatalities involved divers who were over 50, only 4 of these were thought to have had medically related problems that led to their deaths.
- One of the divers who did suffer a related medical problem was only 26 years old.

Decompression incidents

The BSAC database contains 103 reports of 'DCI' incidents in the 2011 incident year, some of which involved more than one casualty. When these multiple cases are counted the result is 107 cases of DCI.

An analysis of the causal factors associated with the 103 incidents reported in 2011 indicates the following major features:-

31 involved repeat diving
28 involved rapid ascents
27 involved diving to deeper than 30m
17 involved missed decompression stops

Some cases involved more than one of these factors.

The content and order of this list is virtually identical with previous years.
As stated earlier, some of the 'Injury and Illness' incidents are also thought to be DCI related.

Boating and Surface incidents

This category of incident has seen a significant rise with a total of 108 incidents reported. The factors associated with these incidents are as follows:-

46 involved engine problems
44 involved lost diver(s)
10 involved boat problems
7 involved bad seamanship

Some cases involved more than one of these factors.

Boat and engine problems have seen a rise in recent years but the total for 2011 is in line with those recent years.
The big change has come in the number of cases of 'lost diver(s)' which, in 2011, is about double the number of cases seen annually in the last 10 years.
There are a number of reasons for divers becoming lost:-

- Engine or boat problems that prevent the divers from being followed.
- Sea and/or surface conditions that carry divers away and make them difficult to see.
- Failure of divers to surface at the planned time and in the planned location.
- Failure of divers to deploy delayed SMBs when planned.
- Failure of divers to surface when a separation has taken place.

All of these issue occurred this year, but what is noticeable is the number of cases where the diver(s) were in fact not in trouble and were found before the emergency services were on scene. It is possible that cases of lost diver are being reported earlier than in previous years. If this is so it is a good thing, since the Coastguard would much rather know of an incident sooner rather than later; an early report greatly increases the likelihood of a successful search.

Ascent related incidents

The good news in 2011 is that 'ascent' related incidents are at their lowest number for over 10 years.
48 cases of 'Ascent' problems were recorded in 2011 and the majority of these were 'rapid ascents'. An analysis of these 'rapid ascents' (where the detail is known) is as follows:-

37%	Simply poor buoyancy control
11%	Panic / anxiety / rush for surface
11%	Drysuit control malfunction/mis-use
8%	Delayed SMB problems
8%	Regulator free flows
8%	Out of air / gas
3%	Weighting or weight related problems

These causal factors are very similar to those seen in abnormal ascents for many previous years, it is just that there have been fewer of them.

It is certain that many other such cases have gone un-reported but it is anticipated that these root causes will apply to all uncontrolled ascents.

Many DCI cases have their roots in these problems; they have been recorded under the 'DCI' heading but the causal factors are often the same, so the actual number of abnormal ascents will be significantly higher than 48 cases. This year's DCI cases included 28 incidents where rapid ascents had taken place.

Conclusions

Key conclusions are:-

- The number of incidents reported each year in the UK seems to have levelled out at around 370 cases.
- The number of fatalities of BSAC members is 2.1 lower than the average of the previous 10 years.
- The number of fatalities of non-BSAC members is 2.7 lower than the average of the previous 10 years.
- Diver age and related health and fitness issues are emerging as critical factors in this and recent years' fatalities. The average age of the subjects of this year's diving fatalities was 54 years (a little higher than recent years); the average age of the background diving population is 38. However, a number of the fatalities of 'older divers' had no apparent age related cause.
- Ascent related incidents continue to reduce.
- Incidents relating to boat problems (engine and fuel) remain high and cases of 'lost diver' have increased.

As has been stated many times before, 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 publishes a booklet called 'Safe Diving' (latest edition published in September 2010). which summarises all the key elements of safe diving and is available to all, free of charge, from the BSAC website or through BSAC HQ.

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 browse through the details in this report 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 using our Incident Report form, available free via the BSAC website or from BSAC HQ.

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

Fatalities

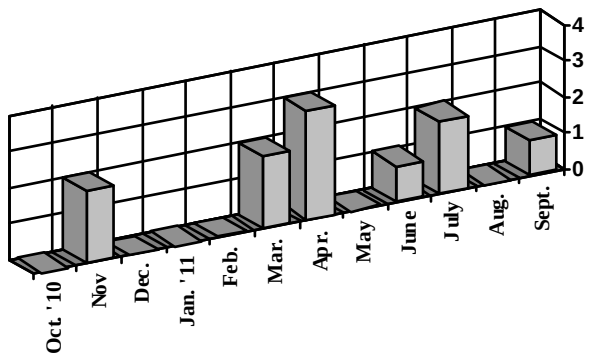
November 2010 11/002

An experienced diver was taking part in a rebreather try dive at an inland site; he had had no previous experience with this equipment. Competence skills were conducted at 6m and the group moved down to 18m. The diver was seen coughing into the loop and he then began to ascend. His buddy went with him and attempted to control the ascent. At the surface the diver complained that it was hard to breathe; he was told to switch to open circuit and they swam back to the shore. He was helped from the water but then lost consciousness. CPR was started. The diver was airlifted to hospital by an air ambulance helicopter but was declared deceased on arrival at hospital.

November 2010 11/003

A group of three divers were diving from the shore at an inland site with the intention of visiting one of the wreck features. After 30 min the divers had still not found the wreck and reached the far side of the lake. The group decided to ascend and one diver became separated from the other two. The remaining pair continued their ascent and one noticed that the other's suit seemed to be over-inflated. Dumping air from her BCD did not slow the ascent, she lost control and made a rapid ascent to the surface. The remaining diver made a normal ascent and conducted a 3 min safety stop during which she was able to see the diver who had the fast ascent. On surfacing she found that her buddy was inverted and unconscious on the surface and she raised the alarm. The site's rescue boat responded and the unconscious diver was recovered from the water. Resuscitation attempts were made but the diver did not recover. Her buddy was assisted to the shore by other divers. The third diver surfaced some distance away and made his way back to shore. A media report of the coroner's inquest stated that the casualty had suffered a collapsed lung and tissue damage caused by the rapid ascent.

UK Fatalities - Monthly breakdown from October 2010 to September 2011 incl.



March 2011 11/027

A group of divers completed a dive to 17m for a duration of 60 min. After a surface interval they commenced a second dive to collect scallops in approx 21m of water. The sea was calm with approximately 1 knot of current. Some of the group were wearing twin-sets and at least one diver was using a 15 ltr cylinder. Once all of the divers had reboarded the boat they noticed that one of the group was missing and that there was no visible delayed SMB. The Coastguard was alerted and a search was initiated involving a helicopter, two lifeboats and other craft. The diver was not located and the search was called off at 20:00.

March 2011 11/031

Three divers entered the water just before slack for a dive on a wreck in 62m of water. The three divers were all using trimix (30% helium) as a bottom gas and had planned 18 min bottom time and total dive time of 60 min. During the descent one diver had problems with sinus pain but it cleared and he continued. On approaching the bottom of the shotline the diver who had experienced the sinus pain overtook the diver who was then in the lead and dropped off the shotline onto the wreck. The third diver in the group also passed the diver in the lead and was waving his unlit torch. The lead diver passed him his spare torch and the third diver continued his descent to the wreck dropping off the shotline in the opposite direction to the other diver. The diver who had been in the lead then joined the diver with the sinus problem and both made their way along the wreck towards the third diver. As they moved along they could see a light but it was not moving and they found the torch previously passed to the third diver switched on but lodged in the top of the wreck. One of the other divers picked up the torch and clipped it onto his harness and, looking around, saw the third diver 4m away and 2m above him in an upright position and not making any rapid movements or appearing to panic. This was the last that the divers saw of the third diver. The surface cover RHIB was approaching the shot buoy in preparation to deploy another pair of divers when they saw a delayed SMB arrive on the surface about 10 min after the three had started their dive. Shortly after this the third diver was seen to surface rapidly feet first with a fully inflated suit and fall back onto his back. The divers who were about to dive were immediately advised of an emergency and stood down whilst the boat was motored towards the surfaced diver. As they approached the diver was lying still, had a blue grey colour and was unresponsive. A 'Mayday' call was made whilst the diver was de-kitted, recovered from the water and laid down inside the RHIB. The oxygen kit was prepared and it was found that the diver was not breathing so CPR was commenced. The Coastguard tasked a helicopter to respond and a Royal Navy warship responded and approached closely before launching an RHIB and lowering a stretcher. The diver was winched onto the warship and subsequently airlifted from the deck of the warship by helicopter to hospital. The diver did not recover. The diver had been using independent twin cylinders and these were found to still contain 130 bar and 160 of gas respectively.

April 2011 11/048

Two divers aborted the first dive of the day when one of their torches failed during the descent to a wreck. A second dive was conducted later in the day to a maximum depth of 22m to collect scallops. After a period of time the buddy was down to 40 bar in twin 12 ltr cylinders and asked the other diver how much gas he had, the other diver indicated 50 bar in a single 15 ltr cylinder. The buddy signalled to ascend and the second

diver unhooked his delayed SMB and reel and deployed it. He then continued to collect scallops and passed the SMB reel to his buddy. The diver bagged the remaining scallops he had collected and then both divers ascended to a depth of 5m. At this point the diver started to fumble for his pony regulator but got this tangled with the necklace on his main regulator. His buddy came close and passed over his own alternate source which the diver took but put it in upside down. He grabbed hold of his buddy and both began to descend. The buddy managed to turn the regulator round and purge it but the diver was now unresponsive. Both divers arrived on the seabed and the buddy attempted to lift both of them on his wing but ran out of gas at this point. The troubled diver was still gripping the buddy's equipment and would not release even though unconscious. The buddy noticed the diver's pony regulator and was able to release it and take a breath and release the diver's grip. Because his wing was inflated the buddy then made a rapid ascent to the surface. On the surface he signalled the boat to mark the position. The Coastguard was alerted and a surface search was conducted throughout the remainder of the day and for a number of days after the incident but no sign of the missing diver was found. The buddy was airlifted to a recompression chamber where he received recompression treatment.

April 2011 11/051

A cave diver failed to surface following a cave dive with two other divers. The diver was located approximately 40m from the entrance to the cave in 18m of water. She was found slightly tangled in line and both her cylinders were empty. The diver was recovered and resuscitation efforts were made but the diver did not recover. (Media report).

April 2011 11/054

A group of four divers entered the water for a deep dive using trimix at an inland site. One of the divers is reported to have suffered a fit at a depth of 50m. At a depth of 25m the casualty did not have his regulator in place. His buddy brought him to the surface and raised the alarm. Resuscitation techniques were applied but the diver did not survive. A media report of the coroner's inquest stated that one of his regulators was 'set to a lower level than normal' and that his dive computer had not been correctly set up, but it was not certain that these errors caused the incident. The immediate cause of death was reported as gas and air in the circulation. In addition there was lung damage due to an uncontrolled ascent.

June 2011 11/088

A diver and his buddy had conducted a wreck dive to a maximum depth of 22m and were ascending. As they got close to the surface the diver encountered a problem and his mask flooded. He sank back down and his buddy lifted him to the surface and raised the alarm. The charter boat skipper manoeuvred his vessel to the divers. The skipper noticed that the buddy was having difficulty supporting the unconscious diver on the surface and he dived in and assisted him to remove the diver's equipment in the water and recover him onto the boat using the stern lift. Once on the boat, CPR was commenced and the emergency services were called. Two lifeboats attended and the diver was transferred to one of the lifeboats and from there the diver was airlifted by helicopter to hospital where he later died. Other divers in the group were taken to hospital for checks. The coroner's finding was accidental death due to a heart condition that affected the casualty's breathing.

July 2011 11/093

The casualty was diving with a group of four when the current picked up. The group sat on the bottom and deployed their delayed SMBs then began their ascent. The group separated, splitting into two buddy pairs. The casualty was with her buddy on ascent until they reached 5m, where her buddy remained for a safety stop but the casualty continued up to the surface. When the buddy surfaced and boarded the boat he noticed the casualty was not onboard, so they searched and saw her on the surface roughly 60m away. She was on her back with no regulator in her mouth and she was unconscious. The Coastguard was alerted. The casualty had no pulse and CPR was carried out on the vessel as it steamed back to port, the vessel was only 5 to 10 min away from port and the rescue helicopter was returning from a previous incident but was further away. A medi link call was established with INM, the vessel was met by a first responder, Seahouses CRT also responded, the casualty was taken to hospital by ambulance, but was declared deceased on arrival.

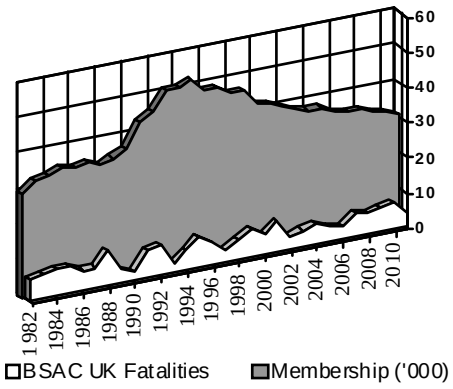
July 2011 11/094

Portland Coastguard was alerted by a dive support vessel, reporting they had a missing diver. Portland Coastguard tasked Weymouth lifeboat, rescue helicopter R106, Coastguard watchdog fixed wing aircraft and several other vessels. The search went on for 6 hours but the diver was not located. The diver was observed to have had difficulties with his gas on the surface and again at 9m. The planned depth was 54m and the diver was using a weak mix of trimix, the buddy diver did not see him again. (Coastguard & RNLI reports). Media reports state that the body was found two months later, 400 miles away after being caught in a fishing trawl.

September 2011 11/157

Clyde Coastguard was alerted to a pair of divers in difficulty whilst on a shore dive off Wemyss Bay pier, Firth of Clyde, they were approx 200m out and were seen waving for assistance. Clyde Coastguard informed the first informant that they were now tasking resources to the incident, a passing vessel recovered the divers, one was breathing one not, Largs lifeboat and rescue helicopter R-177 proceeded, Cumbrae recompression chamber was prepared to receive the divers. One diver was taken to Millport hospital one to the chamber for treatment, the diver was declared deceased on arrival at hospital. (Coastguard & RNLI reports).

BSAC Fatalities against membership 1982-2010 (UK fatalities only)



Decompression Incidents

October 2010 11/017

A trainee diver completed skills on the bottom and then began an alternate air source ascent practice. He lost a fin during this skill so they returned to the bottom and replaced the fin. On the second attempt at the skill the casualty failed to secure the AAS. He spat out his own regulator and attempted to ascend. The instructor held the student and put in his AAS which the student accepted. They made a slow ascent to the surface but the casualty did not breathe in or out. At the surface he experienced chest pain so oxygen was administered and the trainee was transported to hospital for examination.

October 2010 11/011

Two divers conducted a wreck dive to a maximum depth of 45m. After 30 min on the bottom both divers deployed delayed SMBs, one of them as training practice. After successful deployment, both divers started to ascend together. One diver had difficulty dumping air from his drysuit, whilst trying to adjust it, he became separated from his buddy and made an ascent to the surface missing decompression stops. His buddy meanwhile experienced his computer cutting out and the screen going blank. As this was his only depth gauge and timing device he made an ascent to an estimated 5m decompression stop and also had to estimate the time. The charter boat made a call to the Coastguard to report the diver who had made a fast ascent and had missed decompression stops and a helicopter was tasked. The helicopter airlifted both divers to a recompression chamber where they received treatment. (Coastguard report).

October 2010 11/224

Clyde Coastguard was alerted to a diver suffering from dizziness, visual disturbances and tingling, a medical link call was established with a diving doctor who recommended that the diver be transferred to a recompression chamber for treatment, rescue helicopter R-100 recovered the diver, Oban CRT prepared the HLS. (Coastguard report).

October 2010 11/225

Stornoway Coastguard received a call from a dive boat, alongside Kallin Harbour North Uist, stating that they had a 21 yr old male with DCI. After consultation with ARI dive doctor, casualty evacuated to the re-compression chamber at Dunstaffnage by Coastguard helicopter R-100, Coastguard team from Benbecular assisted. (Coastguard report).

October 2010 11/015

Liverpool Coastguard received a 999 call from a group diving at an inland site reporting that one of them was experiencing symptoms of DCI after exiting the water. Wasdale MRT assisted the group at the dive site until the diver was airlifted by helimed 516B to Murryfield recompression chamber. Hoylake CRT assisted helimed at the landing site at Murryfield chamber. (Coastguard report).

October 2010 11/014

Three divers were conducting a shore dive from a harbour wall. After an uneventful dive to a maximum depth of 16m for 30 min, one of the divers signalled that he was feeling dizzy. The group made a slow controlled ascent to the surface. On surfacing the diver complained of feeling dizzy again and his buddy noticed that his eyes could not maintain focus and were rolling. The leader of the dive made a distress signal to the shore cover and began towing the diver to shore. The shore cover responded and took over the tow. On recovering the divers ashore the injured diver was assisted from the water and was able to walk with support. The diver was laid flat and oxygen was administered and the dive manager went to call a hyperbaric chamber for advice. The dive manager was advised to call the Coastguard and request a helicopter evacuation to the chamber which was done. The diver and his buddy were airlifted to a chamber where the diver received a 6 hour treatment initially followed by two further 2 hour treatments.

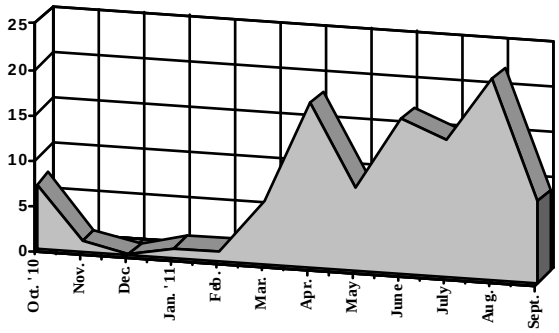
October 2010 11/384

A diver completed a dive to 21m, once back on land he collapsed. Oxygen was administered and the emergency services were alerted. He was advised that he was fit to go home. On the way home he experienced tingling in his legs. Oxygen was administered again and he was transported to hospital where it was decided he needed recompression treatment for DCI.

November 2010 11/229

Clyde Coastguard was alerted to a diver suffering from suspected DCI following a dive to 27m, the diver had been shell fishing and had a collection bag attached to his person, the clip broke causing the diver to make an uncontrolled ascent to the surface. The symptoms of DCI manifested whilst the diver was making his way home. On reaching home the diver was arrested by the police for an unrelated matter, whilst in police custody the diver was seen by a police doctor, he contacted Aberdeen Hospital who requested the diver be transported to Millbrook chamber for treatment. (Coastguard report).

Decompression incidents by month



January 2011 11/233

Clyde Coastguard received a call from a dive boat reporting they had a diver onboard who had suffered a rapid ascent from a shallow dive. The diver was suffering from what may or may not have been symptoms of DCI, so medical advice from a dive doctor was that they should be seen at hospital before being referred to a hyperbaric chamber. The boat had already returned ashore and had an ambulance in attendance, but rescue helicopter R-177 from Kinloss had already been tasked,

so the helicopter airlifted the diver to hospital in Oban for assessment. Cumbrae and Oban CRTs were tasked to assist with the helicopter at the port and hospital. The diver was subsequently transferred to the hyperbaric chamber at Dunstaffnage for precautionary treatment. (Coastguard report).

February 2011 11/235

Clyde Coastguard was alerted by a dive support vessel reporting having a diver aboard who was suffering from suspected DCI following a dive to 33m, the dive computer showed he had missed 14 min of stops, it was subsequently discovered he had missed 60 min of stops. The diver was transferred to Largs lifeboat and transferred by ambulance to Millport chamber for treatment. (Coastguard report).

March 2011 11/221

Clyde Coastguard received a call from a dive boat reporting they had a diver onboard who was suffering from symptoms of DCI; the diver was being administered oxygen. Clyde Coastguard tasked Navy helicopter R-177 and Islay lifeboat to assist, the casualty was transferred to the lifeboat and winched into the helicopter for onward transportation to Aberdeen Royal Infirmary. (Coastguard report). According to a media report, rigging on the boat prevented the diver from being lifted directly from the dive vessel.

March 2011 11/028

A diver participated in a mixed gas training course over three days. He conducted a single dive each day with depths and times of 6m for 68 min, 49m for 59 min and 57m for 61 min. The diver experienced a leaking drysuit on all dives and reported being wet and cold on each day. During the night after the first day's diving he awoke and felt a tingling in the fingers of his right hand but attributed this to lying on the arm and turned over and went back to sleep. There was no repeat of the tingling the next day or during the next two dives. Following the final dive of the course, during the written exam, the diver again experienced tingling in the fingers of his right hand, which progressed to the hand and became increasingly uncomfortable. The diver did not mention this to anyone at the time. After the course the diver left with his buddy to drive home but, after an hour, his hand became increasingly more painful and uncomfortable. He advised his buddy, who was driving, and he breathed a nitrox 70 mix while they continued their journey. A hyperbaric centre was contacted and they advised attending the nearest A&E. On attending A&E the diver was laid down and given oxygen and a saline solution; his symptoms diminished to a tingling in the fingers after 15 min. After 90 min the diver left hospital to travel to a recompression chamber breathing nitrox 70. The nitrox ran out shortly after leaving and the pain returned. On arrival at the recompression chamber the diver was assessed and received a 5.5 hour treatment in a chamber during which the pain came and went. The next day a further treatment of 1.5 hours was given after which the diver was discharged and advised to take ibuprofen.

March 2011 11/388

A diver was engaged in a training course and he conducted four dives per day over a weekend. On Sunday evening he felt pain, swelling and weakness in his right hand, and felt generally unwell. The symptoms were still evident on the following Thursday at which time he went to a hyperbaric physician. DCI was diagnosed and he was given recompression treatment. The casualty was advised not to dive for four weeks.

March 2011 11/190

Two divers had completed two dives the previous day. The divers descended to a depth of 20m without any problems. After approximately 25 min, one of the divers started to ascend quickly. His buddy grabbed hold of him and dumped all the air out of his own suit and BCD and then dumped all the diver's air; he assumed that the diver had lost a weight out his BCD. The buddy got the diver to grab hold of a large rock whilst he did a search of the immediate area for the missing weight but could not find it in the reduced visibility of 1 to 2m. The buddy then collected some rocks to try and compensate for the lost weight and then deployed his delayed SMB. Both divers started an ascent but the diver must have lost his other weights and he started to ascend rapidly. His buddy tried to grab him but could not hold on. The diver ascended and became tangled in the delayed SMB line. The buddy started to make a normal ascent but then also became trapped in the line and was unable to complete any safety stops. Once recovered into the boat, the diver was placed on oxygen and then, back on shore where more oxygen became available, the buddy was also placed on oxygen until both oxygen supplies were depleted. Neither diver displayed any symptoms of DCI at that time. The following day both divers felt bad and contact was made with a recompression chamber for advice. Initially no action was taken but, when the divers' condition did not improve, both divers were advised to attend the chamber for assessment and received recompression treatment.

March 2011 11/044

Two divers had completed a dive to 21m for a duration of 18 min. They then began an ascent without visual reference to a depth of 10m where they planned to deploy a delayed SMB. As one of the divers removed his delayed SMB and reel from its stowage both divers sank 1 to 2m. Then both started to re-ascend, initially under control until reaching 8m and then both made a fast ascent to the surface missing a safety stop at 6m. Neither diver experienced any symptoms throughout the day and one diver did not conduct a second dive due to an equipment fault. On waking the next day the diver who had not dived again experienced a stiffness in his neck, which progressed to pains in both elbows. He contacted a local chamber and was asked to attend for a consultation and was diagnosed with DCI.

March 2011 11/032

A diver conducted a dive to 44m for a bottom time of 9 min and completed stops of 2 min at 30m, 3 min at 20m, 7 min at 16m and 4 min at 6m. After leaving the water the diver left his kit near the water's edge ready for a second dive. On returning to the car park the diver felt winded in the stomach and then experienced 'pins and needles' in his right foot which progressed to both legs. The diver was placed on oxygen and then transferred by helicopter to a recompression chamber. The diver received a 5 hour 30 min recompression treatment with a resolution of all symptoms.

April 2011 11/038

Two divers were conducting a drift dive in a deep water channel to a maximum depth of 34m. One of the pair had deployed a delayed SMB at the start of the dive and, towards the end of the dive at a depth of 11m, he noticed that he was working harder and he stopped to switch the hand holding the delayed SMB as his left arm was getting tired. As he swapped hands his legs began to float up and, despite righting himself and dumping air from the suit, he began to ascend. His computer displayed a decompression requirement of 3 min at 3m but he was unable to control the ascent and surfaced; his computer went into error mode. The diver had drifted into approximately 4 to 5m of water and, although the RHIB came alongside, he decided to descend again in an attempt to recompress. He conducted approximately 10 min at 4 to 5m and then surfaced and was recovered to the boat. He felt no ill effects and did not take any of the onboard oxygen available. The buddy made his own

normal ascent under a delayed SMB. Later that night the diver noticed a slight numbness in the little finger of his left hand but did not take any action at the time. The next day the numbness had spread more generally to the fingers of the left hand and the diver called the DCI helpline and was advised to attend a recompression chamber where he received a 5 hour recompression treatment. All symptoms had resolved by the next day.

April 2011 11/042

Three divers entered the water and descended to a maximum depth of 33m. One of the divers felt uncomfortable in the dark, found it hard to breathe and signalled to return to the surface. The return route was obscured by silt they had disturbed, the diver was now breathing heavily, his regulator began to free flow and he decided to ascend directly. During his ascent he switched to his pony cylinder which also started to free flow. The diver made a faster than normal ascent to the surface and was picked up by a rescue boat. His left hand felt numb, he was placed on oxygen and subsequently transported to a recompression chamber. Following a 6 hour recompression treatment all problems were resolved. The other two divers surfaced safely and experienced no symptoms.

