



Scottish Mountain Rescue

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'Volunteering to save lives'



Annual Statistics Report 2012



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Incident Report 2012

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The Mountain Rescue Committee of Scotland would like to thank the Scottish Government and the Order of St John for their continued commitment and financial assistance to Scottish Mountain Rescue.

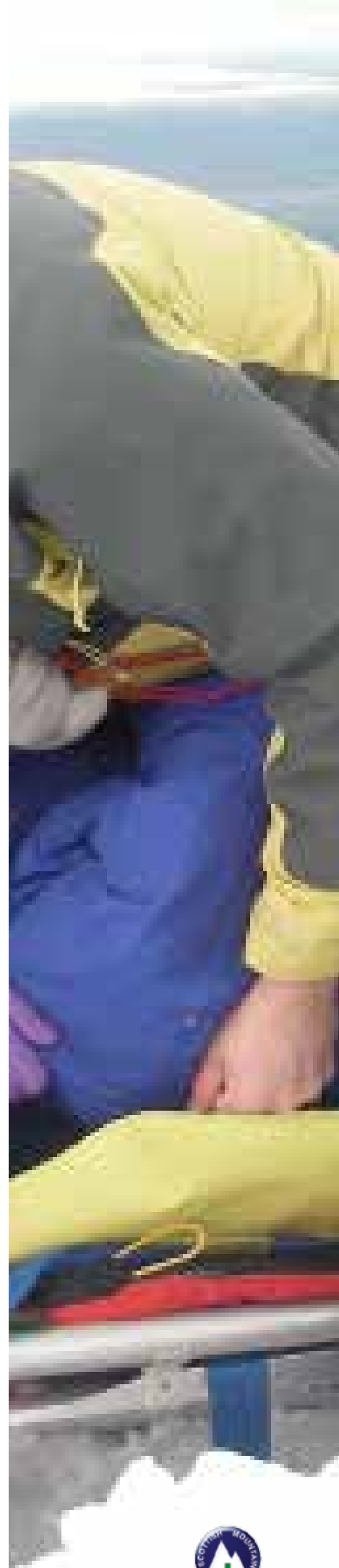


Introduction

For the 2012 incident statistics, the Scottish Mountain Rescue statistician has received and processed the data from the volunteer Scottish Mountain Rescue teams on behalf of the police and produced the report. The incidents reports and their contents are the property of the Police Scotland.

For the 2013 data, a system run by the police, using a Scotland-wide database will be introduced. This will be a very welcome reduction in the workload of the statistician, who like the vast majority of Scottish Mountain Rescue team members, is a civilian volunteer .

The information given in this report should be taken as a summary of the operational response activity throughout 2012 of the Scottish Mountain Rescue Teams over 2012.

