

The British Sub-Aqua Club



NDC Diving Incidents Report

1997

Compiled by

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Diving Incidents Advisor



Introduction

This booklet contains the 1997 Diving Incidents Report, produced by The British Sub-Aqua Club (BSAC) in the interest of promoting diving safety. It is important to note that it contains details of UK diving incidents occurring to divers of all affiliations, plus incidents occurring world-wide involving BSAC members.

Report Format

The majority of statistical information contained within this report is also shown in graphical form. Please note that all statistical information is generally 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, 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:

<i>MONTH/YR OF INCIDENT</i>	<i>INCIDENT REF.</i>
Brief Narrative of Incident	

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

Brian Cumming,
BSAC Diving Incidents Advisor
November 1997

Acknowledgements

The nature of this report requires that data is collected from several different sources. I would like to extend my thanks and appreciation to the following for their assistance in its production and in ensuring its completeness:

The British Hyperbaric Association;

The Institute of Naval Medicine;

Phil Wren, Coastguard Sport Diving Liaison Officer;

Peter Bradley, The Sea Safety Liaison Officer, Royal National Lifeboat Institute;

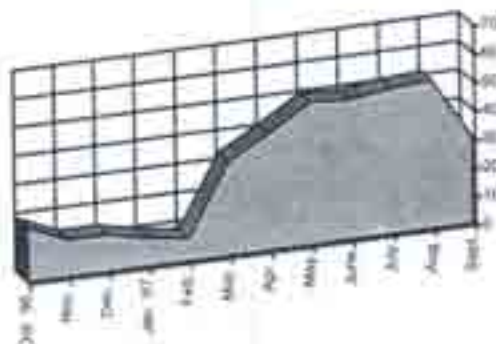
and, in particular, all of those divers and other sources who have taken the trouble to complete Incident Reports and share their learning experience with others.



Overview

1997 has seen a rise in the total number of incidents that have been reported. In the 1997 incident year (October 96 to September 97 inclusive) we have recorded 370 incidents, compared with 315 in the previous year. I do not believe that this signals an increase in diving incidents, since this year I have been able to make better use of the data from the RNLI, and this has had the effect of swelling the numbers. One area where this can be clearly seen is in the category of miscellaneous incidents, most of these are cases of lifeboat launches to assist divers, but where there is insufficient information to identify the particular problem. My expectation is that these will be divers who have lost contact with their boats, or boats with engine problems. I do not believe that there has been a particular rise in these categories, it is just that we are getting better at finding out about them.

Monthly Breakdown Of All Incidents - 1997



The report includes 16 UK fatalities of which 4 involved BSAC members. This total number is the same as last year although the BSAC proportion has dropped from 44% in 1996 to 25% in 1997.

This incident year has seen the advent of two significant changes to the nature of UK diving and the related incidents. These changes have had an impact on the fatalities.

Firstly, a few divers are beginning to conduct very deep dives, the deepest of which they are conducting on mixed gases. Eight incidents this year involved dives to 55, 56, 58, 80, 62, 77, 96 and 114m. Two of these, the dives to 55 and 95m resulted in fatalities.

The other change is at exactly the opposite end of the diving spectrum. A number of deaths have occurred in sheltered inland sites, where people with perhaps too little training and experience, have taken themselves diving, without experienced support and guidance, and tragedy has been the result.

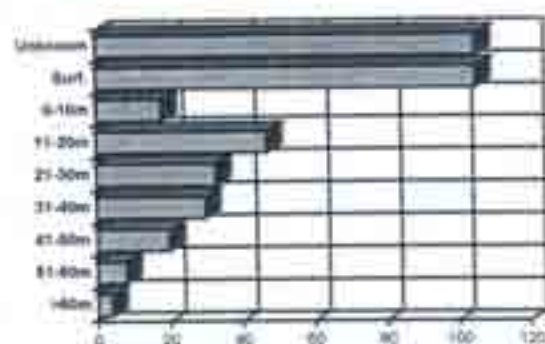
Looking at a breakdown of all incidents by month, we see the traditional format, with 85% of all incidents occurring in the spring/summer period (April to August). March this year shows a higher number of incidents than is normal and this is because the Easter weekend was, unusually, in March.

Incidents early on in the year tend to have one of two common threads.

Firstly, a number of them involve free flowing regulators, a situation that often leads to additional and more serious problems for the diver(s) involved. Remember that in cold water, regulators are prone to free flow. Do not push them, or yourselves, to the limits of performance.

Secondly, incidents early on in the year often reflect a lack of, or poor servicing. This is especially true of boating incidents, where you will read of many cases of engine failures, which result in divers being stranded at sea.

Depth Ranges & Incident Occurrences - 1997

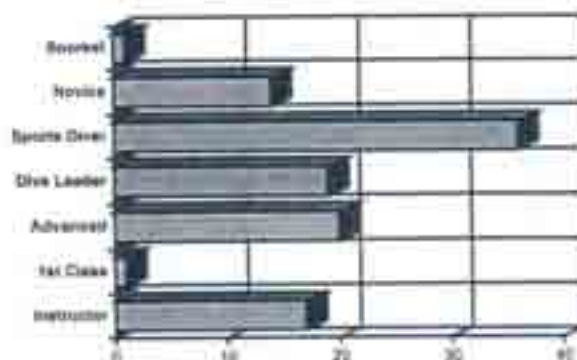


Many incidents occur at the surface. Divers are lost, boats break down, people are injured. Of those incidents that take place underwater, most occur in the shallower depths, 1 to 30m, accounting for 61% of the incidents. Unfortunately we do not have accurate data on the number of dives conducted in these depth ranges, but it is reasonable to expect that the majority of recreational dives are conducted at depths shallower than 30m, hence the preponderance of incidents at these depths.

As these data stand, there is an inference that the deeper depth result less incidents, in reality the reverse is most probably the truth. My expectation is that dives to 30m and deeper account for far less than 30% of the total number of dives conducted, yet this is the proportion of incidents that they generate. As stated earlier, 2 of our 16 UK fatalities this year occurred at depths of over 55m. It is certain that far less than one in eight dives exceeds 55m.

As we have always known, the deeper you go, the greater the risk.

Qualification of the Divers Involved in Incidents (Where Known/Relevant)



An analysis of incident by diver grade shows that no grade of diver, from novice to instructor is immune to problems. It is all

too easy to make the assumption that only inexperienced divers get into problems, but the chart shows that this is not so. Although it suggests that divers at the level of Sports Diver are the most prone to problems one must be careful in the interpretation of these data. The picture is clearly distorted by the numbers of members that we have at each of these grades. It is very probable that the largest single group of members are Sports Divers, hence the high incidents of problems. It is also probable that many of our 1st Class Divers are also instructors and are recorded on the database as instructors, hence the absence of incidents relating to 1st Class Divers.

What is clear from this information is that more than half (57 out of 107, almost identical to last year) involve divers with more than average experience. Given that this group is probably less than half of our membership it means that you are more likely to experience problems as your experience increases! One explanation for this, as you will read in the text of this report, is that as divers gain in experience so they push the limits of their diving, and this can lead them into difficulties.

UK Incidents Involving The Coastguard Agency - Monthly Breakdown



Divers' use of the rescue services shows the typical monthly distribution, and is clearly in line with the number of dives that are taking place. Our demands upon the Coastguard service is typical for the year, as is our calls upon the RNLI. What does stand out, is the use of search and rescue helicopters for the treatment of diving emergencies, in 1997 helicopters were tasked on 104 occasions to assist divers, and this is up 49% from 1995.

Diver's Use Of SAR Helicopters By Month



An analysis of these helicopter call outs shows that 51% were in support of cases of DCI, and that 28% were associated with

surface related incidents, almost invariably lost divers. This pattern pertains to our use of all the rescue services.

As stated earlier, there are a large number of engine failures each year, and very often these failures result in the second problem - lost divers, since the boats are no longer able to follow and recover them.

This incident year has seen 54 cases of engine/boat problems and 57 cases of lost divers. Whilst not all of these are directly related, many of them are.

Many cases of boat and engine failure are the result of poor or missing maintenance and this is inexcusable. Putting to sea with a boat that is less than 100% serviceable is clearly irresponsible, especially when that boat is to be used to follow and recover divers.

Once having become lost at sea, the diver's next priority is to be found again as quickly as possible, and this is where the detection aids become important. As you will read in several of the reports, the presence of a flag, or a large and visible SMB, can mean the difference between a few minutes and several hours floating in the sea awaiting recovery. Why people continue to enter the water without such a cheap and convenient means of self help defeats me!

Diver's Use Of RNLI Facilities By Month



Once again the BSAC and the British Hyperbaric Association / Institute of Naval Medicine have shared data in an attempt to build a more complete picture of decompression incidents. Unfortunately this analysis can not be conducted in any depth since the issue of medical confidentiality restricts our access to much of the detail.

The INM database records 133 cases of DCI. When those from the BSAC database, that were unknown to the INM, are added in then the total is 160 cases.

The combined total cases of DCI identified from our own sources coupled with those identified by the Coastguard service amount to 38 cases.

It is certain that neither total is complete, and the true number of DCI case must exceed 160.

In their review of the data, the INM highlight an increasing trend in 'omitted decompression' and they also make the point that, very often, the 'facts' that are presented on incident reports, are at variance with the data that they obtain during treatment - suggesting that decompression incidents are not always accurately reported!

Please read the detailed reports in this booklet carefully and take the trouble to learn from other's mistakes. It is a lot less painful than making the same mistake yourself.

Finally, if you must have an incident please report it on our new Incident Report form, available free through BSAC HQ.

Fatalities

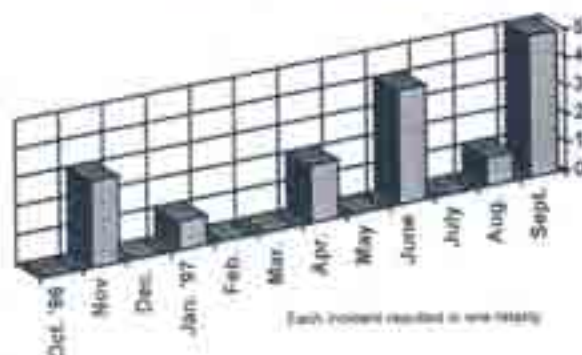
November 1996 97/054

A diver who had just commenced a dive returned to the surface and was seen to be in difficulties. Other members of his diving group helped him ashore and assistance was summoned. Attempts were made at resuscitation and he was taken to hospital. This diver failed to recover. It is thought that a heart attack was the cause of the fatality. (Newspaper report)

November 1996 97/013

Two divers planned a dive to 30m. At 50m one of the divers experienced nitrogen narcosis and they decided to abandon the dive. During the ascent at about 30m the diver who had had the narcosis realised that his partner was not with him. He continued to the surface and discovering that his buddy was not there he raised the alarm. Assistance was sought from a near by group engaged in a nitrox course, and a search was started. One pair of searchers using nitrox arrived at their nitrox depth limit of 30m and could see a light below them which was attached to the lost diver. Switching to their pony cylinders, which contained air, they went down to recover the casualty. They could not make the casualty positively buoyant and started to lift him to the surface. Running out of air in his pony cylinder, one of the divers was forced to switch back to nitrox below its recommended maximum depth. A short while later the diver's regulator began to free flow. During the ascent the casualty became buoyant and was released to allow the rescuers to make an assisted ascent of their own. At the surface the casualty was recovered to the shore and oxygen enriched AV and CC were commenced. An ambulance and a doctor arrived and despite prolonged resuscitation attempts and the use of a defibrillator the casualty failed to recover.

UK Fatal Incidents - Monthly Breakdown
From October 1996 to September 1997 incl.



November 1996 97/020

Two divers were ascending from a maximum depth of 45m up an underwater rock face. One of the divers was heard by his buddy to make a 'strange grunting sound'. His buddy took his hand to lead him up, but he pulled it away and put his arm across his chest. The distressed diver's regulator was lost from his mouth and the buddy was unable to replace it and make it stay in place. The buddy tried to lift the distressed diver to the surface, but had his own regulator knocked from his mouth. He released the casualty to replace this regulator and contact was lost in a silt cloud. The buddy was unable to find the casualty

and forced, by his own depleted air supply, to return to the surface, where he summoned assistance. A second member of the party of six required recompression treatment. The body of the missing diver was recovered from a depth of 47m, by police divers, four days later.

January 1997 97/028

One of a pair of divers experienced a free flowing regulator whilst underwater. He tried to share the air of the other diver but became separated during the ascent. The diver with the free flowing regulator failed to return to the surface and his companion needed hospital treatment. The body of the lost diver was recovered by police divers from 22m seven hours later. Lung was believed to have been the cause of the free flow. (Newspaper report)

April 1997 97/052

Two divers were descending for a dive when one indicated an ear problem. They came up and started again. On a shelf at 1m this diver signalled that she was not happy and wanted to ascend. They started to ascend, during the ascent the buddy lost sight of the distressed diver and when he saw her again she was sinking fast. The diver sank to a depth of 18m and had lost her mouthpiece. The buddy offered his alternative air source but this was refused. Two other divers spotted the pair and brought them to the surface and raised the alarm. At the surface the casualty was not breathing. Oxygen was administered together with AV and CPR. The casualty was taken to hospital by ambulance but failed to recover.

April 1997 97/053

A diver, who was part of a training group in 18m of water, panicked and thought that she was out of air. A buddy attempted to share air with this diver and a rapid ascent was made to the surface. At the surface contact was lost and the panicked diver sank. The buddy was recovered to the shore where oxygen and first aid were administered, and ambulance was called to take him to hospital. A search was made for the lost diver and she was recovered to the surface after about 17 mins. Resuscitation attempts were made and she was taken to hospital, but she failed to recover. The buddy diver is thought to have had a burst lung.

June 1997 97/087

Two groups of divers planned to dive on a wreck at a depth of 55m. The first pair entered the water and began their dive; a little later a group of three followed. They descended a short line to the wreck. On completion of their dive the first pair put some air into a lifting bag attached to the shot weight, and made their ascent, which included decompression stops. 13 mins into their dive the group of three returned to the point where the abut line had been, but it was no longer there. They decided to make an ascent and conduct their decompression in that water with no datum. During the ascent, at a depth of 40m one of the divers grabbed one of his buddies and seemed concerned about something. It is stated that he seemed very heavy. These two divers sank back to 45m where the buddy put air into his own stabjacket and drysuit to stop the descent and to get them both to the surface. The first diver continued to struggle, they lost contact with each other, and the first diver was seen to sink. The buddy diver then made a rapid ascent to around 20m before regaining control. At about 15m he sighted the SMB line of the third diver and joined him at 11m. This pair conducted 55 mins of decompression, whilst drifting

under the SMB. These two divers surfaced 2 miles from the wreck and were picked up by a fishing boat who alerted the Coastguard. The buoyant diver required recompression treatment but made a full recovery. A large search was organised for the missing diver involving two helicopters, two lifeboats, and seventeen other surface vessels. Navy divers conducted extensive searches of the wreck but failed to locate the missing diver. On the fourth day a remotely operated underwater vehicle found the missing diver's body and it was recovered. Death was found to be due to 'barotrauma'.

BSAC Fatalities Against Membership 1982-1997
(UK Data only)



June 1997

97/111

During a dive to 50m a diver's regulator started to free flow. He switched to a second regulator and that also started to free flow. His buddy offered his own second regulator but this was not used. The diver with the free flow lapsed into unconsciousness and started to sink. His buddy recovered him from 50m and, using oral inflation of the casualty's buoyancy, brought him to the surface. AV was found to be ineffective. The diver was flown to a hospital but failed to recover.

June 1997

97/112

At a depth of 30m a diver was seen to be holding on to his mask from which air was escaping. This diver then headed for the surface at high speed. When his buddy got to the surface the panicked diver was not there. He was eventually recovered from 38m and brought to the surface. Resuscitation attempts were unsuccessful.

June 1997

97/113

One of a group of four divers got into difficulties underwater. He was brought to the surface by the other divers. Resuscitation attempts were unsuccessful.

