



## Module 11      Communications, Safety & Documentation

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## 11.0 Introduction

One of the important things on an Abseiling site is the ability for the Jumpmaster too clearly and concisely communicate with the Brakeman. This is required to ensure all the safety of all participants as well as those who originally jumping. The many various means of communication between the top and bottom of cliff site, we shall look at the most common forms and suggest what we have found to be the most successful form.

Visual communications can become difficult on a Jumpsite when there are obstructions such as overhangs, height, weather conditions etc, which can prevent the Leader(s) at the top from seeing or communicating with the student and Brakeman throughout the whole decent. Communications should ideally be quick and easy to set up and use, they should not be clumsy to operate which is why we have a leaning towards hands-free type equipment. However it is recognised that the costs involved in purchasing equipment can be prohibitive for small groups.

As such, there are four main forms of communications commonly found in Abseiling situations. These are:

- Voice
- Whistle
- Intercom Systems
- Radio

It is often useful for the Leader in charge to instruct their students in the appropriate methods of communication, while they are on site and the methods that they will use. The reason behind this is so there is no confusion in the operation of the activity and students ability to interpret what is going on and any given time.

Communication facilities with and to emergency services should also be included in the planning of any activity, particularly in any area that may be remote from the normal methods of communication. This requirement was reinforced in a Coroner's finding concerning incidents that occurred on some recent adventurous activities concerning School groups where injuries happened and there was no form of communication for the Leaders to seek outside assistance. The Coroner stated in his findings that "with the current form of technology and communications there is no reason why the organisers should not about access to at the very least a mobile telephone".

As such, the importance of reliable working communications is important not only to operate the Abseiling activity but also to support any situations, which may arise. The form of external communication can be either by a mobile telephone, two-way radio system or other form of communication.

### 11.1 Voice commands

Every day people use their voices to communicate their ideas, wishes and desires. However, many people seem to be hesitant to issued instructions or commands to others in the control situation such as running Abseiling site. They either hesitate in issuing the instruction or fail to project their voice so that can be heard. Voice commands are the most natural and simple way of controlling an Abseiling Activity, in most cases this is a single main form of communication used on site.



There is no reason for voice commands not to be used unless there is no line of sight between the top and bottom of cliff, the distance is too great, it is windy all summer or other obstruction exists.

The basic voice commands are as follows:

Call	Called By	Meaning
READY (Ready on Line #)	Jumpmaster	Confirmation of Brakeman ready
ABSEILING	Jumpmaster	Participant is beginning Descent
HOLD	Jumpmaster	Brake on Line
BRAKE	Jumpmaster	Brake on Line
HOLD	Participant on Rope	Brake Me, Stop my descent
BRAKE	Participant on Rope	Brake Me, Stop my descent
HEADS	Jumpmaster	Rock / Item Dislodged and falling
ROCKS	Jumpmaster	Rock / Item Dislodged and falling
CLEAR	Brakeman	Line Clear
CLEAR ON '#'	Brakeman	Specific Line is Clear
OK	Either	Acknowledgment

Figure 11-1 Voice Commands

## 11.2 Whistle Signals

Another form of communications which can be used on an Abseiling site is the whistle. Whistles have a place in industry and are widely used as they are clear and easily recognisable out of doors. This is particularly true in the crane industry with the whistle is still the main form of advising the crane driver what action to carry out.

Abseiling is a little different, whistles work fine on a single line site but where there is more than one line working it can become confusing. Some people have advocated the use of different whistles for the different lines, however this is confusing once the site is working for at least one or two rotations of staff.

The use of a whistle. It is used in the following method:

1 Blast	Stop! Used to stop all movement, especially in hauling systems.
2 Blasts	Up
3 Blasts	Down
4 Blasts	The all clear, the student is at the bottom and is clear of the line
Sustained Blast	The distress signal - a student is in difficulty during the descent.

Figure 11-2 Whistle Signals

Be aware however, we usually try to maintain control and a level of calmness on an Abseiling site. The use of whistles can advertise to the other participants that there is a problem and this can cause distress and lead to a loss of control if a generalised panic sets in. For this reason alone, if for no other, the whistle is not an ideal form of communications in Abseiling.

## 11.3 Field phones / Intercoms

Field phones- Effectively a wired self-contained intercom system. This system takes time to set up and is suitable for long term jump sites. Field phones normally operate in a point-to-point configuration, in that all the handsets operate as parallel extensions and when a call is made any



station can pick up and speak. Field phones commonly used by the military often contain a small battery and require hand cranking to generate the ring signal.

Intercom Systems-also effectively a wired self contained system, this system also takes time to set up and is use all for long term jump sites. Intercoms can operate differently from the Field phone in that specific locations can be contacted. Further, they are usually a headset configuration that allows for hands-free operation. The power to operate the system comes from normally a generator or a 12-volt supply.