April 2011 11/240

Clyde Coastguard coordinated the recovery of a diver suffering from suspected DCI following a rapid ascent from 23m; the diver was recovered by Largs lifeboat and met by Cumbrae CRT and an ambulance for onward transportation to a recompression chamber for treatment. (Coastguard & RNLI reports).

April 2011 11/146

A diver had been to a maximum depth of 21m when she experienced a free flow from her regulator. She did not take her buddy's alternate source but began an ascent directly to the surface. The diver was unable to see her computer due to the mass of bubbles and so used the speed of the bubbles to judge her rate of ascent. She was fine on the surface and her buddy surfaced 3 min later, some distance away. After a surface interval of 1 hour 30 min the diver conducted a dive to a maximum depth of 8m for 25 min without incident. Two days later the diver awoke with a stiff neck, lower back pain and some 'pins and needles' in her left hand. Whilst getting dressed, the diver noted a rash on her right shoulder. She called a recompression chamber and was advised to attend for a check-up; she received a recompression treatment.

April 2011 11/097

Following a first uneventful dive for a duration of 39 min, depth unknown, a diver was conducting a second dive of the day 4 hours later using nitrox 25. After 25 min of a dive to a maximum depth of 28m the diver deployed a delayed SMB and commenced his ascent. At around 17m the diver experienced severe cramp in his right calf, he felt light and struggled to dump air. The diver's feet were very buoyant and he struggled to maintain control. At 10m he lost control and made a fast ascent direct to the surface. The diver was recovered to the charter vessel and began to experience symptoms of DCI. A call to the Coastguard was made and the diver was airlifted by helicopter to a recompression chamber where he received treatment. (Coastguard report).

April 2011 11/081

Following a dive to a maximum depth of 21m a buddy pair had returned to a depth of 13m after a duration of 17 min. At this point one of the divers was unable to dump sufficient air and made a fast ascent to the surface. The diver was recovered from the water but initially showed no ill effects and was not provided with oxygen. After an hour on the surface the diver developed a rash around her neck but otherwise felt fine. A recompression chamber was contacted for advice and the diver was transferred to the chamber and received a two and a half hour treatment.

April 2011 11/045

Following a first dive of the day a diver conducted a second dive to 31m for a duration of 19 min. Because he had got wet on the previous dive the diver wore more undergarments and changed to a 15 ltr from a 12 ltr cylinder. He felt heavy before the dive and so removed 2 kg of weight. During the ascent from the dive the diver was underweight and lost control of his ascent at 25m; he made a fast ascent to the surface. Approximately 1 hour after returning to shore the diver complained of pains in his jaw and the Coastguard was contacted by the charter vessel by VHF radio. The diver was evacuated by helicopter to a recompression chamber where he received a 7 hour treatment with resolution of symptoms. (Coastguard and media reports).

April 2011 11/242

Clyde Coastguard was contacted by the duty doctor at Aberdeen Royal Infirmary reporting he had been contacted by a diving vessel with a diver onboard suffering from suspected DCI, in consultation with the doctor Clyde Coastguard tasked RN helicopter R177, to airlift the diver from Cambletown harbour to the hyperbaric chamber at Millport, Cambletown and Cumbrae Coastguard teams assisted in the transfer and landing of the helicopter. (Coastguard report).

April 2011 11/149

A diver attended a training weekend where he conducted five dives over two days to no greater than 20m and with a maximum duration of 40 min. The day after the diver woke feeling 'strange'. He did not experience any pain but felt restless and anxious. The diver contacted a recompression chamber and was advised to attend for assessment. At the chamber the diver was found to have mild symptoms of headache, stiff limbs, restlessness, minor balancing issues, generally being slow and joint pains. The diver was given two sessions of recompression treatment after which all symptoms had resolved.

April 2011 11/055

A diver conducted three dives during the day and then travelled home. 2 or 3 hours after the last dive the diver felt unwell but believed this was due to sunstroke or heatstroke as it had been a very hot day. The diver then assisted in moving a heavy washing machine. The diver woke the next day with a tingling in his legs but attributed this to his undersuit. The following day the tingling was much less and had disappeared a day later. The diver then conducted a 6m dive for 30 min. The following day the tingling had returned but again this was attributed to the undersuit. One day later the tingling was still present and so the diver contacted a recompression chamber and he was advised to attend for examination by a doctor. The diver was given two recompression treatments.

April 2011 11/244

Brixham Coastguard tasked Berry Head Coastguard to meet dive vessel Falcon II who had a diver onboard with possible decompression symptoms. Medical advice was sought from the DDRC, Plymouth and the casualty driven to the centre to be checked over by medical staff. (Coastguard report).

April 2011 11/243

Brixham Coastguard tasked Berry Head Coastguard to meet dive vessel who had a diver onboard with possible decompression symptoms. Medical advice was sought from the DDRC, Plymouth and the casualty driven to the centre to be checked over by medical staff. (Coastguard report).

April 2011 11/056

Having conducted a single dive the day before, a diver completed a dive to a maximum depth of 18m for 32 min. He and his buddy conducted a 3 min safety stop but the diver made a faster than normal ascent in the last 2m. After reboarding the boat the diver was quiet and on enquiry reported he was feeling dizzy and faint. It was initially assumed that he was suffering seasickness or exhaustion, having missed dinner the previous night, and so was monitored and checked for further symptoms. The diver became increasingly pale and shocked and complained of cold and then tingling hands and numbness. He was placed on oxygen and a radio call to the Coastguard was made but the signal was not reliable. The boat still had divers in the water and so the Coastguard tasked another boat in the area to assist and an RHIB arrived on site and transported the casualty to shore to be met by an ambulance. The diver was taken by ambulance to hospital where a doctor diagnosed a vestibular DCI. The diver was transferred to a recompression chamber. He received a 6 hour recompression treatment, then was kept in hospital for observation and released the following evening.

April 2011 11/245

Portland Coastguard was alerted by a dive support vessel reporting a diver suffering from suspected DCI following a dive to 25m, the diver was airlifted by Coastguard rescue helicopter R106 to the Poole landing site prepared by Poole Coastguard team, the diver was taken to Poole chamber for treatment. (Coastguard report).

April 2011 11/057

Two divers conducted a planned decompression dive to a maximum depth of 30m for 40 min bottom time. At 40 min the divers were at a depth of 26m, the buddy deployed her delayed SMB but the reel jammed and she had to release it. The other diver then deployed his delayed SMB in dark conditions and decreasing visibility on the wreck. The two divers lost sight of each other. The second diver searched for his buddy for a minute sweeping his torch around and then began to surface repeating the sweep and search at 20m and 10m. Concerned that his buddy might be surfacing without a delayed SMB of her own, the diver decided to surface missing 7 min of required stops and 3 min safety stops. The diver was recovered into the boat and was immediately placed onto oxygen, whilst the coxswain maintained a lookout for the buddy surfacing. The buddy surfaced after completing 5 min of her own deco. A VHF radio call was made for advice and a duty doctor advised a check once the boat had returned to harbour. Once back on shore the diver was not suffering any symptoms but the doctor advised attending A&E for a full neurological assessment. The diver stopped taking oxygen and an hour later, on arrival at A&E, he felt lightheaded and nauseous. The diver failed the neurological examination, he kept falling over, and he was transferred by ambulance to a recompression chamber where he received a 5 hour recompression treatment.

April 2011 11/049

Following a dive on a wreck to a maximum depth of 25m a diver was ascending when he was unable to dump air from his suit at a depth of 16m; he made a rapid ascent to the surface. On recovery to the charter boat the diver displayed symptoms of DCI. The Coastguard was called and a helicopter airlifted him to a recompression chamber where he received recompression treatment.

April 2011 11/083

Following a dive to a maximum depth of 36m for a duration of 39 min including a 3 min stop at 6m a diver started to feel lightheaded. The diver was sat down and given water. The diver reported a niggle in his right triceps and, when he went to stand up, he lost his balance. The diver was given oxygen and the niggle reduced in pain level. A recompression facility was contacted for advice and advised that the diver remain on oxygen and attend the facility for a full assessment. The diver felt better after 22 min on oxygen. It is not known if he later attended the chamber.

April 2011 11/200

Forth Coastguard was alerted by a dive boat advising they had a diver having difficulty breathing aboard. A medi-link with Aberdeen Royal Infirmary, after discussion between dive doctor and the skipper of the dive boat, the decision was made to take the casualty to ARI. RAF rescue helicopter R131, Eyemouth Coastguard rescue team and ambulance service were tasked. Casualty taken to ARI. (Coastguard).

May 2011 11/253

Shetland Coastguard was alerted to a diver with suspected DCI, having missed stops, he was taken to Stromness chamber for treatment. (Coastguard report).

May 2011 11/255

Belfast Coastguard coordinated the recovery and evacuation of a rebreather diver suffering from suspected DCI, Belfast MRCC tasked R118 to transfer the casualty to Craigavon chamber. (Coastguard report).

May 2011 11/075

Following a wreck dive to a maximum depth of 26m for 27 min, a diver experienced the current picking up. He returned up the shotline and conducted a 3 min safety stop at 6m. The diver was picked up by the charter boat using the lift and de-kitted. Approximately 5 min after de-kitting the diver experienced 'pins and needles' in his right forearm and numbness in his right hand. This subsequently developed into 'pins and needles' and numbness in the rest of his right arm and shoulder. The diver brought this to the attention of his buddy. He was placed on oxygen and transported to a recompression chamber where he received a 4 hour 45 min treatment. Symptoms cleared within 30 min of recompression.

May 2011 11/257

Solent Coastguard was alerted to a diver suffering from suspected DCI following a dive to 48m for 96 min, the diver was suffering from vertigo, sickness and was not coherent. (Coastguard report).

May 2011 11/258

Falmouth Coastguard was informed by St Martins Coastguard CRT that they were preparing a landing site for the air ambulance. Ambulance Control confirmed they had tasked a rescue helicopter to airlift a diver from his home on St Martins Isles of Scilly after he complained of feeling ill, the patient was flown to the mainland for treatment. (Coastguard report).

May 2011 11/261

Clyde Coastguard was alerted to a diver who had arrived at

Oban A&E department requiring treatment, the diver was transferred to Dunstaffnage chamber for treatment, few details as the diver was uncooperative. (Coastguard report).

May 2011 11/074

Two divers conducted a dive to a maximum depth of 31m for a duration of 26 min. After reaching their planned maximum depth the divers began working their way back up the reef. At a depth of around 22m one of the divers indicated that she had 50 bar remaining in her cylinder. The dive leader signalled that they should ascend and deployed his delayed SMB. During the ascent the pair experienced a current pushing them up the reef and, despite dumping air from their suits, they ascended to the surface faster than they should have done. The cover boat was in close proximity and the dive leader signalled that they should re-descend with a view to conducting a safety stop. The divers descended to a depth of 12m but the dive leader had not reeled in the loose line from his delayed SMB and this tangled in the propeller of the RHIB. The coxswain lifted the engine to untangle it and in doing so the divers were again pulled to the surface. The divers were recovered to the boat and the dive leader's dive computer was signalling SOS, whilst his buddy's computer did not show any warning. Both divers were placed on oxygen, the boat returned to the shore where a local chamber was contacted for advice and both divers were subsequently transported to the chamber for assessment. The dive leader showed no signs of DCI. His buddy showed signs of DCI and was treated with a 4 hour 40 min recompression treatment with a further 2 hour treatment the next day.

May 2011 11/064

A diver conducted two dives in the day; the first to 17m for 62 min with a 3 min stop at 5m and the second to 36m for 32 min with 2 min at 16m and 3 min at 5m. 1 hour later the diver complained of shoulder pain and numbness in his right hand. The Coastguard was called via VHF radio and the diver was placed on oxygen. The Coastguard tasked a helicopter and the diver was airlifted to a recompression chamber where he received recompression treatment. (Coastguard report).

May 2011 11/270

Shetland Coastguard received a call from the hyperbaric chamber, reporting they had a diver who had self referred; he was given treatment in the chamber for suspected DCI. (Coastguard report).

June 2011 11/274

MRCC Swansea received a 999 call from a member of the public who had been diving at the National Diving and Activity Centre, Chepstow but was travelling home reporting his buddy suffering with signs of DCI, they were advised to return to NDAC for medical aid. On their return the casualty received medical aid and was transferred to a recompression chamber by ambulance. (Coastguard report).

June 2011 11/072

Following a dive to a maximum depth of 15m for 40 min with a 3 min safety stop and around 150 min surface interval, a pair of divers entered the water for a drift dive with a planned maximum dive time of 45 min at a depth of 17m. The divers planned to descend and deploy a delayed SMB from the bottom. Whilst his buddy was deploying the delayed SMB, one diver started to have problems his mask; it flooded and he was unable to clear it. The diver started to become more and more distressed, started to panic, signalled to end the dive and started to ascend. His buddy tried to control the ascent and was initially able to slow him down. As the diver became more distressed he spat out his regulator and his buddy forced it back into his mouth. The diver then grabbed onto his buddy who was then no longer able to control the ascent. They both made a faster than normal ascent to the surface. The buddy signalled the boat for assistance and he and the skipper assisted the diver into the boat. After boarding the boat and removing his kit the diver was sick. Both divers were placed on oxygen and the Coastguard was informed by the skipper. The Coastguard tasked a rescue helicopter and both divers were airlifted to a recompression chamber where both were diagnosed with symptoms of DCI. Both divers were recompressed with complete resolution of symptoms.

June 2011 11/275

MRCC Clyde received a call from the duty dive doctor at Aberdeen to ask them to arrange the Dunstaffnage hyperbaric chamber for a female diver with skin DCI. (Coastguard report).

June 2011 11/071

A group of three divers entered the water for a wreck dive to a maximum depth of 27m. One of the divers had worn his drysuit and thermal undersuit on his way out to the dive site, he was sweating and a little breathless before the dive and, after reaching the shotline, he had difficulty maintaining a vertical position before descending. The three divers descended the shotline and then explored the wreck until one of the divers reached the end of his 80m reel. At this point he noticed the first diver in an inverted position and starting to panic. He assisted him to right himself and then the group reeled in back towards the shotline. By the time they had returned to the shotline the diver had exhausted the gas in his 15 ltr cylinder; he switched to his pony and the group began their ascent. The diver used up his pony cylinder during the ascent somewhere between 20 and 6m and then he made a fast ascent direct to the surface. The diver had difficulty breathing on the surface but was able to inflate his own BCD and was quickly picked up by the boat. The diver was given oxygen and a VHF call was made to the Coastguard who tasked a rescue helicopter. The diver was airlifted to a recompression chamber where he received treatment. The other two divers made a normal ascent. (Coastguard report).

June 2011 11/092

A diver conducting a rebreather dive to a maximum depth of 46m began to feel less clear headed than usual after 60 min into the dive. The diver ascended to 30m and became breathless and, suspecting a CO2 problem, bailed out onto open circuit trimix 11/53 and regained control of his breathing. The diver assessed the situation and determined that the more likely cause had been a new, very tight, neck seal. He then switched back onto the rebreather and completed 48 min of required stops and an additional 3 min safety stop at 3m. After a total in-water time of 122 min, the diver surfaced and exited onto a charter boat. On the surface the diver developed a cough when taking a moderate breath but had no other symptoms. The diver was advised to have a check-up with a local GP and was placed on oxygen. By the time of consultation the cough had mostly disappeared but during examination red marks believed to have been skin DCIs appeared. The diver was transferred to a recompression chamber and received a 4.5 hour recompression treatment.

June 2011 11/277

Shetland Coastguard received a report of a diver who had missed 11 min stops following a dive to 34m, the diver came to surface after 43 min with a max depth 35m, the diver was complaining of tingling on lips and he had immediately been placed on oxygen, the dive support vessel was met by an ambulance and the casualty transferred to Balfour hospital for treatment. (Coastguard report).

June 2011 11/104

A diver had completed a dive to a maximum depth of 28m for 37 min and began her ascent with 2 min required decompression stops. There were a large number of people on the shotline and a prevailing swell which resulted in the diver varying depths between 8m and 4m. The diver left the shotline at 6m intending to deploy a delayed SMB but the swell took her up. She was unable to dump air fast enough and so made a faster than normal ascent and missed her required decompression stops. There was no oxygen available on the charter boat. The diver experienced no symptoms that day or the next but noticed intermittent symptoms the following day. The diver woke the subsequent morning with 'pins and needles'. She contacted a diving doctor and was advised to attend a recompression chamber where she received recompression treatment.

June 2011 11/281

Dover Coastguard received a call from ambulance control stating they were taking two persons from the marina at Dover to hospital with suspected DCIs. They were on 100% oxygen. At no time was the Coastguard informed and the same type of incident happened before with this vessel again not calling the Coastguard. This is a local dive operator who does not seem to want to take part in any safety advice given to him on prior occasions. (Coastguard report).

June 2011 11/283

Shetland Coastguard was alerted by a dive support vessel of a diver suffering from suspected DCI, the vessel brought the diver ashore who was met by an ambulance which transported the casualty to Balfour hospital for treatment. (Coastguard report).

June 2011 11/105

A diver, her two buddies and an instructor conducted a number of dives during a training course over two days. Day 1 dives of 13m for 11 min, 10m for 6 min, 7m for 18 min & 6m for 15 min, with surface intervals of 10 min, 9 min and 1hr 15 min respectively. Day 2 dives of 7m for 28 min and 9m for 21 min with a surface interval of 2hr 21 min. During the final dive, the diver and one of her buddies ascended but lost sight of the third diver and instructor due to the disturbed visibility. The pair ascended slowly holding each other's arms but, when they reached 2m, the diver let go of her buddy. She sank back down to 5m before regaining control and making an ascent to the surface. Her diving computer indicated no alarms. The diver did not notice anything unusual until midnight after the course when, following a hot bath, the diver noticed patches of skin rashes on her abdomen. The next day the diver contacted a doctor at a recompression chamber for advice and she was advised to attend for a precautionary recompression treatment. The diver reports being tired before the start of the weekend course and did not eat or drink much during the weekend.

June 2011 11/089

A diver conducted a rebreather dive to a maximum depth of 58m. The previous night the rebreather had been checked and calibrated perfectly. During the descent for the dive an alarm went off indicating that a cell had failed. The diver continued the descent hoping the cell would stabilise and the dive could continue, but repeated checking indicated no change. Further checks indicated that a second cell had then failed and the system's voting logic resulted in the two failed cells out voting the working cell resulting in the oxygen levels rising above 2 bar. The diver signalled his buddy that he was aborting the dive. During the ascent the diver remained on the rebreather loop believing that the ascent would cause the pO2 to fall. At a depth of 30m the diver prepared his nitrox 50 mix ready to make a switch but then blacked out around this time and continued to make a buoyant ascent. On the surface the diver was spotted by the cover RHIB and he was noted to be cyanosed and had a very weak pulse. The diver's kit was removed and ditched and the diver was recovered into the RHIB and given oxygen. After about 10 min on oxygen the diver recovered consciousness. A helicopter was scrambled and airlifted the diver to a recompression chamber where he received a 7 hour treatment for a neurological DCI. The diver also suffered injury from biting his tongue.

June 2011 11/112

A dive group drove through the night arriving at a ferry port around 4.30 am. One diver estimated he had managed an hour and a half of sleep. Later, during the afternoon of the same day, the group conducted a dive to a maximum depth of 33m after which the diver commented to a colleague that his upper arms felt hot. He put this down to the strain of lifting dive gear onto the boat. The following day a dive to 32m was conducted after which the diver experienced a return of the heat and noticed blotches on his upper arms. He did not conduct a second dive and took oxygen until the heat and blotches disappeared. The next day he conducted two dives to a maximum depth of 18m without any repeat symptoms. The following day he conducted dives to 36m for a total time of 35 min and 24m for 38 min with no symptoms. The final day the diver conducted a dive to 36m for a total duration of 31 min and a 3 min safety stop at 6m. Approximately one and half hours after surfacing the diver experienced hot skin and blotches to his upper arms. The skipper of the charter boat called the Coastguard who arranged for the boat to be met in harbour by an ambulance which transferred the diver to a recompression chamber. The diver received a 4 hr 45 min treatment with a resolution of his symptoms. The diver has undergone checks for a PFO and been found not to have a PFO.

June 2011 11/129

A pair of divers became separated on a dive at a depth of 40m. One diver surfaced and stated that he had not conducted any safety stops. His buddy surfaced a little later having completed his stops. The first diver was given oxygen and water in addition to using nitrox 40. The diver appeared to have mild DCI symptoms and so the Coastguard was notified. The Coastguard took medical advice and tasked a helicopter to airlift the diver to a recompression chamber where he received a 5 hour recompression treatment and was kept in hospital overnight. The next morning the diver received a further 1 hour treatment and was then released.

June 2011 11/196

A diver conducted a series of nine dives over a period of six days with a complete day off from diving after three days. On the way home by train she started to experience tingling of the hands and other mild symptoms. On return home the diver contacted a recompression chamber and received a series of recompression treatments.

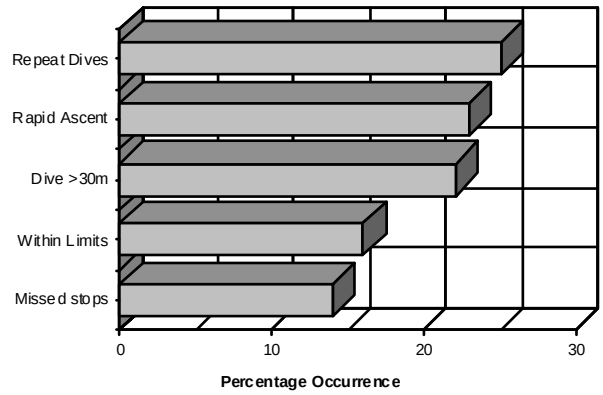
June 2011 11/294

Dover Coastguard was alerted by a dive support vessel reporting they had a diver aboard suffering from possible dive related symptoms, initial offer to medi-link was refused, however this was established and the doctor recommended evacuation by helicopter, the casualty was given oxygen and fluids, the casualty and buddy were initially taken to Eastbourne hospital and then transferred by helicopter to the chamber in Chichester for treatment. (Coastguard report).

June 2011 11/186

A diver and his buddy conducted a series of four dives over two days. Day 1; to 26m for total dive time of 60 min, surface interval 2 hours 11 min, then to 25m for a total dive time of 37 min. Day 2; to 24m for total dive time of 27 min, surface interval 1 hr, then to 25m for a total dive time of 34 min. On the first dive of the weekend the diver reported that he had ascended to 6m, waited for his computer to clear all decompression requirements and then slowly ascended to the surface. On the surface his computer showed an error and was locked into gauge mode for the rest of the weekend, so the diver relied on his buddy's computer. After the weekend the computer was interrogated and it was found that 4 min of required decompression stops had been missed. Two days after diving, the diver experienced pain in the inner right arm in the vicinity of the elbow. The pain became slightly more severe and radiated along the arm with pain and numbness. The diver consulted with a recompression chamber and was advised to attend for assessment and he received a 6 hour recompression treatment with a complete resolution of symptoms. The diver was released and advised not to dive again for a period of six weeks.

Percentage analysis of factors involved in cases of DCI



July 2011 11/123

Following a dive to a maximum depth of 53m and a bottom time of 8 min, a diver made a rapid ascent from 20m surfacing after a total of 29 min in the water. He was recovered by the charter boat and started to display symptoms of DCI. A call was made to the Coastguard. The Coastguard tasked a rescue helicopter which airlifted the diver to a recompression chamber. On arrival at the chamber the diver was beginning to experience paralysis in his legs and subsequent reports from the chamber indicated that he was paralysed from the chest down. (Coastguard report).

July 2011 11/174

A diver conducted two dives in a day, 20m for 30 min including a 3 min safety stop at 6m followed, an hour and a half later, by a dive to a maximum depth of 29m. After approximately 20 min the diver started his ascent and reached 20m before he started to descend again. He tried inflating his drysuit but he continued to descend. After further increasing the air in his drysuit the diver started to ascend and the rate of ascent gradually increased until it became too fast. The diver was unable to regain control and made a fast ascent direct to the surface. The diver was recovered by his cover boat and placed on oxygen whilst the boat returned to shore. During the return trip no symptoms of DCI presented. On the drive home the diver experienced a pain in his left elbow and so he attended a hospital which referred him to a recompression chamber where he received recompression treatment.

July 2011 11/162

Following a dive to a maximum depth of 21m for a total duration of 36 min, a diver felt a slight tingle in her fingers, which moved to her arms and became an ache. The dive had been uneventful but was felt to have been a little cold. The diver was given oxygen; her buddy declined oxygen.

July 2011 11/206

Two divers were airlifted to hospital after they and another diver became separated from their charter boat. The two divers received recompression treatment. (RNLI & media reports).

July 2011 11/295

Humber Coastguard tasked Hull CG to prepare a landing site for rescue helicopter-131 which was airlifting a diver with suspected DCI to Hull chamber. (Coastguard report).

July 2011 11/180

On the first dive of the day to a maximum depth of 16m a diver was under-weighted and aborted the dive after 10 min. Because of being underweight, no safety stop was possible, but the ascent was controlled, and not a rapid ascent. After a 5 hour surface interval, a second dive was undertaken to 16m. The dive was conducted to plan, but, although extra weights had been added since the first dive, the diver was still too light to be able to undertake a safety stop. On the surface, the diver's computer showed 20 min of no stop dive time remained and no rapid ascent warnings were showing. The diver did not show or feel any indications of DCI at the time. Four days later the diver experienced numbness and 'pins and needles' in the left arm and hand. A recompression chamber was contacted for advice and the doctor diagnosed a possible mild DCI. The diver attended the chamber and received recompression treatment. The diver has since been checked and cleared by a diving medical referee.