August 1997

97/149

A diver surfaced after a dive to 21m for 35 mins. At the surface he had hold of the buoy when he groaned and passed out. He was recovered into the boat and resuscitation was started. The Coastguard was notified and the boat returned to shore. An ambulance took the casualty to hospital where he was declared to be dead on arrival.

September 1997

97/158

Three divers conducted a dive to 10m for 33 mins. 90 mins later they dived again to 20m. On the descent one diver indicated that he was breathless, then that he was OK. 15 mins into the dive he indicated to his buddies that he had only 60 bar remaining, they had 170 bar. They started to ascend and at 16m the diver low on air rushed towards the surface. He was seen to surface waist high out of the water with his suit apparently fully inflated. He shouted then sank. His buddies arrived at the surface, found that he was not there and returned to the bottom where they found the casualty in 20m of water with his regulator out of his mouth. He was brought to the surface, but failed to recover. This diver had no weightbelt, but he had 32lbs of lead in the pockets of his stabjacket. It is believed that he had a heart attack.

September 1997

97/335

Dive charter boat reported one of a party of divers had failed to surface after a drift in strong currents. A lifeboat, helicopter, 10 other vessels and 10 Coastguards were involved in the search but failed to recover the diver. FATALITY (Coastguard 191014).

September 1997

97/190

Two divers were diving to a depth of 95m for a duration of 22 mins on trimix. Their shot line drifted away, and they made their ascent without this datum. At 70m they became separated. One diver completed stops totaling 68 mins, the other came straight to the surface, apparently missing all stops. This diver was flown to a recompression facility but was pronounced dead on arrival.

September 1997

97/191

One of a group of three divers failed to return to the surface after a dive in a lake. (Police report)

September 1997

97/192

Two divers became separated. One of the pair was found 30 mins later by another pair of divers at a depth of 15m. Her face mask was missing and she was unconscious. She was brought to the shore and resuscitation attempts were made. She was flown to hospital but failed to recover.

Decompression Incidents

Date unknown 97/249

Severe headache, vomiting and neck tension was defined to be a neurological DCI. The casualty was taken by car for treatment at ODRG. (Coastguard 271223)

October 1996 97/209

After a dive to 55m a diver suffered DCI and was airlifted for recompression. (Coastguard 061449)

October 1996 97/010

Two divers were treated for DCI. One had made an emergency ascent after suffering Narcosis and the other had followed at a similar rate. (Coastguard report 140907)

October 1996 97/211

Ambulance, CG and a doctor were called to meet a dive boat on docking with a diver aboard with possible DCI. (Coastguard 191301)

December 1996 97/108

A diver required recompression treatment after completing a dive to 35m for a total dive time of 18 mins followed by a second dive to 20m for a time of 20 mins with a 1 hour 35 mins surface interval. No decompression stops are reported.

January 1997 97/099

A diver conducted two dives with a 65 mins surface interval, the first to 19m and the second to 18m. During the first dive he experienced problems with statjacket inflator, and during the second dive he suffered a regulator free flow which caused him to make a faster than normal ascent. That evening he experienced head pains which varied in intensity throughout the night. The following day he was recompressed and the symptoms resolved.

March 1997 97/187

After a dive to 50m for a duration of 24 mins and with a 3 hour 43 min surface interval, a diver conducted a second dive to 30m for a time of 22 mins. All stops required by his computer were completed. Immediately on returning into the boat this diver felt pain in his upper arms and shoulders. He was found to have a red mottled rash on his torso. He was placed on oxygen and brought back to the shore. He was flown to a recompression chamber for treatment.

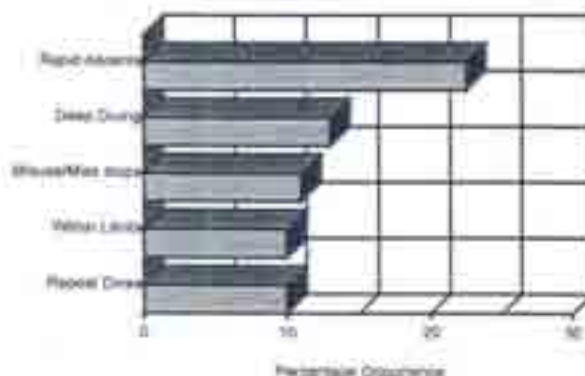
March 1997 97/080

Three trainees and two instructors entered the water to conduct a mixed gas training dive at a depth of 50m. At a depth of 16m the leader instructor noticed that one of the trainees, who had been nervous, and the other instructor had returned to the surface. The three divers continued their ascent. At 50m the regulator of one of the trainees suffered a severe failure and dumped the contents of one of his cylinders in 15 secs. The other trainee was swept upwards 5 - 6m by the mass of bubbles. Because of the lost gas, the instructor decided to ascend to the surface. As he started up he realised that one of the trainees was no longer with them and assumed that she had made her own ascent. At the planned stop the pair were met by the second instructor who had descended to meet them, and he was passed a message to ascend and look for the missing diver. At the surface a search was conducted for the third diver's bubbles. The dive pair returned to the surface after their decompression and also started to look for bubbles. Shortly afterwards a delayed surface marker buoy appeared and the lost third diver completed a successful ascent. 24 hours later this third diver experienced a numb patch on her cheek. She was treated in a recompression chamber. The numbness returned several times over the next four weeks. It is thought that the numbness may have been stress induced. The failed regulator is reported to have been serviced recently by the lead instructor, and had a history of problems.

March 1997 97/072

Two divers were laying on the sea bed at a depth of 10m watching marine life, when one felt her legs becoming buoyant. The diver became inverted and her boots and fins were pulled from her feet making finning impossible. She grabbed her buddy who dumped air from her jacket and tried to slow the ascent. Both divers were carried to the surface where control was regained. They swam 200m to the shore where oxygen was administered to the inverted diver for 15mins. Two hours later the diver had no symptoms and left the site. During that

Percentage Analysis of Factors Involved in Decompression



November 1996 97/215

After his 5th dive over 2 days a diver reported in to Hospital not feeling too well. CG arranged for recompression treatment. Dive profile showed missed stops on day 1 and "dives impossible" on BSAC 88 tables on day 2 with inadequate surface intervals. (Coastguard 241904)

December 1996 97/066

Two divers had completed 15 mins at a depth of 24m when a crab that one had caught took hold of the alternative air source of one of divers and caused it to free flow. The divers ascended, got back into their boat and resolved the problem. 10 mins later they again descended to 24m and completed a further 10 mins dive. Shortly after surfacing, one of the divers developed paralysis down one side of his body and the Coastguard was alerted. The diver was flown by helicopter to a recompression chamber and after treatment made a full recovery. The divers had been using BSAC/RNLP tables. The buddy was unaffected.

night she awoke with 'pins and needles' in her arm but put it down to having laid on it. The following day no problems were experienced. The following day the diver was experiencing aches in the left knee and right shoulder, and awoke during the night with a worsening right shoulder ache and a 'fuzzing' sensation in her right hand and some numbness in that hand. The following morning the diver attended a recompression facility and was examined. There was uncertainty if it was a decompression problem, but the diver was recompressed and all symptoms remained.

March 1997 97/045

After a dive of 17 mins to 41m a diver reached the 9m stop where he stayed for 1 min. He then spent a further 4 mins at 8m. On arrival at the surface he became disorientated and had balance problems. He was recovered into the boat and given fluids and oxygen. His right arm was incapacitated for a short time. The diver was taken by lifeboat and ambulance to a recompression facility where he made a full recovery after recompression treatment. He was tested for a PFO and none was found.

March 1997 97/046

A diver who had conducted a dive to 30m made an uncontrolled buoyant ascent from 15m after becoming inverted in a dry suit. This diver subsequently collapsed in the water on arrival back at the beach. She complained of a severe headache and was too weak to stand. The Coastguard was contacted and the casualty and buddy were taken to a recompression facility and recompressed.

March 1997 97/227

Recompression treatment was given to a diver following multiple dives during the day (reportedly after a GOOD night out). This diver had to be kept on O₂ until the chamber was free. (Coastguard 291547). The diver's buddy was also given recompression treatment (Coastguard 301149). Further treatment was required for the second diver the following day. (Coastguard 311228).

March 1997 97/133

A trainee diver had completed the third day of a Sports Diver course at a school. Two dives were conducted that day, one to 12m for 14 mins and the second to 3m for 20 mins. The second dive involved a 'slightly fast buoyant lift'. That evening she noticed a blurring of vision in one eye. She was examined by a doctor who diagnosed salt crystallisation on the eye. Later that evening the diver noticed a pain in her left shoulder, and a recompression facility was contacted. The diver was subsequently successfully recompressed.

March 1997 97/051

Loss of mask and DV resulted in a rapid uncontrolled ascent for a diver who was unconscious on arrival at the surface. This diver along with the two divers who assisted him to the surface were airlifted to a military recompression facility in Belgium due to the fact that visibility was extremely poor in the UK. (Coastguard 310751)

March 1997 97/229

Eight dives over four days all without allowable decompression resulted in recompression treatment for a diver who at least recognised the symptoms on his drive home. (Coastguard 312255)

April 1997 97/231

A diver with suspected DCI was airlifted by an ambulance for treatment. Nitrox dive profile appeared normal except for a slightly fast ascent. (Coastguard 031149). Preliminary incident report only received.

April 1997 97/240

Missing 15 minutes of decompression following a 47m dive led to an airlift for treatment for 2 divers. (Coastguard 121456)

April 1997 97/061

After a dive to 35m for 34 mins and 17 mins of decompression a diver noticed a shoulder pain when back on the surface. This was put down to a strain and, after a surface interval of 3 hours 20 mins, he conducted a second dive to 25m for 33 mins and completed a further 2 mins stops. Early the following morning the diver was awoken by severe pain in his right shoulder, and was taken by ambulance to hospital. There he was placed on oxygen and a spinal bend was diagnosed. The diver was transferred to a recompression facility and after 8 hours 30 mins treatment all symptoms resolved. This diver has a PFO. The dive buddy had no symptoms.

April 1997 97/069

A diver with suspected DCI was airlifted for treatment. (Coastguard 271615)

April 1997 97/131

After a dive to 34m for 27 mins, three divers were returning to the shot line to start their ascent when one started to feel sick. The required decompression was completed and the divers recovered into the boat. On the surface the ill diver continued to feel sick and was placed on oxygen. His condition improved for a while and then deteriorated. The Coastguard was called and the sick diver was airlifted to a recompression chamber, where recompression treatment was given. A neurological bend was diagnosed. This diver had conducted two dives the day before one to 33m and the second to 15m. A surface interval of more than 18 hours had been completed after these two dives. The diver is now cleared to dive. The buddies suffered no ill effects.

April 1997 97/246

Insufficient stop time and previous DCI resulted in treatment for a diver. (Coastguard 271021)

May 1997 97/070

After a dive to 29m for 20 mins one of a pair of divers deployed a delayed SMB in preparation for the ascent. During the ascent, the reel started to jam and the diver found it difficult to wind in the line. Because of this problem, he wound the line around his hand. During the latter part of the ascent this diver lost control of his buoyancy and made a rapid ascent. His dive computer showed 9 mins of missed stops. The diver developed 'pins and needles' in both feet and a 'cramp like' pain in his left calf. The diver was placed on oxygen and given water. The Coastguard were contacted and the diver was flown by helicopter to a recompression chamber where he received four hours treatment. His buddy makes a slower ascent without stops and suffers no symptoms.

May 1997 97/082

Two divers who had missed decompression stops were flown to a recompression facility for treatment. (Coastguard 051203)

May 1997 97/257
A diver with decompression illness was treated locally (Coastguard 121008).

May 1997 97/259
Diver showing signs of DCI was taken to local hospital and then transferred for recompression treatment. Dive profile showed poor practice. (Coastguard 131500)

May 1997 97/261
An uncontrolled ascent from 45m due to a problem with buoyancy resulted in an airlift for treatment for one diver whose dive the day before had been to 54m. (Coastguard 161538)

May 1997 97/262
Missing decompression stops resulted in recompression treatment for one diver. (Coastguard 171420)

May 1997 97/077
After a dive to 30m for a duration of 45 mins including 1 min stop, a diver developed 'pins and needles' in the left heel and then pain in the left thigh. He was placed on oxygen. 'Pins and needles' developed in his right foot. The thigh pain ceased after the oxygen was administered. The diver was transported to a recompression facility for treatment. The dive profile included two 2 - 3m ascents and descents.

May 1997 97/086
A diver suffering from decompression illness was flown to a recompression chamber for treatment. (Newspaper report)

May 1997 97/083
A diver surfacing from a dive to 42m experienced an equipment failure during the ascent, his mask came off and he ascended rapidly to the surface, missing 30 mins decompression. The diver was placed on oxygen and flown to a recompression chamber for 8 hours treatment. (Newspaper report)

May 1997 97/084
A diver ran low on air and had to surface quickly. He developed the bends and was recompressed. Initially other divers in the party thought that he was lost underwater and conducted a search for him. (Newspaper report)

May 1997 97/267
One diver with suspected DCI and his buddy (precautionary) were treated after a no stop dive (because the computer said so !!) (Coastguard 241601)

May 1997 97/268
Loss of weightbelt at 25m caused a diver to ascend quickly. CO₂ Heli airlifted the diver for treatment.

May 1997 97/076
After one day's lay off a diver conducted two dives, one to 27m for 29 mins and then after 73 mins a second to 15m for 23 mins. Later that evening the diver experienced shoulder pain when lifting a bag, but put it down to a strain. The following day the pain was worse and the diver did not dive, although she went out in the boat. As the pain worsened, it was realised that this could be a bend. The Coastguard was contacted and she was taken by helicopter to a recompression chamber for treatment. Another diver in the team was also recompressed at the same time due to a possible skin bend, which may just have been too much exposure to the sun.

May 1997 97/116
A diver dived to 30m and during the ascent her computer cleared of decompression requirements at 5m. On surfacing the diver immediately noticed a pain in her upper right arm and she had mottled skin. The diver was placed on oxygen 15 - 20 mins after surfacing. The symptoms persisted and the Coastguard was called. The diver and buddy were flown to a recompression chamber. The diver was recompressed for 8 hours, and again for 5 hours the following day. Only soreness remained after the second recompression. The diver had been involved in a strenuous boat loading task prior to the dive, and she may have received a strain and have become de-hydrated.

May 1997 97/121
A diver dived to 27m for a total of 37 mins. After a surface interval of 3 1/2 hours he again dived to 17m for 20 mins. As soon as he was back in the boat after the second dive he started to feel dizzy. This progressed to blurred vision and he was placed on oxygen. The boat returned to the shore where the diver was taken to a recompression chamber. On leaving the chamber, the diver had recovered, and no symptoms were present. He was given a 2 1/2 hour recompression treatment as a precaution.

June 1997 97/075
Two divers intended to conduct a second dive to 21m. Underwater they moved close to an underwater cliff edge. One of the divers lost control of her buoyancy and sank to a depth of 35m. The diver started to re-ascend but again lost control and started to sink. At this point the buddy brought the first diver to the surface, juggling her regulator all the way to the surface. At the surface the diver was found to be unconscious. The buddy summoned assistance and started A&V. Once ashore the casualty was not breathing and resuscitation was applied to which she immediately responded. The casualty coughed up blood. The casualty was recompressed and then kept in hospital overnight for observation. A possible explanation was proposed that the casualty was confused with the slab jacket controls and dumped air instead of filling the jacket.

June 1997 97/272
A diver who had recently undergone deep dive training at a dive centre complained of decompression illness and was treated at one of the area's recompression units. (Coastguard 021308)

June 1997 97/120
On completion of a shore dive a diver showed signs of decompression illness and was transported for attention at the recompression facility. This diver was on his third only sea dive in what is described as being far from ideal sea conditions. (Coastguard 071145)

June 1997 97/280
Following a 55m dive, a diver fell unwell and was airlifted for treatment. This diver was apparently sea sick before the dive (the weather not really being suitable for a dive of this nature). This was a severe case of DCI which without the prompt evacuation by Coastguard could have resulted in paraplegia. Two days of treatment were given. (Coastguard 081417)

June 1997 97/125
15 minutes into a dive two divers were at a depth of 10m. One of these divers lost his weightbelt and made a rapid ascent to the surface. His buddy ascended normally. At the surface he felt well. Later this diver was thought to be showing signs of

decompression illness and was placed on oxygen. The Coastguard was contacted, and they were met by an ambulance on their return to shore. The diver was taken to hospital and then to a recompression chamber. He was given two recompression treatments, and advised not to dive for one week.