Either method can be messy and each takes time to set up. Neither system is really not suitable for short-term jump sites. This coupled with the cost of purchasing the system initially, its installation and poor availability tends to make either the Field phone all the intercom system unacceptable for most Abseiling activities.

## 11.4 Radio Communication

The use of portable two-way radio Systems has become more popular in recent history. This is due to mainly:

- acceptance of technology
- availability of equipment
- reduction of purchase cost

Portable two-way radio can enable good communications between the top and the bottom of a Jumpsite, for the Jumpmaster and the Brakeman and some cases or principal Leaders working on a given site. There are number of different forms of two-way radios available that may be of use on Abseiling site.

- 27 MHz CB radio systems
- FM transceivers
- UHF radios
- VHF radios systems
- FM /UHF hybrids

Probably the cheapest form of radio communication is the FM transceivers. These are normally a small and economical system such as the voice operated (vox) radios with headset and boom microphone. (eg. Tandy TRC 500). The main problem with this type of radio is that a number of commercial drive through stores use similar equipment and in the metropolitan area this can lead to garbage or scrambled messages.

The next form of communications of those with a budget is the 27 MHz CB radio. The problem with these units is that they are not hands-free operation, and they are quite common which means that more often than not you'll be sharing a frequency with someone trying to have another conversation. Finding a clear channel can be quite a challenge and usually be available channel is the one reserved for emergency communications. Some people have used a marine band CB radio as an alternative, the frequencies on the marine band are strictly regulated and this is not recommended at all.

Following on, the next form is the FM/UHF hybrid. These are relatively new on the market and are designed for short distance point-to-point communications. As with the base FM transceiver they



operate on bandwidths which are commonly used in commercial drive throughs such as McDonald's, Hungry Jacks, KFC or similar.

The next type of radio system is the UHF. These units are available in multiple configurations including remote microphone/Speaker, headset, hand-held, in vehicle and base station. This type of radio although not the cheapest on the market has multiple applications as well as those we would want in Abseiling. As such the UHF is rapidly becoming the radio system of choice. In most applications the normal citizens channels are used but the system can also allow for individual frequency allocations or privacy whereby the users enable a coding system, which separates out other users.

The final type of radio system is the VHF. This system is additionally either in vehicle, base station or backpack in design. Normally used in commercial applications may have extremely limited use in Abseiling. This is due to the requirement of purchasing the frequency bandwidth you intend on using, obtaining an operator's licence from the regulator and the high cost of purchasing the equipment. The VHF radios normally sell for the thousands rather than hundreds of dollars.

## **11.5 Documentation**

Documentation is an area that has undergone a number of radical changes over the past few years. Principally these revolve around the requirements of suitable prior and current qualifications of the Activity Leaders and the acceptance of those by the responsible authority. If you haven't picked it up yet, the cross over between communications and documentation is planning for the event to occur. The use of the Adventures Activities Form may also be required, confirm with the Responsible Authority and ensure that this has been completed

### **11.5.1 Planning Stages**

In the planning of an abseil there are a number of elements that need to be considered. These include the approval of the responsible authority, which is under scouting guidelines for small groups, the Group Leader. Larger parties where there are multiple scout groups included would be the District Commissioner or District Leader and so on dependent upon the size of the function.

All planning involves ensuring that safety instruction and basic theory prior to any instruction on the cliff face has occurred. This must include the Leaders who will be attending, the youth or participants and wherever possible the parents or guardians so that everyone is aware of the what's, where's and whys of the activity.

### **11.5.2 Planning the Activity**

As experience will have shown, prior planning can always reduce the degree of distraction on the day. A timeline of at least three (3) clear weeks should be allowed, to check the site, notify the parents and students. In addition to this, all student logbooks should be checked as being up to date and containing the necessary medical data. It is advisable to notify the emergency services the day before the activity as these organisations have shift changes as well as a week or two prior to the event in the initial planning stages.

In planning the actual activity the experience of the students, the degree of difficulty of the abseiling site and the conditions under which it is to be done must be taken into account.

The regulations and permissions of any appropriate authority (Land Owner or Manager etc) MUST be followed at all times as well as any local or state laws and/or by-laws.



When costing the activity there are three major factors to be considered:

- The cost of the equipment.
- The wear and tear on the equipment and its replacement cost.
- Any transport and/or instructional costs.

Be aware that there may be additional costs associated with the activity that will need to be accounted for.

### ***11.5.3 Selection in Preparing an Abseil***

Three things that need to be considered before running an activity.