July 2011 11/115

Three divers conducted a dive to a maximum depth of 31m for a total duration of 50 min. During the ascent, one of the divers had difficulty in dumping air from his suit and at 13m both his drysuit and BCD were empty but he continued to rise. At around 9m he lost all control and made a fast ascent to the surface, missing all decompression stops. A second diver also became separated from the final diver. The final diver completed all safety stops and on surfacing noticed the other two divers back on the charter boat. The first diver began experiencing a tingling in his toes and a call was made to the Coastguard who tasked a rescue helicopter. The second diver did not display any symptoms. The helicopter airlifted the first two divers to a recompression chamber where the first diver received recompression treatment but the second diver was released without any treatment.

July 2011 11/117

A diver conducted two dives in a day. The first was to 45m max for a bottom time of 20 min followed by stops at 27m for 2 min, 12m for 1 min, 9m for 3 min, 6m for 2 min and 4m for 12 min; the stops at 6m and 4m were conducted on nitrox 67. An

additional 2 min of stops were added at 4m to clear a computer. Following a 2 hour surface interval, the diver conducted a drift dive to a maximum depth of 24m and a bottom time of 22 min on air. On returning to 6m on the ascent his computer indicated no stops required but he conducted a 3 min safety stop at 5m. Back onboard the charter boat after stowing his kit the diver started to feel a tingling in both hands followed by pain in his left arm. The diver breathed his remaining deco gas of nitrox 67 but the pain continued and so he switched to nitrox 80. When the charter boat was alongside the harbour the skipper placed the diver on oxygen and called a diving doctor for advice. The decision was made to airlift the diver to a recompression chamber where he received recompression treatment. (Coastguard report).

July 2011 11/120

A diver conducted two dives in a day; 30m for 45 min with 7 min of stops at 6m and, after a 3 hour surface interval, 21m for 59 min with a 5 min stop at 6m. Sea conditions on the first dive were quite rough and getting back onboard the charter boat was difficult. Conditions for the second dive were easier as the swell had reduced a little. The following morning the diver woke with no problems and went for a walk. Later in the evening of the same day the diver experienced a gradual onset of pain in her left leg but thought she had bumped or strained it getting back into the boat the previous day. The following day the leg had become much more painful and the diver was limping and she phoned a recompression chamber who advised her to attend for a check-up. She was diagnosed with DCI and received four recompression treatments with complete resolution of symptoms.

July 2011 11/132

Two divers conducted an uneventful dive to a maximum depth of 45m for a total dive time of 32 min including a 4 min stop at 6m. Shortly after surfacing one of the divers experienced severe lower back pain radiating around to his abdomen with burning pains down his left leg. His balance was affected and he was unable to stand without assistance. The diver was taken to a first aid area and given oxygen. His pain increased for a short while and the diver complained of 'pins and needles' in both feet and a loss of mobility down his left side. The emergency services were called and the diver was laid down whilst taking oxygen until an ambulance arrived. The diver was assessed and then transferred by air ambulance to a recompression facility where he received recompression treatment for a spinal DCI. The diver received several recompression treatments over several days with a good resolution of symptoms achieved.

July 2011 11/301

Shetland Coastguard received a report from Orkney hyperbaric that due to a diving incident the recompression chamber in Stromness would be in use for the next 2.5hr (Coastguard report).

July 2011 11/208

Falmouth Coastguard was alerted by a dive store that had a diver with them complaining of symptoms of DCI. The store had already contacted the DDRC and received advice to evacuated the casualty immediately, then and only then did the store contact the Coastguard. Falmouth Coastguard tasked rescue helicopter R193 to airlift the casualty to DDRC in Plymouth. The search mission controller expressed concern that the dive vessel did not call in the incident, the casualty had surfaced and missed 5 min of stops following a 20m+ dive, the diver had started to complain of breathing difficulties back pain and numbness from rib cage downwards.

July 2011 11/124

A pair of divers had conducted two dives the previous day of 36m for 38 min with a 3 min safety stop at 6m followed, 2 hours later, by 12m for 36 min with a 3 min safety stop. They entered the water for a wall dive to a planned maximum depth of 45m and no longer than 45 min dive time. The pair reached a maximum depth of 45m and one of the divers later reported he had felt "narked". Both had become distracted by an eel they found at depth and, as a result, they accumulated more decompression penalty than they had planned. One diver was using a dive computer that required deep stops whilst the other's computer accumulated additional time (15 min at 6m) at shallower depths during the deep stops they conducted. One diver conducted the dive on air including all stops whilst his buddy switched to nitrox 50 at around 20m. The pair conducted stops of 2 min at 26m, 2 min at 16m, 2 min at 11m and 15 min at 6m and surfaced after a total dive time of 52 min. An hour after surfacing, the first diver noticed a pain in his left shoulder that became worse on exertion. Oxygen was administered for 20 min at which point the pain had disappeared. The remaining divers were recovered and the boat returned to harbour. The diver was advised to phone a diving accident helpline; he was advised to contact the Coastguard but was reluctant to do so. A doctor in the dive group called the Coastguard and gave the diver's details. The Coastguard on contacting the diver helpline were told that the diver had already been advised to attend a chamber. The diver was transported to a nearby chamber and received recompression treatment. His buddy was monitored and did not display any symptoms.

July 2011 11/182

A diver had conducted a dive the previous day to 58m for a dive duration of 72 min. On the second day the diver conducted a dive using a weak trimix 26/11 as bottom gas to a maximum depth of 44m with a bottom time of around 34 min before returning to the shotline for ascent. The diver followed his computer for monitoring his decompression stops which included two deep stops. The diver switched to nitrox 80 for his decompression stops at 9m and shallower. The diver and his buddy surfaced after a total dive time of 70 min and reboarded the boat which was tied onto the shotline. After a few minutes on the surface, the diver noticed that vision in his left eye had gone blurry as if his contact lens was very dry. His vision returned when saline drops were added. The boat returned to shore some 20 to 30 min later at which point the diver felt bruising on his left buttock having sat mainly on that side on the boat. The diver also noted tinnitus and slightly blocked ears and he felt a little unsteady for less than a minute. The diver mentioned his symptoms to his buddy and boat skipper but it was considered not to be DCI. Shortly after, the diver suddenly noticed that his hearing had altered. Advice was sought from an ENT consultant who advised that it was not a DCI. The diver had perfect hearing in his left ear but was now totally deaf in his right ear. Contact was made with a DCI helpline and he was advised to contact an ENT specialist. Apart from the hearing loss the diver felt otherwise OK but used oxygen in the car whilst being transported to A&E. On walking into A&E the diver felt unsteady and requested oxygen; he felt better once back on oxygen. The diver was transferred to a recompression chamber where he received three recompression treatments with improvements in his symptoms. The diver has since been tested for a PFO and found to have a significant right to left shunt.

July 2011 11/311

Solent Coastguard was alerted by the ambulance service to a diver who had not been able to complete the final stage of a deco stop due to lack of air, the diver complained of pain in the shoulder spreading to the elbow and accompanied by a rash,

the diver was conveyed to shore by the dive support vessel, the diver was given the number of the duty diving doctor at the INM, the diver went to the local RNLI station and whilst doing this flagged down a passing ambulance, at this point the ambulance service contacted Solent Coastguard, some confusion ensued, as the DDMO had alerted the ambulance service to this diver's need for assistance. Finally and after considerable delay due to the dive vessel's failure to alert the Coastguard, the diver was flown to St Richards's hospital by Coastguard helicopter for treatment. (Coastguard report).

August 2011 11/134

A dive charter boat made a 'Pan Pan' call for a diver who was experiencing chest pains shortly after what was reported as a dive with no problems. The Coastguard arranged for a rescue helicopter to transfer the casualty to a hospital A&E for checks. The hospital referred the diver to a local chamber once it became apparent that the diver had in fact lost his weightbelt at a depth of 5m and made a rapid ascent to the surface whilst holding his breath. (Coastguard report).

August 2011 11/135

A diver conducted two dives; 29m for 43 min and, after a surface interval of 2 hours 20 min, 23m for 42 min with a safety stop of 3 min at 6m. Approximately 5 min after reboarding the charter boat and securing his equipment the diver experienced a severe pain in his left shoulder. The diver was placed on oxygen and the pain subsided within 10 min. A call was made to the Coastguard and the diver was evacuated by helicopter to a recompression chamber where he was found to have a skin DCI on his back and stomach; he received a 7 hour recompression treatment. (Coastguard report).

August 2011 11/209

A diver surfaced following a 21m wreck dive with a total dive duration of 42 min. The diver complained of major head pains before becoming dizzy and losing consciousness. The diver was given oxygen, taken back to harbour and airlifted to a recompression chamber where he received treatment.

August 2011 11/183

A diver conducted two dives; to 29m for 43 min with a 3 min safety stop at 5m and, after a surface interval of 2 hr 30 min, to 24m for a total time of 42 min. Shortly after surfacing the diver complained of pain in his right shoulder. He sat for a while to see if it would ease but, when it didn't, he was laid down and given oxygen. The pain began to subside, the Coastguard was contacted and, after consultation with a diving doctor, a helicopter was tasked to airlift the diver to a recompression chamber. On arrival at the chamber the diver was found to have signs of skin rashes to his back and chest. The diver received a 6 hr recompression treatment followed by three 90 min treatments over the next three days.

August 2011 11/398

A trainee was engaged in a deep dive course. He dived to a maximum depth of 22m and then reached 50 bar at 19m. The instructor, the trainee and another diver started to ascend when the trainee made a buoyant ascent straight to the surface. No symptoms were apparent during the day, however the trainee felt a weakness and tingling in his feet the next morning. He rang the local recompression chamber and was admitted for two treatments.

August 2011 11/138

Following a dive to a maximum depth of 37m for a total duration of 26 min including 3 min at 5m safety stop, a diver complained that she did not feel right. She was given oxygen and after 2 min showed no improvement and so was escorted to the wheelhouse where the Coastguard was notified and the diver assessed. The diver was given fluids and continued on oxygen. The Coastguard tasked a helicopter to airlift the diver to a recompression chamber where she received two recompression treatments. The diver was subsequently transferred by air ambulance to a larger chamber for further treatment for a spinal DCI.

August 2011 11/212

On the fifth day of an expedition and after three consecutive days of diving, a diver conducted a dive to a maximum depth of 25m for a total duration of 43 min. A few minutes after getting back into the RHIB the diver started feeling unwell with symptoms of dizziness and blurred vision . The diver was given oxygen and shortly after further symptoms began - nausea, tingling in hands and feet and shivering. The diver was laid down and continued on oxygen whilst the Coastguard was called. A helicopter was launched and the diver was taken back to harbour from where he was airlifted to a recompression chamber and received a 6 hour recompression treatment. The diver had been cold during the dive. The diver had been on the same expedition that experienced contaminated air from a compressor in Incident No. 11/197.

August 2011 11/318

Stornoway Coastguard received a call from Ullapool health centre requesting the evacuation of a 31 yr old male exhibiting signs of DCI. Coastguard helo R-100, re-assigned from training, evacuated the casualty to Dunstaffnage re-compression chamber, Ullapool CRT in attendance. (Coastguard report).

August 2011 11/198

A diver conducted two dives in a day as part of a warm-up for a planned dive trip. The diver had suffered from a blood infection recently that had affected his left leg and prevented him from taking much exercise. The diver and his two buddies conducted uneventful dives to 19m for 38 min with a 3 min safety stop at 5m and, after a surface interval of 1 hr 25 min, to 18m for 42 min with a 4 min safety stop at 5m. Both dives were described as quite energetic with the divers covering a lot of ground before surfacing. Shortly after the second dive the diver felt lethargic and found it tiring removing equipment and stowing it away. The diver sat in his car to rest and had a sensation of 'pins and needles' in his left leg. He advised colleagues in the dive party, was taken to the on-site dive centre, put on oxygen and given water to drink. A paramedic was called. After tests the diver was advised to attend a recompression chamber for further tests and he was transferred by air ambulance. At the recompression chamber further tests were carried out and it was noted that the strength in the diver's right leg was weaker than his left. The diver received recompression treatment and was kept in hospital overnight for observation. The assessment was that the diver had suffered a transient DCI as a result of a lack of fitness and exertion during the dive. He was advised not to dive again until further medical assessment was made and the problem with his left leg had fully resolved.

August 2011 11/319

Yarmouth Coastguard received a call from a dive RHIB reporting a diver aboard who was suffering from signs and symptoms of DCI, following a medi-link call the vessel was met by an ambulance and Happisburg CRT for onward transportation to hospital. (Coastguard report).

August 2011 11/320

Shetland Coastguard was alerted to a diver suffering from suspected DCI following a 36m dive for 67 min, the vessel was met by an ambulance for onward transportation to Balfour chamber for treatment. (Coastguard report).

August 2011 11/321

Shetland Coastguard was alerted by a dive boat to a diver suffering from suspected DCI, the vessel was met by a waiting ambulance for onward transportation of the casualty to Balfour. (Coastguard report).

August 2011 11/322

Shetland Coastguard was alerted by a dive support vessel reporting a diver suffering from a suspected skin DCI following a dive to 36m for 45 min. The vessel was met by an ambulance for onward transportation to a chamber for treatment. (Coastguard report).

August 2011 11/163

Following a dive to a maximum depth of 22m for a total dive time of 45 min including 4 min of stops at 6m, a diver complained of 'pins and needles' in stomach, legs and back. The diver was laid down, given oxygen and the Coastguard was contacted. The diver was airlifted to a recompression chamber where he received an 8 hr recompression treatment followed by a 2 hr treatment the following day with complete resolution of symptoms.

August 2011 11/140

A party of divers were conducting a wreck dive at a depth of 28m. One of the group experienced restricted air flow from his main regulator even though his computer indicated that he had plenty of gas. He took the lead diver's alternate air source and aborted the dive. The three divers ascended the shotline but, due to the current, they found the buoy at 13m. The third diver tried to deploy her delayed SMB but could not clip it onto her reel. The lead diver passed her his delayed SMB which she deployed successfully but, in the process, the three divers sank back to 19m. In trying to regain buoyancy the three overcompensated and all made a fast ascent to the surface. On recovery to the charter boat the diver who had experienced restricted airflow experienced tightness in his chest and a loss of feeling in the big toe of his left foot. He reported that his computer was giving an alarm and had locked out. The other two divers did not display any symptoms. A call was made to the Coastguard reporting three divers having made a rapid ascent. The Coastguard scrambled a rescue helicopter which was quickly on scene and as it was recovering the divers a fourth diver from the same boat surfaced with DCI symptoms (Incident No. 11/211). All four were airlifted to a recompression chamber where they received recompression treatment. (Coastguard and media reports).

August 2011 11/211

A diver surfaced from a wreck dive and was recovered by his charter boat suffering from symptoms of DCI. A rescue helicopter was already on site recovering three divers from the same boat (Incident no. 11/140). The diver was airlifted with the others to a recompression chamber where he received treatment. (Coastguard and media reports).

August 2011 11/141

A diver conducted two dives; a wreck dive at 27m for 45 min with 3 min safety stop at 5m then, after a surface interval of 4 hours, a drift dive to a maximum depth of 20m for 35 min. Approximately 15 min after surfacing, the diver experience pain in his left arm but attributed it to a muscular strain. On return to port the pain had not eased and he informed the skipper. He was placed on oxygen for 25 min before being airlifted by helicopter and transferred to a recompression chamber for treatment. (Coastguard report).

August 2011 11/216

Two divers were taken for recompression treatment. (Media report).

August 2011 11/143

A diver conducted a series of six dives over three days. On the final day he conducted dives of 21m for 43 min with a 3 min safety stop at 6m followed, 4 hours 35 min later, by 29m for 47 min with a 3 min safety stop at 6m. Around 45 to 60 min after the final dive the diver felt itching on his chest, shoulders and upper arms. Upon examination he could see slight reddening of the skin on his stomach, chest, shoulders and arms. Over 15 to 30 min the reddening deepened and grew larger. The diver reported to the charter boat skipper that he may have a skin DCI. The skipper advised going onto oxygen and monitoring and that if the condition worsened he should contact the Coastguard. The diver went on oxygen and took sips of water. The rash began to disappear after 30 min and the itching had stopped. It was agreed to monitor for a further 2 hours and check for returning symptoms. At the end of 2 hours all symptoms had disappeared other than a few purple blotches on the stomach. The following morning all signs had disappeared.

August 2011 11/148

A diver and his buddy conducted four dives over two days. On the second day, after a dive to 32m for 35 min including a 3 min safety stop at 6m and after a surface interval of 6 hours, the diver conducted a dive on a wreck to a maximum depth of 21m. At the end of the dive his buddy deployed a delayed SMB and the diver struggled to assist when the reel became stuck, but his buddy managed to free it. The diver then began to struggle with his buoyancy at a depth of 16m as they were slowly ascending to their safety stop. The diver lost control at 11m and made a faster than normal ascent. The diver managed to briefly regain control at 6m but, after around 1 min, lost control again and ascended to the surface missing 2 min of safety stop. The diver did not experience any symptoms for the rest of that day. The diver awoke the next day with a painful right side headache and felt nauseous. As the morning progressed the diver felt increasing nausea and dizziness. A recompression chamber was contacted and they advised the diver to attend for assessment. The diver received a 4 hr 30 min recompression treatment with a resolution of symptoms after 60 min.

August 2011 11/331

Shetland Coastguard was alerted to a diver suffering from a facial rash following a dive to 32m, the diver suffered from eczema caused by her wetsuit, the diver was examined and treated at Balfour Hospital Chamber. (Coastguard report).

September 2011 11/334

Shetland Coastguard was alerted to a diver suffering from suspected DCI following an uneventful dive to 36m time 46 min. The diver was taken to Balfour hyperbaric chamber for treatment by an ambulance. (Coastguard report).

September 2011 11/401

An instructor and a group of trainees performed a descent without visual reference. One of the trainees started to make a rapid descent and was intercepted by the instructor at 5m. This trainee signalled that she wanted to go up and she inflated her

BCD; the instructor slowed her ascent to the surface. At the surface, the trainee stated that she had had a problem equalizing during descent and had pain in her ear. After 5 min she was able to continue. The group descended and completed the dive. That evening the trainee reported a potential ear perforation and said that she had skin rashes. A call was made to a recompression chamber and she was admitted for treatment overnight.

September 2011 11/215

A diver had a problem with his suit and surfaced rapidly from a dive. His dive boat placed him on oxygen and called the Coastguard for assistance. A lifeboat was launched and recovered the diver to shore from where he was taken by ambulance to hospital for examination for DCI. (Media report).

September 2011 11/219

Humber Coastguard was alerted by a dive support vessel on VHF radio of a diver suffering from suspected DCI following a rapid ascent from 12m. Humber Coastguard placed the dive boat in a connect call with the INM and advice was to evacuate the diver. Humber tasked RAF rescue helicopter to airlift the casualty to the recompression chamber in Hull, the operation was assisted by Seahouses and Hull CRTs. (Coastguard report).

September 2011 11/341

Portland Coastguard received a call from the ambulance service requesting helicopter evacuation of a diver who was showing symptoms of DCI following a dive earlier in the day. The male was already on his way home (M4) when the symptoms appeared and the ambulance service had been alerted from a service station near Chippenham. It was decided that he needed specialist care in a recompression chamber. Coastguard rescue helicopter 106 proceeded and airlifted the casualty to the Poole landing site where he was met by Poole Coastguard rescue officers and the dive doctor. He was transferred to an ambulance for onward transportation to the recompression chamber. (Coastguard report).

September 2011 11/217

A diver experienced DCI symptoms during the drive home from diving at an inland site. The diver stopped at a motorway service station and called the emergency services. He was attended by two rapid response vehicles and an ambulance and, after consultation with a recompression chamber, the diver was airlifted by a Coastguard rescue helicopter to a recompression chamber for treatment. (Media report).

September 2011 11/403

Two students and two instructors descended by a line to 24m. After 5 min, one of the students felt an asthma attack coming on. He signalled a problem and made to ascend. The support instructor slowed his ascent. As the support instructor and the troubled trainee were leaving the lead instructor and the other student, the lead instructor's regulator started to free flow and he switched to his own alternative air source. The regulator stopped free flowing at 10m, so he switched back. The student who had asthma was unconscious at the surface, and a rescue boat took him back to shore. Resuscitation techniques were applied, the casualty regained consciousness and was put on oxygen. The casualty was airlifted to a recompression chamber together with the support instructor who suffered a type 1 DCI.

September 2011 11/346

Solent Coastguard received a 'Pan Pan' alert from a dive vessel reporting a diver suffering from suspected DCI. The diver had completed a 27 min dive to 30m on nitrox 32. A medi-link call was established, the advice was to have the diver seen in hospital; the vessel was met by an ambulance and Newhaven CRT.

Injury / Illness

October 2010 11/004

Clyde Coastguard received a 999 telephone call from a dive boat reporting that they had an unconscious diver on the surface, after a dive to 16m, and other divers still in the water. The diver subsequently came round when recovered to the boat. Largs ILB proceeded to their assistance and medical advice was taken from a dive doctor at Inverclyde Royal Infirmary, who assessed it was not a decompression injury. Largs ILB returned the diver to the marina where he was met by an ambulance and Greenock CRT. The diver was taken to Inverclyde Royal Infirmary for treatment. (Coastguard & RNLI reports).

October 2010 11/007

Two divers entered the water for a dive to a maximum depth of 11m to check out equipment. Approximately 10 min into the dive one of the divers became unresponsive and started to float slowly towards the surface feet first. His buddy took control and righted the diver, but could not get any response although the diver's eyes were open and his breathing was normal. The buddy raised the diver from a depth of 10m using a controlled buoyant lift and then fully inflated the diver's jacket on the surface. The buddy asked the diver if he was alright and received a mumbled reply that he was not and he was not breathing easily. The buddy towed the diver to shore and shouted for help to which two divers on the jetty asked if this was a drill. After replying that there was a real problem the alarm was raised and other divers assisted with recovery from the water. The diver was examined by a nurse on site, oxygen was provided and an ambulance called. The diver's drysuit was removed to eliminate any restriction on his breathing. At this point the diver said he was alright and insisted there was nothing wrong. The diver was evacuated to hospital by ambulance where he was checked out and subsequently released.

October 2010 11/223

Clyde Coastguard received a call from a hospital in Stranraer reporting they had a diver who was complaining of symptoms which could be related to DCI following diving the previous day. Stranraer CRT assisted with transferring the diver to rescue helicopter R-177 who transferred him to the hyperbaric chamber at Millport for treatment. Cumbrae CRT assisted at the landing site at Millport. Following assessment, the diver was found to not to have DCI, so was released to hospital for observation. (Coastguard report).

October 2010 11/018

10 min after an uneventful dive to a maximum depth of 22m a diver complained of pains in her stomach and she felt that she needed to burp. First aid oxygen was given for 10 min and the diver was advised to drink plenty of water and to watch for any other symptoms.

October 2010 11/382

The casualty was completing confined water training in a swimming pool when she complained of a severe headache. After 10 min her symptoms had not improved so oxygen was administered and an ambulance called. The hospital diagnosed a stress related tension headache and the casualty was discharged.

October 2010 11/350

Lifeboat launched to help diver with illness. (RNLI report).

October 2010 11/383

After completing a safety stop, the instructor gave the signal to ascend. One of the trainees dumped air from his BCD and made an uncontrolled descent to 9m. The group made the ascent and, back onboard the boat, the trainee complained of pain in his ear. He was advised not to dive again that day. Following this, the trainee contacted the centre to confirm that he had a perforated ear drum.

November 2010 11/019

During a training dive in a 4m deep swimming pool a trainee diver 'felt strange', 50 min into the session. After a further 5 min the dive was aborted as the student reported feeling jittery. The student reported loss of balance, problems equalising and didn't feel like his ears had popped. He was dizzy, had decreased hearing in his right ear and weakness in limbs, the latter was attributed to shift work. The diver reported that he had felt bunged up in the morning but blew his nose and seemed alright. Medical advice from a chamber advised being checked out by GP or A&E.

November 2010 11/020

A diver fell over whilst fully kitted before a dive, twisting his ankle. He was given first aid including elevation, ice and bandaging but declined oxygen. The diver was diagnosed with a sprained ankle and swelling.

November 2010 11/191

Whilst preparing to enter the water for a second dive of the day a diver fell on a slipway whilst fully kitted. The diver had pain in his left leg but, after a short rest, confirmed that he was OK and continued with the dive to a maximum depth of 21m for 38 min. The diver drove home with a moderate pain in his leg. The leg subsequently bruised and became swollen and it felt as if he had sprained his ankle. After two weeks the bruising and swelling had gone but there was still pain and so the diver went to hospital where an X-ray revealed a broken fibula.

November 2010 11/021

A trainee diver conducted three training dives in a day without any problems. The next day the trainee woke with the inside of his left forearm feeling numb and abnormal. After 30 min the numb feeling was still present and so he sought the advice of another diver who recommended that he called a hyperbaric chamber. The chamber advised that although they didn't think the description matched DCI symptoms he should attend the chamber for assessment. Attendance at the chamber confirmed it was not DCI and the symptoms pointed to 'suit squeeze' and a trapped nerve in his shoulder.