June 1997 97/284

Wreck diving to 114m on trimix caused a diver to show signs of DCI on surfacing after 130 Minutes of Decompression stops. He was airlifted from the Orkneys to Aberdeen for treatment. (Coastguard 172103)

June 1997 97/122

A diver had completed a week of deep diving, one dive per day with a rest on Thursday. On his last dive of the series to 60m for 25 mins the diver stopped to conduct decompression at 21m. One of the pair attempted to deploy a delayed SMB but it became caught and carried him to the surface, where upon he re-descended, the buddy followed but stopped at 15m and re-descended to 21m. The divers then decompressed on 60% & 80% Nitrox. Their total submersion time was 2 1/2 hours. On surfacing the diver who had stopped at 15m experienced blurred vision and he started to breath oxygen. This resolved the symptoms and he remained on oxygen for 30 mins. The following day this diver sought diving medical advice as he felt unwell and had aches. This diver was given a course of recompression treatment and has fully recovered.

June 1997 97/159

A pair of divers conducted a dive to 57m for a total duration of 25 mins. This included stops for 5 mins at 5m and 3 mins at 3m. 15 mins after surfacing one of the pair complained of a numbness in his right knee and a tingling sensation in his right foot. This developed to a slight weakness in his right leg. The party returned to the shore by which time the symptoms had gone. The following morning this diver complained that symptoms had reoccurred, and he had a tenderness around his stomach on the right hand side. This diver was recompressed but the symptoms did not fully resolve until a further 24 hours had elapsed. He was examined for a PFO, none was found.

July 1997 97/289

An inverted quick ascent from 26m led to treatment for a diver and buddy who had attempted to slow down ascent. (Coastguard 021459)

July 1997 97/291

A diver needed to be flown 100 + miles in poor visibility for treatment of decompression illness. Praise must be given to the helicopter pilot who managed to maintain a low level flight in very poor conditions. Dive profile showed inadequate surface intervals. (Coastguard 051738)

July 1997 97/136

After a dive to 40m for a total time of 10 mins, two divers conducted a fast ascent to the surface. As a precaution they were placed on oxygen. No ill effects were experienced at this time. Two to three hours later one of the divers experienced 'pins and needles' in his left arm and was placed on oxygen. The emergency services were alerted and the diver was flown to a recompression chamber. After treatment a full recovery was made.

July 1997 97/139

A diver became entangled in a buoy line and made a rapid ascent. He was flown to a medical centre with symptoms of decompression illness.

July 1997 97/295

A fast ascent from 34m missing stops caused decompression illness for a diver who was airlifted for treatment, the Helicopter returned for his buddy whose symptoms were not quite so severe. (Coastguard 131023)

July 1997 97/296

A call was received from a Doctor who had a diver in the surgery following a dive and thought he had DCI, the call was relayed to the duty Dive Doctor who was able to assist. (Coastguard 131309)

July 1997 97/148

Two divers were airlifted for treatment following a 36m dive for 40 mins. (Coastguard151914)

Decompression incidents by Month



July 1997 97/132

After completing a normal dive to 35m for 31 mins with 3 mins stops at 5m, a diver stated that he was exhausted and collapsed. He appeared to be having a stroke. The diver was recompressed and made a good recovery. This diver has a history of extensive injury through motorcycle accidents.

July 1997 97/182

A solo diver entered the water for a dive to 27m for a total of 25 mins. On surfacing he was recovered into a boat. Within 5 mins he had a pain in his stomach. After another 5 mins the pain was severe. He was taken to a nearby beach. On getting from the boat he had weak and numb legs. He was collected by ambulance. The pain went away and the diver was advised by a doctor to take rest. 45 mins later diving medical advice had been sought and he was flown to a recompression facility for treatment.

July 1997 97/297

A fast ascent (for vague reasons) from 37m, missing stops resulted in an airlift for treatment. (Coastguard 171239)

July 1997 **97/298**
 A diver with suspected DCI was airlifted to Aberdeen, doubtful if treatment given. (Coastguard 171022)

July 1997 **97/156**
 Loss of DV whilst filling an SMB at the end of a 52m dive (bottom time 11 mins) on air left a diver with classic symptoms of DCI who was airlifted for treatment. The surprising outcome was that after a check up the symptoms were NOT DCI related (Coastguard 221149)

July 1997 **97/300**
 A diver who had made a fast ascent TWO DAYS previous telephoned a Doctor from a remote village (no road access). Coastguard arranged an air ambulance and he was taken to Aberdeen. (Coastguard 221147)

July 1997 **97/301**
 On his fifth day of diving (on a Nitrox course), a diver reported symptoms of DCI some hours after a 52m dive. Extended recompression treatment was required. (Coastguard 242056)

July 1997 **97/202**
 Two divers were conducting a dive to a maximum depth of 20m. Over 20 mins into the dive, at a depth of 14m, one of the divers lost her weightbelt and started to ascend. Her buddy saw this and grabbed hold of her to try to slow the ascent. Both divers dumped air but were carried to the surface. One dive computer showed a rapid ascent warning. At the surface both divers were OK, and were recovered into their boat. Shortly after de-builing one of the pair reported slight pins and needles in her left hand and was placed on oxygen. The Coastguard was alerted and the divers returned to shore. The diver with symptoms was flown to hospital. One hour after surfacing the other diver started to experience tingling in her feet and was also flown to the hospital. After examination both divers were transferred to a recompression facility where the second diver were recompressed. Both divers were released that day.

July 1997 **97/303**
 A diver was airlifted for an 85 mile trip for 30 hours of recompression treatment. The two buddies who accompanied the diver did not require treatment. (Coastguard 251718)

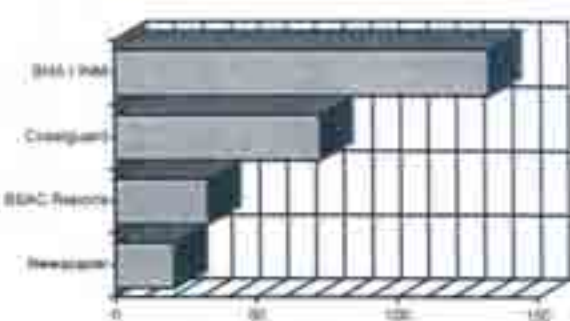
July 1997 **97/151**
 Two divers entered the water for their second dive of the day, this was to be a drift dive at a depth of 23m. When one of the divers had reached 70 bar in his main cylinder he transferred to his pony cylinder to prolong the dive. The other diver signalled an ascent but this was misunderstood and the dive continued. Shortly afterwards, during the ascent the diver on the pony cylinder misread his contents gauge and emptied the cylinder completely. The other diver managed, after a struggle, to provide his octopus regulator and a reasonable ascent rate was maintained. At 5m the first diver broke free and, filling his slatjacket, made a buoyant ascent to the surface. The other diver followed to the surface, 1 min of decompression had been missed. The first diver was placed on oxygen, and assistance sought, by radio, from the Coastguard. The boat returned to shore and the casualty was flown to a recompression chamber for treatment, after which a full recovery was made.

July 1997 **97/146**
 A diver made a rapid ascent after he ran out of air. He was flown to a recompression chamber for treatment. (Coastguard 261628)

July 1997 **97/304**
 Following a 58m dive on trimix a diver developed symptoms of DCI and was given 100% O2 for one hour, however the following day the symptoms re-occurred and the Coastguard was contacted. Treatment was then given over two days.

July 1997 **97/305**
 Oxygen was given to a diver who the previous day was displaying symptoms of DCI which relieved the situation, however, the next day the symptoms returned and the CG arranged an Ambulance to take the diver for treatment. (treatment of DCI at an early stage results in less chance of permanent damage and a far faster recovery) (Coastguard 300645)

Decompression Data Source Analysis



August 1997 **97/188**
 A diver conducted two dives in one day. The following day after a 16 hour surface interval he conducted a further two dives both to a maximum depth of 15m. On his journey home he started to feel unwell, and stopped and rang the police. He was placed on oxygen and transferred to a recompression chamber. After two recompression treatments he was released.

August 1997 **97/306**
 A diver who had returned from a diving holiday admitted himself to hospital and after DCI was diagnosed was flown to the recompression facility. (Coastguard 041202)

August 1997 **97/186**
 A diver surfaced from a dive to 44m and completed the stops indicated by his computer. This diver then complained of pain in his right thigh and tingling and numbness in his feet. He was laid down and given oxygen. This diver then insisted that he was all right and went to lay down on his bunk. 4 hours later he had severe pain in his shoulders and upper arms. The diver was placed back on oxygen and taken back to the shore. He was flown to a recompression chamber and given two separate recompression treatments.

August 1997 **97/309**
 What was probably a fast ascent caused signs of DCI for a diver who was airlifted for treatment, another diver with similar profile was shifted shortly afterwards. This was a training dive to 25m (Coastguard 061241)

August 1997**97/157**

After a dive to 27m for a total of 30 mins including a 1 min stop a diver complained of a headache. 30 mins later on arrival back at the shore this diver started to be sick and complained of feeling unwell and dizzy. He could not stand unassisted and was giddy and disorientated. He was placed on oxygen and the Coastguard was contacted for assistance. The diver was flown to a recompression chamber and after two recompression treatments is expected to make a full recovery. This diver had been involved in strenuous work during the day, attempting to start a difficult engine and pulling up a shot.

August 1997**97/170**

After a dive to 42m a diver surface to quickly and suffered the bends. He was flown to a recompression chamber and released after treatment.

August 1997**97/152**

A diver conducted an 'explosive' ascent, making 7 mins of decompression. At the surface he suffered dizziness and was placed on oxygen. The diver was flown to a recompression chamber.

August 1997**97/164**

A diver conducted a dive to 46m for a total of 26 mins including 18 mins of decompression stops. Shortly after getting back into the boat she complained of a sore right arm and an examination revealed a 'mottling' to her right shoulder. The diver was given fluids and placed on an 80% Nitrox mix. This seemed to improve the symptoms. Contact was made with a recompression facility and recompression was recommended. After treatment the symptoms were almost completely resolved. This diver had conducted two dives the day before to 47m and then 34m and Nitrox had been used during decompression.

August 1997**97/171**

A diver suffered the bends after diving to 18m. He was flown to a recompression chamber for treatment. The diver had been stung by a jellyfish. He is reported to have complained of 'tingling all over'. (Newspaper report)

August 1997**97/311**

A diver with severe DCI (unable to walk/cheat pain) was airlifted for treatment. The boat was alongside and a mobile phone was used to alert Coastguard. (Coastguard 100947)

August 1997**97/172**

A diver suffering from the bends was flown to a recompression chamber. (Newspaper report)

August 1997**97/173**

On day four of a diving holiday a diver dived to 48m for 44 mins. After a surface interval of 3 hours 29 mins, she dived again to 18m. 5 mins into this dive the diver indicated to her buddy that she had a headache, but wanted to continue the dive. 5 mins later she indicated that she was not well, pulled her hand away from her buddy, shook her head and lapsed into unconsciousness. Her buddy took hold of the unconscious diver and brought her to the surface using a controlled buoyant lift. During the ascent the casualty passed in and out of consciousness and took a few breaths. At the surface the casualty was recovered into the boat and placed on oxygen. After a few minutes her condition worsened, and she started minor convulsions, stopping breathing for a short while. Her pulse remained strong, and gradually she recovered. She was

flown to a recompression chamber and given a 7 hour treatment for a cerebral bend. The DCI was resolved but residual symptoms of whole body oxygen toxicity took longer to dissipate. The diver was diving on air using a dive computer which showed no violations, she had complained of tiredness after the first dive of the day, her drysuit had been fitted with a new neck seal and she had complained that this was tight, and she had taken two anti-sickness tablets. It is thought possible that the DCI was initiated during the first dive of the day.

August 1997**97/312**

Entanglement in lines ?? followed by a forced ?? ascent (from depth unknown) caused a diver to miss 24 minutes of stops and was flown to a recompression facility. (Coastguard 121542)

August 1997**97/176**

After a dive to 45m a diver had a rash on his shoulder and signs of numbness. He was flown to a hospital.

August 1997**97/315**

Following a 34m dive a diver reported 'pins and needles' in arm and hands. An ambulance was arranged to meet the boat and take the diver for treatment. (Coastguard 171125)

August 1997**97/178**

A diver was taken to a recompression chamber. (Newspaper report)

August 1997**97/319**

Extended treatment was required for two divers. One diver had carried out nine dives in five days with the last dive being at 50m with an uncontrolled ascent and the other also making an uncontrolled ascent from 45m. Both divers stated that their computer said it was 'OK'. Divers please note that most modern computers can be down loaded and the ACTUAL dive profile can be established.

August 1997**97/320**

The Lifeboat transferred a diver with suspected DCI to an Ambulance for assessment. (Coastguard 212042)

August 1997**97/321**

Two divers who had missed decompression stops due to running low on air after a dive to 40m were sent by Ambulance for treatment. (Coastguard 2412228)

August 1997**97/204**

Two divers who had been diving to 33m were flown to a recompression chamber suffering from decompression illness. They were released later that day after recompression. (Newspaper report)

August 1997**97/323**

The lifeboat intercepted a dive charter boat with a diver aboard who had lost the feeling of his left arm and leg even though the dive profile showed normal. Extended treatment was given. (Coastguard 301419)

August 1997**97/183**

On the second day of a diving weekend, a diver conducted a dive to 48m for 25 mins with double the required stops. 3 hours 27 mins later a second dive to 30m was conducted. On the ascent from this dive the diver experienced a sharp pain in the



top of his right arm. He carried out 5 mins of decompression in the boat the pain subsided. He then drove home. He was awoken at 4.00am with a severe pain in his right arm. He started to breath oxygen and the pain subsided. The following morning he went to work but the pain slowly increased. A recompression facility was contacted and he was recompressed at 8.10pm that day.

August 1997 97/325

Two divers concerned that they had missed decompression stops were airlifted to shore and met by Doctor and Ambulance. Although they appeared symptom free the Helo continued on to Aberdeen as a precaution. (Coastguard 311426)

September 1997 97/326

One of a group of three divers was showing signs of DCI after a dive to 23m. The Lifeboat met the dive RHIB and all three were taken to the recompression facility. Two divers were confirmed symptom free but the third required treatment. (Coastguard 011122)

September 1997 97/203

The Lifeboat brought a diver ashore who had completed a 30m dive (total duration 30 mins). Neurological DCI was diagnosed and he was treated accordingly. (Coastguard)

September 1997 97/330

The Lifeboat brought a diver ashore who had completed a 33m dive (total duration 30 mins). Neurological DCI was diagnosed and he was treated accordingly. (Coastguard 071220)

September 1997 97/332

Roor communications were aided by Coastguard direction finding equipment following a PAN MEDICO call from a dive boat. One diver was airlifted for recompression treatment following a 34m dive. (Coastguard 101623)

September 1997 97/336

Recompression treatment was required for a diver after a dive to 27m in Scapa Flow. The diver was evacuated by an ambulance to Aberdeen. The usual helicopter was still tasked to above incident. (Coastguard 191014)

September 1997 97/200

An instructor and two trainees were conducting assisted ascent practice from a depth of 9m. This involved four ascents from 9m within a total dive time of 30 mins. The first ascent caused one of their dive computers to show a rapid ascent warning. The trainees completed the exercise with a low to the shore with simulated AV. After de-kitting, one of the divers noticed a numbness in her face. This progressed to paralysis of the left hand side of the face. The divers sought assistance during which time the diver recovered control of her face, and was left with a slight pain in front of her left ear. The diver was flown by helicopter to a recompression facility. No recompression took place. The diagnosis was a inner ear DCI with a bubble pressing on a facial nerve. The bubble was thought to have re-dissolved and thus facial control returned.

