



SCOTTISH MOUNTAIN RESCUE

AVALANCHE BURIAL - ORGANISED RESCUE RESPONSE

The International Commission for Alpine Rescue (ICAR) recommends that all teams draw up their own *Avalanche Burial - Initial Response Plan*. This advice, drawn from experience around the world, takes cognisance of the urgency attached to a burial event and the special challenges that accompanies such incidents.

Each team's response plan should be personalised to ensure it is appropriate for their particular location and circumstances. The plan should be shared with all those likely to be involved in the rescue response and should be reviewed, preferable ahead of each winter season, and amended accordingly. It would be helpful for the plan is drafted in a manner which readily allows it to be used as an *Aid Memoire* for those called upon to undertake key roles in an avalanche rescue response.

The plan should focus on the period from first notification through to the arrival of the hasty team at the site. An example of what might be included in an *Avalanche Burial - Initial Response Plan* is available at Appendix A'.

An avalanche burial event is a 'special emergency' and may require the coordination of personnel from a number of agencies, the need for clear leadership at the scene, the appointment of key individuals to specific roles and the intelligent use of tactics and equipment, all within a potentially dangerous environment. To assist those coordinating such a response it is further recommended that teams draw up an *Avalanche Burial - Site Action Plan*.

An example of what might be included in an *Avalanche Burial - Site Action Plan* is available at Appendix B'.

SCOTTISH MOUNTAIN RESCUE
AVALANCHE BURIAL - INITIAL RESPONSE PLAN

This plan covers the period from first notification, till the arrival of hasty party at scene.

Priorities during this phase:

- Immediately assemble a hasty team with appropriate skills and equipment.
- Contact Air Rescue Coordinating Centre (ARCC) and secure assistance of SAR helicopter.
- Safe travel to and ongoing safety of all at scene.
- Arrival of rescue personnel at avalanche tip as quickly as possible.

Consider having one Rescue Co-ordinator concentrate solely on assembling a competent hasty team and organising the safe and speedy delivery of that team to the avalanche site. A second Rescue Co-ordinator can simultaneously focus on a full team call-out.

Hasty Team

Ideally the individuals within the hasty party will have:

- Ability to interpret ongoing avalanche risk.
- Expertise in avalanche search techniques. (Transceivers, RECCO, probing ,flagging, strategic digging)
- CASCARE skills.
- A SARDA avalanche search dog.

The hasty team must travel fast and light and not be weighed down by heavy or bulky rescue equipment. Rescue Team's response plans should detail the equipment to be carried by this party.

Suggested list of equipment to be considered by hasty team includes:

- Personal rescue kit including MR radio and Airwave radio if available.
- Transceivers and RECCO detector if available.
- Light weight avalanche probes and blue flags (To mark place last seen and surface clues).
- Light weight shovels.
- Medic bag.
- Group shelter.
- Oxygen and Heart Start.
- Camera/Smart Phone, to capture initial scene before disruption by rescue effort.

Some teams have prepared avalanche grab bags for these emergencies. The contents of these bags, for use when additional rescuers arrive at the scene, usually includes heavy duty shovels, a large selection of marker flags, additional probes, tabards for key roles, Guidon cord, etc. In most instances this bag, which will be heavy, should not be taken by hasty party as it will slow their progress.

Full Team Callout

Rescue Co-ordinator (Preferably second Co-ordinator)

- Instigate a full team call out. Consider how to secure swift transfer of personnel and equipment from the designated RV point to the scene.
- Consider calling out neighbouring teams or at least giving them a 'heads-up' call.
- Depending on location, nearby Ski Centres, may have readily available skilled staff and equipment.
- If appropriate, contact informant at scene and try and capture any additional information required.
- Depending on circumstances, and mindful of potential dangers, encourage those at scene to undertake an organised 'companion rescue'. Instruct them to mark clues and leave them in place.
- Contact SARDA and secure attendance of avalanche trained dogs. If no dog available locally, consider 'special' arrangements to secure swift attendance, eg. Second SAR helicopter or assistance from Police.
- Obtain avalanche and weather forecast and brief team members on determined risks and safe travel options.