December 2010 11/022

A diver under training, standing fully kitted on a slipway during a briefing, slipped over and banged her head and face resulting in swollen cheek and black eye. The diver was offered a trip to hospital for a check-up but she opted to continue and complete the course.

December 2010 11/066

After returning from a dive a club RHIB was being recovered from the water. Divers, still in drysuits, were taking turns to winch the boat onto the trailer. One of the divers took his turn when the greatest load was on the winch. After less than one

turn the diver's hands slipped off the winch handle and he fell forwards and was hit in the face by the winch handle as it recoiled. The diver suffered bruising to his face and swelling around his eye and he required an operation the next day. The diver has since had a number of operations and it is not clear if he will suffer permanent damage to his sight.

January 2011 11/232

Brixham Coastguard received a call from the ambulance service advising that they were attending a call to a female diver who had ingested water following her dive. Coastguard rescue team assistance was not required and the lady was taken to hospital to be treated for the effects of secondary drowning. (Coastguard report).

January 2011 11/024

Two divers surfaced early from a dive after they failed to find the target wreck. One of the divers swam away from the shotline to be picked up. The coxswain stopped the boat and put the engines into neutral; the diver swam to the stern of the boat. She passed up her camera then the diver's leg slipped behind the ladder and into the area of the rudder, propeller and rope-cutter under the boat. Due to the delay, the boat had drifted back onto the shotline. The diver experienced a twisting of the ankle and lost her fin. At the same time the shotline buoy popped up beside the diver having been torn away from the line. A 'Mayday' call was made for medical help whilst the diver was recovered from the water. An inshore lifeboat attended the scene and escorted the boat back to harbour. The diver was taken to hospital and released later the same day with no broken bones but significant tissue damage to her left ankle which has since required surgery to repair.

January 2011 11/386

An instructor was demonstrating mouth to pocket mask breathing on a 'casualty' as part of a rescue course. When finishing the demonstration, the casualty took a gulp of water, choked and coughed for a moment, then grabbed hold of a landing stage. Upon being asked, the casualty said he felt 'woozy'. The instructor then saw his eyes starting to close and took him to the edge of the lake where he was assisted from the water. Oxygen was administered and the emergency services were contacted. He was transferred to hospital and released the same evening.

March 2011 11/080

A diver preparing to dive was kneeling down on a quayside to clear her mask when she fell over hurting her leg. She was advised to get the injury checked out at A&E.

March 2011 11/039

A trainee was on a try dive in a swimming pool when he was seen to panic, spit his regulator out of his mouth and start to head to the surface. His instructor and another instructor who witnessed the incident both surfaced and went to his assistance. The trainee was complaining of pain and loss of mobility in his left arm. He was removed from the pool, a 999 call was made and the trainee was taken to hospital by ambulance. The trainee was diagnosed as having a dislocated shoulder which was replaced in A&E and the trainee was subsequently released from hospital.

March 2011 11/077

A diver conducted a dive to a maximum depth of 20m for 25 min total time. Some time after surfacing the diver reported to the on-site dive shop with red bloodshot eyes and the shakes. The diver had no known health problems but had experienced the same condition previously but not whilst diving. The diver was offered oxygen but declined. Advice was given by a doctor to attend A&E and the diver was transported to hospital where an eye examination was clear; the diver was discharged.

April 2011 11/036

An instructor and a trainee were returning towards shore following a dive on a wreck when the trainee lost a weight pouch causing partial loss of buoyancy control. The instructor provided assistance and the trainee expended a lot of effort trying to stay down whilst continuing towards the shore underwater. Both managed to stay down until they reached a depth of 8m when they lost buoyancy control and both surfaced at moderate speed. The trainee was unable to swim the remaining 20m to shore and was towed ashore by the instructor. The trainee was then assisted to de-kit by the instructor and another diver and placed in the recovery position. The trainee was showing signs of severe shock and was barely responsive and, when no improvement was made over a few minutes, an ambulance was called. The trainee was given oxygen by the ambulance crew and, after some improvement, was taken to hospital for observation.

April 2011 11/154

Early during a dive to a maximum depth of 16m a diver experienced a headache and assumed it was due to the effects of the cold water. He expected it to go away within a couple of minutes but it did not. After a total dive duration of 31 min the diver surfaced and still had the headache; he took a single paracetemol with lunch. The headache went away and so he conducted a second dive without incident. Following the second dive the headache returned and lasted for approximately seven days.

April 2011 11/058

Following a dive to a maximum depth of 21m for 37 min with a 3 min stop conducted at 6m a diver was assisting unloading the boat at the storage garage. Lifting a cylinder from inside the RHIB the diver sustained a wrist tendon injury to his right arm. Later in the day the wrist became swollen and inflamed. When the wrist was still swollen and inflamed the next day the diver contacted a diver's helpline for advice. The diver was advised that, given the dive profile and the fact he had been using nitrox 32 and that the injury was sustained 6 hours after diving, it was unlikely to be DCI and was classified as a movement injury.

April 2011 11/189

Brixham Coastguard tasked Berry Head Coastguard to assisted two shore divers, after they suffered difficulties whilst diving at Breakwater Beach Brixham. The divers were checked by an awaiting ambulance and one taken for check up. Torbay Inshore lifeboat checked the safety of other divers in the vicinity. (Coastguard report). According to a media report one of the divers had panicked after swallowing water.

April 2011 11/184

An instructor, who was recovering from a cold, conducted a dive with a trainee. The dive was to a maximum depth of 12m and for a total duration of 33 min. The divers were at a depth of 6m, towards the end of the dive, when the trainee started descending rapidly. The instructor followed him down to bring the trainee back up; he was unable to equalise but descended regardless and suffered a burst eardrum. The instructor was off diving for a number of weeks but made a full recovery and has returned to diving.

April 2011 11/043

A student and her instructor completed a wreck dive to a maximum depth of 20m for a duration of 23 min. Following an uneventful dive a delayed SMB was deployed and both divers started to ascend. At 12m the student lost control of her buoyancy and made a faster than normal ascent direct to the surface. The instructor made a normal ascent and, on surfacing, found the student was already back in the boat. The student reported feeling 'a little funny' and was placed on oxygen at which point she reported it made her legs feel warm. After returning to shore and walking up the beach, still breathing oxygen, the student reported being short of breath and cold; she was given water and thermal protection (jacket, hat and gloves). The student reported feeling dizzy and the Coastguard was contacted for advice. Contact was made with the duty diving doctor who advised that the student should be checked out at a recompression chamber. The student was driven initially towards a local chamber but, on the advice of the diving doctor, they diverted to a local A&E to have the shortness of breath checked out. At A&E the student was taken off oxygen and underwent a neurological exam which she passed and so was discharged.

April 2011 11/390

A trainee was doing a no-mask swim in a pool. He held out his hand to the side of the pool to break his momentum and push himself off again. In doing so he received cuts to his fingers. He exited the pool and bandages and plasters were applied to the wounds. He later slipped on the tiles and cut the same hand as he fell over. He had apparently been briefed prior to the session about the possible safety risk of the broken tiles.

April 2011 11/082

A diver experienced a headache at a depth of 8m but he continued the dive. At 20m the headache remained and he felt sick so he ascended to the surface making a 3 min decompression stop at 5m on the way. Once out of the water he was disorientated and 'felt strange'. He was placed on oxygen for 20 min. The diver complained of back ache but reported that this often happens when he dives with a twin-set. He still had the headache when he left the dive site but was otherwise recovered.

April 2011 11/050

Two divers entered the water to attach a new permanent shotline to a wreck. One diver was using his spare rebreather for the first time since the previous year. During the descent the diver was under-weighted but continued with the dive. After working hard to tie in the new shot the divers continued the dive but the under-weight diver still struggled to stay down. A delayed SMB was deployed and a normal ascent was made without incident. The diver suffered red marking to his skin from suit squeeze. Subsequent inspection revealed that the trim weights had not been fitted to the rebreather.

April 2011 11/158

Following an uneventful dive, a diver returned to the boat lift at the stern of the charter vessel. As the diver settled onto the lift he placed his hand in a small cut-out on the lift. The skipper operated the lift before the diver had fully settled onto it. The diver's hand became trapped in the cut-out and he suffered multiple breaks to his thumb and hand and deep cuts to the hand. The diver was given first aid by qualified first aiders in the group. Once back ashore the diver was taken by ambulance to hospital for treatment.

April 2011 11/195

Humber Coastguard tasked Cullercoats lifeboat who rescued two shore divers; they got into difficulty after entering the water at Browns Bay Tynemouth. One casualty suffered minor head injuries due to the rocky nature of the area and was treated by the ambulance service once back at the boathouse. Tynemouth life brigade were first on scene and conned the lifeboat into position. (Coastguard & RNLI reports).

April 2011 11/121

A diver woke with a headache and took a couple of headache tablets with breakfast. The diver then took part in a dive to a maximum of depth of 22m for a bottom time of 36 min and a slow ascent to a depth of 4m where she conducted a safety stop of 3 min before making a final ascent to the surface. The diver boarded the RHIB and removed her equipment. After around 25 min on the surface the diver started feeling lightheaded and dizzy. As the boat returned to shore she began to hyperventilate and she then complained of a feeling of stiffness in her legs. The boat was stopped and the diver removed her drysuit down to her waist to relieve the pressure of the seal on her neck and calm her breathing. The boat returned to shore and the diver disembarked at which point she began hyperventilating again. The diver was sat down, given oxygen at a rate of 6 lt per min and a recompression chamber consulted for advice. A diving doctor spoke to the diver and determined that the incident was not likely to be diving related and that oxygen would be of no benefit. The diver was taken off oxygen after 30 min and she followed advice to rest for the remainder of the day. The following day the diver conducted a dive to a maximum depth of 9m for 44 min without further incident.

April 2011 11/053

A diver was at a depth of 6m conducting a safety stop after a dive to a maximum depth of 35m using a rebreather. The diver was carrying a stage cylinder with nitrox 51; this cylinder was primed but turned off. During the stop the diver touched his stage cylinder HP hose which exploded injuring his gloved hand. As the cylinder was turned off no significant gas was lost and the diver continued with safety stops. The hose was a short, modern, flexible hose 12 months old.

April 2011 11/199

Brixham Coastguard tasked Hope Cove Coastguard and Bantham lifeguards assisted south western ambulance after a diver accidentally shot his friend whilst spear fishing off Thurlestone Sands causing minor injuries to his abdomen. The two divers were helped ashore by a kayaker before being transferred to a land ambulance. MCA Falcon and Devon air ambulance were tasked but stood down before arriving on scene. (Coastguard report). A media report suggested that his wetsuit had saved him from serious injury.

April 2011 11/250

Forth Coastguard received a call from ambulance control advising diver with suspected diving related illness. Eyemouth Coastguard rescue team and Navy rescue helicopter 177 tasked. Casualty airlifted to ARI. (Coastguard report).

April 2011 11/063

Two divers conducted a dive to a maximum depth of 17m for 33 min then deployed a delayed SMB and commenced their ascent. At approximately 8m one diver was unable to dump sufficient air and ascended quickly to 4m before regaining control and re-descending to 6m to conduct a 3 min safety stop. During the stop the diver had to work hard to maintain the stop depth as he was positively buoyant. The diver then took 40 seconds to ascend from 5m to the surface. His buddy ascended at a normal

rate. On the surface the diver was lying on his back trying to inflate his drysuit but was otherwise unresponsive. After being asked if he was OK by his buddy several times the diver removed his regulator and spat out what appeared to be blood. The buddy immediately signalled distress to the boat and both divers were recovered to the boat. The diver was coughing up bloody sputum. The Coastguard was contacted by VHF radio and a link call made with a doctor at a recompression chamber. The divers returned to shore to be met by an ambulance which transported the diver to a recompression chamber. The diver was assessed by a doctor at the chamber and it was determined that he was not suffering from a diving related injury that would require recompression therapy. The diver was transferred to hospital for further investigation. After review of test results the diver was discharged later the same day.

May 2011 11/192

A diver preparing to dive, wearing full equipment, bent down to vent air from her drysuit. The diver lost her balance and fell backwards landing on her right wrist which gave her a lot of pain. After 5 min she felt OK and continued with the dive without further incident.

May 2011 11/177

Prior to a day's diving, a diver was carrying equipment out of a club van. The diver felt a 'sting' in his back. After a short while everything returned to normal and so he continued his day's diving and completed three dives without any problems. Two days later the diver woke and felt a pain in his back and had problems breathing. He attended hospital to be checked out in case of DCI. The diver was given the all clear for DCI with the diagnosis that his discomfort was probably due to a strain from carrying cylinders and other lifting.

May 2011 11/188

A diver and his buddy entered the water for a wreck dive. On descending the shotline one of the divers got the rope from the telltale buoy wrapped around his leg and was pulled back up in the surface swell. After freeing the rope the diver descended quickly to catch up with his buddy and, at approximately 6m, felt slight discomfort in his ear with no pain but slight vertigo that resolved quickly and he continued his descent. There were no further problems during the dive to 26m for a total time of 20 min which included a safety stop of 3 min at 6m. No further symptoms were noticed during a surface interval or on a subsequent drift dive to a maximum of 16m. During the drive home the diver noticed a slight fluid discharge from his ear. The following day the diver visited his GP, was diagnosed with a minor perforation to his ear membrane and was prescribed antibiotics and advised no diving for three to four weeks.

May 2011 11/201

Brixham Coastguard tasked Torbay RNLI Inshore lifeboat to recover an exhausted diver and returned her to Breakwater Beach Brixham for ambulance crew to check over. Berry Head Coastguard in attendance. (Coastguard & RNLI reports).

May 2011 11/122

A diver was preparing to carry out a second dive from a charter boat. Surface conditions were a "little choppy". As the diver negotiated stepping onto the boat's stern lift platform to enter the water she caught her right fin in the lift, lost her balance and entered the water in an "unorthodox manner" resulting in a twisting of her right foot and she experienced a searing pain in her right ankle. The diver initially decided to continue with the dive believing the cold water would help. During the course of the dive it became apparent that the injury was worse than at first thought and the diver signalled to her buddy to abort the dive and to surface. On the surface the diver indicated that she would need assistance to get back onboard the boat. The foot and ankle were swollen and deformed and so, on return to shore, the diver attended a local hospital where she was diagnosed with a sprained ankle. On returning home, her GP also diagnosed a sprained ankle. Later in the week however the swelling and deformity had not improved and so she attended a local A&E department where she was diagnosed with a ruptured Achilles tendon in addition to the sprain. The diver has since undergone surgery and a period of physiotherapy.

May 2011 11/391

After a demonstration of a giant stride entry by an instructor, a trainee approached the side of the pool and was about to complete the stride when her supporting leg gave way, resulting in a semi-successful entry. Although the trainee entered the water without hitting the side of the pool, she fell forward at an angle and hit the back of her head against her first stage regulator which left her with a 2 cm long laceration. The casualty was taken to hospital and had her wound sealed with glue. She planned to resume her training after a week's convalescence.

May 2011 11/263

Liverpool Coastguard was alerted to a diver suffering from a diver panic attack on surface following a dive to 32m, he was taken to hospital for treatment, it is thought the diver may have ingested water during the dive. It was thought the diver had a previous medical problem. (Coastguard report).

May 2011 11/393

While kneeling down in the shallow part of a pool, a diver sustained a cut to the little finger of his left hand from a broken tile. The cut bled profusely and required bandaging. He was taken to hospital where stitches were not deemed necessary. Five minutes prior to this injury he had sustained another (minor) cut from another broken tile. He had been briefed twice about the broken tile edges.

May 2011 11/119

A diver conducted two dives to less than 20m and less than 45 min each with a 2 hour surface interval in between. The following day she woke to find an angry red rash on her inner right arm. The diver had suffered a skin DCI two years previously and so phoned a diver helpline for advice. The diver was advised to attend a recompression chamber to be checked out. By the time of the visit to the chamber the rash had extended to her left arm and behind her knees and the doctor at the chamber diagnosed a form of contact dermatitis. The diver had washed her undersuit in biological washing powder and this had got wet during the dive. It was postulated that this had transferred chemicals to the skin. The diver subsequently developed an allergic rash over her entire body that disappeared within a week.

May 2011 11/070

Two students with an instructor were conducting the final dive of their initial qualification course, on a wreck, at a maximum depth of 20m. Shortly after leaving the wreck to swim back towards the shore at a depth of 18m, one of the students started to hyperventilate. The instructor swam over to him arriving just as the student tried to spit his regulator out and start to sink, further adding to his panicked state. The instructor started to bring him up but in doing so made a rapid ascent to 3m before dumping air to try and control the ascent. The instructor dumped too much air and both sank back down to 18m. The instructor once again tried to inflate the student's BCD but the controls would not work and so he lifted the student and himself on his own BCD. The pair surfaced and the instructor had to orally inflate the student's

BCD. The second student made his own controlled ascent to the surface. The first student was conscious and alert on the surface and was able to swim back to the shore unaided. On recovery from the water the student was placed on oxygen and the instructor was given nitrox 32 to breathe as a precaution. All three divers were monitored and no signs or symptoms of DCI were experienced. The student suffered from asthma.

May 2011 11/150

During the descent onto a wreck a diver experienced problems clearing her ears and was unable to descend. The diver was about to abort the dive when, without forcing, her ears cleared. The diver continued the dive to a maximum depth of 20m and a total duration of 40 min. Approximately 20 min after surfacing the diver experienced problems with her ears and lost hearing in her left ear. The diver attended the A&E department of a local hospital and an ENT doctor diagnosed a minor barotrauma of the middle ear. The eardrum was intact and her hearing returned after an hour or so. The diver subsequently had sinus and hearing tests; her hearing was found to be within the normal range.

June 2011 11/076

A diver completed an uneventful dive to a maximum depth of 33m and a total duration of 34 min including safety stops. After de-kitting and taking her cylinder for refilling the diver sat down to eat a snack and developed a cramp like pain in her left buttock. The diver had twisted as she sat down and she thought that this was the cause, but the pain quickly developed into a stitch like cramp in her left side which radiated rapidly towards the centre of her stomach. The diver quickly became doubled up in agony and was given nitrox 70 to breathe. The dive site staff arrived, gave her oxygen and stretchered her to the on site sick bay. An ambulance was sent for and the diver was assessed by centre staff and then the ambulance crew. Some numbness and 'pins and needles' sensation was identified down her left leg and foot but this subsided within half an hour. ECG and blood pressure tests were normal and her computer showed no alarms and a normal profile with all safety stops conducted. The diver was advised that in twisting to sit down she had caused a spasm in her sciatic nerve resulting in the symptoms experienced. She was advised to attend a local A&E and a doctor confirmed this diagnosis. The diver was given anti-inflammatories and released. The diver's own GP has since confirmed the diagnosis.

June 2011 11/272

Humber Coastguard tasked Bridlington CRT, Flamborough RNLI lifeboat and rescue helicopter R-128 after numerous reports of two shore divers in difficulties at North Landing. Both divers were safely out of the water as units arrived on scene, one of the divers was taken to Scarborough hospital as a precaution after swallowing water and being sick. (Coastguard report).

June 2011 11/073

An RHIB was being recovered using a rope as it was not possible to get the towing vehicle close enough to the water. A diver was beside the tow hitch when his foot stuck in the mud, he fell over and the jockey wheel ran over his ankle. The diver was carried to a safe area, an ambulance was called and the diver taken to hospital. X-rays showed no broken bones, the diver was released, given pain killers and told to rest with the leg elevated. Soft mud is believed to have prevented more serious injury.

June 2011 11/394

A trainee diver was engaged in a training course when she stated that she felt a little sick. They removed the trainee's diving equipment, she was given a blanket and made to lie down. An ambulance was called and arrived within 10 min. No immediate cause for the ailment could be found and the trainee was taken to hospital for further tests. She was later released from hospital fully recovered.

June 2011 11/087

Whilst assisting the pair of divers from the water following Incident No. 11/101 another diver in the group was hit by a breaker and stumbled, hitting his head on the cylinder of one of the other divers. The diver received first aid care for a cut to his head. He was taken by ambulance to hospital to have the cut glued. The divers were commended on their organisation by the Coastguard.

June 2011 11/100

A diver was bending over trying to fit his fins prior to entering the water for a dive on an instructor training event. While doing so he collapsed forward onto his hands and knees. The weather was hot, the diver was wearing a thick undersuit and he had walked around 20m, in full kit, to the water's edge. The diver was assisted to de-kit and reported a tight chest and some difficulty breathing. He felt ill and had limited responses for a while. The diver had not fainted nor lost consciousness, but had experienced a slight loss of balance. He suffered slight confusion after the event but was of a normal colour. Shortly afterwards he was seen to be perspiring heavily, felt lightheaded and appeared close to fainting for a few minutes. The diver was advised to lie down with his feet raised but was resistant to doing so but he agreed to lie back. The diver was given water and recovered over the next 20 minutes. He was not allowed to continue with the course. The diver seemed to make a full recovery.

June 2011 11/288

Brixham Coastguard was made aware by West Country ambulance service that Torbay RNLI coxswain reported a diver on Breakwater Beach Brixham, who was suffering from renal colic and had a doctor in attendance. South West ambulance transported the diver to hospital for further treatment. (Coastguard report).

June 2011 11/204

After completing a shore dive a diver began to feel unwell. The Coastguard was alerted and a paramedic attended. The diver was taken to hospital suffering from suspected kidney stones. (Media report).

June 2011 11/289

Forth Coastguard received a request for assistance to recover casualty with dislocated knee from back of Dunbar harbour to ambulance. Casualty was preparing to go diving, the location required Forth Coastguard to task Dunbar RNLI inshore lifeboat and Dunbar Coastguard rescue team, and the casualty was ferried by the lifeboat to a more accessible location for the Coastguard rescue team to assist into the waiting ambulance. (Coastguard report).

June 2011 11/103

A diver and her buddy aborted a dive before descending due to surface swell. As the pair exited the water the diver removed her BCD and then slipped on a rocky shoreline approximately 10m from the water's edge. She fell flat on her face and suffered a cut to her nose and bleeding from both nostrils. A clean towel was used to stem the bleeding and the diver was given oxygen for shock. She was able to walk 200m back to her car. The diver was taken to hospital and released the same day with

advice to return a week later for a check-up.

June 2011 11/368

Lifeboat launched to assist injured diver. (RNLI report).

June 2011 11/160

A diver and her buddy conducted a dive to a maximum depth of 30m. On ascending back to 22m the diver felt nauseous and had a headache. On exiting the water, after a total dive time of 30 min, the diver vomited. The diver had no known health problems other than feeling tired after every dive and needing to rest and have coffee. The diver was placed on oxygen and the headache cleared within 2 min. The diver was advised not to dive again that day and to see a doctor to be checked over.

June 2011 11/205

A diver fell on rocks whilst trying to enter the water injuring his right leg. The diver was assisted by an RNLI lifeboat crew who transported him back to harbour. An ambulance took the diver to hospital where his injuries were found not to be serious. (Media report).

July 2011 11/161

During a dive to a maximum depth of 22m a diver had a panic attack at a depth of 21m. His buddy took control and the pair completed a controlled ascent to the surface. The buddy coughed up a small amount of blood but was otherwise OK. Both divers were checked out and found be well. Oxygen was not given.

July 2011 11/116

A diver and his buddy travelled by RHIB to a wreck site. Weather was bright and sunny with a flat calm sea. The diver was wearing a very tight wetsuit and was seen to have difficulty in putting on the jacket with attached hood. The diver was sweating and hyperventilating with the struggle to fit the suit. The dive manager assisted the diver to kit up and tried to persuade the diver to take time to catch his breath, but the diver continued to prepare to dive. The diver and his buddy entered the water and the diver was found to be under-weighted. His buddy was carrying additional weights and, once these were placed in the diver's BCD pockets, the pair began their descent down the chain leading to the bow of the wreck at 12m. At a depth of around 6m the diver was seen to stop moving and he lost contact with the chain. He continued to drift downwards but away from the wreck towards deeper water. His buddy caught up with him and managed, with difficulty, to drag him onto the bow of the wreck. The diver's eyes were wide open and staring but the diver was unresponsive and limp although still breathing shallowly and his mouthpiece retained in place. The buddy lifted the diver to the surface using a controlled buoyant lift and signalled for assistance on the surface. A charter boat responded and the diver was lifted onto the boat using the stern lift and placed on oxygen for around an hour. The casualty subsequently recovered, vomited, had a cup of tea and was then transferred by RHIB back to harbour where he was relaxed but tired. The diver was taken to hospital A&E for examination and was subsequently released having made a full recovery apart from a sore ear.

July 2011 11/131

Two days prior to the incident dive the diver and her buddy had attempted a dive but had to abort because she had been unable to clear her ears. The diver had been recovering from a cold. The next day the pair completed dives to 35m and 30m taking a long time to descend but otherwise without incident. On the incident dive the pair descended to a maximum depth of 37m using air; their planned bottom time was 20 min. The buddy deployed a delayed SMB after 25-30 min but he became entangled in it and had to cut himself free. During this activity the pair became separated. The diver deployed her own delayed SMB and started to breathe heavily. She had difficulty in inflating her delayed SMB with her octopus and used a lot of gas in taking 5 min to deploy it. The diver conducted a controlled ascent to 20m. At this depth she looked at her pressure gauge, she noted that she only had 10 bar remaining in her single 12 ltr cylinder and she was not carrying a pony or other backup. The diver then made a rapid ascent to the surface breathing continually. On the surface the diver was unable to inflate her BCD as she was out of gas and her BCD emergency cylinder had been empty prior to the dive. The diver struggled to manually inflate her BCD, she did not think to release her weightbelt and she started to sink. The diver was aware of her legs becoming entangled in her delayed SMB line and then, as she lost consciousness, she felt the delayed SMB line being pulled upwards from the surface. The diver had been spotted by the surface cover in the RHIB. The boat came alongside the delayed SMB and recovered her from the water unconscious, bleeding from her nose and with blue lips. The diver was placed on oxygen and a call made to the Coastguard who tasked a helicopter to airlift her to a recompression chamber. Her buddy made a normal ascent.