September 1997 97/340

Following two dives, one to 27m and the next to 21m a diver reported feeling unwell to the CG. The diver was checked out locally then airlifted to the mainland for treatment. (Coastguard 230616)

September 1997 97/342

One hour after a dive a diver reported symptoms of DCI. An airlift was arranged for recompression treatment. (Coastguard 271010)

September 1997 97/343

A diver with suspected DCI was airlifted to Hospital for assessment. Reported to have surfaced quickly and was in shock. (Coastguard 271250)

Injury / Illness

October 1996

97/021

A diver experienced tooth pain during a descent for a dive. Thinking that it might just be cold water the diver went deeper. However, the pain worsened and the dive was aborted. The diver was in immense pain and emergency dental treatment was sought. The problem was caused by air under the tooth cavity.

November 1996

97/104

A diver involved in rescue practice made four ascents from 20 to 5m in a 25 min dive. During the second ascent he inhaled a small amount of water which caused him to start coughing. At the surface the coughing became severe and made the diver gag. The diver had a tight, painful chest. A viral infection is thought to have been present.

November 1996

97/105

A trainee dived to 7m for 10 mins and then left the water complaining of cold and a headache. 10 mins later this diver was very cold and disorientated. She was taken to hospital by ambulance. It is thought that ear damage may have been sustained.

December 1996

97/103

An instructor and trainee were in 8m of water practising buddy breathing. The trainee panicked and grabbed the mouthpiece back. The instructor brought the trainee to the surface and towed him to the shore. The trainee had stopped breathing and his heart appeared to have stopped. Resuscitation using oxygen was given and the trainee regained consciousness. The casualty was later discovered to be a diabetic and to have a heart problem. He was discharged from hospital three days later.

February 1997

97/031

During a dive in a depth of 20m one of a pair of divers became aware that he was unable to swim in a straight line, maintaining a compass bearing, and that he was unable to remember his contents gauge readings. His buddy noticed that all did not seem well and signalled an ascent. A normal ascent was made, although the unwell diver did start coughing during the start of the ascent. At the surface he again coughed and became disorientated. His buddy made him buoyant and started to tow him to the shore when he lapsed into unconsciousness. The buddy started to give AV and was met and assisted by a third diver. A rescue boat arrived and recovered the diver. The diver was placed into a recompression chamber where he regained consciousness. Recompression treatment, including the use of oxygen, was given and the casualty later taken to hospital. A heart murmur was detected. The casualty recovered but has given up diving.

March 1997

97/097

During the ascent from a dive to 20m one of a pair of divers started to experience severe pain in one ear. A slow ascent was made, and they conducted buddy breathing to stay longer in shallow water. Great pain was experienced on the surface but this subsided after one hour.

March 1997

97/095

A diver conducted a second dive to a depth of 12m. During the dive her buddy found her lying on a ledge resting. The diver

was tired and trying to recover her strength. The buddy brought this diver to the surface, and she was given oxygen. She had undergone surgery one month before.

April 1997

97/118

A diver was rolling backwards into the water from the side of a RIB, when the his SMB reel was snagged on a rope attached to the inside of the boat, the diver was left suspended out of the water. The reel was clipped to a D ring on his stab jacket and this ring then failed. The diver fell further into the water and a carabiner fastened to the reel was forced through his dry suit and into his upper thigh. The diver was left suspended with his head in the water. Others in the boat released the reel, allowing him to fall into the water, and he was then recovered into the boat. Because a damaged artery was suspected, the Coastguard was called and the boat quickly returned to shore. On shore the diver received medical attention to remove the carabiner, and the injury was found to be less serious than first thought. The diver was given a course of antibiotics.

April 1997

97/062

Whilst on a training dive, a diver seemed to lose consciousness for a few seconds. This diver was safely brought to the surface by the instructor.

April 1997

97/067

A trainee was practising buddy breathing in a depth of 8m. During the exercise she swallowed some water and made a free ascent to the surface. At the surface she had an asthma attack and her buddy towed her ashore. After taking medication the diver recovered. The diver is reported to be a smoker.

April 1997

97/119

After a dive to a maximum depth of 31m for a total time of 40 mins, a diver surfaced and returned to the shore. Having removed her diving kit she started to notice an uncomfortable feeling in her back. This progressed to pins and needles down both legs and she experienced difficulty walking. The diver was given an examination and a trapped nerve was diagnosed. The diver was monitored and after 20 mins the symptoms resolved. A few weeks later a doctor concluded that a decompression incident had occurred and restrictions were placed on subsequent diving.

April 1997

97/247

On a dive to just 15m a diver suffered coughing spasms and on surfacing was coughing blood, had tight chest and was nauseous. Ambulance took diver to Hospital. (Coastguard 271149)

May 1997

97/109

A diver surface after a 15 min dive. He suffered breathing problems and was towed ashore. He was given oxygen and taken by helicopter to hospital. He was released the following day.

May 1997

97/085

A diver developed breathing difficulties underwater. He was flown to hospital, and released after two hours. (Newspaper report)

May 1997 **97/123**
On finishing a dive to 17m, a diver experienced great difficulty removing equipment to get back into a RHIB. Once back on-board, the diver started to shiver uncontrollably although maintaining that she was not cold. She was made comfortable in the bottom of the boat. After the other divers had been recovered into the boat, the party quickly returned to the shore where the casualty was given warm drinks and dry clothing. She soon made a full recovery.

June 1997 **97/274**
Rapid ascent from 10m caused a diver to feel unwell but after a thorough check by local dive doctor was diagnosed as not having decompression illness. (better sent than bent). (Coastguard 011321)

June 1997 **97/114**
Three divers were diving to a depth of 34m when one of them became affected by nitrogen narcosis and his breathing became erratic. This diver then found it difficult to breathe from his own regulator and that offered by a buddy. It was subsequently concluded that this diver was holding a full lung full of air and it was this that prevented him from breathing in. The distressed diver started to panic and inflated his drysuit to gain buoyancy. At this point he lost consciousness and was brought to the surface by one of his buddies. At the surface he regained consciousness, started to ill and vomited blood. He was given oxygen and taken to hospital. This diver made a full recovery but suffered two black eyes and a badly bitten tongue. Fatigue, excessive alcohol the night before, and excessive smoking are suggested by the casualty as possible contributory factors.

July 1997 **97/142**
After an early start a group of divers completed a dive to 27m on a wreck 10 miles off shore. Upon entering harbour, on their return, one of the group started to feel ill and was sick. As he got from the boat he was dizzy and stumbled. He was placed on oxygen and then taken by ambulance to hospital. At hospital no signs of decompression illness could be found, and a combination of a lack of food and water, and a prolonged period in a drysuit, under warm conditions, is thought to have been the problem. The diver made a full recovery.

July 1997 **97/140**
An emergency ascent from 10m due to having ingested water resulted in unconsciousness. The diver was transferred from RHIB to Lifeboat and then winched to the CG Helo for evacuation for treatment. (Coastguard 091024)

July 1997 **97/127**
A trainee diver and a friend entered the water to conduct a shallow shore dive. At a maximum depth of 2m the trainee was seen to have his mouthpiece out and to be panicking and tugging about. The buddy tried to replace the mouthpiece but the trainee repeatedly lost it. At one point the buddy's mouthpiece was pulled from his mouth. The buddy then inflated the trainee's stab jacket and brought him to the surface. At the surface the trainee was not breathing. The buddy called for help and swam them to the shore. Assistance was given by others on the shore. The casualty was given CPR and AV. The Coastguard was called and the casualty was flown to hospital, where a slow recovery was made.

July 1997 **97/128**
Prior to a shore dive a young girl tripped over a partially hidden fencing rope and injured her arm.

July 1997 **97/167**
On the fourth day of a week long diving trip, two divers completed a dive to 38m for a total of 26 mins. During the ascent, which included a 1 min safety stop at 6m, one of the divers felt breathless. At the surface he was unable to breathe and was visibly distressed and cyanosed. He began to cough. Their boat quickly came to their assistance. One holding on to the boat the diver lost consciousness. He was recovered into the boat and given oxygen enriched AV. The Coastguard was called and a helicopter dispatched to assist. The casualty started to breathe himself and was given demand oxygen. He then started to regain consciousness and pushed the oxygen away. He was flown to a recompression facility, and during the flight was well enough to assist with the removal of his diving suit. Medical examination suggested that he was not suffering from decompression illness. He was found to have an arrhythmic heart rate, and was transferred to hospital. He was released two days later. Salt water aspiration is considered to be the most probable cause of this problem.

July 1997 **97/299**
Following a shore dive a diver with nausea and headache drove to a Naval base where he was airlifted to the recompression facility but on examination was symptom free. (Coastguard 201244)

July 1997 **97/169**
Hospital treatment was required for a Belgian diver whose air tank had exploded whilst being filled aboard a charter vessel. The diver received shrapnel wounds. (Coastguard 271601)

August 1997 **97/307**
Inhalation of water whilst surfacing from 77m resulted in an airlift for a diver. He was released after examination at the recompression facility and sent to Hospital. (Coastguard 021658)

August 1997 **97/327**
Upon taking advice from a recompression facility a diver who was feeling ill was taken to the local Hospital where it was diagnosed that he had slight hypothermia and shock. (Coastguard 040859)

August 1997 **97/314**
After a second dive to 37m a diver lost consciousness and was airlifted for treatment. (Coastguard 161823)

August 1997 **97/316**
A diver who was stung by a jellyfish was later unsure if he was suffering from DCI and was taken to Hospital as a precaution. (Coastguard 171822)

August 1997 **97/205**
A diver was taken to hospital suffering from chest pains. (Newspaper report)

Boating / Surface Incidents

October 1996 **97/208**
 Dive boat with engine failure and 2 divers down alerted the CG who scrambled a helo, the Lifeboat and a CG team but were able to restart their engine and pick up their divers thereby dispensing with the emergency services. (Coastguard 051337)

October 1996 **97/210**
 Two divers who could not be located by their surface craft were located by Helicopter. (Coastguard 01220)

October 1996 **97/033**
 A group of divers had chartered a dive boat. On the day of the dive there was a strong wind blowing (force 5 - 6) and they were surprised that the skipper still intended to put to sea. He warned that 'anyone who didn't want a rough ride had better stay ashore'. The group set off and soon found themselves in very rough conditions with equipment being thrown around the boat. The dive team leader questioned the skipper who stated that he was trying to round a headland to find shelter. It became apparent that there would not be any shelter and the dive team leader requested that they should head back. On arriving back in the harbour the skipper suggested that they wait and try later, but on finding that the conditions were expected to worsen the dive team leader stated that they did not wish to attempt any further trips to sea as he thought the conditions to be unsafe. The skipper then returned to shore and the group were charged for the day's charter.

October 1996 **97/012**
 A group on a BSAC boat handling course were returning to a marina when they were informed that a dingy had capsized near by. They went to help and recovered the dingy and four crew. The Coastguard was contacted, and the dingy crew were taken to hospital for a check up.

October 1996 **97/011**
 The cox of a dive boat engaged in the recovery of divers noticed a windsurfer clinging to his board and waving in distress. The divers were recovered and the group went to the assistance of the windsurfer. The windsurfer and his board were recovered and brought ashore. The windsurfer was found to be suffering from hypothermia and shock and he was taken to hospital where he made a full recovery.

October 1996 **97/219**
 A diver separated from the cover boat in poor visibility was located by a fishing vessel. Helicopter and Lifeboat also searched. (Coastguard 301154)

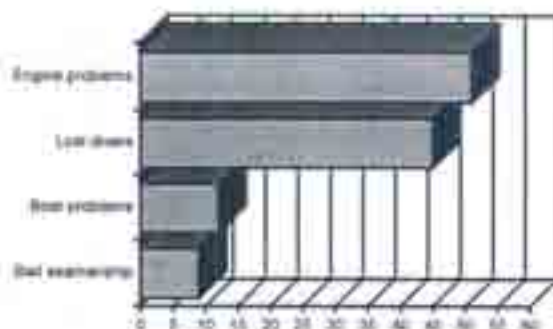
November 1996 **97/212**
 A dive RHIB was swamped in rough seas whilst being recovered. The boat with 2 aboard then backed off and headed for shelter but could not be contacted or found and was considered overdue in fading light. The boat and occupants were found safe and well on a beach 4 miles away with a soggy radio. (Coastguard 011750)

November 1996 **97/213**
 Inshore Lifeboat towed a RHIB with engine failure and 4 aboard into port. (Coastguard 031816)

November 1996 **97/024**
 Three divers entered the water to conduct a drift dive in 20m of water. As planned they released a delayed SMB once they had reached the bottom, to enable the boat to follow. However, due to poor surface visibility the cox did not see the SMB. The divers proceeded with their dive but after few minutes decided to surface, as the underwater visibility was poor. On surfacing they were able to see their boat, but unable to attract the cox's attention. The cox was concerned that he was unable to see the SMB and started a search. The cox realised that, due to the poor conditions, he was probably not going to find the lost divers and tried to contact the coastguard by VHF radio, the radio however did not work. The cox left the area to return to the shore to call for assistance. On the way back he came across a fishing vessel who contacted the Coastguard. Three lifeboats and a helicopter were launched, and the divers found and safely recovered after having spent about two hours in the water.

November 1996 **97/214**
 A dive charter boat with three on board reported engine failure to the CG. Oban Lifeboat was tasked to undertake a 40 minute tow to a safe haven. (Coastguard 201657)

Analysis of Boating / Surface Incidents



December 1996 **97/216**
 A dive charter vessel broke down whilst acting as cover for a drift dive. Five divers were able to reach the boat but two were forced to swim ashore. The current here reaches 12 knots. (Coastguard 011210)

December 1996 **97/217**
 Red flares and orange smoke failed to attract the attention of anyone to a dive boat with engine failure. Finally a 999 call was made on a mobile phone and transferred to the Coastguard but the call strength was so weak that an accurate position could not be made but from what information could be gleaned. A Lifeboat was despatched and fortunately located the 5 divers in a RHIB. We have VHF direction finders but not telephone D/F !! (Coastguard 081233)

- February 1997** 97/350
Lifeboat launched to assist dive boat with failed engine, brought in. (RNL)
- February 1997** 97/221
Two shore divers drift diving 1 were swept off course by currents and were located by another vessel clinging to a beacon. (Coastguard 091050)
- February 1997** 97/351
Lifeboat launched to assist dive boat in adverse conditions, escorted in. (RNL)
- March 1997** 97/222
A member of the public had observed three divers flashing lights and waving. A police launch known to be in the area was alerted but the divers had meantime been spotted by their RIB and picked up. (Coastguard 021646)
- March 1997** 97/352
Lifeboat launched to assist dive boat with failed engine, brought in. (RNL)
- March 1997** 97/223
Four divers and RIB with engine failure were towed to safety by Lifeboat. (Coastguard 091700)
- March 1997** 97/353
Lifeboat launched to assist dive boat with failed engine, brought in. (RNL)
- March 1997** 97/225
Engine failure resulted in a diver drifting away. He was located by the Coastguard helicopter, picked up by the Lifeboat and reunited with his own RIB which was escorted in by Lifeboat. (Coastguard 231117)
- March 1997** 97/145
A dive boat cox had a pair of divers in the water and another two kitting up when a RIB came near to them and dropped four divers into the water. Having dropped its divers this other boat, with just the cox on board, accelerated away out to sea. This boat hit a wave and left the water. The cox, who's drysuit was unzipped, was thrown into the water. The console of this boat also broke away and went into the water with the cox. One engine remained running and the boat circled with the console attached to it by various wires, and the cox hanging on to the console. The cox of the first boat saw what had happened and went to assist. He recovered the other cox, and alerted the Coastguard by radio. A passing fishing boat came to assist. Between them they recovered the four divers from the disabled boat and the two divers from the assisting dive boat. The fishing boat, with the divers on board, towed the disabled boat back to harbour.
- March 1997** 97/355
Lifeboat launched to assist dive boat, brought in. (RNL)
- March 1997** 97/356
Lifeboat launched to assist dive boat with failed engine, brought in. (RNL)
- March 1997** 97/228
Surface detection aids (strobe and flare) were responsible for the location of a diver separated from his boat. He was picked up by a passing yacht. (Coastguard 301845)
- April 1997** 97/058
The engine of a RIB failed due to plug fouling whilst the last pair of six divers were underwater. When the divers surfaced the boat was half a mile away and unable to pick them up. The divers swam to a navigational buoy and attracted the attention of nearby fishermen who returned them to their boat. The cox had fired an orange smoke flare and an inshore lifeboat towed them back to the shore.
- April 1997** 97/230
Inability to start a dive boat's diesel engine resulted in loss of contact with the SOLO diver in the water. ILB, CG Helo and search team tasked but diver was picked up by another dive boat. (Coastguard 021451)
- April 1997** 97/063
On surfacing from an aborted dive, a diver found himself in a rip tide and told the boat to stay away until he had passed into calmer water. Due to the rough conditions the diver and boat became separated and the cox lost sight of him. He was later recovered by a searching helicopter.
- April 1997** 97/234
Two divers became separated from their dive boat for 1.5 hours when the dive boat lost contact of SMB during a drift dive. The Lifeboat located the divers and returned them to the dive boat. CG Helo confirmed dive boat did not require further assistance. (Coastguard 051110)
- April 1997** 97/236
An RIB with engine failure and four divers aboard was towed to safety by Lifeboat. (Coastguard 051531)
- April 1997** 97/047
In a rough sea, large swells and 'perhaps not the best bit of boat handling' (sic) caused the engine of a dive boat to be flooded. Near by a Coastguard rescue exercise was taking place and they provided assistance. Some of the divers were taken off by another boat, and the disabled boat was towed into calmer water where the engine was restarted.
- April 1997** 97/235
Two shore divers required assistance in strong tides. One was picked up by Helicopter and the other was assisted to shore by other divers. (Coastguard 051445)
- April 1997** 97/238
No dead man's cord = dead engine (especially when key is lost as well) but shortly after deploying a red flare a budding engineer restarted the engine and was able to pick up the divers in the water. Lifeboat, Helo and Coastguard all stood down. (Coastguard 051515)
- April 1997** 97/239
Helicopter, Lifeboat and Coastguard searched for two divers reported missing from SMB. Divers followed line, nothing found. Divers found ashore safe and well. (Coastguard 061521)