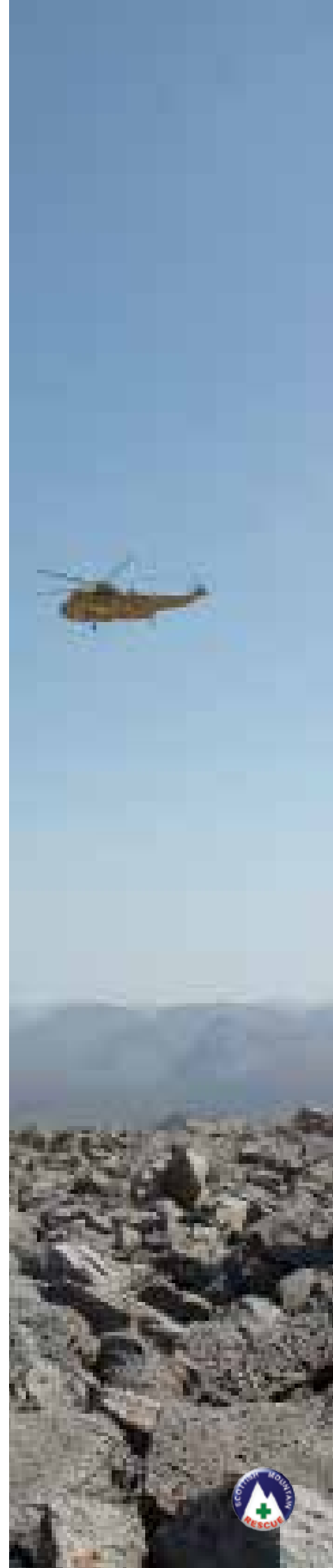


Executive Summary

1. There were a total of 543 incidents in 2012 during which the combined resources of all volunteer MRTs and SARDA's expended around 30,000 thousand volunteer-hours. The number of incidents and time expenditure varies considerably across Scotland.
2. A total of 720 people were assisted of which 240 were injured. Sadly 25 people died in mountaineering related incidents and 37 people died in non-mountaineering related incidents.
3. Following a rise in the number of incidents over the past 8 years, 2012 shows a small decrease in the number of times teams were called out. However the number of volunteer-hours expended has increased.
4. Mountaineering incidents accounted for just over 66% of the total. Mountaineering incidents are those involving hillwalkers, climbers and rock scramblers in both summer and winter conditions
5. The percentage of non-mountaineering incidents was a little below 34%. Non-mountaineering incidents include snow and water sports, mountain biking and missing persons and walkers in lowland, rural and urban areas. It also includes help provided by volunteer MRTs in extreme weather events, vehicle incidents and aircraft crashes.
6. 57% of all incidents were searches for people reported missing.
7. Across Scottish Police Divisions the percentage of call-outs varied greatly, with by far the greatest numbers in the Scottish Highlands.
8. There were also a small number of incidents connected with community resilience activities.



9. Helicopters from the RAF, MCA, SAS and Police Scotland attended 41% of incidents.
10. SARDA Scotland and SARDA Southern Scotland dogs and their handlers were called in for 18% of incidents.
11. Summer hillwalking is the most frequent activity casualties are engaged in than any other mountain activity.
12. The small number of rock climbing incidents is consistent with a general decrease across several years.
13. The small number of incidents involving avalanches in 2012 continues the downward trend of previous years, which has been reported elsewhere.
14. 123 incidents resulted from a simple slip or trip, where the casualty fell to the ground, but no further. An additional 70 were from falls, where the casualty fell a distance.
15. Missing, lost or overdue people accounted for over half of all relevant factors referenced by teams.
16. The most common injuries are to the leg; this follows the pattern observed over many years.
17. Teams worked together on a total of 235 incidents some 43% of the total. They also worked with the Scottish Ambulance Service, the Maritime and Coastguard Agency and Scottish Fire and Rescue Service on a small number of incidents.



Overall Statistics for Scotland

The total number of incidents in 2012 was less than for 2011. The long-term pattern of a year on year increase in the number of incidents is continuing. Data from 2001 onwards is shown below:

Table 1: Historical Incident Summary

Year	Mountaineering	Non-mountaineering	Total
2001	347	65	412
2002	258	81	339
2003	289	101	390
2004	308	90	398
2005	321	137	458
2006	315	119	434
2007	333	145	478
2008	387	188	575
2009	402	172	574
2010	340	194	434
2011	413	151	573
2012	381	162	543



Mountaineering and Non-mountaineering Incidents

All incidents in which Scottish Mountain Rescue Teams are involved are split into two broad categories; mountaineering and non-mountaineering. Mountaineering incidents consist of those where the activity the missing person or casualty was involved in was hillwalking or climbing.

Table 2: Mountaineering Incidents.

2011 figures in brackets

Activity	Number of incidents
Hillwalking Summer	246 (240)
Hillwalking Winter	105 (61)
Rock Climbing	13 (13)
Snow/Ice Climbing	15 (33)
Scrambling	2 (49)
TOTAL	381

The table above shows the number of incidents in each of the mountaineering categories, where one was defined. The number of summer hillwalking incidents continues to dominate the figures, as it has since statistics were collected. The number of winter hillwalking incidents is a significant increase on 2011. This can be ascribed to the length of time winter conditions (snow and ice covered ground) persisted in 2012. This is not reflected in the winter conditions climbing figures which are lower than 2011. Summer Rock Climbing figures remain low and scrambling (where hands are used but not ropes) remains in single figures.