July 2011 11/300

Shetland Coastguard received a report from a dive support vessel of a diver who had a small amount of blood coming out of his right ear, the vessel had divers still in the water, the diver had no other symptoms. The vessel was met on return to port by Stromness CRT and a waiting ambulance; the casualty had a ruptured eardrum. (Coastguard report).

July 2011 11/130

A diver was preparing to dive, had completed her buddy check and was fully kitted including fins. She moved backwards waiting for other divers to enter the water, her fins became entangled, she lost her balance and fell backwards onto a wall. The diver suffered a dislocation of her left knee during the fall. A paramedic who attend the site reduced the dislocation. The diver declined oxygen.

July 2011 11/302

Clyde Coastguard received a 'Pan Pan' alert from a dive support vessel reporting one female diver onboard with breathing difficulties, symptoms included breathlessness, the diver was placed on 100% oxygen, a medical link call was established with a dive doctor at Aberdeen Royal Infirmary, the dive vessel was met by an ambulance and the casualty transferred to Inverclyde hospital for treatment. (Coastguard report).

July 2011 11/396

Alarm was raised at an inland dive site by a diver at the surface who shouted for help. A rescue team was assembled within seconds and a boat was sent out to assist. Two divers were at the surface, one was panicking and being helped by his buddy. The troubled diver was taken by boat to the shore, placed onto a stretcher and given oxygen. He explained that he panicked at 14m, surfaced, vomited and swallowed some water. As his breathing was abnormal he was taken to hospital. No symptoms of DCI emerged.

July 2011 11/207

Brixham Coastguard tasked Berry Head CRT, rescue helicopter from RMB Chivenor R-169 and a land ambulance attended Brixham harbour to meet dive vessel with a female diver with a possible dive related injury. The casualty was airlifted to

Roborough airport for onward transportation to DDRC Plymouth. The casualty suffered back pain on vessel. Previous history of back problems and unlikely to be DCI. (Coastguard report).

July 2011 11/133

A student was taking part in a second try dive in a swimming pool, having completed a similar session the previous week. Approximately 25 min into the session, following a controlled ascent from 3m to a depth of 2m, the student became distressed and attempted to bolt for the surface. Her ascent was controlled by her instructor who then provided positive buoyancy immediately on surfacing. The student appeared to faint and become semiconscious; the alarm was raised. Two lifeguards de-kitted the student and recovered her onto the poolside. The student had regained consciousness and complained of nausea, dizziness, headache and ear pain and was given oxygen. All other divers were asked to leave the water and the swimming pool staff were informed of the situation. After approximately 30 min the student reported some improvement of symptoms although some dizziness, the headache and ear pain remained. A neuro exam was conducted and no other abnormalities were found. The student was then able to get changed with assistance and advised to seek medical advice. The student visited her GP the following day and was diagnosed with middle ear problems and a slightly perforated eardrum.

July 2011 11/397

While practicing a controlled emergency swimming ascent drill in the pool, a trainee signalled a problem and wanted to ascend. At the surface he informed the instructor that he was experiencing chest pains. He exited the water and was made to sit down. As the symptoms still persisted 40 min later, an ambulance was called. Paramedics stated there was no sign of a heart attack but took him to hospital where he underwent tests before being discharged.

July 2011 11/309

Forth Coastguard was contacted by a dive support vessel reporting a diver onboard with difficulty breathing. The vessel was just outside St Abbs, they returned to harbour where they were met by ambulance and first aider from St Abbs lifeboat. The casualty was released having recovered sufficiently. (Coastguard report).

July 2011 11/155

A diver surfaced from a wreck dive with breathing difficulties and was recovered by his charter boat. A call was made to the Coastguard and overheard by other boats at the same site. An Ocean diver, who was not diving due to the depth of the wreck, on one of the RHIBs, and who was a nurse offered assistance and transferred to the charter boat. She found a diver lying down looking extremely grey, in severe respiratory distress and unable to complete a sentence. The diver was not on oxygen. The nurse sat the diver up and administered oxygen and within minutes the diver's breathing and colour improved. By the time a helicopter arrived to transfer the diver to hospital he was able to talk in full sentences. The diver explained that he had completed his decompression stops but found he was unable to stop coughing. He felt that he had to surface as the coughing was getting worse and he missed completing a safety stop. The diver had had a heart operation to fit a stent two months prior to the incident. The diver had also been diving the previous day and had felt a bit unwell and out of breath. When asked, the skipper of the charter boat said that he had not administered oxygen because the diver was coughing up blood and the skipper had been told that oxygen makes internal bleeding worse. The nurse advised the skipper that oxygen must be administered to any unwell diver and that it would not make internal bleeding worse.

August 2011 11/164

A diver conducted a dive to a maximum depth of 35m and a total duration of 21 min. At a depth of 20m on the ascent the diver started having coughing fits and these continued on surfacing. There were signs of blood when coughing. The diver was given oxygen and advised to visit hospital to be checked over. She was driven to hospital by her buddy.

August 2011 11/399

At the end of her second dive a trainee was feeling faint at 12m. The instructor ascended with her at a controlled rate. Once out of the water oxygen was administered. The trainee was evacuated by helicopter. It was later discovered that trainee had been on anxiety medication for three days prior to the incident. The doctor's diagnosis was anxiety and dizziness.

August 2011 11/197

During a week long expedition to a remote island a group of divers had experienced a range of adverse symptoms during and after diving. The group had been using a hired portable compressor and had taken care to site the air intake well clear of the engine's exhaust and to bleed the condensate at regular intervals. After returning the compressor a cylinder of gas was retained and sent for analysis. The analysis found very high readings of carbon dioxide and carbon monoxide; well above safe limits.

August 2011 11/187

A diver and her buddy had conducted a number of dives. On the day of the incident the diver conducted a dive to 27m for 41 min including a safety stop of 3 min at 6m. After a surface interval of 5 hr 5 min, the pair conducted a second dive to a maximum depth of 18m. They had been in the water for approximately 18 min when the diver felt out of breath and her legs went cold. Within a short time the diver felt she was out of air but, on checking her pressure gauge, it showed she had 150 bar remaining. She signalled 'out of air' to her buddy and switched to her pony cylinder. Both divers signalled to ascend and the diver deployed a delayed SMB but required help with it, which was not normal; she was breathing rapidly. The pair commenced an ascent but the diver was still finding it hard to breathe and was starting to panic. Her buddy had to maintain a close eye on the diver during the ascent. The divers managed a 1 minute safety stop at 6m before the diver ran out of air in her pony and signalled her buddy who provided his octopus. On taking the octopus it felt the same as the diver's main regulator had. The diver realised she was in trouble as she could not get sufficient air from it and so she swam for the surface. On the surface the diver still could not breathe properly but managed to inflate her BCD before becoming unconscious. Her buddy surfaced with her and assisted her onto the lift of the charter boat. Once recovered onto the charter boat the diver stopped breathing and her buddy provided CPR whilst a 'Mayday' call to the Coastguard was made. After several min of CPR the diver vomited, started breathing again and was placed on oxygen. The diver recovered consciousness briefly whilst being prepared to be lifted into a helicopter and slipped in and out of consciousness whilst being transferred to hospital. The diver was subsequently diagnosed with a pre-existing medical condition which caused an immersion pulmonary oedema.

August 2011 11/324

Falmouth Coastguard was contacted by ambulance control reporting a diver who was on the beach and feeling unwell, the diver was examined by the ambulance crew and released. (Coastguard report).

August 2011 11/326

Solent Coastguard was alerted by a dive vessel to a diver who had been diving to 48m for 40 min on nitrox 26. The diver had been doing physical work. 1.5 hours after the dive the diver began complaining of chest pains, was placed on oxygen, looked pale but no other symptoms, appeared to improve after aspirins had been administered by a first responder. Casualty was transferred to Southampton general hospital for treatment. (Coastguard report).

September 2011 11/145

A diver was preparing to enter the water for a night dive and indicated to the dive manager where they were planning to go. As he turned to indicate the general direction he felt a sharp pain in his left knee and his leg gave way. He fell to the ground, on his back, in full diving kit. The shore cover checked that he hadn't hit his head and helped to remove his diving equipment and hood. The diver lay still for a moment or two to get his breath back and then stood gingerly and made his way back to his chalet around 50m away. He was helped to remove his undersuit, elevate his leg and cold cans were applied to his knee and he was monitored. The following day the diver attended hospital for assessment and was told he had probably torn a cartilage.

September 2011 11/380

Lifeboat launched to help diver with illness. (RNLI report).

September 2011 11/402

As a try dive session in the pool was coming to an end, a diver pushed his arm through the water and dislocated his shoulder. He was taken to hospital by ambulance. He reported a history of dislocated shoulder.

September 2011 11/194

A diver had conducted two training dives the previous day and had some problems with pressure on his ears. At the start of a further training dive the diver descended to a maximum depth of 6m and aborted the dive because of the pain in his ears. The diver subsequently visited his GP and was diagnosed with a damaged right eardrum. The diver has been advised not to dive again until the damage heals.

September 2011 11/151

A diver felt unwell after a training dive to a maximum depth of 15m for a total duration of 25 min. The diver had successfully completed two alternate source ascents at the start of the dive and then gone on an exploratory dive. After the dive the diver reported that he had a headache and nausea and that these had started during the dive at a depth of 15m. The diver was offered oxygen but refused it, had some water but subsequently was unable to drink more. He was continually monitored and vomited a number of times. The diver had previously had bad air and had emptied his cylinder and had it refilled. Eventually contact was made with a recompression chamber which arranged a helicopter transfer to the chamber. The diver was assessed but did not receive recompression treatment. He was kept in hospital overnight for observation for what was believed to be the results of breathing contaminated air and was discharged the next day. The diver still had a headache on discharge and had no appetite or energy although anti-sickness medication and paracetemol improved symptoms for a short while. On returning home the diver did not improve and, two days later, he consulted with his GP who did not believe the symptoms were due to foul air; he referred the diver to hospital for a CT scan. The CT scan confirmed that the diver had suffered a brain haemorrhage and he received treatment for this.

September 2011 11/152

30 min prior to diving a diver had taken a decongestant nasal spray to prevent regular sinus nosebleeds that he suffered from. The diver usually took a proprietary brand but on this occasion only had a supermarket brand available. The diver was well hydrated and rested. Due to difficulty securing the shot there was a significant delay between being fully kitted and entering the water that caused minor discomfort. The diver conducted a dive to a maximum depth of 59m with a bottom time of 30 min and a total dive time of 83 min. The diver was using trimix 18/45 for a bottom gas and carried nitrox 50 and oxygen as decompression gases. The diver conducted a normal ascent using an ascent rate of 9m per min to 48m and 6m per min to the planned gas switch at 21m. At 21m the diver's buddy switched to nitrox 50 first followed by the diver. Within about a minute of breathing nitrox 50 the diver experienced narrowing vision leading to tunnel vision. He also experienced trembling of his fingers, hands and then his arms. The diver felt lightheaded, felt he was about to pass out, felt nauseous and had a metallic taste and sensitive teeth, together with vertigo and dizziness. The diver dropped his nitrox 50 regulator and switched back to his 18/45 bottom mix and then informed his buddy of the problem. The symptoms continued for approximately a further 2 min before subsiding. The diver's buddy held onto him constantly checking for an OK signal. After 5 min of stops at 21m the pair ascended to their next decompression stop at 18m. The diver's symptoms had abated and he switched back to his nitrox 50 decompression gas. There was no recurrence of symptoms and the ascent continued to 6m. At 6m the buddy switched to oxygen decompression gas but the diver opted to switch and conduct his stops at 5m to lower the pO2 breathed. No symptoms were experienced. On returning to the charter boat the nitrox 50 cylinder was analysed and found to contain 50.8% oxygen.

September 2011 11/165

A diver under training had had problems with his ears in a swimming pool where he reached a maximum depth of 4m. Despite this, the diver insisted on continuing with an open water dive and he had further problems with his ears at a maximum depth of 7m. The dive was terminated after 10 min and the diver made a rapid ascent to the surface. The diver complained of a headache and that his sinuses ached a little; he was given oxygen. The diver had commented the night before that he had not quite got over his cold yet.

Boating & Surface Incidents

October 2010 11/348

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

October 2010 11/008

A group of divers consisting of four buddy pairs were shore diving in tidal narrows, without boat cover, to a maximum depth of 10m. The drift was estimated to be 5 knots at the narrowest point slowing further away from the narrow channel. Two pairs completed their dive without any problems and left the water. The remaining four divers were spotted approximately half a mile away in mid channel and drifting in the direction of a larger sea loch. Sea conditions in the open loch were force five southerly wind, although the sheltered area of the planned dive had been calm. The Coastguard was contacted and a helicopter was tasked. The divers on shore travelled by car down either side of the bay and were met by Coastguard and police officers. The missing divers were spotted approximately two and half miles from their planned exit point; they had swum approximately half a mile to the shore from the centre of the bay using their delayed SMBs as flotation devices. The helicopter arrived and the divers were checked over by the medic onboard and, other than exhaustion, were found to be fine.

October 2010 11/349

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

October 2010 11/006

Solent Coastguard received a 'Mayday' call from a boat which had broken down, was taking on water, and drifting away from their divers, some of whom were on the surface, and some still under the water. A 'Mayday' broadcast was made for assistance and the AWLB & ILB from Selsey, Littlehampton ILB, rescue helicopter CG 104 and the CRT from Selsey all proceeded immediately to their assistance. Approximately 40 min after the first report, the divers were picked up by a local boat and transferred to the AWLB, which also took the broken-down boat in tow. (Coastguard & RNLI reports).

October 2010 11/009

Solent Coastguard received a 'Pan Pan' alert call from a dive boat reporting that they had recovered an SMB which had had its line cut, and the divers had not surfaced as expected. Both lifeboats from Littlehampton, rescue helicopter CG-104 and a vessel which responded to the broadcast all proceeded to assist with a search. However, while they were all en route, it was reported by the dive boat that the divers had surfaced safe and well and had been recovered. (Coastguard & RNLI reports).

October 2010 11/012

A dive RHIB with six divers onboard left harbour to dive a wreck 16 miles along the coast. Two pairs of divers were deployed on the wreck and after the first pair were recovered the third buddy pair were dropped on the shotline to the wreck. The middle pair of divers were then recovered having just surfaced. As the coxswain prepared to move the boat back towards the shotline the engine cut out. The engine would restart but would not maintain idling speed and could not be put into gear without stalling. The anchor was deployed to prevent them drifting further from site and a DSC urgency call was made followed by a 'Pan Pan' call on channel 16. A nearby fishing boat responded and stood by for surfacing divers. An inshore lifeboat was launched and arrived on site as the last pair of divers surfaced. The lifeboat recovered them and then took the disabled RHIB under tow. A second inshore lifeboat was also launched and took over the tow, taking the disabled boat back to a harbour nearer to their original launch site. Subsequent examination of the RHIB's engine found that the spark plugs were defective with an increased spark gap resulting in the engine cutting out at low revs.

October 2010 11/226

Brixham Coastguard was contacted by a member of the public in a small RHIB at St Mary's Bay Brixham who reported by mobile phone a missing diver. Diver turned up safe and well just prior to Torbay lifeboat proceeding. Berry Head CRT tasked to meet the vessel to provide advice on carrying appropriate communications. (Coastguard report).

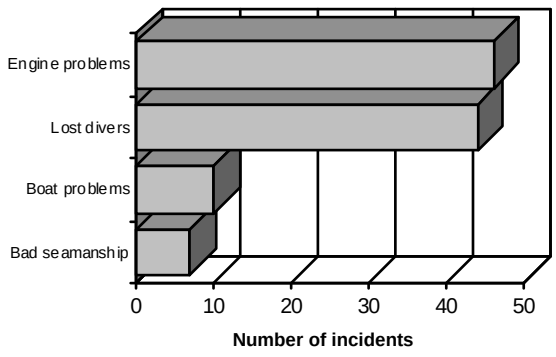
October 2010 11/227

MRCC Brixham made investigations regarding a dive vessel, with no one onboard in Plymouth Sound. The diver surfaced, safe and well and was free diving. False alarm with good intent. (Coastguard report).

October 2010 11/351

Two lifeboats launched to assist stranded or grounded dive boat with engine problems. (RNLI report).

Analysis of boating & surface incidents



November 2010 11/353

Lifeboat assisted in the search for missing diver. Others coped. (RNLI report).

November 2010 11/352

Lifeboat launched to assist dive boat that was out of fuel. Craft brought in. (RNLI report).

November 2010 11/354
Three lifeboats launched to assist dive boat with engine problems. Craft escorted in. (RNLI report).

November 2010 11/355
Lifeboat launched to assist abandoned/adrift dive boat. Others coped. (RNLI report).

December 2010 11/230
Aberdeen Coastguard received a broken call on VHF radio from a fishing boat reporting they had a diver who was overdue. A 'Mayday' broadcast was made immediately requesting assistance from vessels in the area. A fishing vessel responded and Longhope AWLB and rescue helicopter R102 were tasked to proceed and carry out a search. However, before the helicopter and lifeboat arrived, the fishing boat reported that they had found the diver, about 30 min after he was reported missing, safe and well. It seemed that the diver was not carrying a light and the boat was unable to see him when he surfaced as darkness was approaching. (Coastguard & RNLI reports).

December 2010 11/231
Clyde Coastguard received a call on VHF radio from a dive boat reporting that they had two divers who were 45 min overdue. A 'Mayday' broadcast was made to vessels in the area and rescue helicopter R-177 and St Girvan AWLB & CRT were tasked. However, before they were able to proceed to the scene, the boat reported that he had received a call from the missing divers who were ashore safe and well. The divers had become separated and were able to make their own way ashore where they were seen by a member of the public who helped them to inform their dive boat. (Coastguard & RNLI reports).

February 2011 11/026
A lifeboat was called out to assist four divers in difficulty. The divers had been diving a wreck and were unable to restart their boat. The lifeboat towed the boat back to the launch site. (RNLI & media reports).

March 2011 11/236
Milford Haven Coastguard was alerted to a diving RHIB that had broken down with two divers in the water and two crew aboard, Little Haven lifeboat was tasked by Milford Coastguard, who recovered the remaining divers and towed the vessel back to St Brides, the vessel was met by Broadhaven Coastguard team. (Coastguard & RNLI reports).

March 2011 11/029
A pair of divers entered the water from an RHIB to conduct a drift dive for a maximum planned duration of 40 min. The plan was to drift without markers unless the current became stronger than anticipated, at which point a delayed SMB was to be deployed. After 29 min the divers deployed a delayed SMB and surfaced with a total dive time of 36 min having reached a maximum depth of 17m. The RHIB was some distance away and did not spot the surfaced divers. The divers initially tried swimming up tide and towards shore to stay within range of the boat but it soon became evident that this was a waste of energy and so they relaxed and awaited recovery. After the planned maximum dive time had elapsed the RHIB began a search based on the GPS location of the start point of the dive and then notified the Coastguard who tasked two lifeboats and a helicopter. The divers had been spotted from the shore by a team from the National Coastwatch Institute who notified one of the lifeboats, which in turn led the diver's RHIB to them and the divers were recovered safely with no ill effects.

March 2011 11/356
Lifeboat launched to assist dive boat that was out of fuel. Craft brought in. (RNLI report).

March 2011 11/357
Lifeboat launched to assist dive boat with engine problems. Craft escorted in. (RNLI report).

March 2011 11/237
Clyde Coastguard was alerted to a party of shore divers in difficulties some 10m from the shore, all the divers were accounted for except one, Clyde Coastguard tasked two Coastguard rescue teams and an ambulance, the ambulance service sent an air ambulance to the scene, the diver was located and returned to shore, was put into a medical link call with Aberdeen Royal Infirmary and administered 60% oxygen. The diver was taken to hospital by land ambulance; the helicopter was stood down. (Coastguard report).

April 2011 11/238
Stornoway Coastguard was alerted by a dive vessel reporting that they had an overdue diver; Stornoway MRCC tasked CG rescue helicopter R100 to assist in the search for the diver. The diver was located and returned to the dive support craft. (Coastguard & RNLI reports).

April 2011 11/041
A club RHIB was launched following a winter lay off. The engine started first time and after allowing it to warm up for 5 min, the RHIB was driven out into an estuary to check its operation before berthing in a marina for the season. After a number of changes of direction the engine started to lose power and the boat was motored out of the main shipping channel. Once out of the main channel the engine stalled and would not restart. The RHIB was anchored and checks on the engine made but it could not be restarted. A call was made to the Coastguard and an inshore lifeboat was launched to assist. The lifeboat towed the stricken vessel back to the marina. Subsequent checks revealed water in the oil tank and emulsified oil in the pipe work, this was believed to have been caused by water entering the system when the boat filled with water when stored outside during the winter.

April 2011 11/241
Belfast Coastguard was alerted by a dive support vessel that had broken down with two divers in the water, Belfast tasked Red Bay lifeboat to assist recover the divers and return the vessel to harbour, where they were met by Ballycastle CRT. (Coastguard & RNLI reports).

April 2011 11/358
Lifeboat launched to assist dive boat with engine problems. Craft escorted in. (RNLI report).

April 2011 11/247
Stornoway Coastguard received a 999 call from a member of the public reporting her son overdue from a dive in East Loch Roag. Coastguard helicopter rescue 100 tasked along with Breasclete Coastguard rescue team to carry out search of Breasclete Bay area. Casualty surfaced safe and well and was recovered by his dive boat. (Coastguard report).

April 2011 11/059

Whilst travelling to a dive site an RHIB was hit on the side by a freak wave causing the boat to skid sideways. One of the divers was thrown overboard. Man overboard procedures were followed and the diver was recovered slightly shocked but otherwise unharmed.

April 2011 11/061

On route to an offshore reef an RHIB struck an underwater rock causing damage to the propeller and the skeg of the engine. The engine was damaged and unusable and the emergency engine would not start. The RHIB was drifting and heading towards rocks. The Coastguard was called and a lifeboat launched and towed the disabled RHIB back to port.

April 2011 11/248

Stornoway Coastguard received a 999 call reporting a diver overdue, Stornoway Coastguard tasked Coastguard rescue helicopter R100 and Breseclete CRT to assist in the search, all units were stood down when the diver surfaced and was recovered by the parent dive vessel. FAGI (Coastguard report).

April 2011 11/360

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

May 2011 11/252

Milford Haven Coastguard was alerted by NCI Wooltack of two divers waving for assistance off Skomer Island, the parent vessel had not seen them, Milford Haven Coastguard broadcast a 'Pan Pan' alert and tasked RAF rescue helicopter R169 Little Haven lifeboat to assist in recovering the two divers, the parent vessel heard the 'Pan Pan' alert and responded by picking up their two divers, Dale CRT met the vessel when it arrived back in port to give safety advice. (Coastguard & RNLI reports).

May 2011 11/256

Thames Coastguard was alerted to a broken down dive support vessel with two persons onboard, the vessel was towed into harbour by another vessel; the tow was monitored by Thames Coastguard. (Coastguard report).

May 2011 11/259

Portland Coastguard tasked Coastguard helicopter R-106 & RNLI Swanage all weather and inshore lifeboats were tasked to a report of a missing diver off Anvil Point near Swanage. The search units were soon stood down when the dive boat reported that the missing diver had been located on the surface safe and well. The divers had become separated and when one diver returned to the surface alone concern was raised for the whereabouts of the other diver. (Coastguard & RNLI reports). (This is not a duplicate of 11/266).

May 2011 11/260

Brixham Coastguard was contacted by a diving RHIB with five pob, reporting they had broken down, Plymouth lifeboat were tasked by Brixham Coastguard who towed the vessel back to Mountbatten. (Coastguard & RNLI reports).

May 2011 11/069

Two divers were conducting a dive at an offshore site using an SMB. One diver had the SMB whilst the other was filming. The boat skipper lost sight of the SMB and assumed the divers had drifted to the far side of a large rock so he start the boat engine and went to have a look. The skipper had not realised that the SMB was directly alongside the side of the RHIB and, as he made way, the boat snagged the line and the diver was dragged at speed first in one direction and then another. The diver released the full length of line on the reel and then released the reel completely. The second diver, realising something was wrong, followed at a slower pace and eventually caught up with his buddy. A delayed SMB was deployed and both divers surfaced safely without further incident.

May 2011 11/262

Brixham Coastguard was alerted by a broken down RHIB with nine pob, Torbay lifeboat towed the vessel into harbour, the vessel was met by Berry Head CRT who gave safety advice, the RHIB's fuel gauge showed 3/4 full when it was in fact empty, also they had problems with their radio as it would transmit but not receive. (Coastguard & RNLI reports).

May 2011 11/361

Lifeboat launched to assist dive boat with fouled propeller. (RNLI report).

May 2011 11/266

Diver overdue or missing. Portland Coastguard tasked Coastguard helicopter R-106 & RNLI Swanage all weather and inshore lifeboats were tasked to a report of a missing diver off Anvil Point near Swanage. The SRUs were soon stood down when the dive boat reported that the missing diver had been located on the surface safe and well. The divers had become separated and when one diver returned to the surface alone concern was raised for the location of the other diver. (Coastguard report). (This is not a duplicate of 11/259).