- April 1997** **97/241**
An IJB and CG team were recalled following a 999 call reporting a diver in difficulty. The diver jettisoned his weightbelt and made the shore unaided. (Coastguard 131451)
- April 1997** **97/242**
The loss of a propeller resulted in a tow in by Lifeboat for a RHIB with 5 divers aboard. (Coastguard 201450)
- April 1997** **97/243**
Two divers lost contact with the surface cover boat when they lost their SMB. Contact was established and the IJB escorted them in. (Coastguard 201619)
- April 1997** **97/359**
Lifeboat launched to assist overdue dive boat, persons brought in. (RNLI)
- April 1997** **97/244**
A dive charter boat with 8 on board was towed back to harbour by another dive boat after the inboard drive shaft failed. (Coastguard 241738)
- April 1997** **97/245**
Diving in strong spring tides caused two divers to lose their SMB and RHIB quickly lost contact with them. CG Helo located them 1 mile from entry point. No other location aids were carried. (Coastguard 241829)
- April 1997** **97/248**
Dive tender with gearbox failure and 13 on board was towed in by another vessel. (Coastguard 301358)
- May 1997** **97/250**
Two Lifeboats, the CG Helicopter, two CG search teams and five other vessels were called to search for two divers. The divers were located 1.3 miles from the dive site having drifted off in poor visibility. (Coastguard 03181)
- May 1997** **97/251**
A call was received from a dive RHIB (on mobile phone) stating they had engine failure and were drifting away from the start line with 2 divers still down. They were located by Lifeboat and reunited with the dive boat which was then towed into harbour. (Coastguard 031807)
- May 1997** **97/252**
Dive boat with five on board and three divers in the water had engine failure (faulty alternator) but was able to restart using the string from a dive bag (very resourceful). (Coastguard 032105)
- May 1997** **97/360**
Two lifeboats launched to assist leaking/swamped dive boat, brought in. (RNLI)
- May 1997** **97/253**
Investigations carried out after a trailer and van were left near a slipway revealed that 3 divers had taken their boat to an island 20 miles away without leaving any note of their whereabouts. Three Coastguard search teams and the Police were involved. This could have been avoided if they had only told the Coastguard of their intentions. (Coastguard 060804)
- May 1997** **97/254**
A dive boat with engine failure and three on board was towed to safety by a local ferry. (Coastguard 081248)
- May 1997** **97/255**
Entanglement of SMB in pot lines resulted in 3 divers becoming separated from the support craft. They drifted for 2 miles in a strong ebb tide and were located by their own vessel and the Lifeboat. Another vessel and Military helo were also tasked. All three divers were taken to hospital with mild hypothermia and one with chest pains. NO SURFACE DETECTION AIDS. (Coastguard 101745)
- May 1997** **97/256**
Dive boat with engine problems whilst four divers were in the water was able to restart with the assistance of the Lifeboat and once the divers were picked up the Lifeboat escorted them in. (Coastguard 111100)
- May 1997** **97/074**
Two divers are dropped in the water to swim to a wreck buoy to make their descent. However, a current makes it impossible for them to reach the buoy. As they are carried down stream, they descend. A slight sea mist thickens, and the cox has difficulties keeping sight of the buoy. The boat stays on site. Other dive boats are active at the site. The two divers surface after 20 mins but are not able to see any boats. They shout and whistle but are not heard. Their dive boat raises the alarm once it is clear that they are overdue. Another boat assists, the Coastguard is alerted, and a search is started. After one to one and a half hours the divers had made their way towards the shore, and as they first notice some rocks in the mist, they are found by a searching boat and reunited with their own party.
- May 1997** **97/258**
Dive boat with engine failure and five on board was towed back into harbour by Lifeboat. (Coastguard 131245)
- May 1997** **97/260**
A Mayday call was put out when a dive boat with engine problems could not pick up the six divers in the water. Another vessel which heard the call picked up the divers and returned them to their craft which had by then restarted its engine. (Coastguard 181538)
- May 1997** **97/362**
Lifeboat launched to assist dive boat involved in a collision, brought in. (RNLI)
- May 1997** **97/263**
Two divers became separated from their boat in poor surface visibility (fog) and were picked up by another vessel. Lifeboat, CG Helo and other vessels also searched. (Coastguard 180650)
- May 1997** **97/265**
999 call reporting dinghy ashore was investigated by Lifeboat and Helicopter. Lifeboat found it was an unoccupied dive boat. The two divers from the boat surfaced shortly after and were advised of their folly. (Coastguard 221818)
- May 1997** **97/364**
Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

May 1997 **97/266**
 The Lifeboat towed in a dive RHIB with fuel problems and 6 divers on board. (Coastguard 241217)

May 1997 **97/270**
 The inshore Lifeboat was tasked when a dive boat with eight divers on board reported being out of fuel, however they obtained fuel from a passing boat and the Lifeboat was released. (Coastguard 351706)

May 1997 **97/088**
 A dive boat ran out of fuel on its return to the launch point. They attempted to call the Coastguard but their radio was in effective. A passing boat relayed their message. A lifeboat was launched to tow them back in.

June 1997 **97/115**
 Two divers entered the water to dive to a wreck on which they had placed two shots. They descended onto the wreck at 42m and commenced to explore the wreck. During the dive, they found a porthole and decided to start their ascent at this point using a lifting bag to fill the porthole. One diver attached the lifting bag whilst the other prepared a delayed SMB. At this point the lifting bag, porthole and delayed SMB became entangled, and, with the current increasing, they were forced to abandon some of this equipment and start an ascent. During the ascent they became separated. Each diver managed to launch a lifting bag as a delayed SMB and successfully complete the required decompression. At the surface they met again but were some distance from their boat and were not able to attract attention to themselves. The cox realised that the divers were lost and searched for 1 hour before radioing the Coastguard for assistance. The divers were spotted by a searching helicopter and recovered by lifeboat 5 miles from their entry position. No subsequent ill effects were reported.

June 1997 **97/271**
 A dive boat reported that they had engine failure and were drifting with 4 divers still down. The lifeboat located the divers and reunited them with their boat which they then towed into port. (Coastguard 010901)

June 1997 **97/273**
 A joint effort with rescue services saw the Helicopter locate and lower over a missing diver whilst the lifeboat homed in and picked the diver up. (Coastguard 011526)

June 1997 **97/365**
 Lifeboat launched to assist dive boat out of fuel, brought in. (RNLI)

June 1997 **97/367**
 Lifeboat launched to assist dive boat adrift, other copied. (RNLI)

June 1997 **97/276**
 Dive RHIB let off red flare when the boat was swamped rendering engines and electric inoperable. The flare was spotted by a fishing vessel which towed the boat with nine divers in escorted by the Lifeboat. (location aids at work) (Coastguard 051238)

June 1997 **97/368**
 Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

June 1997 **97/279**
 A 999 call reporting two divers in trouble was actually the start of a more major SAR effort when the two divers in trouble were located by Lifeboat and reported that two other divers and their dive boat were not in sight. Another vessel assisting in the search located the other two divers and the Lifeboat located and towed the broken down dive boat into Harbour. It is thought that the neither boat or divers carried location aids. (Coastguard 081151)

June 1997 **97/281**
 A Coastguard team investigating a report of a drifting dinghy discovered it was a dive boat. Three divers were down and had left the boat unattended. (Coastguard 081959)

June 1997 **97/372**
 Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

June 1997 **97/285**
 Two divers swam ashore when their cover boat suffered engine failure. The one person on the boat was waving for assistance and the resultant 999 call from a member of the public to the Coastguard prompted help from a passing vessel. NO DETECTION AIDS CARRIED BY BOAT OR DIVERS. (Coastguard 181958)

June 1997 **97/286**
 Again the common problem of engine failure leading to missing divers occurred. Five divers were picked up by another dive boat which then towed the other RHIB with two on board into port. (Coastguard 211543)

June 1997 **97/375**
 Lifeboat launched to assist dive boat out of fuel, brought in. (RNLI)

June 1997 **97/287**
 The Coastguard were alerted of a red flare from a dive boat. Upon investigation it was discovered that they were using this as a recall system. They were made aware of their misdemeanour. (Coastguard 281124)

June 1997 **97/288**
 Two divers who had become separated from their dive boat were picked up by a passing yacht which then returned them to their boat. (Coastguard 281129)

June 1997 **97/377**
 Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

July 1997 **97/378**
 Lifeboat launched to assist dive boat adrift, persons and craft landed. (RNLI)

July 1997 **97/290**
 The Coastguard Patrol Boat located two divers who had drifted out of sight of dive boat. (Coastguard 051442)

July 1997 **97/379**
 Lifeboat launched to assist stranded dive boat, gave help. (RNLI)

July 1997**97/163**

Two dive boats with 5 divers and a car were at a wreck site. One pair had dived and, as agreed, released the grabriel from the wreck so that it could be recovered. This pair surfaced and got back into their boat. The group of three deployed a delayed surface marker buoy and made their ascent. This buoy was not seen by the people in the boats as fog had now descended. The trio completed their decompression and on surfacing had become separated from their boat. The Coastguard was contacted and a search initiated. The search involved the two dive boats, two lifeboats, a helicopter, a fishing boat and a car transport ship. The divers were recovered 3 hours 30 mins later by one of the lifeboats, 8 miles from the wreck site.

July 1997**97/292**

Investigation of a boat with 3 on board waving for help revealed it was a dive boat broken down and two divers had been missing for over an hour. The Lifeboat rescued the divers and towed the boat into harbour. NO LOCATION AIDS !! (Coastguard 101214)

July 1997**97/381**

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

July 1997**97/293**

Two divers who had been on a drift dive on the edge of sniping lane surfaced to discover that BOTH of their cover buoys had disappeared. They hailed a passing French yacht using their whistles and were able to make a VHF call to Dover Coastguard who established that the two dive boats had returned to shore totally unaware that the divers were missing. (Coastguard 121558)

July 1997**97/294**

Surfacing beneath cliffs two divers could not be seen by their boat which alerted the Coastguard. The divers swam to rocks from where they were waving and shouting. A Lifeboat and a helicopter were alerted but recalled after the divers own boat located them. NO SURFACE DETECTION AIDS. (Coastguard 121801)

July 1997**97/383**

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

July 1997**97/384**

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

July 1997**97/194**

After dropping a shot line on a wreck in 27m a pair of divers entered the water and started their dive. 10 mins later a second pair also descended the shot line. A further 10 mins later a third pair entered to start their dive, only to discover that the buoy had become disconnected from the shot line and that they had drifted off the site. The divers were recovered and the boat returned to the wreck site. After 40 mins had passed since the first pair entered the water, the Coastguard was alerted that divers were missing. A lifeboat was launched and the divers found within 20 mins. All four divers were together at the surface. They were spotted by the flag that they were using.

July 1997**97/153**

Two RIBs were operating together with a group of divers, diving on a wreck 18 miles off shore. The conditions were calm, and it was decided that the divers would only deploy SMBs for their ascents. After 15 mins one pair started to drift off the wreck. 5 mins later they deployed their SMB and continued to drift for a further 10 mins. On arrival back at the surface, the divers realised that they had been swept behind some rocks, and although they could see the 'A' frame of one of the RIBs they could not attract attention to themselves. Realising that their divers were missing the Coastguard was alerted and the boats started to search. A helicopter, lifeboat and nearby warship were directed to help. After 2 hours at the surface the divers were found by one of their own boats, before any of the other assistance arrived. No ill effects are reported. The divers were heart shouting long before they were seen.

July 1997**97/386**

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

July 1997**97/302**

A major search was commenced when a dive boat reported two of the party missing. Three lifeboats, a Helicopter, a fixed wing aircraft and various commercial vessels were tasked to search. The fixed wing aircraft spotted them and the Helicopter winched them up and took them to Hospital for a precautionary check up. (Coastguard 250857)

July 1997**97/143**

Two divers were conducting a dive on a rock pinnacle. At 41m one of the divers felt uneasy and signalled to his buddy to ascend. It is thought that he suffered nitrogen narcosis. At 25m the first diver signalled that he was now OK but as they were in open water they decided to continue to the surface. At 5m they deployed a delayed SMB and conducted a 2 mins stop. Upon surfacing they were a long way from the rock and were unable to attract the attention of their boat. The boat continued to carry them away, and after 50 mins they were spotted by the skipper of a small yacht. They were recovered into the yacht and taken back towards their boat. They attracted the attention of their boat and it was agree to return to shallower water to make the transfer. The yacht skipper reports that his boat was over loaded by the divers and their kit, and they he was nearly swamped by the dive boat as it manoeuvred, at speed, around him. The divers were eventually safely transferred back into their own boat.

July 1997**97/306**

Not for the first time there was conflict between divers from a local dive centre and a local fishing vessel. Without appointing blame, these incidents can easily be avoided and certainly is not good PR for divers. Cased as unsafe practise from both parties. (Coastguard 301143)

August 1997**97/389**

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

August 1997**97/390**

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

August 1997**97/328**

The Coastguard arranged a tow for a broken down dive boat. (Coastguard 041403)

August 1997 97/310
 The Lifeboat was diverted from exercise to investigate a report of divers diving in a shipping lane. The LB located the vessel and the crew had a word with the persons on the RHIB (which was not displaying the A flag). (Coastguard 071848)

August 1997 97/174
 Two divers became separated from their boat. A search involving a helicopter, two lifeboats, a flotilla of fishing boats and a ferry was conducted. They were discovered 2 miles from their dive site, after 2 hours, and brought safely to the shore (Newspaper report)

August 1997 97/198
 One group of divers had completed their dive and a second group of four pairs entered the water. Because it was noticed that a current was beginning to run, this second wave were asked to launch delayed SMBs as soon as they reached the bottom. Whilst this dive was in progress, one diver from the first wave became ill, shaking and vomiting. He had previously suffered this condition due to water entering his middle ear. It was decided to return with this diver as soon as the others had surfaced. Three SMBs were visible. These three pairs were recovered and the boat moved into a sheltered cove. A second boat associated with this party arrived and divers who wanted a second dive started to transfer into it. During the transfer of their equipment a bag belonging to one of the party was discovered and it was realised that one pair was still in the water. Both boats went to search for the lost divers, and other boats in the area were asked to help. The divers were found after 60 mins in the water. The divers were spotted by their SMBs.