It is important to understand that non-mountaineering incidents relate to the activity that was being carried out not the terrain, season or weather. Non-mountaineering incidents may be searches or rescues and may well require the full resources and technical capabilities of a volunteer mountain rescue team to resolve them. These types of incident include:

- Water Sports; kayaking, canyoning, rafting or gorge running.
- Snow Sports; skiing (downhill, cross country or mountaineering) or snowboarding.
- Air Sports; hang-gliding, parapenting or para-gliding.
- Aircraft related incidents; helicopters or fixed wing (including Gliders).
- Running; fell running, mountain marathons or triathlons.
- Mountain Biking; on paths, tracks or downhill courses.
- Equestrian; cony trekking, commons riding or cross country.
- Vehicle; any motorised vehicle incident off public roads.
- Self-harm; where a person has expressed that intention.
- Missing; where a person not involved in a mountaineering activity is reported as missing to the police.
- Work related; an incident involving a person at work, typically forestry, or estate workers.
- Assistance to communities; transport and deliveries in extreme weather events.
- Local Walking; in parks, fields etc. close to residence (often dog-walking).
- Body Recovery; assistance to police, undertakers in retrieving remains from a remote or technically difficult location.



Table 3: Non-Mountaineering Incidents

(2011 figures in brackets)

Activity	Number of Incidents
Water sports	8 (10)
Snow Sport (Skiing etc.)	3 (1)
Air Sport	1 (5)
Aircraft Incident	1 (2)
Running	9 (5)
Mountain Biking	16 (11)
Equestrian	1 (3)
Vehicle	4 (5)
Self-harm	37 (17)
Missing	41 (55)
Work incidents	9 (9)
Assistance to communities	3 (2)
Local Walking	6 (10)
Body Recovery	10 (9)
Others	39
TOTAL	162

Self-harm and missing persons continue to dominate non-mountaineering incidents. Mountain biking is again the third most frequent, before water sports, running and work incidents. Low numbers of snow sport, vehicle, assistance to communities incidents, follow the trends of previous years.





Incidents Across the Year

The percentage of incidents that occurred each month in 2012 has been collated for both mountain and non-mountaineering incidents. This has been done to show any seasonal factors in either category.

Table 4: Incidents by Month

Month	Total	Mountaineering	Non-mountaineering
January	8.6	6.6	2.0
February	7.0	4.7	2.3
March	6.6	3.7	2.9
April	7.6	4.5	3.1
May	12.1	8.8	3.5
June	10.5	7.6	2.9
July	9.6	7.2	2.0
August	8.6	5.5	3.1
September	10.0	6.4	3.7
October	7.8	4.3	3.5
November	4.9	2.0	2.9
December	6.8	4.1	2.7
Total	100	65.4	34.6
Average	8.3	5.5	2.9

Overall, the peak months for incidents are May to September, which is in broad agreement with previous years data. Mountaineering incidents are at their highest in the same period. The pattern of non-mountaineering incidents shows a slight seasonal variation, with dips in January-February and July.

Helicopter Support

Overall data for the number of times helicopters supported on incidents was provided from each of the existing SAR stations- MCA, RAF and RN. Numbers for the Scottish Ambulance Service (SAS) and Strathclyde Police aircraft is also included. Note that the SAS helicopter is only used for evacuation, and the police machine for searching.

Table 5: Helicopter Support

Aircraft	Incidents assisted
Sumburgh (Shetland Isles)	0
Stornoway (Isle of Lewis)	22
Gannet (Prestwick)	73
Lossiemouth (Inverness)	92
Boulmer (Northumberland)	3
Scottish Ambulance Service	8
Police (Strathclyde)	25
Private (none of the above)	2



Methods by Which the Incidents were Reported Initially

Methods by which the police are notified of an incident (emergency calls for "Mountain Rescue are routed to the Police) are set out in the table below.

Table 6: Method by which the alarm was raised

Method	Number recorded
Mobile Phone	313
Landline	109
Personal Beacon	6
Email	0

Following the previous years, the vast majority in calls are from a mobile, with landline the next most common. Of some interest is the number of Personal Locator Beacons (PLBs)- 2012 was the first full year that these became legal for use in the UK. It should be noted that teams are not always able to record the method by which initial contact is made to the police- data here is as recorded on the incident forms.