May 2011 11/362

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

May 2011 11/267

Solent Coastguard tasked Coastguard helicopter R104 and Selsey CRT to proceed to Selsey LB pier following a report of one of three divers apparently in difficulties following a shallow dive just off the beach to the east of the pier. All three divers managed to get ashore without assistance and, once it was established by the Coastguard that no medical assistance was required, the units were stood down and returned to base. (Coastguard report).

May 2011 11/269

Milford Haven Coastguard was alerted to three divers overdue or missing. Two vessels collected the three divers drifting outside St Ann's head. The divers were returned to their parent dive vessel safe and well. (Coastguard report).

June 2011 11/271

Forth Coastguard received a call from the RNLI at St Abbs to advise immediate launch for two divers shouting for help approx 50 yards of shore. St Abbs RNLI lifeboat arrived on scene but the casualties had recovered themselves onto a rock and refused assistance. All units stood down. (Coastguard & RNLI reports).

June 2011 11/273

Milford Haven Coastguard was alerted by a dive support vessel of a missing diver, Milford CG tasked Angle lifeboat & ILB, a police RHIB and the water ranger RHIB to assist in the search for the missing diver, the diver surfaced and was picked up by

his parent vessel, the two divers had become separated on the dive, the first surfaced the second continued on the dive until the planned duration (unsafe practice) and then surfaced. (Coastguard & RNLI reports).

June 2011 11/114

The branch RHIB had developed a fault and would not start. At the same time it was discovered that two stroke oil had leaked out of the top of the filler cap on to the deck of the boat, due to the engine being left tilted up. A team of four branch members were dispatched to fix the problem and clean the boat. Whilst one of the team was away getting some cleaning fluid another of the group, in an effort to speed up the process, helped themselves to some liquid soap from the public toilet block nearby. This soap was put in a disposable coffee cup and placed in the boat. Another of the team working in the boat was drinking coffee and he put his cup down. On picking up the cup to drink he picked up and drank from the wrong cup, taking a big gulp of liquid soap.

June 2011 11/363

Lifeboat launched to assist dive boat that was out of fuel. (RNLI report).

June 2011 11/276

Solent Coastguard received a call from a dive boat reporting they had divers in water but believed that one may be missing; the diver may or may not be underwater without a marker buoy. The dive support vessel reported having nine divers back onboard and two further alongside. One diver was seen below the surface with bubbles. The dive boat reported to Solent Coastguard they had recovered the diver safe and well, the diver completed decompression stops, his delayed SMB did not deploy. (Coastguard report).

June 2011 11/364

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

June 2011 11/279

Brixham Coastguard received a 999 call reporting a missing diver, the diver was picked up by a passing yacht and transferred to Salcombe lifeboat which returned the diver to his parent vessel (solo diving). (Coastguard & RNLI reports).

June 2011 11/282

Milford Haven Coastguard received a call from a diving RHIB that they were broken down with six pob, Milford Haven Coastguard tasked St David's lifeboat to assist the stricken craft towing them to Clais harbour, the vessel was apparently out of fuel although they had put 70 lt in that morning. St David's CRT kept a visual watch on the vessel until it was safe in harbour. (Coastguard & RNLI reports).

June 2011 11/101

A pair of divers were swimming out on the surface to a buoy marking a wreck. The divers lost sight of the buoy and aborted the dive but then got caught by the tide and the Coastguard was called. An RNLI lifeboat was launched to search for the divers but they managed to make their way back to shore. As they reached a point of safety the Coastguard was notified and they were met by a Coastguard unit. Whilst assisting the pair of divers from the water, another diver in the group was hit by a breaker; he stumbled and hit his head on the cylinder of one of the divers, suffering a cut to his head (Incident No. 11/087).

June 2011 11/096

An RHIB suffered engine failure with eight divers onboard. A lifeboat was launched and towed the vessel back to the beach. (Media report).

June 2011 11/284

Humber Coastguard tasked Seahouses lifeboats and Coastguard team to a report of a diver in difficulties at the north end of Beadnell bay. The diver managed to swim to shore safely after calling for help and the alarm being raised by his friend on the shore. He was met by the Coastguard team but did not need any further assistance. (Coastguard & RNLI reports).

June 2011 11/365

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

June 2011 11/202

A 7m dive RHIB with six persons onboard returning from a dive trip offshore broke down and called the Coastguard for assistance. A lifeboat was launched and took the RHIB under tow back to harbour. (RNLI & media reports).

June 2011 11/287

Forth Coastguard received a call from St Abbs lifeboat reporting a diver in difficulty behind the harbour rocks and that the ILB was self launching. The female diver was recovered safe and well, but distressed and landed ashore where she received a warm beverage to help her recover. Eyemouth CRT tasked and gained details. (Coastguard & RNLI reports).

June 2011 11/367

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

June 2011 11/366

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

June 2011 11/203

Portland Coastguard received a call from a dive support vessel that a diver, who had been diving for scallops on the Lulworth Banks, had failed to surface with his buddy when approximately 3 nm southwest of Lulworth Cove. The vessel had already conducted an initial search but not located the diver who was wearing a black drysuit. Portland Coastguard declared the incident to be a 'Mayday' situation. Coastguard helicopter rescue 106 was immediately scrambled. Weymouth RNLI lifeboat and inshore lifeboat were launched, Lulworth Coastguard rescue officers were tasked to proceed. A 'Mayday' relay broadcast was made and a number of vessels responded and joined the search including the Dorset police RHIB. An extensive search ensued. The survey vessel Discovery, which was taking part in the search, reported seeing a person dressed in black on the shoreline in Mupe Bay, to the east of Lulworth Cove. Lulworth Coastguard rescue officers were immediately tasked to proceed from their current viewpoint to Mupe to investigate. Within a few minutes they were able to report that they had located the person who confirmed that he was the missing diver and that he was safe and well. Rescue 106 was diverted to the location of the diver and confirmed that all was well. Weymouth RNLI inshore lifeboat was tasked to recover the diver's gear. It later transpired that the diver had been overcome by waves during the dive and had quickly been taken away by the tide. (Coastguard & RNLI reports).

June 2011 11/290

Milford Haven Coastguard received a 999 call from a dive support vessel reporting that they had heard a whistle from a shore diver who was being swept away, the dive boat went to the assistance of the diver, Milford Haven Coastguard tasked Little Haven lifeboat to assist. The RHIB recovered the diver who reported he was diving with his wife who had a marker buoy, the dive boat investigated the sighting of a marker (SMB) they put a diver down to find the buddy diver still finning along, they indicated she should surface, on surfacing the diver reported that she was completing the dive plan and time whilst looking for her dive partner (husband), safety advice was given by the crew and Dale Coastguards. (Matrimonial harmony was maintained). (Coastguard report).

June 2011 11/102

A group of divers had returned to harbour after a dive and were unloading when another boat approached requesting assistance. A person was in the water alongside being held and towed towards the quay. The individual had fallen into the water whilst trying to board his yacht from a tender and had been assisted by the other boat. One of the divers lowered the dive boat stern lift and assisted the member of the public from the water. The individual was in ordinary clothes and not wearing a lifejacket.

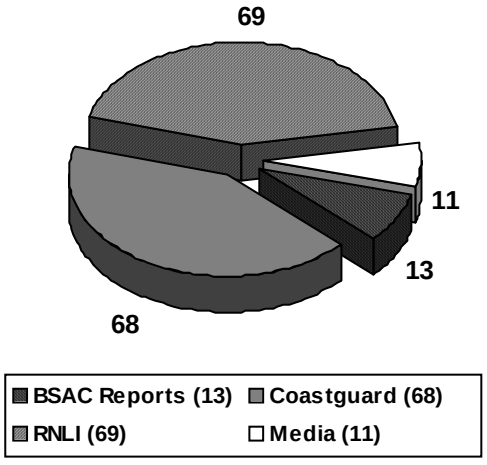
June 2011 11/291

Portland Coastguard was informed by a dive support vessel that two divers had been recovered off Brandy Bay, they had been considered missing, their parent vessel took them back to shore, no medical attention was required. (Coastguard report).

June 2011 11/293

Concern was expressed by family member of two missing shore divers at Cawsand. The divers turned up safe, safety advice passed as they were late exiting the water, and to notify Coastguard before diving in future. (Coastguard report).

Boating & surface incident report source analysis



July 2011 11/369

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

July 2011 11/126

A pair of divers planned to dive together and agreed that if they became separated during the dive they would do a quick search for each other for a maximum of 10 min and then surface. After deploying a shotline onto a wreck there was some evidence of a current on the surface but it was considered acceptable. The pair entered the water some distance from the shot to allow for the current. The lead diver signalled to descend and both commenced their descent. The second diver was able to follow the lead diver's fins until he had to pause around 8m to clear his ears. He then could still see bubbles and followed these until he lost sight of them around 18m but continued his descent to bottom at a depth of 32m. The diver could see no sign of his buddy or the wreck and so deployed his delayed SMB and began searching for his buddy and noted "not much to see". After 13 min dive time he decided that another 5 min would "be a qualifying dive". The diver surfaced after a total dive time of 26 min. The diver could see his cover boat but they did not notice him or respond to his signals of waving his delayed SMB, shouting and blowing his whistle. The diver then saw the boat depart from the site and presumed they were searching for him but in the wrong direction. The lead diver had reached the bottom and had to swim against the current to reach the shotline which was snagged in part of the wreck. He could not see his buddy and so waited for 3 min and then decided to follow the plan and search for him for 5 to 10 min down-tide of the shot which took him past the bow of the wreck. He could not see any bubbles and so deployed his delayed SMB and surfaced after conducting a safety stop and returned to the boat. On regaining the boat the lead diver became increasingly concerned for his buddy as delayed SMBs from others in the group appeared but the missing buddy did not surface under any of them. Once all other divers in the group had been accounted for a search was initiated, first half a mile downstream of the shotline, then 1 mile upstream and finally 2 miles downstream. At this point it was decided to raise the alarm and the Coastguard was called. The Coastguard tasked a lifeboat and helicopter, both of which arrived on site within 10 min together with a number of fishing boats which had also responded to the distress call for a missing diver. The diver was located by his own boat and recovered.

July 2011 11/370

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

July 2011 11/371

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

July 2011 11/298

MRCC Falmouth received a VHF call from a sport diving organisation reporting a missing diver. The diver was from a visiting dive school. The diver returned to the beach whilst information was still being gathered. (Coastguard report).

July 2011 11/299

Brixham Coastguard was alerted by a dive support vessel having broken down with fifteen pob (charter); Brixham Coastguard tasked Teignmouth lifeboat to assist, the lifeboat towed the stricken vessel back to Teignmouth. (Coastguard & RNLI reports).

July 2011 11/167

Following an uneventful dive, a pair of divers deployed a delayed SMB which surfaced close to the original shot buoy. The divers had planned for around 20 min of decompression stops. The divers' cover RHIB maintained the shotline and delayed SMB in view for a period of time. The wind and swell began to pick up and the boat coxswain repositioned the RHIB to avoid the glare of the sun. On completion of the manoeuvre the cox had lost sight of the delayed SMB. The cox conducted an increasing circular search around the buoy for 20 min but could not relocate the divers. The cox called the Coastguard and a lifeboat and helicopter were tasked to the scene. The helicopter used the boat as a reference for a search and located the divers after around 20 min searching and directed the RHIB to their location. The divers were recovered safe and well after being on the surface for approximately an hour. The lifeboat attended and confirmed there was no medical assistance required.

July 2011 11/372

Lifeboat assisted stranded diver. (RNLI report).

July 2011 11/303

Liverpool Coastguard received a report from RNLI in Port Erin that two divers were possibly in difficulties, they were waving for assistance in the sound, the lifeboat was preparing to launch when a report came in that they had been recovered. (Coastguard report).

July 2011 11/304

Portland Coastguard received a report from a concerned skipper of a yacht which narrowly missed a person who surfaced close to his vessel whilst he was transiting the race off Portland Bill. The person, who was believed to be spear fishing, was not using a surface marker buoy and the inflatable RHIB in attendance appeared to have temporarily lost sight of him, the spear fisherman was recovered by the parent vessel. (Coastguard report).

July 2011 11/305

Milford Haven Coastguard received a call from a broken down dive support vessel with five pob, Milford Haven Coastguard put out a call on VHF channel 16 requesting assistance for the stricken craft, a local diving vessel towed the stricken craft back to harbour where it was met by Dale Coastguard who took details. (Coastguard report).

July 2011 11/373

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

July 2011 11/128

A pair of divers on a drift dive snagged their SMB on a pot marker and so cut the line and deployed a delayed SMB. Their delayed SMB was seen by their cover boat but the boat was then distracted by two sailing yachts that went between SMBs of the group of divers. The divers ended up half a mile away from the main group and were spotted by a Coastwatch station who reported their position to the Coastguard. Investigations identified the missing divers' boat and the Coastguard directed the charter boat to the location of their divers and they were recovered. (Coastguard report).

July 2011 11/306

Stornoway Coastguard received a call from a dive boat that two divers were experiencing difficulties getting onto the Ascrib Islands, Isle of Skye. Divers managed to clamber onto islands and walk to a location more accessible for the dive boat to pick them up. A communications schedule was maintained throughout, no medical assistance was required. (Coastguard report).

July 2011 11/307

Dover Coastguard was made aware of two divers possibly drift diving, one had left the other one and swum into shore leaving the other one in the water. The second diver was recovered by the Walmer lifeboat. (Coastguard & RNLI reports).

July 2011 11/312

Forth Coastguard received a call from a dive boat reporting that they were anchored on the wreck Salvestria and had problems with their kill cord and were unable to start their engine. A dive boat in close proximity overheard their call and proceeded. They then towed the casualty to Burntisland harbour. (Coastguard report).

July 2011 11/374

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

August 2011 11/313

Humber Coastguard was alerted to two divers in difficulty being washed onto rocks at the Heugh. Lifeboat and CRT attended. Divers recovered themselves ashore and were taken to hospital by ambulance for check-up. (Coastguard & RNLI reports).

August 2011 11/314

Holyhead Coastguard received a 'Pan Pan' alert from a dive vessel reporting having broken down suffering from engine failure, no divers in the water. VHF call from another vessel offering assistance was accepted and the broken down vessel was towed to shore. (Coastguard report).

August 2011 11/315

Solent Coastguard was alerted by a dive support vessel reporting they had hit a barrel below surface, it was described as a 25 lt drum and was floating free, it had become jammed under the hull between hull and the prop which stalled the engine, this was cleared and the vessel continued underway, the crew took the barrel onboard and continued on their dive. (Coastguard report).

August 2011 11/136

A dive RHIB made a VHF call to the Coastguard to report that the boat was sinking with two divers and two crew onboard. The RHIB had a rope around their prop and had turned stern to sea. They were shipping water over the transom and this was between ankle and knee deep. The water had shorted the power and so communications were via a hand held VHF set and communications were poor. The divers had apparently been about to enter the water and it was believed the rope was the shotline. Two lifeboats were tasked and the RHIB was recovered and towed into harbour. (Coastguard report).

August 2011 11/316

Clyde Coastguard was alerted by a yacht who had recovered two divers, they were diving from an RHIB which was empty and reported that two other divers from the RHIB were missing, Clyde Coastguard immediately put out a 'Mayday' broadcast for the missing divers, at the same time tasked Arran lifeboat and rescue helicopter R-177 to search for the missing divers. The

divers were located and picked up by the lifeboat, they were taken ashore and checked over, two of the divers were admitted to hospital suffering from hypothermia. (Coastguard & RNLI reports).

August 2011 11/375
Lifeboat launched to assist dive boat with engine problems. (RNLI report).

August 2011 11/317
Brixham Coastguard tasked Berryhead CRT and harbour patrol Oscar 4 to search for a two overdue divers reported in the Shoalstone area of Brixham. The divers surfaced close to the shore as the Torbay inshore lifeboat arrived on scene. (Coastguard & RNLI reports).

August 2011 11/210
A dive boat suffered engine failure whilst it had divers down on a wreck. The Coastguard was called, a lifeboat was launched and was on site before the divers surfaced. The lifeboat located the divers' SMB and when the divers surfaced they were recovered onto the lifeboat. The lifeboat then towed the boat back to harbour. (RNLI & media reports).

August 2011 11/153
An RHIB deployed a pair of divers down a shotline and then the cox turned the engine off to conserve fuel whilst the divers were down. When the divers surfaced the engine would not restart. The auxiliary engine was started and used to pick up the divers. Due to the distance from port and an adverse tide, a call was made to the Coastguard who tasked an RNLI lifeboat to assist. The lifeboat took the RHIB under tow back to harbour. Subsequent investigation found the engine alternator was not working and the battery had discharged from previous usage. The engine has since been serviced and is working normally.

August 2011 11/323
Yarmouth Coastguard was alerted to a diver reported as overdue off Cley having dived alone to locate the wreck of the Vera. Yarmouth Coastguard tasked Wells lifeboats, however the diver soon returned safe and well from his dive to Cley beach. (Coastguard report).

August 2011 11/376
Lifeboat launched to assist dive boat with engine problems. (RNLI report).

August 2011 11/213
Forth Coastguard received a 999 call reporting three divers in distress just off Fort Point, Eyemouth. Forth MRCC tasked rescue helicopter R131, Eyemouth RNLI lifeboats and Eyemouth Coastguard rescue team. Divers recovered by Eyemouth lifeboat and found only to be fatigued. Divers returned to lifeboat shed and required no medical assistance, all units stood down. (Coastguard & RNLI reports).

August 2011 11/328
Falmouth Coastguard was contacted by a diving vessel reporting having broken down with eight divers in the water, a message was broadcast to request assistance, a M/V towed the vessel to shore, another dive vessel recovered the divers. (Coastguard report).

August 2011 11/214
The Coastguard was notified of a diver struggling to get back to shore at the entrance to a harbour and stranded on rocks. A lifeboat was launched but, due to the swell, was unable to get close in to the rocks. A search and rescue helicopter that was on exercise in the area was on scene within minutes and the diver was winched aboard and flown the short distance back to shore.

August 2011 11/377
Lifeboat launched to search for missing diver. (RNLI report).

August 2011 11/329
Forth Coastguard received a 999 call from a MOP reporting a missing diver from party. Asking the name of the missing diver, they were able to confirm that she had been picked up by a local dive boat and was safe and well and would be returned to shore soon. (Coastguard report).

August 2011 11/330
Solent Coastguard tasked Littlehampton lifeboat to tow a 6m dive RHIB to harbour that had broken down; the vessel was met by Littlehampton CRT who gathered details. (Coastguard & RNLI reports).

August 2011 11/378
Lifeboat launched to search for missing diver. Others assisted the casualty. (RNLI report).

August 2011 11/332
Shetland Coastguard was alerted to two missing divers, Coastguard rescue helicopter R-102 was immediately scrambled to search for the divers, the dive support vessel called back to say they had found the divers onboard, all units stood down. (Coastguard report).

September 2011 11/379
Lifeboat launched to assist lost diver, others coped. (RNLI report).

September 2011 11/335
Brixham Coastguard tasked Fowey and Falmouth RNLI lifeboats, rescue helicopter 169 from Chivenor and tanker Orateca to search for a missing diver 16.2 miles south east from Dodman Point from the cabin cruiser Sea Breeze. The diver was located by the tanker prior to other units arriving on scene. (Coastguard report).

September 2011 11/338
Clyde Coastguard was alerted to an overdue diver at Argyle caravan park slip, the diver surfaced and made his way ashore before any units arrived on scene. (Coastguard report).

September 2011 11/381
Lifeboat launched to locate missing diver. (RNLI report).

September 2011 11/340
Council patrol boat Oscar 4 towed a dive boat into Brixham Harbour after their engine failed 1 mile from Brixham. (Coastguard report).

September 2011 11/218
Dover Coastguard was alerted by a member of a dive party who was concerned for a missing diver 100 yards off the sub aqua club at Pevensey Bay. The dive started at 1730 UTC and the

diver did not return to surface with the rest of the divers at 1800 UTC. Eastbourne ALB/ILB and CRT were tasked to the area. A call from the dive club stated that the diver was found safe and well, all units were stood down. (Coastguard & RNLI reports).

September 2011 11/344

Belfast Coastguard received a call reporting a diver missing off Ringhaddy, Strangford Lough. Portaferry lifeboat was tasked to look for the missing diver. During the initial call and information gathering the diver resurfaced, medical assistance was refused. All units stood down. SAR operations terminated. (Coastguard report).

September 2011 11/343

Forth Coastguard received a call from the skipper of the dive boat reporting a missing diver who had been in the water for over an hour and had not surfaced. Forth Coastguard diverted Eyemouth lifeboat from exercises to carry out a search. Before the lifeboat arrived on scene the missing diver was located safe and well, operations terminated. (Coastguard & RNLI reports).

September 2011 11/345

Yarmouth Coastguard was alerted to a near miss with a dive party and another commercial vessel, initially the larger commercial vessel turned away then turned directly onto them, the closest point was 2 to 3m from their Dan buoy, the dive boat had a radar reflector 2.5 meters high from the water and was displaying flag alpha, they had to move when the vessel came within 100m. All divers were out of the water at the time; this incident was reported to MCA surveyors. (Coastguard report).

September 2011 11/347

Portland Coastguard was informed that a boat had two drift divers in the water diving for scallops off the Lulworth Banks and had expected them to deploy their delayed SMBs and they had not. The skipper was concerned they may be missing. Portland Coastguard helicopter rescue R-106 was put on stand by but the divers surfaced and were located just before the helicopter was tasked. (Coastguard report).

Ascent Incidents

October 2010 11/010

A diver and his buddy entered the water for a shore dive and descended to a maximum depth of 35m without problems. After 3 to 4 min at this depth one of the divers became aware that he was rising, he dumped air from his suit but found he was continuing to rise; he checked to see if he had lost his weights but they were still in place. The diver signalled to his buddy who was now 4m below him and he started to dump air from his BCD. The diver realised that his BCD was continually filling faster than he could dump the air and he could not disconnect the hose because one hand was permanently pulling the dump valve. The diver ascended to the surface in approximately 20 seconds and made his way back to shore. His buddy surfaced normally. The diver's computer recorded a fast ascent but the diver suffered no ill effects. Inspection of the equipment showed a build up of material on the inflation valve that had held the valve open.

October 2010 11/222

Shetland Coastguard received a call from a dive group ashore reporting that one of their group had made a rapid ascent but was not displaying any signs or symptoms of DCI. She was taken by ambulance to hospital in Houton for assessment. (Coastguard report).

November 2010 11/033

Three divers were on a training dive to a maximum depth of 12m. After completing training drills at the maximum depth, the divers ascended to 6m to complete a safety stop. One of the divers was unable to stay at 6m and continued ascending slowly to the surface despite trying to squeeze all the remaining air from his suit. The two other divers conducted a normal ascent and regrouped on the surface. No ill effects were experienced.

November 2010 11/228

Shetland Coastguard received a call from a dive boat on their way back to harbour requesting assistance for a diver who was unwell following a rapid ascent. The boat was met by an ambulance at the harbour, and the diver was taken to hospital for assessment. (Coastguard report).

November 2010 11/016

A pair of divers conducted a dive to a maximum depth of 20m. During the ascent one of the divers did not dump sufficient air from her suit and made a fast ascent to the surface. The other diver, on realising that her buddy had vanished, turned through 360 degrees and, on looking, up saw her buddy on the surface. The other diver surfaced safely and the pair swam ashore. On reaching the shore the dive manager was informed and the diver who had the fast ascent was placed on oxygen. The Coastguard was contacted and, after consulting with a diving doctor, a helicopter was tasked and airlifted both divers to hospital for assessment. The diver was kept under observation and on oxygen for 6 hours before being discharged.

January 2011 11/025

Three divers made a dive to a maximum depth of 34m. After 23 min one diver experienced a free flow and made a fast ascent to the surface. All three divers exited the water and reported that they were all alright. The diver who had made the fast ascent was checked. Oxygen was not given but the diver was advised to stay on site for 2 hours, to report back after that time and advised not to dive for 24 hours. After 2 hours the diver was still symptom free.

January 2011 11/387

A diver was engaged in a deep dive training course. At 22m, his regulator free flowed. He took time to ascend, ran out of air at 10 to15m and had a rapid ascent to the surface. After the dive, the casualty did not feel any ill effects but was given precautionary oxygen and was not allowed to dive again. No subsequent ill effects were experienced.

February 2011 11/023

A pair of divers were on the second dive of the day to a maximum depth of 15m for a duration of 46 min when their SMB was pulled four times, which was the agreed signal to surface. The divers surfaced to be advised by the boat cover that a large fleet auxiliary vessel was operating in the area and permission to dive in the area had been rescinded. Whilst de-kitting one of the divers dropped his weightbelt. The diver's buddy had removed his own weightbelt and, as they were in only 14m, the diver took his buddy's belt in his hands and dropped down and located his own belt. Due to the silt on the bottom he was unable to land on the bottom and could not refit the belt due to thick gloves and cold fingers. The diver decided to ascend holding on to both weightbelts in his hands but, at around 10m, was unable to hold onto them. The diver dropped both belts and the excess buoyancy in his wing resulted in a fast ascent to the surface. During the ascent the diver dumped air and flared his arms and legs whilst also breathing out. The diver was recovered into the boat but the area was not marked in their haste to move out of the way of the naval vessel. The diver was laid down, oxygen was prepared but not used and the diver was monitored. After the naval vessel had passed the area a search was conducted by other divers but the weightbelts were not located. The extra time on the surface meant that all became colder than normal. No signs or symptoms of DCI occurred.

February 2011 11/234

Clyde Coastguard was alerted by a dive support vessel of a diver aboard who had missed 14 min of stops, Largs lifeboat recovered the diver, which was met by Cumbrae CRT, the casualty was conveyed to Millport chamber for treatment. (Coastguard & RNLI reports).