August 1997 97/318
 A fishing vessel reported a drifting dinghy. Upon investigation it was discovered that it was an unmanned dive boat anchored with divers down (unsafe practice). (Coastguard 201819)

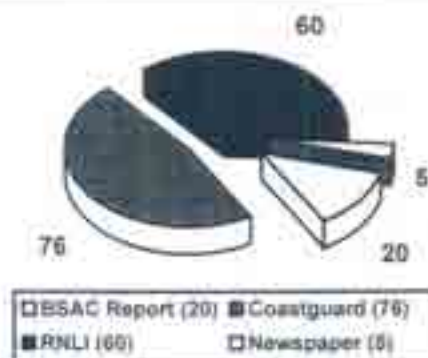
August 1997 97/322
 Not checking the times of the tide led to a rescue for two divers who during a shore dive became fatigued when the tide turned and could not regain the shore. The local lifeboat went to their assistance. (Coastguard 241612)

August 1997 97/168
 Three lifeboats and a helicopter were involved in a search as the result of diving activities

August 1997 97/324
 Diving within Harbour limits. If two divers were caught in currents and unable to make the shore. A passing cabin cruiser picked them up before the Lifeboat arrived. (Coastguard 301844)

August 1997 97/195
 After placing a shot on a wreck in 31m, two divers enter the water and conduct their dive. A few minutes later a second pair start their dive, but it is aborted when one of the pair can not clear his ears. Whilst a third pair prepare to dive, the first pair surface and are recovered into the boat. The third pair start their dive. Whilst this pair are diving the wind increases and the sea state changes quickly from choppy to a big swell. It is decided to recover the shot. After a while the boat party becomes concerned that the third pair have not been seen and they start to search the surface. After one hour they call the Coastguard and a helicopter and lifeboat are launched. The divers are found after two hours. They suffered no ill effects. On the return journey the boat engine fails and they are towed into harbour by an inshore lifeboat.

Boating/Surface Incident Report Source Analysis



September 1997 97/181
 After the last pair of a group of divers had completed a dive on a wreck in 30m it was discovered that an earlier pair had still not been recovered into the boat. The Coastguard was alerted and a helicopter was called to search. The lost divers were quickly found, on the surface, 1 mile from the entry point. Sea conditions and bright sunlight had made it difficult for the boat party to see them when they returned to the surface.

September 1997 97/329
 Dive boat with engine failure and six aboard was towed back into harbour by Lifeboat. (Coastguard 660943)

September 1997 97/189
 A dive boat encountered a sinking cabin cruiser and rescued four people. One was a young boy. One person was close to unconsciousness. None were wearing life jackets. The four people were brought ashore and taken to hospital suffering from shock and hypothermia. Whilst coming back to shore the dive boat itself was heavily loaded with the four extra people, it started to take on water and one engine cut out. The cruiser was on its first trip of the year and had been swamped by a wave. (Newspaper report)

September 1997 97/199
 Two dive boats were travelling together at speed, one 60m behind the other and to one side. The cox of the following boat was distracted answering a question from a passenger in the

August 1997 97/313
 The Lifeboat towed in a dive RHIB with 5 on board after having engine failure. (Coastguard 181633)

August 1997 97/394
 Lifeboat launched to assist diver boat, other coped. (RNLi)

August 1997 97/317
 A Plan broadcast was made by a dive boat reporting 2 divers missing, however they were located prior to search units arriving. (Coastguard 181337)



boat. The front boat stopped and the cox of the second boat did not notice until they were very close. The cox turned away from the stationary boat, and the stationary boat attempted to power out of the way. The two boats struck each other. The A frame of the front boat was bent and two tubes of the following boat were ripped. The damaged boat was able to make it ashore and no injuries were suffered.

September 1997 97/331

The Lifeboat investigated a report of an unmanned boat. On arrival they discovered a dive RHB, shortly after four divers surfaced. Hopefully the shock of seeing a 14m Lifeboat next to their boat will put an end to their unsafe practice. (Coastguard 091837)

September 1997 97/396

Lifeboat launched to assist dive boat with failed engine, brought in. (RNLI)

September 1997 97/333

A 999 call was received reporting divers in distress and a helicopter, Lifeboat and CG teams were deployed, however it was discovered they were blowing whistles to attract the dive boat. Classed as false alarm with good intent. (Coastguard 141343)

September 1997 97/334

A mayday call from a Dive RHB stated they were sinking with twelve divers on board. All were rescued by Lifeboat and one diver was taken to Hospital with hypothermia. (Coastguard 141600)

September 1997 97/337

A report of a missing diver was investigated. Two Lifeboats, a Helicopter and a CG team commenced a search and the diver was found on the surface safe and well by Helo. (Coastguard 201244)

September 1997 97/338

Three divers who drifted a considerable way from the dive boat after a wreck dive were rescued by a CG Patrol boat. (Coastguard 201314)

September 1997 97/339

Three divers whose surface marker had been dragged under surfaced and drifted and were not spotted by their cover boat. They had been drifting for 50 minutes when a passing yacht picked them up. The yacht called the Coastguard and the dive boat on hearing the call then reported them overdue. I am lost for words on this one. (Coastguard 211408)

September 1997 97/341

Three divers were recovered by a fishing vessel after their dive boats prop became fouled. The fishing boat then towed the dive boat with five on board back to harbour. (Coastguard 251353)

September 1997 97/344

A dive RHB with engine failure and seven on board was towed back to the dive centre by a small local ferry. (Coastguard 281442)



Ascents

October 1996

97/207

Loss of weightbelt at 35m caused a diver to make a rapid ascent who later became unconscious. Treatment and hospitalisation given locally. (Coastguard 020924)

October 1996

97/107

A diver who had been at a depth of 21m arrived at the surface in a panic and hyperventilating. He was disorientated. He was given oxygen and rapidly became lucid and regained his composure. No subsequent ill effects were reported.

November 1996

97/220

A diver who had been diving with variable mixes of Nitrox over 7 days made a rapid ascent due to buoyancy problems and was recompressed as a precautionary measure. It is interesting to note that the diver's computer omitted decompression warnings. (Coastguard 171117)

December 1996

97/101

An instructor and trainee were at a depth of 30m. The instructor noticed that the trainee was using a lot of air. When the student got down to 50 bar the instructor handed him a 2l pony cylinder charged to 180 bar and an ascent was started. The ascent was normal until they reached 5m when it became fast. The trainee was convinced that he was out of air, although 40bar remained in his main cylinder and 20 bar in the pony cylinder.

December 1996

97/015

Two divers descended to a wreck in 50m of water. At the bottom they found a porthole lying near the wreck. One diver attached a lifting bag and started to fill it using his main cylinder. This dropped the air pressure in this cylinder from 100 to 50 bar, but the porthole did not lift. The second diver put more air into the lifting bag using her octopus regulator, and this started to free flow and could not be stopped. Using both ABLJ and drysuit, this diver then made a buoyant ascent directly to the surface missing 7 mins of stops. At the surface this diver was recovered into the boat and given oxygen. The first diver completed the required stops but was almost out of air on surfacing. The second diver sought medical advice. No further ill effects were experienced.

February 1997

97/100

Two divers were diving at a depth of 18m when the regulator of one started to free flow and his mask flooded. The diver's statjacket was inflated and they conducted a rapid ascent to the surface. No subsequent ill effects were reported.

March 1997

97/098

One of a pair of divers lost buoyancy control at a depth of 20m and he became inverted. His boots became inflated and he lost his regulator. Unable to attract his buddy's attention nor refill his regulator he conducted a free ascent to the surface. No subsequent ill effects were reported.

March 1997

97/096

A trainee was practising regulator removal at a depth of 6m when it started to free flow. The instructor brought the trainee to the surface where she was given oxygen. Although initially very distressed the trainee recovered, and no lasting symptoms are reported.

March 1997

97/094

Two divers were at a depth of 20m. One diver's feet came out of her drysuit boots and she lost her fins. Her buddy brought her safely to the surface, although the ascent was rapid. No subsequent ill effects were experienced.

April 1997

97/093

One of a pair of divers, diving to a maximum depth of 35m, experienced a regulator free flow. The diver panicked and conducted a rapid ascent to the surface, missing 7 mins of decompression. The divers were recompressed as a precaution.

April 1997

97/237

A fast ascent resulted in helicopter evacuation and recompression treatment after running short of air. Oxygen was administered on dive boat. (Coastguard 061133)

May 1997

97/264

A diver who entered the water without weight belt decided to attempt the dive anyway. At 15m down the shot line the diver had to negotiate another on the way up and was "knocked" off the line resulting in a rapid ascent and was semi-conscious at the surface, however after a medical check was pronounced fit and well (and lucky). (Coastguard 211031)

May 1997

97/180

Two divers entered the water in 10m and followed the bottom down to 40m. At this depth they became separated. One diver was convinced that he could not achieve positive buoyancy and, in a panic, dumped his weightbelt. He made a fast buoyant ascent. At the surface he had no symptoms but was placed on oxygen as a precaution. No ill effects were reported. This diver was a Sports Diver, the dive marshal did not expect them to go so deep. The buddy thought that the other diver was a Dive Leader.

May 1997

97/269

Concern for two divers was shown after they carried out an uncontrolled ascent. They were both given Oxygen and Hospitalised as a precaution. (Coastguard 251342)

June 1997

97/278

An uncontrolled ascent led to a diver receiving a check up from the dive doctor who diagnosed no decompression illness. (Coastguard 080012)

June 1997

97/137

Two divers were ascending from a dive to 37m for a duration of 20 mins when one of them lost control of his buoyancy and ascended directly to the surface, missing planned stops. This diver was recovered into the boat and placed on oxygen. The second diver deployed a delayed SMB and completed the required stops. No subsequent ill effects were reported.

July 1997

97/124

Two divers were at a depth of 17m on the wreck of an aircraft when one noticed that his air pressure gauge was fluctuating. He then lost control of his buoyancy and sank to the bottom in a depth of 20m. This diver then made a rapid ascent to the surface. At the surface he felt dizzy and lost feelings in his

arms. The diver was recovered to the shore, given oxygen and normal feelings returned. He refused decompression treatment. The cylinder valve was subsequently found to be only half turned on.

July 1997**97/141**

Three divers had been at 21m for 15 mins when one of them noticed that the needle of his contents gauge was fluctuating. He showed this to the dive leader who signalled an ascent. At 8m the diver with the fluctuating gauge lost control of his buoyancy and sank back down to 13m. The dive leader took hold of his stabsack and put air into her drysuit to gain buoyancy. They started to ascend again, and despite dumping air made an ascent to the surface that was a bit too fast. The third diver ascended on his own normally. At the surface it was discovered that the pillar valve of the first diver had only been turned on 2 - 3 turns. The divers swam to the shore and got out of the water. Whilst de-kitting, the first diver became lightheaded and was assisted to de-kit. He was given water and laid down. He complained of having no feeling in his arms. He was placed on oxygen. He was reported as suffering from CO2 poisoning and shock. He made a quick recovery.

July 1997**97/129**

A diver panicked underwater, removed her regulator mouthpiece and rushed to the surface. At the surface she was recovered into a boat, returned to the shore and taken by ambulance to hospital.

July 1997**97/147**

A trainee diver panicked whilst under water at a depth of 18m and made a rapid ascent. At the surface she required resuscitation and was flown to hospital.

August 1997**97/155**

Two divers had completed a dive to 47m for 15 mins when they decided to ascend. They started to deploy a delayed SMB, when one of the divers felt a little buoyant. He re-descended 1m

to take hold of a rock and sort his buoyancy out. After letting go he began an uncontrolled buoyant ascent. He dumped all the air he could and pulled open his drysuit neck seal to release air. He managed to halt the ascent at 5m. He re-descended to 12m and began the stops indicated by his computer. A total of 30 mins of stops at 12, 9 and 6m were completed. His buddy met up with him at 12m and although he only had 10 mins of stops indicated, stayed with him until he finally reached the surface. At the surface the diver complained of a headache and was placed on oxygen. After 5 mins the headache went and after another 15 mins he came off oxygen. No further ill effects were experienced. A faulty drysuit lead valve is suspected, although it worked correctly when tested on the surface.

August 1997**97/185**

Two divers, one a Sports Diver, conducted a drift dive and encountered current and depth greater than expected. At 46m the Sports Diver did not respond to signals. Narcosis is suspected. His buddy assisted him to the surface. The ascent was complicated by severe overfalls. One of the divers' computer indicated a fast ascent and missed stops. No ill effects are reported.

September 1997**97/197**

Two divers were at a depth of 20m. One of the pair became entangled in the line from an SMB. The other diver sorted out the problem but in doing so lost buoyancy control and, in a panic, shot to the surface. The other diver ascended normally. No subsequent ill effects are reported.

September 1997**97/196**

After a dive to a maximum depth of 15m a diver ascended to 6m. At this depth he felt that he could not breathe and swam out of control to the surface. The diver suffered two black eyes as a result of mask squeeze. No other ill effects were reported.



Technique

October 1996**97/001**

Two divers were diving on a wreck at a depth of 15m when another group of divers swam across their path. The second group of divers were so close that the knife handle of one caught the second stage hose of one of the first pair and pulled the regulator from his mouth, and started to drag him along. The diver caught hold of the other diver's fin and recovered his regulator.

October 1996**97/106**

A trainee diver who had been to 30m ran out of air at 26m and made a rapid ascent missing stops. No ill effects were reported.

December 1996**97/102**

A trainee and an instructor were at a depth of 19m. After 10 mins the trainee signalled that he was out of air. The trainee started to use the instructor's alternative air source but experienced a problem and made a rapid ascent to the surface. Once out of the water he was given oxygen. No subsequent ill effects are recorded.

December 1996**97/218**

Equipment problems and an unsuccessful air sharing attempt by a novice diver resulted in an unconscious ascent on lifejacket. The diver recovered in Hospital but was then transferred for recompression treatment. (Coastguard T71100)

January 1997**97/041**

Two divers a descent in fresh water at 4 deg C. At a depth of 20m one of the divers experienced ear clearing problems and they halted the descent. At a depth of 17m one of the diver's regulator started to free flow and he signalled for an ascent. The other diver took hold of the buddy and they started an ascent. After a few seconds they realised that they were not ascending, and the free flowing valve was now fully open. The diver with the free flow switched to the pony cylinder of the other. They divers ascended to 6m but then started to descend again. Bubbles reduced the visibility and made communication between the two difficult. The diver without the free flow who was monitoring the ascent on his computer actuated the 'direct feed inflator' of the other diver and a buoyant ascent was made to the surface. At the surface both divers were OK, although the computer indicated the possible formation of micro bubbles. The divers then completed a second shallow dive. The free flowing regulator was changed for an environmentally sealed unit for this second dive.

February 1997**97/039**

A dive leader and trainee descended down a sloping bottom to a depth of 13m. At this depth the dive leader signalled that they should move into shallower water, at which point his regulator went into full free flow. In attempting to make a hasty ascent with the dive leader, the trainee lost one fin, and then the other. The dive leader, with his regulator still free flowing attempted to lift the buddy using a controlled buoyant lift, but the stab jacket would not inflate properly. The dive leader was now low on air and he released the buddy's weight belt and followed him to the surface. No subsequent ill effects were reported.

March 1997**97/224**

An inverted ascent with the divers buddy holding on resulted in both divers being airlifted for recompression treatment. The main casualty was unused to wearing a drysuit. (Coastguard 081217)

March 1997**97/055**

About 3 mins into a dive at 17m one of a group of three divers lost his weight belt because of buckle failure. He was unable to prevent a buoyant ascent. At the surface he was placed on oxygen and given fluids. He was prevented from strenuous activity and monitored. After 75 mins of oxygen the supply was exhausted. Further supplies of oxygen were obtained and used. His diving buddies surfaced normally shortly after the casualty. No subsequent ill effects were reported.

March 1997**97/134**

Two divers were at 28m on a wreck when one noticed that he had only 70 bar left in his cylinder. He signalled to his buddy and they returned to the shot line. At this point the first diver had so little air that he took the octopus regulator from his buddy. They started to ascend up the shot line, but it was very slack and they moved away from it and completed their ascent which included a 3 min safety stop at 6m. The first diver had 30 bar remaining at the end of the dive. This diver reports having been very nervous during the dive because of low visibility and slim conditions. No subsequent ill effects were reported.