Information on Casualties

The total number of people assisted in 2012 was 720. This compares with 684 in 2011- a small increase. Of these, 240 (266 in 2011) were injured or became ill in some way. The remainder were uninjured people who were assisted off the mountains. Specific data on people who were injured or became ill is set out in table 7 below.

It should be noted that only the most severe injury to an individual is reported; a casualty with a broken leg might also have lacerations and have become hypothermic since the alarm was raised, however only the leg injury is recorded in the statistics.

In terms of fatalities there were 25 associated with mountaineering and 37 with non-mountaineering making a total of 62 in 2012.

Table 7: Injuries and Illness by Type

Injury or Illness	Number
Arm or hand	6
Leg, foot or ankle	82
Chest or Shoulder	15
Pelvis	5
Cuts and bruising	6
Lacerations	2
Hyperthermia (heat exhaustion or heatstroke)	2
Hypothermia (lowered body temperature)	13
Back or Spinal	14
Head or face	17
Multiple injuries (e.g. from a tumbling fall)	21
Heart Failure	8
Asphyxia (drowning, rope ligature)	15
Other illnesses (CVA, Epilepsy, Asthma)	13
Exhaustion	19





The overwhelming majorities of injuries were to the leg. This is a consistent pattern over many years of Scottish Mountain Rescue. Multiple injuries, for example where a person falls on a steep slope and hits the ground or rocks many times before coming to a halt was the next most common. Head, facial, chest, shoulder and back or spinal injuries were the next most common. This is broadly similar to previous years. The number of hypothermia cases is decreased slightly from 2011, and there are two cases of heat related illness. Other illnesses total 35 compared with 35 in 2011 and exhaustion was 19 cases compared with 15 the previous year.

Teams have individual rescuers who are defined as “Casualty Carers”. These are people with advanced first aid skills, who have passed an assessment permitting them to administer a small number of controlled drugs on the hill. The number of times this was required in 2012 is set out in the table below.

Table 8: Frequency of Drug Administration

	Occasions controlled drugs used
Injuries	21
Illness	2
Total	23

Once located, and if necessary treated and packaged for evacuation, casualties were assisted off the mountains. The ways by which this was done is set out in table 9 below. Where more than one method (i.e. carried then placed in vehicle) this was recorded as done by a combination of methods. Not evacuated or evacuation not required records when, for example the person was not located, found not to be missing etc. This data is presented by incident not by casualty.



Table 9: Method of Evacuation by Incident

Method	Number
Helicopter	135
Carried off by Stretcher	81
Walked off by Team(s)	77
Vehicle	25
Combination of methods	4
Found own way back	19
Located by Police	6
Not Evacuated or Evacuation not Required	130

In line with 2011, helicopter evacuation remains the most common method of evacuation, proving again the value of having aircraft which can operate in the mountain environment. Though not recorded in the statistics, helicopter evacuation is also the fastest means to get a casualty to hospital. Similar numbers of incidents required the teams either to carry, or walk/guide people off the hills; these were the next most common evacuation methods- again similar to 2011. Vehicles were the next most common, followed by individuals or groups who found their own way back. This last category includes “talk-downs”, where guidance by phone was provided by the teams, to permit people to “self-rescue” from the hill.

By far the most common number of casualties per incident was one. However, there were a significant number of multi-person incidents. These are shown in the table below.

Table 10: Multiple Casualty Incidents

No. of persons assisted	1	2	3	4	5	6	7	>7
No of incidents	305	82	22	7	6	5	1	3

The incidents with greater than 7 people were three large parties of 15, 20 and 23.



The age of individuals who call on the services of Scottish Mountain Rescue Teams is set out below. Data was only recorded for the first three persons in each incident; however, that is the majority of those involved.

Table 11: Casualty Data by Age

Age Range	Mountaineering	Non- mountaineering
1-16	23	20
17-25	41	20
26-35	54	12
36-45	48	10
46-55	58	25
56-65	40	15
66-75	28	11
75	2	7

The figures have been split into mountaineering and non-mountaineering incidents, and show a small difference between these categories. Mountaineering shows a relatively even spread of people between 17 and 65. Non-mountaineering figures show a higher proportion of younger people (1-16 years) compared with mountaineering numbers. It should be noted that teams are not always able to ascertain the ages of those whom they help; the information above is based on what the teams provided only.