February 2011 11/078

During a dive to a maximum depth of 20m two divers lost reference during the ascent and made a fast ascent from 15m. One of the divers reported to the on site shop feeling a little sick but otherwise no other symptoms were detected. The diver was given oxygen and, apart from feeling cold after breathing oxygen, no other symptoms appeared. The diver was advised to remain on site for 1 hour and then to self-monitor, to drink water, avoid heavy lifting and to visit A&E if any symptoms presented.

March 2011 11/046

Two divers conducted a dive to a maximum depth of 18m for 23 min bottom time. The senior diver deployed a delayed SMB from a depth of 15m and both divers started to ascend normally up to a depth of 8m where the less experienced diver began struggling to maintain a slow ascent rate. The more experienced diver tried to assist by holding her down but

because both divers had cold hands neither could maintain a positive grip. Around 6m the inexperienced diver made an uncontrolled ascent to the surface without a safety stop. Her buddy made a controlled ascent to the surface and both were recovered to their cover boat. Both were monitored and neither experienced any signs or symptoms of DCI.

March 2011 11/067

A diver entered the water for a wreck dive with an instructor and another diver. On the surface the diver felt his legs were buoyant but he managed to descend to the wreck at an average depth of 18-20m. He reached a maximum depth of 22m when taking a photograph on the seabed. The diver was very aware of his buoyancy but managed to maintain his depth by allowing some constriction through under-inflation of his suit. As he rose to the top of one of the boilers he was unable to control his buoyancy and had to hold on to the wreck. His buddies were below him and he was unable to attract their attention. He let go of the boiler in an effort to regain control and made an ascent direct to the surface; he was unable to conduct a safety stop. His total dive duration was 11 min. During the ascent the diver attempted to bleed air from his wrist cuff in addition to his shoulder dump valve. On recovery into the boat the diver was offered oxygen but did not need it and no abnormal symptoms were experienced. This was the diver's fifth dive in a drysuit having completed a total of 45 dives.

April 2011 11/239

Portland Coastguard was informed of a diver who had made a rapid ascent at the National Diving Centre at Chepstow, Portland Coastguard initially tasked R-106 from Portland to airlift the diver to Poole hyperbaric chamber, the tasking was completed by helimed helicopter taking the casualty to a chamber near Liverpool. (Coastguard report).

April 2011 11/246

Liverpool Coastguard was alerted to a diver who had started a normal ascent from 12m then inverted, and made a rapid ascent from 9m, the only symptoms were blood in mask. The casualty was picked up by Port Erin Isle of Man lifeboat, taken ashore, then taken by an ambulance to a hyperbaric chamber with partner. The cylinder and computer were taken to aid the treatment. (Coastguard report).

April 2011 11/249

Holyhead Coastguard was alerted to a diver who had made a rapid accent, 30 sec from 12m, the cause of the rapid ascent was a jammed dump valve. The diver was asymptomatic. The diver was treated ashore by a paramedic who was administering oxygen to the casualty, The dive doctor at Murrayfield was linked with the paramedic to provided advice, the dive was 12m for 27 min. (Coastguard report).

April 2011 11/068

A diver had lent his equipment to his club for a try dive event and, although it was not used, the BCD direct feed hose had been removed from the regulator for use on another regulator. The diver had a spare hose, which he fitted to his kit before carrying out a dive to a wreck to a maximum depth of 27m. The dive was uneventful until the diver and his buddy started to ascend. The diver put a little too much air in his BCD and because he had injured his thumb the previous day he was unable to operate the dump valve effectively using finger and thumb and so he relied on pulling the hose but this did not release sufficient gas. The diver continued to ascend. He became inverted while trying to pull the kidney dump on the BCD but was unable to locate it. His buddy deployed a delayed SMB and the buoyant diver swam down and tried to hold on to the line. He managed to hold himself at 16m for a short while. The diver then got tangled in the line whilst still trying to locate his dump valve and, with his foot tangled in the delayed SMB line, he made an uncontrolled ascent to the surface where he gave the distress signal to the cover boat. The diver was recovered to the boat. He was monitored over the next 24 hours but showed no symptoms of DCI .

April 2011 11/156

Following an uneventful dive to a maximum depth of 18m an ascent was started after 30 min. One of the divers had agreed to deploy the delayed SMB as she required the practice. She was generally unhappy doing the drill and always asked someone else to deploy the delayed SMB. Whilst trying to inflate the delayed SMB the diver lost control of her buoyancy and began to rise as her regulator became caught. Her buddy managed to pull her back down and cleared the line and the delayed SMB. When the diver deployed the delayed SMB again she lost buoyancy again and became entangled with the line around her twin-set cylinders. She was pulled to the surface, in a fast ascent, without completing any safety stops. Her buddy made a normal ascent including completing safety stops and surfaced to find the diver back onboard the charter boat. The diver was placed on oxygen for 10 min but did not display any symptoms and did not dive the following day as a precaution. Further dives were conducted later in the week without incident.

April 2011 11/062

Two divers conducted a dive at an inland site to a maximum depth of 48m. They followed a line down to their maximum depth and then began making their way back up the quarry wall. After approximately 10 min and at a depth of 42m one of the divers experienced a free flow from the regulator on the left hand cylinder of his independent twin-set. He switched to his right hand cylinder. His buddy turned off his left-hand cylinder and after waiting a short while turned it back on again but the free flow persisted. The buddy attempted this action twice more without success and so he left the cylinder switched off as the contents were now 50 bar and the divers continued their ascent. At approximately 25m the diver's right-hand regulator started to free flow and he signalled his buddy. The buddy provided an alternate source and the divers continued their ascent. The pair were in close proximity and holding onto each other, as a result the diver who was out of gas had difficulty dumping air from his wing and they made a faster than normal ascent from 17m. The pair surfaced and the out of gas diver made his way to the shore whilst his buddy descended and carried out a decompression stop at 9m using nitrox 80. The out of gas diver's computer did not display any missed decompression stops. He was monitored for the rest of the day and no signs of DCI were experienced. The left hand regulator was found to have corrosion and wear causing a high inter-stage pressure; it had not been serviced for 3 years. The right hand regulator had the hose swapped to the opposite side of the second stage and the free flow lever was operated in the opposite direction.

April 2011 11/084

Following a first dive to a maximum depth of 22m for a duration of 19 min and 2 hour surface interval a diver and his buddy had conducted a second dive to a maximum depth of 22m. On returning to a depth of 13m the diver's feet came out of his boots, he lost his fins and made a fast ascent to the surface. The diver was placed on oxygen as a precaution for 10 min but no symptoms were reported.

April 2011 11/118

A diver conducted a dive on a wreck to a maximum depth of 28m for a total dive duration of 24 min. At the end of the dive,

whilst deploying a delayed SMB, the diver felt himself rising and attempted to dump air from his suit, then from his BCD and then both. His buddy's bubbles were beneath him and appeared to be adding to his buoyancy problems and he continued to rise. The diver vented his suit through the neck seal and felt he had the situation under control; he looked up to see the surface approaching slowly and surfaced. The diver was recovered into an RHIB and given oxygen. The diver did not display any signs of DCI but, on returning to shore, a doctor at a local chamber was consulted and the diver advised to attend the chamber for a thorough assessment. After being checked the diver was released and allowed to continue diving the following day.

May 2011 11/079

A group of three divers conducted a dive to a maximum depth of 19m for a dive duration of 37 min. Towards the end of the dive one of the divers had a problem with air migrating to the feet of her drysuit. She attempted to right herself but in doing so one of her fins became half detached and her foot slipped out of her drysuit boot and started slipping inside the leg. She became inverted and had an uncontrolled ascent to the surface. One of the other divers saw her drifting off above her and assumed she was dumping air from her drysuit and would rejoin the pair once she had done so and drew the other diver's attention to this. The third diver assumed there was a problem and deployed his delayed SMB. The charter boat skipper saw the first diver surface feet first and saw the delayed SMB surface about the same time. The skipper recovered the first diver and, once she was onboard and de-kitted, provided her with oxygen. The diver's computer had locked out due to a fast ascent but the diver did not display any symptoms of DCI. The other two divers conducted a normal ascent, surfaced safely and were recovered onto the boat. The boat returned to harbour whilst the first diver remained on oxygen and took regular sips of water. During the return trip apart from vomiting, attributed to seasickness, no other symptoms appeared. On return to port, the diver was transferred by ambulance to hospital and was maintained on oxygen for 6 hours as a precaution after which she was discharged.

May 2011 11/086

A pair of divers conducted a dive on a wreck to a maximum depth of 30m and then slowly worked their way back up the wreck. At a depth of 14m, whilst looking at marine life, the divers lost sight of each other. Both divers made underwater searches for the other for 2 min. One diver then decided to surface and did so without noticing that his computer displayed 1 min of decompression stops required. He was picked up by the RHIB and it was found that his computer had locked out. He was monitored but no symptoms of DCI presented and he did not dive for the rest of the weekend. His buddy surfaced shortly afterwards, with other divers, having competed his required decompression.

May 2011 11/268

Falmouth Coastguard received a 'Pan Pan' call from a dive support vessel, reporting they had two divers aboard who had made a rapid ascent from 10m following a dive to 23m, Falmouth Coastguard tasked RN rescue helicopter R193 to recover both divers and take them to DDRC in Plymouth for treatment, there were no symptoms but the divers were given oxygen and laid down in the boat whilst it made its way to Penzance. (Coastguard report).

June 2011 11/108

A pair of divers had enjoyed a first dive to 12m for 34 min and, after a surface interval of 5hr 19 min, had a second dive to a maximum depth of 24 with a total duration of 30 min. Towards the end of the dive the pair deployed a delayed SMB from a depth of 16m. During the deployment the reel appeared to jam and the diver holding it failed to let go. His buddy noticed this and held onto the diver's legs to try and slow the ascent. Both divers were dragged to the surface. On surfacing both divers were conscious and displayed no symptoms, both were placed on oxygen, as a precaution, for 45 min and monitored. A casualty assessment was carried out on both divers and no adverse symptoms were found. The pair continued to be monitored for the rest of the day and did not dive the next day. Further examination of the reel found that it had not jammed but was so tight that it could not be operated on land let alone under water.

June 2011 11/280

Stornoway Coastguard was alerted to a diver who had made a rapid ascent from 11m whilst on a dive to 28m, the diver was administered oxygen and placed in a connect call with the duty diving doctor at Aberdeen Royal Infirmary. The diver was transferred to Stornoway hospital and placed under observation and administered oxygen, no symptoms had developed. (Coastguard report).

June 2011 11/159

10 min into a dive to a maximum depth of 20m a diver had a fast ascent up to 5m. The diver reported feeling dizzy initially but was subsequently fine. Both the diver and his buddy declined oxygen.

June 2011 11/395

After completing training drills a dive group went for an exploratory swim at a depth of between 7 and 11m. One of the trainees then tugged the instructor's fin for his attention. The trainee signalled that she was cold and didn't want to continue. As the group started their ascent, the trainee spat out her regulator and made to rush to the surface. Her ascent was slowed by the instructor. Once at the surface, she complained of difficulty breathing. She was taken to a first aid room and treated for shock. The emergency services were called and the paramedics took her to the hospital from where she was soon discharged.

June 2011 11/285

Portland Coastguard tasked Coastguard helicopter rescue 106 to a diver at an inland diving quarry who had made a rapid ascent. The helicopter was stood down as they were no longer needed. (Coastguard report).

June 2011 11/286

Belfast Coastguard was alerted by a dive support vessel that they had a diver aboard who had made a rapid ascent from 11m, Belfast CG established a medi link call with the vessel and Craigavon hospital, rescue helicopter R118 airlifted the casualty and with the assistance of Kinnego CRT the aircraft landed the patient at Craigavon hospital for treatment. (Coastguard report).

June 2011 11/292

Humber Coastguard was contacted by a dive support vessel, informing them that they had a diver aboard that had surfaced missing decompression stops, the diver was given fluids and nitrox whilst onboard. A medi-link call was established with the INM, following that advice Humber Coastguard tasked RAF rescue helicopter to airlift the casualty to Hull hyperbaric chamber for treatment. (Coastguard report).

July 2011 11/193

A diver and her buddy conducted a dive to a maximum depth of 30m. The pair made a steady ascent back up a slope to 25m. Her buddy noticed that the diver was slightly above and away from the reef and called her down. Although the diver tried to descend she started to float up and ended up in a fast ascent to the surface after a total dive time of 21 min. On the surface the diver was recovered into the boat, placed on oxygen and neurological tests were performed which indicated she was OK. Once back on shore a diver helpline was contacted and the diver advised to attend A&E for examination. At A&E the diver was seen initially by a nurse who was unsure about diving related injuries and a dive doctor was called for a consultation. The diving doctor concluded that recompression was unnecessary, the diver was discharged and allowed to continue diving the same weekend.

July 2011 11/171

A group of three divers entered the water for a dive to a planned maximum depth of 25m. After 23 min the signal was given to commence an ascent. Shortly after starting the ascent one of the divers lost sight of the others; he turned through 360 degrees but could not find them. The diver was anxious at losing control and was finning quite strenuously to ascend. He added more air to his BCD but added too much and started to ascend too quickly with the alarm on his computer sounding. He started to dump air but then realised that he had run out of air and was still at 14m. He tried to activate the emergency cylinder on his BCD but could not open the valve and so he jettisoned his weightbelt and made an uncontrolled ascent to the surface where he was picked up and returned to shore by a rescue boat. The other divers made a normal ascent to the surface.

July 2011 11/111

During a wreck dive to a maximum depth of 34m for a total duration of 41 min a diver lost his weightbelt which resulted in a partially uncontrolled ascent. The diver managed to regain control during the ascent at a depth of 11m and conducted a normal ascent from that depth to the surface. He did not miss any required decompression stops. Once back onboard the boat, due to a lack of symptoms and the fact he had regained control of the ascent, oxygen was not administered. However, the diver was made to lie flat and given a nitrox 50 decompression gas mix to breathe during the return to shore. The diver did not experience any adverse symptoms and was given advice on what action to take should any problems occur.

July 2011 11/297

Solent Coastguard was alerted by a dive support vessel of two divers having missed stops in the final part of the dive to 33m, missing the last decompression stop. Solent Coastguard linked the vessel with a doctor at the INM; the divers declined the advice to be monitored at the chamber as no symptoms had developed. (Coastguard report).

July 2011 11/127

A diver conducted a dive to a maximum depth of 43m. The diver was using a twin-set, where his normal equipment was a single cylinder. During the descent, the diver was aware that he was under-weighted and he had to pull himself down the shotline until he became neutrally buoyant. After 22 min he deployed his delayed SMB as planned despite being next to the shotline. He made a fast ascent from 20m. Once back onboard the charter boat the diver displayed no symptoms but was airlifted to a recompression chamber because of the rapid ascent. The diver received a precautionary recompression treatment. (Coastguard report).

July 2011 11/181

A diver and his buddy conducted a dive to a maximum depth of 23m. After approximately 32 min, with his computer showing 6 min of no stop dive time remaining, the diver deployed a delayed SMB. During deployment the reel jammed and the diver attempted to clear the entanglement. Shortly afterwards the diver found himself in an uncontrolled ascent. Despite dumping air from his BCD he was carried to the surface. His total dive time was 35 min. The diver was recovered into the RHIB and he advised the cox of what had happened. The diver was laid down and placed on oxygen. The diver's buddy deployed his own delayed SMB and completed a 3 min safety stop at 6m and surfaced after a total dive time of 46 min. After recovering all the divers the RHIB made its way back to harbour. The diver was advised to seek medical advice. He contacted a recompression chamber and was advised that, after the elapsed time with no symptoms, it was unlikely that any symptoms would manifest themselves but he should continue to monitor himself at home.

July 2011 11/172

A pair of divers conducted a wreck dive to a maximum depth of 27m. The dive followed a normal profile until they arrived back at 22m where a delayed SMB was deployed without problem. During the ascent one of the divers appeared to grab the delayed SMB line to help control her ascent. The lead diver indicated that she should let the line run freely through a circle made by her finger and thumb. The diver then ascended quickly to the surface without any safety stops and alerted the cover boat that she felt breathless and she appeared to be panicked. She was recovered into the boat, placed on oxygen and given fluids and the Coastguard alerted. On return to shore she was transported by ambulance to hospital from where she was subsequently discharged and advised not to dive for 48 hours. The diver had been using borrowed equipment including BCD and drysuit.

July 2011 11/308

Portland Coastguard was alerted by a dive support vessel of two divers whose computers were showing incomplete decompression, one of the divers began vomiting, the medical advice obtained from Poole recompression chamber required the divers to be evacuated to the chamber for treatment, Portland Coastguard tasked Coastguard rescue helicopter R106 to airlift the casualty to the HLS where it was met by Poole CRT and an ambulance accompanied by a dive specialist. (Coastguard report).

July 2011 11/310

Solent Coastguard was informed of two divers who had missed 15 min of stops following a dive to 33m, the vessel was placed in a connect call for diving medical advice, the doctor recommended the divers be seen at a recompression facility, the divers declined to be transferred to a chamber. The vessel returned to shore. (Coastguard report).

August 2011 11/400

Coming up a sloping ascent, after diving to a maximum depth of 18m, a trainee struggled to control her buoyancy. As the instructor and a second student tried to correct her buoyancy, all three went into a rapid ascent. Upon surfacing they were monitored for symptoms and advised to report to the recompression chamber.

August 2011 11/142

On the second day of a weekend's diving a diver conducted dives of 25m for 31 min followed, just over 2 hours later, by a dive to a maximum depth of 26m. Towards the end of the dive,

at a depth of 23m, the diver deployed her delayed SMB in mid-water. She was lifted upwards by the delayed SMB about 1 m during deployment. She tried to counteract this by breathing out and dumping air from her BCD. However, the line had become caught and she continued to ascend to 10m at which point she released the reel. The diver was unable to dump sufficient air and continued to ascend directly to the surface. Her buddy followed her up and conducted a 4 minute safety stop at 6m and surfaced normally. Once back on the boat, the diver felt light-
headed. The skipper of the charter boat asked if she had any other symptoms and she reported there were none. After a few min she began to feel nauseous but had been similarly nauseous with seasickness over the weekend. The diver asked the skipper to prepare the oxygen set but wanted to wait and seek advice from other divers once they surfaced and regained the boat. Once back onboard other divers recommended that the diver lay down and breathe oxygen as a precaution. The skipper wanted to call the Coastguard but the diver asked for the DCI helpline to be called first and they advised to remain on oxygen and monitor. The Coastguard was also contacted and arranged for the boat to be met by an ambulance back in harbour. The diver was taken by ambulance to hospital for checks which proved to be normal and she was discharged.

August 2011 11/327

Milford Haven Coastguard tasked Fishguard CRT, Preselli sector manager and Welsh ambulance service to attend an inexperienced diver who ascended too quickly, the instructor was concerned about water inhalation and secondary drowning. The casualty returned to Fishguard on the dive vessel after assessment by the ambulance service paramedic. (Coastguard report).

September 2011 11/333

Hornsea rescue reported they were administering oxygen to a diver from a dive support vessel that had made an uncontrolled ascent from 20m and was now on the beach at Hornsea. The dive boat had independently made contact with the hyperbaric unit at Hull prior to the MRCC being aware there was a problem. An ambulance was requested to transport the casualty to Hull and the Institute of Naval Medicine was consulted. (Coastguard report).

September 2011 11/336

Yarmouth Coastguard tasked Happisburgh lifeboat to evacuate a sport diver from a dive boat, who had suffered a rapid ascent off Happisburgh. He was taken to the decompression chamber of the James Paget hospital by ambulance. (Coastguard & RNLI reports).

September 2011 11/169

The previous day two divers had conducted dives to 35m for 33 min with a 3 min safety stop at 6m and, 3 hours later, to 27m for 48 min with a 3 min safety stop at 6m. The next day the divers descended a shotline to a wreck at a maximum depth of 35m. At the bottom of the shot the pair were disturbed by divers from another group and they separated for approximately one minute. The pair reunited and proceeded as planned towards the bow of the wreck. The less experienced diver seemed apprehensive, was slow to respond to signals and may have been suffering from narcosis. The dive plan had been to experience mandatory decompression and the pair were to commence their ascent once their computers recorded mandatory stops required. The less experienced diver became increasingly anxious and signalled to ascend. The lead diver then deployed his delayed SMB without problem and the pair made a normal ascent to 6m although the inexperienced diver appeared to be holding the line tighter than normal. At 6m the lead diver completed his mandatory 3 min of stops. The less experienced diver still appeared anxious, lost buoyancy control, attempted to dump air but surfaced nevertheless. The lead diver made a normal ascent and, on surfacing, signalled the boat that they had some difficulties. At this point he discovered that the other diver was entangled in the delayed SMB line. Once the boat was alongside and the diver was firmly in contact with it, the lead diver cut the line free. Both divers were recovered and placed on oxygen. The Coastguard was alerted, the boat made for harbour and they were met by an ambulance that transferred both divers to a recompression chamber. At the chamber both divers remained on oxygen for a total of 3 hours 45 min but were not recompressed. No symptoms of DCI appeared and both were advised not to dive again for 24 hours.

September 2011 11/342

Milford Haven Coastguard was informed of a diver upon resurfacing having missed a decompression stop near Pwll Deri. A radio medical advice call was set up. Following the medical advice the vessel returned to port where the casualty was met by Fishguard coast rescue team, the diver was asymptomatic. (Coastguard report).

September 2011 11/166

During a training dive, to a maximum depth of 10m, a student had a problem with her mask clearing and she made a rapid ascent to the surface. Her instructor made a normal ascent. The total dive time was approximately 10 min. Neither diver showed any symptoms and the student was given a cup of tea and a blanket. Both divers declined oxygen.

September 2011 11/404

Three instructors and four trainees dived to 16m. After practicing some skill two instructors and three trainees moved down to 24m leaving one instructor and a trainee behind. One of the three trainees then started to panic. One of the instructors ascended with the panicked diver. At 7m the troubled diver started a rapid ascent. The instructor stopped at 5m for a 3 min safety stop, and then ascended to find the trainee, at the surface, unconscious but breathing. The instructor towed the casualty towards an oncoming rescue boat which took him to the shore. An ambulance took him to hospital.

Technique Incidents

February 2011 11/185

A diver and his buddy conducted a dive to a maximum depth of 20m. Towards the end of the dive the diver removed his main regulator to inflate his delayed SMB, a practice he had done in the past with no issues. The diver inadvertently dropped his regulator and was unable to retrieve it quickly enough. He tried to locate his octopus but was unable to find it and started to panic a little. The diver then reached for his buddy's alternate source. He thought that he had disabled the anti-free flow device but got a mouthful of water having forgotten to purge the regulator. The diver was now panicking and grabbed his buddy's main regulator from his mouth dislodging the buddy's mask in the process. His buddy managed to locate his own pony cylinder regulator and replace his mask whilst starting to ascend. The distressed diver, having managed to get some air, found and replaced his own main regulator. At this point the two divers had separated from each other. The buddy continued his ascent to the surface. The diver made his way back to the planned exit point and surfaced to see his buddy 50m away.

May 2011 11/254

Falmouth Coastguard received several 999 calls reporting two divers waving and shouting for assistance, the divers finned back on the surface to the shore, they were met by Falmouth CRT, the divers had inadvertently knocked the bezel on the compass, when they thought they were close to shore they were in fact going out to sea, safety advice was given. (Coastguard & RNLI reports).

July 2011 11/405

Two divers prepared to conduct a dive to a planned maximum depth of 23m. The first diver had a 15 lt main cylinder and a 3 lt pony cylinder mounted on his right-hand side. The second diver had a similar configuration, but had removed the alternative air source from his main regulator because it had leaked. The second diver's pony cylinder was mounted upside down on his main cylinder and the valve was turned off. They commenced their dive but after 10 min at a depth of 16m the first diver had difficulty getting air. He tried purging his regulator and then spat it out. He then found his pony regulator, which was floating free rather than being clipped on. He tried this regulator but could not get any air from it. Starting to panic he swam to his buddy and grabbed the buddy's pony regulator and the buddy turned it on. The troubled diver had swallowed some seawater. The buddy brought them both safely to the surface where they were recovered into a boat. It was then discovered that the diver had entered the water with his pony regulator in his mouth instead of his main regulator. His pony cylinder was empty and his main cylinder had not been used. The diver was shaken by the event, but suffered no ill effects and he dived again the following day. His main and pony regulators were nearly identical, with both hoses coming over his right shoulder. He hadn't checked his air during the dive. His pony cylinder had a pressure gauge but it had been tucked away behind the diver.

August 2011 11/139

An instructor was conducting a rebreather instructor training course with two other divers when he noticed a lone diver with a single cylinder walking along the bottom of the quarry. Visibility was at least 10m and there was no sign of the lone diver's buddy. The diver was walking on his fin tips with his BCD controls held above his head. The instructor decided to investigate whilst his students deployed delayed SMBs. The instructor gave the lone diver an OK signal and received an enthusiastic nodding and returned OK signal. The diver then tried to ascend but failed to get more than a metre from the bottom before sinking back down. The instructor offered to lift him but he was waved away and the diver made another failed attempt at an ascent. The instructor then gave an 'Up' signal, gripped the diver and injected some air into the diver's BCD, whilst the diver retained a hold on the controls. The pair managed to rise around two thirds of the way to the surface before the diver suddenly dumped all his air and sank rapidly with the instructor in pursuit. The instructor then raised the diver to the surface using a controlled buoyant lift. On the surface the instructor fully inflated the diver's BCD, which barely kept the diver's head above water. When asked how much weight he was carrying he replied 12 to 14 kg. The diver was asked how much experience he had and replied around 30 dives. The instructor indicated that they should swim on the surface to the exit point around 50m away at which point the instructor noticed another diver on the surface 20 to 30m away who turned out to be the diver's buddy. The pair reunited and swam back to the exit point together.