Both Rescue Co-ordinators should immediately commence a log and record all relevant information and actions.

(NB. For next phase of rescue response, including specific actions at scene, see Avalanche Burial - Site Action Plan.)

Appendix B'

SCOTTISH MOUNTAIN RESCUE AVALANCHE BURIAL - SITE ACTION PLAN

This first part of this plan covers the period immediately after the arrival of the hasty team at locus.

Priorities:

- On-going safety of all at scene.
- Triage of any casualty on surface.
- Immediate location of buried victims and establishment of a patent airway.

Safety

All rescue personnel at scene should be wearing avalanche transceivers. Assess the risks. Is it safe to proceed? Consider route choices. Identify places of safety. Is there a need for a lookout? Agree a warning signal.

Medical assistance

If persons are buried, and only limited number of rescue team have arrived at the scene, triage casualties on surface and undertake only lifesaving first aid intervention at this time.

Information to help quickly identify probable burial areas.

Speak to witnesses at scene, capture relevant information. Identify and mark (Blue flags) Place Last Seen, surface clues. Take quick photographs of the scene before disturbance caused by rescue activity.

Hasty Team Search Options:

- Transceiver search.
- RECCO search.
- Visual and audible search. Carried out rapidly across whole extent of debris. Turn over snow blocks, scuff off loose snow covering.
- Search Dog. As soon as possible, but commence other search options if dog not immediately available.
- Mark clues with blue flags and spot probe around clues. Probe in a spiral, 20cm spacing out to 2-3 meters radius.
- Rapidly spot probe any locations deemed to be a possible body deposition site; toe of avalanche, bends in the slide path, in front of and below obstacles, where terrain levels out or depressions and terrain traps.

The hasty team should pass back relevant information to Rescue Control including:

- Exact location.
- Approach route and designated RV point.
- Number and nature of injuries. Numbers still unaccounted for.
- Prioritise what additional assets/equipment required at the scene.

The next phase of the plan can be implemented when additional rescue resources arrive at the scene.

Priorities when additional resources arrive:

- On-going safety of those at site.
- Location of buried victims and establishment of a patent airway.
- On-going delivery of additional rescue personnel and medical equipment to the scene.
- Appropriate medical care of survivors.
- Appointment of key posts at scene.

As soon as sufficient rescue personnel have arrived at the site there are a number of key posts which should be allocated to suitably skilled individuals.

Site Commander - assumes responsibility for overall safety at site and is ultimately responsible for all decisions on the hill. They will task the activities of all rescue assets at the scene. They will use their experience, training and information accrued from witnesses and others to make intelligent decisions about priority search areas.

Base Rescue Coordinator, works in support of the Site Commander, but retains overall responsibility for the incident.

Medical Coordinator - identifies 'medics' to care for any existing casualties and prepares other rescuers to respond to further finds. Ensures all medical equipment is assembled and if necessary arranges for delivery of additional medical equipment. Will prioritise order of casualty evacuation.

Safety Officer - monitors safety as scene, identifies safe emergency RV point and sounds warning, usually a whistle, if further avalanche occurs.

Briefing Officer - works alongside Site Commander briefing new arrivals, keeping record of all at scene, controlling access onto the avalanche tip and maintains communications back to base.

Probe Team Leaders - allocated a team to carryout probe searches as directed by Site Commander.

Scene Marking

Blue flags for clues and 2 crossed flags for place last scene.

Red flags for area covered by probe search.

Yellow flags around the extent of the avalanche debris.

Green flags indicating the only permitted access route to the site.

Search Options to be considered by Site Commander

- Dog Search
- Transceiver / RECCO search
- Spot probe
- Visual search (Close line up)
- Probe line up (Prioritise likely areas) (Course then fine)
- Dog behind probe line (Scenting probe holes)
- Trenching