April 1997**97/065**

A trainee's weight belt became loose underwater and attempts were made to tighten it. During these attempts, the belt came undone and slipped from the trainee. The instructor grasped both trainee and weight belt, and brought them to the surface. The belt was found to have a clip missing and this allowed it to come undone.

April 1997**97/092**

A trainee was at a depth of 6m conducting a regulator recovery and exchange exercise. She failed to correctly place a regulator in her mouth and rushed to the surface. No subsequent problems experienced.

May 1997**97/091**

Two divers were slowly returning to the surface after a dive to 20m. During the ascent one of the divers thought that he was getting water in his mouth and tried to use his buddy's alternative air source. He failed to do so and, panicking, rushed to the surface. His buddy followed quickly. At the surface he was placed on oxygen but was subsequently found to be fine. Both regulators are reported to have been functioning correctly and it is thought that he may have placed the alternative air source into his mouth upside down.

May 1997**97/081**

A trainee diver ran out of air, became unconscious and started to sink. His buddy brought him to the surface and successfully resuscitated him. The casualty was reported to have made a full recovery. (Newspaper report)

May 1997**97/090**

Due to difficulty in placing a shot on the bridge of a wreck in 52m of water, a long shot line was used. The shot line was at a shallow angle and on their descent down this line a pair of divers saw a mast of the wreck and left the shot line to dive down the mast to the wreck. They returned to the mast after 16 mins to start their ascent. At the top of the mast the shot line could not be seen and the divers attempted to surface mid water. At 35m they launched a delayed SMB. At 7m they needed to complete 2) mins of decompression. The divers were slightly underweight and could not maintain neutral buoyancy at 6m, therefore all stops were conducted between 7 and 10m. At this point the divers were low on air and they took it in turns to breath from the pony cylinder that one of them carried. They made their ascent to the surface when only 10 bar remained in each cylinder. At the surface they were found to have missed 7 mins of stops at 3m. Both divers breathed Nitrox 50 for 45 mins and neither suffered any symptoms.

to explode. After 8 minutes they made a PAN PAN call to the Coastguard. During this call, the diver was seen to surface and the call was cancelled. The third diver had attempted to launch a delayed SMB, but had dropped his reel and spent sometime searching for it before surfacing. No ill effects were reported.

May 1997**97/078**

Two divers entered the water carrying the end of a line down to mark a wreck at a depth of 40m. One of the divers had entered the water without a weight belt, but was not aware of this. He experienced some difficulty in descending but they both got to the bottom of the anchor line. The anchor was no longer in the wreck so the swim along the drag marks to find the wreck. At the wreck the unweighted diver started to tie the line to the wreck. This used all of their bottom time. At this time the diver realised he had no weights and signalled this to his buddy. They started to ascend the line that they had fastened to the wreck. The unweighted diver became very buoyant and the two struggled to control the ascent. Their computers indicated that stops were required, but the buoyant diver was unable to hang on to the line for the required time, due to the strain on his hand. With an estimated 1 to 3 mins of stops missed the buoyant diver released the line at 6m and rose rapidly to the surface. At the surface he fitted his weightbelt and descended the anchor line, alone, for 3 mins of stops at 6m. His buddy finished his own decompression on the marker line and ascended. The buoyant diver was placed on oxygen for 15 mins, once he had returned back to the surface. No subsequent ill effects were reported.

June 1997**97/079**

Two divers entered sheltered water from the shore. Underwater they became disorientated and lost their direction. On surfacing they found themselves close to a dock wall in a strong current. A fisherman saw their situation and alerted the Coastguard. The divers were recovered by a lifeboat.

June 1997**97/282**

Diving in the entrance to the harbour resulted in a lecture by the local Coastguard for a diver who claimed to be disorientated. (No flag or SMB) (Coastguard 121647)

June 1997**97/179**

Three divers, each with a main and pony cylinder, dived to 30m. After 14 mins, one of the divers ran out of air. She switched to her pony cylinder and after a few minutes this ran out too. She took the pony regulator from one of her buddies, and they made a safe ascent. No buddy checks had been made on her air, each assumed that the other had done the check. It was uncertain if the pony cylinder had been filled prior to the dive. No ill effects were reported.

June 1997**97/160**

Two divers descended a shot line to dive a wreck. After 5 mins they became separated. One diver looked around for his buddy and then decided to re-ascend up the shot line. The other diver swam down the side of the wreck to a depth of 52m. His dive computer failed to operate at this point. He then realised that he was separated from his buddy and was unable to find the shot. He swam back to the deck of the wreck at a depth of 52m. He saw other divers deploying a delayed SME and ascended with them joining them at their first stop. He was low on air and, because of the malfunction of his computer, did not know how much decompression to conduct. He was given air via one of the other divers' octopus regulator. After a total of 71 mins stops they reached the surface. No ill effects are reported.

June 1997**97/073**

One of a pair of divers on a wreck lost his weight belt, which fell from him. He started to float up, and, seeing his weight belt, was able to swim back down to the wreck and hold on to it. His buddy tried to help to refit the belt but was unable to do so. With 3 mins of decompression indicated the weight belt was clipped to the diver by a carabiner on his shoulder strap. In this manner the two ascended with the buddy helping to keep the first diver upright. They made a slow but successful ascent, with prolonged decompression. No ill effects are reported.

July 1997**97/166**

Two divers entered the water to dive to a depth of 25m. Once in the water one felt unhappy that she was not carrying enough weight but continued down the shot line to a wreck. At the bottom she indicated to her buddy that she was not correctly weighted and concerned that her fins were loose. Her buddy suggested that they ascend. However the first diver tightened her fins and wanted to continue. Shortly afterwards she realised that she really did have a problem and indicated that she wanted to ascend, and they started back to the shot line. Whilst swimming against a current back to the shot, the first diver's feet came out of her drysuit boots and she became inverted. She took hold of the wreck and tried to get her feet back into her boots. At this point her mask became flooded. Her buddy got her back to the shotline, turned her the right way up and held her to the shot line so that she could clear her mask. At this point the first diver had only 30 bar remaining in her cylinder, this was noted by the buddy who gave the first diver her octopus regulator. The ascent continued during which the diver again became inverted, but holding onto the line they were able to control the ascent. The inverted diver went back on to her own regulator as she was unable to clear the octopus regulator whilst inverted. They arrived safely at the surface. The inverted diver

June 1997**97/275**

Novice diver under instruction was reported missing. The instructor returned to the seabed, found the diver and assisted same to the surface. Helicopter, Lifeboat and CG team were all despatched but later released. (whoops?) (Coastguard 051230)

June 1997**97/126**

Three divers completed a controlled buoyant lift drill from 15 to 6m, and then re-descended the boat's anchor line to complete a dive on a wreck. 1 minute into the dive, one diver and the trainee realised that the third diver was missing. They looked around and then ascended. At the surface they were recovered into the boat. The surface party attempted to recall the third diver, who had not resurfaced, with a thunderflash, but it failed

had to be assisted back into the boat because her feet were still out of her boots. No ill effects were reported.

July 1997**97/138**

A trainee diver was at a depth of 7m. He started doing breast stroke, lost control of his buoyancy and then lost his regulator.

The trainee was brought to the surface by the instructor. At the surface he had stopped breathing and required resuscitation. He was taken to hospital and discharged later the same day.

Equipment

December 1996**97/016**

Two divers were 2 mins into a dive at a depth of 35m when the regulator of one of the pair suddenly failed to supply air. This diver was given the regulator of his buddy who started to use his second regulator and after a regular breathing pattern had been established they continued on assisted ascent. The ascent was successfully completed. A fault was found in the second stage of the problem regulator, it is with the manufacturer for investigation.

January 1997**97/032**

A trainee diver was nearing completion of the Nevice II test at a depth of 6m. The instructor checked that all was well and they commenced to share air using the trainee's regulator. As they started to swim, the regulator started to free flow so violently that it was thrashing about in the water. The instructor attempted to stop the free flow and to locate her own regulator. The instructor noticed that the trainee was falling away backwards with no regulator in her mouth, unconscious. Still without a regulator, the instructor took hold of the trainee but could not inflate her BC as all the air had been lost from her cylinder. The instructor used her own suit to bring them both to the surface. At the surface she held on to the trainee and shouted and waved for help, and towed her to the shore. Another diver gave the casualty AV and she eventually recovered consciousness. The casualty was taken to hospital and released the following day with 'bruised lungs'.

January 1997**97/035**

15 mins into a dive at a depth of 20m a diver's regulator began to free flow. The pair made a faster than normal ascent and the diver was in some distress at the surface. They were recovered into a boat. No subsequent ill effects were experienced.

January 1997**97/036**

Two divers were conducting an air sharing exercise at a depth of 6m using the dive leader's regulator when the trainee's regulator began to free flow. A panic ensued and the dive leader rushed to the surface leaving the trainee face down on the bottom with no regulator. The dive leader then went back down and brought the unconscious diver back to the surface. The casualty had stopped breathing, but other members of the group were able to resuscitate her. The casualty was taken to hospital and, after a night on oxygen therapy, made a full recovery.

January 1997**97/048**

Two diver surface, one with a free flowing regulator. The buddy called for help and two other divers went to assist. One towed the casualty ashore whilst giving AV. Once ashore AV was continued, and the casualty started soon started to breath for her self. Oxygen was administered and an ambulance called. The casualty is reported to have made a full recovery.

February 1997**97/037**

Two divers were conducting a dive that took them to a maximum depth of 21m. 13 mins into the dive, at a depth of 15m, the regulator of one of the pair started to free flow. A minute later it was free flowing at maximum rate. The divers started to ascend with one still using the free flowing regulator. During the ascent he switched to his pony cylinder as he was unable to see his gauges due to the amount of bubbles in the water. No ill effects are reported.

March 1997**97/040**

During a training dive at a depth of 21m a trainee's regulator started to free flow. The dive leader brought the trainee to the surface at a normal ascent rate. On the surface the dive leader inflated both slab jackets using the emergency cylinders. The trainee's breathing cylinder was empty at the surface. No subsequent ill effects were reported.

March 1997**97/042**

After 27mins at 23m one of a pair of divers deployed a delayed surface marker buoy in preparation for the ascent. Air was let into the buoy, and the reel released. After about 2m of line had run out the reel jammed, and could not be freed. With the buoy attached to one of the divers, they started to ascend, planning to conduct a 1 min safety stop at 6m. However once they had reached 6m the buoy had expanded and the attached diver was unable to stop himself from being dragged all the way to the surface. His buddy stayed with him, also trying to slow the ascent. At the surface the pair were recovered into the boat and taken to a recompression facility where oxygen and re-hydration were administered. No subsequent ill effects were experienced.

March 1997**97/059**

Two divers ascended from a dive to 20m and they commenced a safety stop of 1 min at 6m. The regulator of one diver started to fail to supply air and, after signalling to his buddy, he switched to his octopus regulator, but this also would not supply air. The buddy then gave him his own regulator and they ascended safely to the surface. A subsequent check showed that the contents gauge was reading 30 - 40 bar even though the cylinder was empty. It had read 80 bar at the start of the ascent.

March 1997**97/044**

Two divers prepared a delayed SMB in preparation for an ascent from 15m. The dive leader filled the buoy with air from his octopus regulator. This regulator began to free flow, and as he was not able to move the regulator out of the way his vision became obscured by bubbles. The buddy took hold of the dive leader and controlled the ascent, whilst the dive leader reeled in the line. The divers' ascent was at a normal rate, and no subsequent ill effects were experienced.

April 1997**97/064**

During an ascent from a dive to 23m a trainee was unable to dump air fast enough from his dry suit, and he became excessively buoyant. The dive leader attempted to slow the ascent but let go of the trainee at 5m depth and the trainee made a fast ascent to the surface. No ill effects were reported. The ability of the dump valve to allow adequate air flow was questioned.

June 1997**97/206**

Two divers were on a wreck at a depth of 29m. One of the divers was using a stabjacket which incorporated two weights. Early in the dive half of this weight was lost and the diver was struggling to remain on the bottom. The buddy assisted the diver back to the shot. The shot line was wedged into the wreck and the divers ascended with the buoyant diver using the shot line to prevent inversion and to control his ascent. 15 mins into the dive, the buoyant diver only had 50 bar remaining in a 12

litre cylinder. Both divers reached the surface safely, and no ill effects were experienced.

July 1997**97/162**

One of a pair of divers was about to enter the water carrying a twin set when the contents gauge on one of his first stages broke off. This cylinder was turned off and the dive continued. They dived to 32m and at the second decompression stop on their return the other diver ran out of air. The diver with the twin set had 70 bar in his usable cylinder and this was used until it too ran out. Both divers then surface with their computers showing an error. These divers made no further dives that day. No ill effects are reported.

September 1997**97/193**

Faulty thread on a pillar valve prevented it from being fully located in a diving cylinder. This allowed the 'O' ring to slowly be forced out of its location, until air was able to escape explosively.

Miscellaneous

October 1996**97/346**

Lifeboat launched for missing diver(s), others coped. (RNLI)

October 1996**97/347**

Lifeboat launched to assist diver(s), persons brought in. (RNLI)

December 1996**97/348**

Lifeboat launched to assist diver(s), other coped. (RNLI)

December 1996**97/349**

Lifeboat launched to assist diver(s), persons brought in. (RNLI)

March 1997**97/354**

Lifeboat launched to assist diver(s), persons brought in. (RNLI)

March 1997**97/226**

A 998 call to the Coastguard reported that 2 divers were in distress. Rescue units were tasked but not required as the dive boat picked them up. (Coastguard 231520)

April 1997**97/232**

Two shore divers reported overdue by their dive party caused the lifeboat to be launched to search but was recalled when the divers arrived at shore having extended their dive plan. (Coastguard 041123)

April 1997**97/233**

Members of the public ashore reported a flare from a dive boat which turned out to be a recall signal set off to warn divers in the water of deteriorating weather conditions. Classified as false alarm with good intent. (Coastguard 041613)

April 1997**97/357**

Lifeboat launched to assist diver(s), other coped. (RNLI)

April 1997**97/358**

Lifeboat launched to assist diver(s), other coped. (RNLI)

May 1997**97/361**

Lifeboat launched to assist dive boat, brought in. (RNLI)

May 1997**97/363**

Lifeboat launched to assist diver(s), persons saved. (RNLI)

June 1997**97/366**

Lifeboat launched to assist diver(s), persons brought in. (RNLI)

June 1997**97/277**

A call reporting a missing diver turned out to be a hoax. The content of the call was so precise with regard to technical data that it could only of come from a diver. Units tasked over the 4 hours it took to establish this was a hoax were Clyde Coastguard, Oban Coastguard, Military Helicopter, Lifeboat, two fire units, police and hyperbaric unit. The person responsible was apprehended and charged. (Coastguard 061903)

June 1997**97/369**

Lifeboat launched to assist ill diver, persons saved. (RNLI)

June 1997**97/371**

Lifeboat launched to assist ill diver, persons brought in. (RNLI)

June 1997**97/373**

Three lifeboats launched to assist divers, persons swept away, others coped. (RNLI)

June 1997**97/374**

Lifeboat launched to assist dive boat with failed engine and diver missing, persons saved. (RNLI)



June 1997 97/376

Lifeboat launched to assist diver(s), other coded. (RNL)

July 1997 97/387

Lifeboat launched to assist diver(s), other coded. (RNL)

July 1997 97/388

Lifeboat launched to assist missing diver(s), search failed. (RNL)

August 1997 97/184

Two divers surfaced at the end of the dive and alighted in their boat cover to attract attention. People on the shore thought that the divers were in distress and an emergency call was made. A lifeboat and helicopter were launched. When the lifeboat arrived the divers were safely back in their boat.

August 1997 97/391

Lifeboat launched to assist missing diver(s), other coded. (RNL)

August 1997 97/397

Divers discover the body of a woman underwater. Police notified. Criminal investigation underway.