Equipment Incidents

March 2011 11/035

Three divers were conducting a dive to a maximum planned depth of 40m. During the descent one diver experienced a slight free flow at 25m, which he corrected by adjusting the pre-dive setting and purging the regulator slightly. The group continued the descent to 40m. During the ascent at around 30m the regulator again went into free flow and could not be stopped. The diver signalled to his buddies and received an alternate source. His 15 ltr cylinder emptied from 150 bar to zero in approximately 2 min. The group ascended, completing a 1 min deep stop required by one of their computers. At 15m the diver switched to his own 3 ltr pony, they completed a 3 min safety stop at 5m and then surfaced without further incident.

June 2011 11/085

Following a dive to a maximum depth of 18m for a duration of 30 min a diver and his buddy conducted 4 min of stops at 5m. The diver then experienced difficulty inflating his drysuit at a depth of 2m. The diver surfaced with difficulty, attempted inflation but nothing happened and he started hyperventilating. A rescue boat attended the distressed diver, de-kitted him, calmed him down and gave a lift back to shore. No further treatment was necessary.

June 2011 11/090

Three divers descended to a maximum depth of 15m for a training exercise for one of the group, the first exercise being mask clearing. The diver was using a rebreather with a HUD device and wore his mask strap under his hood. The exercise began with the diver sliding back his hood in order to remove his mask. On removing his mask the HUD on the rebreather mouthpiece was moved up so that on refitting the mask it snagged the HUD device and would not reseat. The diver made two further attempts to refit the mask. He was coughing into the rebreather mouthpiece and he held his nose to try and regain his composure. The diver made one further attempt and the instructor attempted to move the HUD out of the way without dislodging the mouthpiece, but without success. The diver could now be heard breathing heavily and coughing through his mouthpiece; he gave a clear signal to surface. The instructor took a firm hold of the diver and conducted a controlled buoyant lift to the surface without further incident. On returning to shore the diver again practised the skill in 1.5 m of water and confirmed the HUD as the cause of the problem and the dive was terminated at that point. No ill effects were reported.

June 2011 11/137

A diver was conducting a dive through an underwater cave system at a depth of 38m when he encountered poor visibility and a strong current against him at the maximum depth. Part way through the cave the diver became breathless and confused. He swam towards the light following other divers' fins and bailed out onto his open circuit gas. The diver used an auto bailout mouthpiece on his rebreather but still found it mentally difficult to co-
ordinate switching gas and felt an overriding sense of doom and despondency. Once outside the cave system the diver ascended to 15m and deployed his delayed SMB. He stopped and flushed his breathing loop but was unable to get his rapid breathing to reduce. The diver surfaced and inflated his suit and BCD and rested on his delayed SMB but still could not get his breath back. The charter boat recovered the diver and other divers and the crew assisted in de-kitting the diver and gave him oxygen. It took a further 10 min to return his breathing back to normal. Subsequent checks indicted that the scrubber unit may have been loosely packed and consensus was that the diver had suffered a CO2 hit.

July 2011 11/113

A pair of divers and their instructor had successfully completed a training dive 2 hours previously. The pair entered the water for a second dive with their instructor and a fourth diver who was looking for additional experience. After practicing mask clearing drills, the pair prepared to practise alternate source ascents. On a prearranged signal one signalled 'Out of Gas' and took his buddy's octopus, removed his own regulator and switched to breathe from the octopus regulator. On removing his own regulator it began to free flow. Despite attempts to halt the free flow it could not be stopped. The instructor offered his own octopus which was on a long hose and an ascent was made to the surface. Shortly before reaching the surface, the free flow stopped and once on the surface it was noted that the contents gauge read empty. There was sufficient gas remaining in the cylinder to allow the diver to inflate his BCD. The group swam to the exit point with the diver still breathing from the instructor's long hose octopus.

July 2011 11/125

On the last dive of a week long twelve dive charter boat trip a pair of divers entered the water and descended to a wreck at 21m. At the bottom of the shotline one of the divers could hear a lot of air escaping from behind his head. He signalled his buddy to check his equipment and he immediately signalled to abort the dive. The diver monitored his pressure gauge and noted that the pressure was falling at a steady but a slow rate. His buddy removed his alternate source and offered it to the diver but the diver signalled that it was OK and he continued to breathe from his own cylinder. The pair swam the short distance back to the shotline and made a slow controlled ascent. Other members in the group passed them on the shotline and signalled to check the diver was OK and received confirmation that the situation was under control. The pair of divers conducted a safety stop of 3 min at 6m as a precaution due to the week long diving and surfaced after a total in water time of 10 min. The diver inflated his BCD, switched to his buddy's alternate source, asked his buddy to turn off his cylinder and the pair were recovered by their charter boat. Once back onboard checks were made and the diver found that his 15 ltr cylinder had reduced from 210 bar to 130 bar in 10 min. Inspection of the cylinder found that the O ring on the on/off wheel had blown out.

August 2011 11/144

A diver was conducting a dive to a maximum depth of 44m using air and carrying two stage cylinders of nitrox 32 and nitrox 50. On returning to the shotline at 40m the diver appeared to run out of air in his twin-set although his pressure gauge read 100 bar. The diver decided to switch to his nitrox 32 but in doing so got a mouthful of water. His buddy had already started up the shotline and was out of reach so the diver decided to switch to his nitrox 50 even though he was well below his MOD for this gas. He decided to omit his planned deep decompression stops and conduct all his required stops at 6m. At 6m the diver was reunited with his buddy and another diver and indicated that he did not have sufficient gas to complete his decompression. The other diver was on a rebreather and had cleared his requirements and so passed over his stage cylinder of nitrox 54. The diver remained at 6m until his computer had

cleared and then surfaced safely. On inspection it was found that his main cylinder valve was turned off and had been the cause of the out of gas incident. The diver suggests that this valve may have been turned off by contact with the shotline. The nitrox 32 cylinder regulator first stage had come loose and had been the cause of water in the second stage.

August 2011 11/147

A diver entered the water from a charter boat for a wreck dive and sank deeper in the water than expected; his mask was flooded and displaced. The diver made for the surface and tried to inflate his wing. The diver's buddy had already descended down the shotline and waited for the diver at the bottom. The diver found that his wing would not stay inflated and he held onto the shotline continuing to inflate his wing. He was unable to realign and clear his mask with the one hand he had free and so removed the mask and held onto it. The diver dropped weights from his front pouches which improved the situation but he still needed to hold onto the shot to keep his head above water. The diver was unable to access the weights that were strapped onto his twin cylinders. The diver began to panic and, having already removed his mask, threw his regulator from his mouth and was seen to be attempting to pull his hood off. Another diver on the charter boat preparing to dive noticed the diver without a mask and asked if he was OK to which he indicated he was not. The second diver entered the water. She found the diver was very heavy in the water but she was able to support him by inflating her own BCD and suit which kept both high in the water. The pair then drifted away from the shotline to allow the boat to pick them up. The diver's buddy eventually surfaced having completed a dive with another pair of divers. Inspection of the diver's wing found that the inflation valve was incorrectly seated and leaked and the wing bladder had two small punctures allowing a slow release of gas. The diver used twin12 ltr cylinders and carried a total of 15 kg of weight.

Miscellaneous Incidents

November 2010 11/385

A trainee was completing the mask clearing skill, at a depth of 6m, when she froze and then started to swim to the surface. The instructor took hold of her BCD and controlled the ascent. At the surface they waited for the rescue boat which picked up the trainee while the instructor went back to bring the rest of the class up to the surface. The casualty screamed all the way to shore, then had her vital signs checked and calmed down. No subsequent ill effects were reported.

April 2011 11/389

A trainee was engaged in a diving course. After descending to 2m she returned to the surface. Upon being asked, she said she was fine but nervous and wanted to descend again. Shortly after, she indicated that she wanted to ascend. After ascending with an instructor, she stated that she did not want to continue. She was escorted to shore and out of water. The next day, she withdrew from the course. Her husband stated she suffered from claustrophobia.

April 2011 11/037

A pair of divers were seen to enter the water for a shore dive but, after a few minutes, did not start the dive but turned round and started to exit the water. Approximately 10m from shore, in waist-deep water, one of the divers fell over and his buddy appeared to be unable to help him to his feet. This was witnessed by a group of divers who were carrying out surface instruction nearby and they went to assist. The diver who had fallen over was found to be having difficulty because his cylinder had slipped out of its cam band. The diver was helped to stand and both divers escorted from the water. The pair of divers were on the first dive of the season and had been advised by a friend that the water was warm so both had opted to dive without hood or gloves and one had decided not to wear an undersuit. On entering the water they discovered that the water was too cold and so decided to abort the dive. On the way out of the water one of them spotted a frog in the other diver's cummerbund and when he pointed it out the other diver was startled and fell over and was unable to stand again because of his cylinder falling out of the cam band. Neither diver suffered any ill effects.

April 2011 11/359

Lifeboat launched to assist diver(s). (RNLI report).

May 2011 11/265

Brixham Coastguard received a 999 call from a concerned member of the public, reporting they could see a diver who may be in difficulties, Brixham CG tasked Salcombe lifeboat to go to the diver and render assistance, the diver got clear of the water unaided and reported they did not require any assistance. (Coastguard & RNLI reports).

May 2011 11/392

Twenty three school children and a number of instructors were in a pool for a try dive session when a window of the pool was shattered due to construction work in the vicinity. The pool was immediately cleared of people and school staff proceeded to clean up the damage. No one was injured.

July 2011 11/296

Clyde Coastguard was made aware of a diver who was overdue. The diver who regularly dived alone was reported by his wife who was concerned, the diver turned up at home safe and well, search and rescue units were stood down before they had time to respond. (Coastguard report).

August 2011 11/220

A fisherman caught a diver by hooking his suit between the diver's legs causing the diver to surface. The diver's buddy surfaced and disconnected the hook. (Media report).

September 2011 11/339

Portland Coastguard was alerted by a fisherman, fishing from the shore, who reported seeing a diver enter the water but had not come out, it was concluded that the diver had left the water and returned to his car, a false alert good intention. (Coastguard report).

Overseas Incidents

Fatalities

November 2010 11/001

On the third day of a diving trip to the Red Sea a pair of divers entered the water with the rest of their group to dive on the SW end of an offshore island. There was a moderate swell on the surface and one of the divers drifted away from the group slightly before being called back. He pulled himself along the mooring line and was repeatedly lifted high in the water as he made his way back to the group but he settled down as he submerged. The group descended with the dive guide to a depth of 25m where the buddy pair exchanged OK signals. The pair then continued with a descent to 35m which they reached around 10 min into the dive. One of the divers noticed that apart from two divers who had stayed on the reef the group had swum into blue water around 30m and were difficult to see. The diver looked around for his buddy but could not see him and assumed he had gone with the larger group and so he joined the pair of divers on the reef and followed them slowly back up the reef towards the surface continuing to look for his buddy. Meanwhile his buddy had ascended rapidly from a depth of 29m and was spotted by the boat crew floating face down on the surface. He was recovered on board but was pronounced dead at the scene. A post mortem conducted in the UK found evidence of lung trauma and drowning but neither were conclusive.

Decompression Illness

August 2011 11/095

Following a dive to 30m for 54 min including a 3 min safety stop at 6m using nitrox 33 and a surface interval of 1 hr 45 min a diver and her buddy conducted a second dive to 29m for 52 min including a 3 min safety stop at 6m using nitrox 34. Approximately 3 min after boarding the boat the diver reported feeling dizzy and was immediately sat down and given oxygen. Within 2 min the diver reported she could not breathe and was laid down, continued on oxygen but on free flow at 25 ltr per min and appeared to lose consciousness. The diver was checked and then placed in the recovery position. A call was made to shore to activate the emergency plan and the boat made its way back to harbour whilst the diver remained on oxygen. The boat was stopped twice briefly whilst checks were made and, although there was some improvement in breathing, the diver remained unconscious. The boat arrived back at shore after approximately 45 min and the diver was transferred to hospital by ambulance, still on oxygen. The diver was transferred to a hyperbaric facility for recompression treatment and then was transferred to an intensive care unit. The diver received extensive treatment in intensive care and subsequently in hospital and was released home some several weeks later. The diver required significant follow-on physiotherapy.

Illness / Injury

October 2010 11/013

A dive boat approached a shotline close to the shore, from upwind, and deployed three divers, from the port side, with the boat in neutral. After deploying the divers the cox put the engines into reverse and gave two short bursts in order to move away from the divers whilst they made for the shotline. One of the divers surfaced behind the boat and one of the other divers shouted an alert that he was behind the boat. The engines were put into neutral and the diver behind the boat tried to swim out of the way but his foot was hit by the still turning propeller. The injured diver and his buddies were recovered and the boat returned to port where the injured diver was taken to a local clinic for treatment. The injured diver received eight stitches for a gash to his foot.

January 2011 11/034

Two divers rolled backwards into the water from a dive boat. Before he had surfaced again, one of the divers was hit on the head by the hull of the boat which had reared up in the swell. The blow to the head removed the diver's mask and demand valve and the mask was lost. The diver asked to be checked by the supervisor on the boat, received a replacement mask and was cleared to dive. No long term effects.

March 2011 11/040

A group of five divers entered the water from an RHIB all at the same time. One of the divers struck his head on the cylinder of one of the other divers causing a cut approximately 2.5 cm long, which bled profusely. The diver was recovered from the water and his dive aborted. A surgeon onboard the boat cleaned the wound and closed it with four resorbable sutures. The diver was advised not to dive for five days and was given anti-inflammatory medication. After five days the wound had healed and the diver completed two dives without further incident.

April 2011 11/047

Following a day's diving from a day boat, the boat returned to the jetty and divers were disembarked. One diver stopped to talk to the dive guide and was hit on the head by an unsecured boat ladder. The diver suffered injury to her head and shoulder but X-rays showed no broken bones. On returning to the UK the diver visited her GP with symptoms of headache, lethargy and inability to think clearly which was diagnosed as a consequence of concussion.

May 2011 11/065

Three divers entered the water for a deep dive on an offshore site. The divers descended to a maximum depth of 38m and then slowly made their way back up the reef, planning to conduct no more than 10 min decompression stops. After approximately 10 min, one of the divers indicated there was a problem and pointed to her head. It was assumed this was narcosis. Their ascent up the reef had already commenced and, at 12 min at a depth of 24m, the diver signalled, with a double OK, that she was now alright. The dive continued but the diver did not seem to be paying attention and started heading away in the opposite direction to the deco station. One of the other divers decided to take control and deployed a delayed SMB and terminated the dive. During the ascent the diver seemed, uncharacteristically, to be focussed solely on her instruments and so her buddy began assisting her ascent to 6m where they had at least 9 min of decompression stops to conduct. The buddy donated his deco stage containing nitrox 40 to the diver but her responses were slow and she dropped her regulator causing it to free flow. The diver was calm but lethargic and her buddy could not keep her attention and he had

difficulty controlling buoyancy for both of them. Whilst struggling to control the stop depth the buddy noticed that the diver appeared to be blacking out and was unable to grip the regulator in her mouth properly. The buddy took her to the surface missing 4 min of decompression stops, whilst the third diver in the group completed his stops and surfaced normally a few min later. On the surface the buddy inflated the diver's BCD, removed her mask and opened her airway. The diver was semiconscious and breathing. The boat was anchored 50m away so the buddy started towing the diver to the boat alerting the crew. The diver was recovered and placed on oxygen. A local police launch was alongside checking dive permits and assisted by calling the shore and arranging for an ambulance. They then transferred the three divers to the launch and returned to port. On shore the ambulance transported the diver to hospital but doctors appeared to have little knowledge of diving injuries and placed her on oxygen for an hour and then she was discharged. Contact was eventually made with a doctor at the local recompression chamber who advised both the diver and her buddy attend for assessment. The diver was found to be complaining of a headache but no other pain, whilst the buddy had some blurred vision and pain in his shoulder, which he believed might be sympathetic symptoms. The diver was kept in for several hours, treated with fluids and kept under observation, whilst the buddy was released. The diver had spent the previous day filling cylinders for several hours from an outside compressor and storage bank, had had very little to drink and had had an early start on the morning of the dive.

June 2011 11/091

Two divers were preparing to enter the water from an RHIB. As the divers rolled backwards, on the dive manager's signal, the two came into contact and one diver hit his head on part of his buddy's kit. The diver suffered a 2 cm gash to his head that bled profusely. The dive was aborted and both divers were recovered from the water. The injured diver received first aid and was taken to a local hospital where he received two stitches and had the wound dressed.

June 2011 11/107

During the first open water dive for a Sports diver course, a diver complained of feeling sick and the dive was terminated after 10 min at 2m. The diver had apparently felt unwell the day before. The diver was referred to a medical facility and was cleared to continue the course the next day.

July 2011 11/179

A group of five divers entered the water from a hardboat and were towed by a small zodiac to a shotline buoy. On arrival, one of the divers displayed symptoms of gasping and acute pain and so was recovered by the zodiac and returned to the boat. The rest of the group descended to a maximum depth of 15m. Although one of the divers seemed over-weighted this did not appear to cause her any distress at the time. Approximately 8 min into the dive, the over-weighted diver signalled she was unhappy and wanted to ascend to the surface. She was accompanied to the surface and a normal ascent was made. On the surface the diver seemed short of breath and began coughing and spluttering and was encouraged to relax. The diver was recovered by zodiac and returned to the hardboat which then returned to harbour which took approximately 10 min. The diver continued coughing and on returning to her accommodation (approximately 10 min walk) she still felt unwell. She was taken to the local hospital and then transferred to a recompression facility 30 km away as a precaution. The diver was kept in hospital overnight and given oxygen and IV fluids. The diver was discharged the following day and advised not to dive for a minimum of three weeks and to avoid immersing her head in water. After visiting a doctor two days later she was advised that the cough could be expected to dissipate over a few days. Subsequent medical examination showed her chest was improving but that she should expect some coughing and discomfort for a further two to three weeks.

August 2011 11/175

A diver woke in the morning after diving and reported feeling dizzy. She was placed on oxygen and her dive profiles were checked but showed nothing unusual. The diver was given rehydration fluids and continued on oxygen with a 5 minute break. Her buddy was also checked and displayed no adverse symptoms. The diver remain on oxygen for an hour and half and was then told to rest, to stay out of the sun and to report any adverse symptoms. None occurred and the diver made a complete recovery.

August 2011 11/176

During a diving holiday after a number of days diving, a diver had completed two dives during a day; to 22m for 36 min with 3 min safety stop at 6m and, 4 hours later, to 16m for 48 min with 3 min safety stop at 6m. Following the last dive, the diver complained of numbness in her fingers and arm and dizziness. The diver was placed on oxygen and her computer checked and found to indicate an ascent rate warning over the last 4m of the ascent. After 10 min on oxygen, the diver reported that the 'pins and needles' were getting worse. She remained on oxygen, lying down, and was given rehydration fluids to drink . Regular checks were made and a duty medical officer contacted for advice. He diagnosed a muscle strain and advised to hydrate well and not to dive again until all symptoms had resolved.

September 2011 11/173

During the third open water dive of a training course a student was unable to clear his ears at a depth of 7m on a dive planned for a maximum depth of 15m. The dive was aborted and medical advice sought. The student was advised that he could continue diving.

Boating and Surface

August 2011 11/168

A dive RHIB covering two divers in the water on a wreck site suffered an inoperable twist throttle control on the outboard engine which meant the engine could only be operated at tick-over speed. Attempts to repair the problem were not possible due to a limited set of tools onboard. The decision was made to stand-down a pair of divers who were preparing to dive and to recall the divers already in the water. Attempts were made to recall the divers but these attempts failed. The divers eventually surfaced as planned and were recovered and the RHIB returned to harbour. Subsequent checks revealed that a grub screw below the rubber twist grip had worked loose, this was tightened and the twist grip refitted. Additional tools were added to the boat's tool kit.

Technique

July 2011 11/109

A diver was preparing to dive to a maximum depth of 25m for depth progression experience. The diver had checked his equipment before loading it onto the boat. On site the diver attempted to turn his gas on and found that the hand wheel

turned freely and would not turn the gas on. A replacement wheel was fitted. The diver was then observed trying to turn the valve in the wrong direction, tightening the handle. He received advice on the correct method.

Equipment

July 2011 11/106

A diver entered the water for a planned dive to a maximum depth of 17m. On entering the water and preparing to descend the diver's pony cylinder second stage free flowed. The diver stopped the free flow, regained control, signalled OK and commenced the descent. During the dive, a short time later and at a depth of 14m, the diver experienced difficulty breathing from his regulator. On checking his contents gauges, he realised that he had inadvertently been breathing from his pony cylinder instead of his main cylinder. The diver switched to his primary gas source, made a normal ascent, completed the dive without further problems and surfaced after a total dive duration of 35 min.

July 2011 11/110

A diver turned his gas on prior to a dive. As he turned the gas on the HP hose burst. The regulator was exchanged for another from a diver from a previous wave and the diver proceeded to dive without further incident.

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.

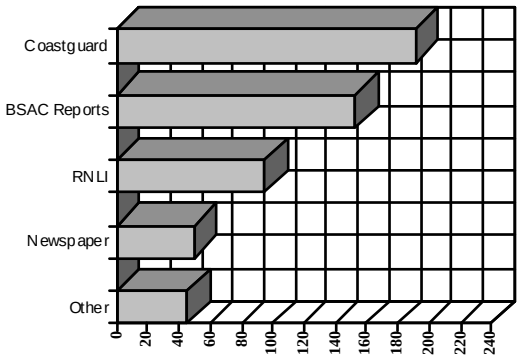
Incident Report Forms can be obtained free of charge from the BSAC Internet website
http://www.bsac.com/incidentreporting
or by phoning BSAC HQ on ***0151 350 6200***

Numerical & Statistical Analyses

Statistical Summary of Incidents

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Incidents Reported	439	465	453	409	498	499	437	401	416	453	412	405
Incidents Analysed	417	458	432	392	445	474	418	377	381	409	393	392
UK Incidents	384	433	414	366	423	441	379	349	359	381	364	375
Overseas Incidents	33	25	18	26	22	33	39	28	22	28	29	17
Unknown Locations	1	0	0	0	0	0	0	0	0	0	0	0
UK Incident - BSAC Members	113	122	149	162	154	160	148	120	129	120	116	193
UK Incident - Non-BSAC Members	52	94	55	74	72	65	50	61	65	29	30	94
UK Incident - Membership Unknown	219	217	211	130	197	216	181	168	165	232	218	88

UK Incident Report Source Analysis



Total Reports: 534
Total Incidents: 375

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	8 *
2000	**41,692**	**6**	**11**
2001	41,272	9	13
2002	**39,960**	**4**	**10**
2003	38,340	5	6
2004	**37,153**	**6**	**19**
2005	37,185	5	12
2006	**35,422**	**4**	**12**
2007	34,857	7	5
2008	**34,325**	**6**	**4**
2009	32,790	7	7
2010	**32,229**	**8**	**9**
2011	30,909	4	7

Note
* 1999 Figure corrected from 9 to 8 due to a double count discovered in 2010

LIST OF ABBREVIATIONS USED IN THIS AND PREVIOUS INCIDENT REPORTS

AAS	Alternative air (gas) source
A&E	Accident and emergency department at hospital
AED	Automated external defibrillator
ARCC	Aeronautical rescue coordination centre
ARI	Aberdeen Royal Infirmary (Scotland, UK)
AV	Artificial ventilation
AWLB	All weather lifeboat
BCD	Buoyancy compensation device (e.g. stab jacket)
CAGE	Cerebral arterial gas embolism
CG	Coastguard
CCR	Closed circuit rebreather
CPR	Cardiopulmonary resuscitation
CRT	Coastguard rescue team
DCI	Decompression illness
DDMO	Duty diving medical officer
DDRC	Diving Diseases Research Centre (Plymouth, UK)
DSC	Digital selective calling (emergency radio signal)
DPV	Diver propulsion vehicle
ECG	Electrocardiogram
ENT	Ear, nose and throat
EPIRB	Emergency position indicating radiobeacon
FAWGI	False alarm with good intent
FRS	Fire and rescue service
GP	General practitioner (doctor)
GPS	Global positioning system
Helo	Helicopter
HLS	Helicopter landing site
HMCG	Her Majesty's Coastguard
HUD	Head up display
ILB	Inshore lifeboat
INM	Institute of Naval Medicine
IV	Intravenous
LB	Lifeboat
MCA	Maritime & Coastguard Agency
m	Metre
min	Minute(s)
MOD	Maximum operating depth
MOP	Member of the public
MRCC	Maritime rescue coordination centre
MRSC	Maritime rescue sub centre
MV	Motor vessel
NCI	National Coastwatch Institute
PFO	Patent foramen ovale
POB	Persons on board
QAH	Queen Alexandra Hospital (Portsmouth, UK)
RAF	Royal Air Force
RHIB	Rigid hull inflatable boat
RMB	Royal Marines base
RN	Royal Navy
RNLI	Royal National Lifeboat Institution
ROV	Remotely operated vehicle
SAR	Search and rescue
SARIS	Search and rescue information system
SMB	Surface marker buoy
SRR	Search and rescue region
SRU	Search and rescue unit
UCT	Coordinated universal time
VLB	Volunteer life brigade
999	UK emergency phone number