Incidents by Geographical Regions

Traditionally, MRC of S Incident reports are published annually in the Journal of the Scottish Mountaineering Club (SMC). In this, incidents are divided into the regions as defined by the SMC District Guides. Table 12 provides details of these regions, together with the number of teams who operate in each of them.

Table 12: Breakdown of incidents by Region and team

Note that the SARDA teams, SCRO and the RAF team cover the whole country and are thus not included below.

Region	Teams covering region	No of incidents
Northern Highlands	Assynt, Dundonnell, Torridon	25 (27)
Western Highlands	Dundonnell, Glenelg, Kintail, Torridon	47 (31)
Ben Nevis	Lochaber	59 (95)
Glencoe	Glencoe	62 (60)
Central Highlands	Lochaber, Cairngorm	17 (19)
Cairngorms	Aberdeen, Braemar, Cairngorm, Glenmore Lodge, Grampol, Tayside, Taypol.	104 (92)
Southern Highlands	Arrochar, Killin, Lomond, Oban, Ochils, Tayside, Taypol	71 (120)
Skye	Skye	35 (16)
Other Islands	Arran, HEBSAR, Oban	33 (32)
Southern Uplands	Borders, Galloway, Moffat, Tweed Valley	90 (72)
TOTAL		543

An alternative geographical breakdown is to use the former Police Authority regions; that is the force each team reported to for each incident. For 2013 results these will no longer be applicable, as a single force- Police Scotland- came into being on 1st April 2013

Table 13: Incidents by Police Authority

Police Authority	Number of incidents (2011 in brackets)
Northern Constabulary	248 (278)
Grampian Police	35 (39)
Tayside Police	50 (44)
Fife Constabulary	0 (9)
Central Scotland Police	62 (60)
Strathclyde Police	82 (81)
Lothian and Borders Police	44 (30)
Dumfries and Galloway Constabulary	22 (24)
TOTAL	543

Incidents by team

There were a total of 543 incidents in 2012. On many occasions more than one volunteer MRT or other unit was called out to assist. The total number of times teams were called out was 736. Table 14 documents the total number of times each team was called to assist in the incidents, together with the combined number of person hours (e.g. a call out in which 12 people were deployed for 5 hours yields 60 person hours. It should be noted that these figures in no way include the vast amount of additional time volunteer teams spend training, fundraising, administration and so on.



Table 14: Number of incidents attended by MRTs and other units

Team	Number of Incidents	Hours deployed
Aberdeen MRT	19	1557
Arran MRT	16	723
Arrochar MRT	24	899
Assynt MRT	9	209
Borders SRU	20	1361
Braemar MRA	33	1500
Cairngorm MRT	43	2834
Dundonnell MRT	28	1803
Galloway MRT	9	580
Glencoe MRT	58	1935
Glenelg MRT	4	40
Glenmore Lodge MRT	6	88
Hebredies SAR	9	329
Killin MRT	26	1174
Kintail MRT	16	523
Lochaber MRT	103	3849
Lomond MRT	20	816
Moffat MRT	14	413
Oban MRT	24	920
Ochils MRT	27	1116
Skye MRT	35	1967
Tayside MRT	50	1462
Torridon MRT	13	208
Tweed Valley MRT	30	1525
SCRO	0	0
SARDA (Scotland)	47	1459
SARDA (Southern Scotland)	53	570
TOTAL	736	29860

Police MR Teams		
Tayside MRT	54	1709
Grampian	38	1378
Strathclyde	44	1874.5
TOTAL	136	4961.5

As a measure of the way teams co-ordinate their activities, Table 15 records the number of regional teams that attended incidents. These exclude both SARDA teams, SCRO and the two RAF teams who may be deployed anywhere across Scotland.