August 1997 97/393

Lifeboat launched to assist diver(s), other coded. (RNL)

August 1997 97/395

Lifeboat launched to assist diver(s), other coded. (RNL)

October 1997 97/345

Lifeboat launched to assist diver(s), persons brought in. (RNL)

Overseas Incidents

Fatalities

October 1996

97/049

A single diver was seen to be in distress at the surface. Divers from another party moved their boat to assist. The diver was recovered from below the surface and brought into the boat. CPR was immediately started and the boat taken back to the shore. An ambulance was called, resuscitation attempts continued and the casualty was taken to hospital. The casualty failed to recover.

January 1997

97/025

A diver died whilst underwater. A heart attack was believed to be the cause.

February 1997

97/030

Two divers were diving under ice in a quarry. One of the divers was connected to the surface by a safety rope and the other was attached to the safety line by a carabiner. The maximum dive depth was 30m and during the dive they visited an air filled metal container attached by chains to concrete blocks. Inside this 'bell' one of the divers refreshed the air from his pony cylinder. Without warning the container broke free from its anchors and ascended rapidly to the surface. The divers were unharmed. The disturbance caused the visibility to become lowered and the divers moved to one side and decided to terminate the dive. Swimming back up the safety rope it became entangled several times in their legs. On the third occasion, in low visibility, during struggle to get untrapped, the roped diver discarded his knife sheath, which had been fastened to his leg, and also lost his weightbelt, which had worked its way loose. At this point the second diver cut the line, but held on to it. The second diver then indicated that they should proceed along the rope, and then shortly afterwards that he was out of air. The other diver gave up his own regulator and switched to an alternative source. A little later this diver noticed that his main regulator was hanging free and hooked back to see the diver who had been out of air falling away to the bottom. Checking his own contents gauge he found that he had only 10 bar remaining and was thus unable to go to his assistance. At the surface the alarm was raised, but, due to an O ring failure and long problems with the surface cover diver's equipment, it was not possible for a rescue to be mounted. The emergency services were called and the body of the lost diver was recovered 40 mins later.

August 1997

97/165

Two divers were on a wreck at a depth of 36m. 12 mins into the dive they check each other's air, one had 125 bar and the other 120 bar. At this point they agreed that they would ascend in 5 mins. 17 mins into the dive one diver indicated that they should ascend, by this time he had only 50 bar, his buddy had 95 bar. The diver low on air took hold of his buddy and the buddy had to put several shots of air into his stabsackel in order to effect an ascent. He realised that they were now ascending too quickly and at around 24m dumped air to slow the ascent. He realised that his buddy was no longer conscious. Becoming disorientated they sank back to the wreck in a depth of 36m. The unconscious diver was now laying on the wreck and his regulator was not in his mouth. The other diver then also ran out of air. He started to swim to the surface attempting to drop his weightbelt, but with empty lungs felt that a buoyant ascent would be better. He inflated his stabsackel with its own

emergency cylinder. He began a rapid ascent. On the way to the surface he again got air from the regulator. At the surface he shouted for assistance and was recovered into the boat. He was placed on oxygen and began to experience pains. He was flown to a recompression facility and received two periods of recompression. A search was continued for the second diver, who is presumed lost.

Decompression

November 1996

97/023

A diver had conducted a series of eight dives over a three day period. Four and a half hours after his last dive he complained of feeling hot and sweaty and a little dizzy. A few minutes later he developed numbness in his hands and in the roof of his mouth. The symptoms developed to include numbness in his legs, elbows and face and visual co-ordination and speech impairment. The diver was given oxygen and taken to a recompression facility where he received recompression treatment. Other divers in the party had conducted similar diving profiles but none other developed a problem. The casualty had become dehydrated as a result of previous over indulgence in alcohol.

December 1996

97/038

On a diving holiday a diver conducted a series of 22 dives over a 12 day period. No dives were conducted on day 5. 23 hours after the last dive, the diver boarded a plane to return home. Within 20 mins of take off pins and needles and stiffness were felt in one hand and arm up to the elbow. Also a strange sensation in the palm of the hand. The symptoms did not worsen during the flight, but the following day the diver did not have full use of her hand and had 'strange feelings in the tips of the fingers of both hands' plus a loss of sensitivity at the tips of the fingers. The diver underwent three periods of recompression and most of the symptoms were resolved. The diver was left with a hand that 'does not feel completely normal' and finger tips that are not as sensitive to touch as before. The diver was advised not to dive for two months.

May 1997

97/201

A diver was diving at a depth of 10m with a BCD fitted with a new inflation valve. 4 mins into the dive, the inflator became stuck in the fill position, and the diver was carried buoyantly to the surface. The buddy followed up at a normal rate. At the surface the problem was resolved and the pair re-descend to complete their dive. 3 hours after the dive the diver who had made the buoyant ascent complained of tiredness, dizziness and a tingling sensation in the upper part of her body. Oxygen and fluids were administered and the condition improved. 8 hours after surfacing the diver started to vomit and felt very tired. The diver visited a recompression facility, she was kept in for observation but not recompressed. Oxygen was administered over night and the diver was fully recovered the following morning. Mild decompression illness was diagnosed, perhaps aggravated by fatigue, excessive exposure to the sun, lack of sleep and not enough food and drink.



June 1997

97/117

A diver under training for Sports Diver qualification completed a dive to 15m for a duration of 35 mins. Before the dive this diver had felt unwell, and this was considered to have been sea sickness. Three hours after the dive the diver noted unusual tiredness, vertigo, loss of balance accompanied by digestive problems resulting in diarrhoea. After a few hours a left paralysis in the left arm was noticed, together with a 'heavy sensation'. The diver was recompressed for 3 1/2 hours, and kept in hospital for observation for 24 hours, and given oxygen. This diver had had a barotrauma 9 years earlier, and was diving within the limits prescribed by her doctor.

July 1997

97/154

After a dive to 28m for a total time of 59 mins including a 3 min stop, two divers got back into their boat. Shortly afterwards, one of these divers was asked to act as dive marshal but was unable to do so because she had difficulty understanding what to do. She was seen to be in discomfort and lay down. She complained of lack of feeling in her legs. The diver was placed on oxygen and a further cylinder was borrowed from another boat at the scene. On arrival back at shore the diver was taken by ambulance to hospital, where dehydration and heat stroke were diagnosed. The following day this diver was still suffering symptoms and sought specialist medical advice. She was then diagnosed as having suffered a decompression illness and the next day (48 hours after the incident) was given recompression treatment. Some numbness remained which took a further week to resolve.

August 1997

97/161

A diver conducted a series of dives over a two day period. First to 38m for a total of 33 mins. After a 10 hour 30 min interval, she dived to 28m for 38 mins, and then after a further 12 hour 37 mins to 54m for a total of 29 mins. 15 mins after the third dive she complained of itching on both shoulders. No other symptoms were present. The casualty was placed on oxygen, and given fluids. Oxygen was administered for nearly 4 hours with regular checks. After this time the symptoms were subsiding. The casualty was monitored for 24 hours. No further symptoms were noted. This diver had stayed within limits indicated by her computer.

Injury/Illness

November 1996

97/022

A group of eight divers were diving together on a wreck at 30m. One diver experienced pain in the left hand side of her chest and was thought to be near to panic. She was assisted to the surface by a second diver and, on the way, became unconscious at 12m. The assisting diver brought the casualty to the surface and made her buoyant. At the surface the diver regained consciousness and was helped back into the boat. The diver was given oxygen, and taken to a recompression chamber for treatment. Subsequent to recompression no further problems were experienced.

January 1997

97/029

A diver was seen to be breathing heavily underwater and indicated problems with his stomach. Another diver loosened his BC strap for him. This diver then gave an ascent signal. The diver was recovered into the boat where he was blue and lifeless. Resuscitation attempts were made and the casualty

returned to the shore. It is reported that this diver made a recovery.

March 1997

97/056

Two people were preparing to load diving equipment into an inflatable dive boat when a large swell estimated as 4 to 5m swept them off the jetty and onto rocks below. They both received cuts and bruises, including head wounds. One was treated for shock and required thirty stitches.

May 1997

97/089

Two divers descended to a depth of 13m, their second dive of the day. One of the divers experienced very severe tooth pain and was close to panic. He signalled that he had a problem to his buddy, who quickly brought him to the surface using a controlled buoyant lift. Once on the surface the pain subsided to a dull ache.

Ascents

January 1997

97/034

Two divers were conducting a controlled buoyant lift assessment from a depth of 20m accompanied by an instructor. The ascent started under control but they soon started to accelerate, and were unable to dump air from suits and BCs fast enough to slow the ascent. The instructor ditched the SMB that he was holding, passed after them and tried to slow them down. The divers separated at 6m but the two attempting the controlled buoyant lift continued straight to the surface, whilst the instructor stopped at this depth. Due to the fast ascent, the instructor's computer indicated that 8 mins of stops at 3m were required, which he completed. One of the trainee's computers indicated that 10 mins of stops had been missed, but the other showed no missed stops. The diver with missed stops was placed on oxygen. All three were medically examined, and although none showed any symptoms, the trainee who's computer had indicated missed stops was recompressed. No ill effects were experienced.

Technique

October 1996

97/017

Two divers were attempting to lay a rope on a wreck at a depth of 19m. The rope was found to be too short and became tangled, and it was decided to abandon the attempt with one of the divers low on air. Further time was spent recovering the rope and by the time the ascent was started one diver had only 30 bar remaining. His past experience indicated that his regulator would free flow at 10 bar. During the ascent the regulator did free flow and he used his buddy's octopus regulator to complete a successful ascent. No ill effects were experienced.

April 1997

97/144

A diver under training had completed an strenuous dive in the morning and was required to conduct a hard swim against a current at the beginning of the second dive. At a depth of 12m on this dive, the trainee was required to remove her regulator and orally inflate her stabjacket as part of a training drill. Whilst



doing this her regulator started to free flow, and she was unable to breathe from it. Another diver who had been an observer went to her assistance with an octopus regulator. They started to ascend and were joined by the instructor who saw them to the surface. At the surface the two divers were recovered into the boat and the instructor re-descended to the four other trainees who had been left on the bottom. This group completed the training exercises.

April 1997**97/060**

An instructor was leading two trainees on a dive at a depth of 20m. One of the trainees felt unhappy with his main regulator and switched to his octopus regulator. After 20 mins he had 50 bar remaining and showed this to the dive leader. The dive leader decided to try to return to the dive boat anchor line to make the ascent. This took more time than expected and the dive leader decided to abandon the attempt and to surface since one of the trainees was now down to 45 bar. The dive leader gave the trainee her own regulator and breathed from her octopus, she had 100 bar. They all dumped air from their statjackets at the start of the ascent and this caused them to sink again. The dive leader signalled that they should swim up and they reached the surface safely although the last 5m meters only took 20 seconds. All were recovered into the boat without ill effect although the dive leader quickly became seasick.

Equipment**March 1997****97/043**

Two divers had been diving to 35m on a wreck. At the end of the dive, on top of the wreck at 25m they deployed a delayed surface marker buoy and started their ascent. One of the divers was unable to operate the cuff dump on his dry suit and started a rapid, buoyant ascent. The diver dumped air from his wrist seal and stab jacket, and his buddy attempted to slow the ascent. Both divers surfaced and the buddy's computer

showed missed stops. The buoyant diver felt OK but the other was 'light headed', and started to experience 'pins and needles' in the lower arms and hands. This diver was given fluids and after an hour the symptoms had gone. Both divers were flown to a recompression facility. During the flight symptoms of numb hands returned. This diver was placed on oxygen and underwent a full neurological examination, which he passed. He was kept under observation over night, and discharged the following day after a second examination. A minor air embolism was the suspected cause. The other diver experienced no symptoms.

April 1997**97/071**

Two pairs of divers descended to 33m. At the bottom one diver experienced water in her face mask which quickly returned when cleared. The mask then flooded and the diver pulled it from her face and attempted to swim to the surface. Her buddy and one of the other divers prevented this and the distressed diver removed her regulator and would not put it back. Eventually one of the divers managed to replace the regulator and the two brought her quickly to the surface. During the ascent she was seen to be breathing through the regulator which her buddy held in place. The fourth diver ascended with the others. Once at the surface the divers were recovered into their boat and the casualty was given oxygen. The casualty was close to losing consciousness. The buddy was hyperventilating and unable to stop. Once ashore both were taken to hospital. The buddy was discharged and the casualty kept in over night for observation. The casualty had inhaled salt water.

May 1997**97/135**

Whilst travelling to a dive site the pillar valve from a diving cylinder exploded away from the cylinder. The incident resulted in damage to the fibre glass boat and the loss of some personal equipment which was blown overboard. No individuals were injured. The cylinder was to an American specification. Although this was in hot climate conditions the cylinder had been shielded from direct sunlight.

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,
Ellesmere Port,
South Wirral,
Cheshire,
L65 4FY.*

For new incidents, the minimum information required consists of: **Date Of Incident, Location Of Incident and the Nature of the Incident.**

All of this information can be submitted on a Preliminary Incident Report Card, available from BSAC HQ. A more detailed report can be set out on an Incident Report Form, sent on request or on receipt of a Preliminary Incident Report Card. All reports should be to BSAC HQ at the address shown above.

All personal details are treated as confidential.

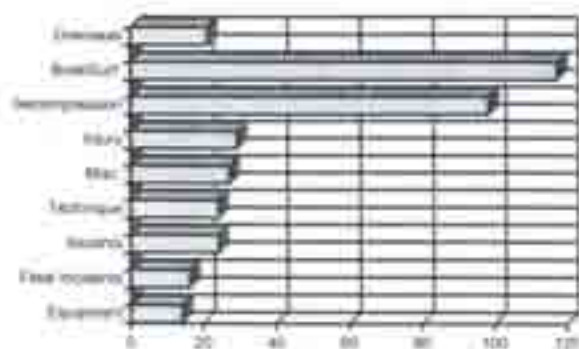
Incident Report Forms can be obtained free of charge by phoning BSAC HQ on **0151 350 6215**.

Numerical & Statistical Analyses

Statistical Summary Of Incidents

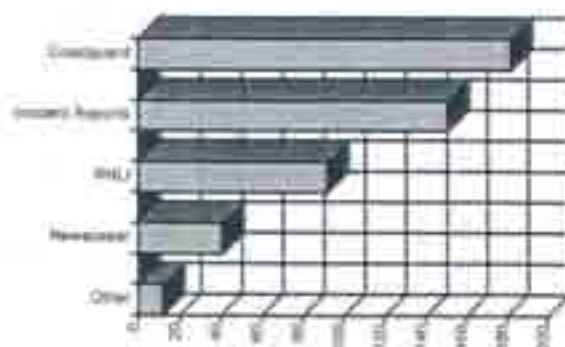
	1991	1992	1993	1994	1995	1996	1997
Incidents Reported	199	123	263	385	351	315	397
Incidents Analysed	199	123	260	385	351	315	370
British Incidents	170	98	236	322	318	295	349
Overseas Incidents	24	14	21	9	33	20	21
Unknown Locations	5	11	6	54	0	0	0
BSAC Members	311	110	146	164	157	136	101
Non-BSAC Members	18	13	19	8	20	4	29
Membership Unknown	70	0	98	213	178	175	219

Incidents By Category



Total Incidents: 370

Incident Report Source Analysis



Total Reports: 478
Total Incidents: 370

History Of Diving Fatalities

Year	Membership	No. Of Fatalities	
		BSAC	Non-BSAC
1965	6,813	3	0
1966	7,979	1	4
1967	8,350	1	8
1968	9,241	2	1
1969	11,299	2	8
1970	13,721	4	4
1971	14,898	0	4
1972	17,641	10	21
1973	19,333	9	20
1974	22,166	3	13
1975	23,204	2	-
1976	25,319	4	-
1977	25,342	3	-
1978	27,910	8	4
1979	30,579	5	8
1980	24,908	6	7
1981	27,834	5	7
1982	29,890	6	3
1983	32,177	7	2
1984	32,950	8	8
1985	34,951	6	8
1986	34,210	6	9
1987	34,500	6	2
1988	32,900	10	6
1989	34,422	4	8
1990	39,434	3	8
1991	43,475	6	9
1992	45,628	9	11
1993	50,722	3	8
1994	53,806	6	8
1995	52,364	9	8
1996	49,820	7	9
1997	49,412	4	12