Table 15: Incidents involving more than One Team

No of teams involved	2	3	4	5 or more
No of incidents	172	44	16	3



Reasons for Mountain Rescue Incidents

It is often difficult to assign a cause or causes to a single incident. If a hill walker slips on wet rock and dislocates their ankle, the simple cause is that they slipped. Their location means an volunteer MRT is needed to bring them down to the nearest road where they can be handed on to the Scottish Ambulance Service. In other cases, the answer is not straightforward. If a walker's body is located after they have fallen a considerable distance, the direct cause of the fall may not be obvious.

In their reports on individual incidents to the MRC of S, MRTs have identified a number of causes which contributed to their being called out. This is shown in table 16 below. This data is objective and does not include subjective issues such as ability and experience, or adequacy of footwear, clothing or equipment carried.

In the reports from the teams, multiple factors are recorded, hence the numbers in the table do not correlate to the number of incidents, but the number of times the factor was relevant to the incident. The data below relates to all incidents; mountaineering and non-mountaineering. Percentages are against the total number of factors highlighted by the teams included in this report. As stated above factors related to competence, self-reliance, carrying or adequacy of equipment have not been brought forward into this report as they are opinion based- and as such may vary from report to report.

Table 16: Main Factors Associated with Incidents

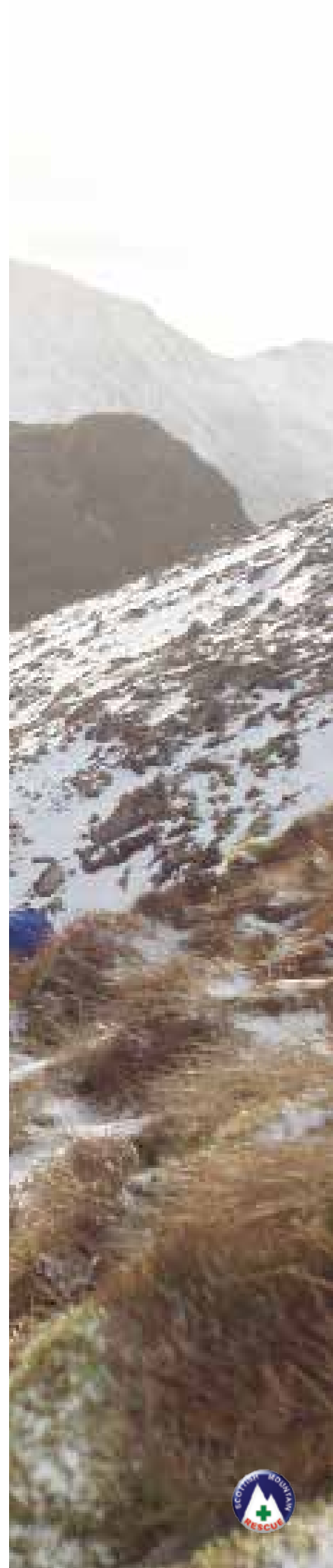
Factor	No	%	Factor	No	%
Slip	123	16.8	Work Accident	9	1.2
Fell	77	10.5	River or Water Based	17	2.3
Lost or Navigation Error	151	20.6	Reported Missing	133	18.1
Overdue	81	11.0	Weather	25	3.4
Benighted	26	3.5	Lightning Strike	0	0.0
Separated	19	2.6	Blown over	7	1.0
Illness	40	5.4	Avalanche Natural	1	0.1
Cragfast	20	2.7	Avalanche Triggered	0	0.0
Rock Fall	2	0.3	Fell Through Cornice	0	0.0
Belay Failure	2	0.3	Cornice Collapse	1	0.1



Factors related to lost or missing persons dominated the data. Lost and navigation error were the most common factors reported and account for one in five of all factors reported. A similar factor- reported missing was the next most frequent factor also reported almost in one in five factors. Of related factors, overdue- 11%, benighted (a forced, unplanned overnight stop) - 4% and separated-3% account for well over half all factors quoted.

Slips and falls take up over a quarter of the remaining factors referenced, reflecting the frequency of leg injuries- analysis shows this is the most common injury related to these factors.

The next most common factor was illnesses at 6%. Remaining factors were all less than 3%.



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'The Mountain Rescue Committee of Scotland (MRC of S), also known as Scottish Mountain Rescue, is a registered Scottish charity – number SC 015257'