- Selection of sites - In the selection the degree of difficulty, the suitability for the actual group of students and their degree of training, and the awareness of any environmental hazards must be taken into account.
- Selection of personnel - The qualifications of the Leaders for the abseil being planned and their degree of both the Leaders and students fitness, needs to be considered.
- Actual jump site - The actual jump site should be surveyed prior to any planned activity. In doing this the following should be noted, Anchor points (both "line" and "safety"), access for the group to both the top and bottom of the site and access for the emergency services.

### ***11.5.4 Checklists (Why use them)***

These are fast and convenient ways of ensuring that the required safety procedures are followed and the maximum degree of safety is accorded to the students in the care and that unnecessary accidents do not occur.

Some of the recommended checklists cover the following:

Site. (See Appendix)

Have you checked? (See Appendix)

Risk Assessment and Mitigation (See Appendix)

### ***11.5.5 Log Books / Journals***

As some of you may remember, there use to be the issue of the little yellow VBAC Log Book to everyone who abseiled within Scouting. This has changed somewhat and there is no firm requirement to keep a log of jumps for the casual abseiler.

That being said, all Abseiling Leaders however **ARE REQUIRED** to retain a log or journal of their abseiling activities. This is a requirement of the various industry bodies and associations that Scouts Australia have joined as part of the NORLD and ORCA processes. Further, you will be required to present this record at any Recognition of Prior Learning / Competence (RPL) process if you ever wish to cross-qualify with another organization or you wish to extend your qualification each three (3) years.

As such, we recommend that anyone, including Scouts and Venturers who are thinking of undertaking Leader qualifications at any level also begin and keep a record of activities.



### **11.5.6 Site Permits / Permission**

Most abseiling sites occur on public lands, which are generally administered by a government department. With the changes to the recognition of national standards, and the adoption of set minimum standards some departments are enforcing minimum recognition standards.

What this means is that the party leader and in most cases the other leaders require a form of recognised qualification. Thankfully the Abseiling Leaders qualification and the new form of identity card provide these requirements. The different leader values that will appear on the cards are:

Abseiling ABS 603 ACT.LDR- ASSISTANT ABSEIL LEADER  
Abseiling ABS 601 ACT.LDR.BASIC-ABSEILING LEADER  
Abseiling ABS 602 ACT.LDR.ADV- ABSEILING LEADER

These are the only recognised Abseil Leader values that will be recognised by Land Managers and the Parks service.

So, why is this important when we look at site permit or permissions. On Private Property it will not stop an activity but bears direct relationship to insurance and liability. On Public Lands however, the Site Manager has the right to refuse anyone, specifically groups which appear to be organised, from undertaking activities if they do not have suitable qualifications in that sport.

The relationship to this is that in order to use a site be it on private property or on public lands such as a national park, approval must be sort before the activity in the planning stages. Many sites are closed periodically to the public sue to environmental concerns. Alternatively, the liability and insurance issues are now major considerations.

Permits are now generally issued to groups wishing to use areas under public or governmental control. Not only is a permit required prior to the activity but the right of refusal is suitable qualifications cannot be shown is now enforced within Victoria. Further, if the Land Manager or Ranger attends an activity, they can request to see proof of qualifications from the Abseil Leaders on site. An identity card displaying one of the above levels (specifically the last two) is needed or they can reject you from the site.

On private land, this issue of permission is paramount. The insurance for this type of activity is also bound by the public liability of the landowner. In order to ensure that cover will be granted, the various levels of leader onsite with the activity are also important. The alternate is people just use someone's property is twofold, not insurance coverage and trespass.

### **11.5.7 Site Assessment**

Couped with arranging permission to use a site prior to the activity is the assessment as to the suitability of the site for use in abseiling. There are a number of elements that need to be considered, these are covered in more detail in the Risk Management topic following. Elements that should be considered can include, but not be limited too:

Access top and bottom; return path to top; if gear needs to be carried to the top to build the site; is there water/toilets/any facilities nearby; evacuation methods of needed; can use call for help form the site; what age/phase of training is the site suitable for; is the site stable or is there a lot of loose material; are there suitable anchors and safety line positions; is there a area away from the edge were people can wait; is there shelter from the weather etc. etc.

All these things need to be considered either before or when requesting permission to use a site. The best aid in this is obtaining local knowledge. There is no substitute for this, often is the Land



Manager or Ranger does not have this knowledge, they may be able to suggest a suitable person or group to speak with.

## 11.6 Duty of Care

### 11.6 Risk Management

The next major element, which should be considered, is Risk Management. We do not intend on teaching this as the basics are covered within the Adult Leader Training Program, and those youth members who intend are leading and instructing will be 18 years of age and be required to complete at a minimum an Activity Leaders Certificate which will include this. So the basic things that need to be considered in a Risk Management profile are:

- Location, do you have permission from the Land Owner/Manger to use the site
- Location, access to and from for participants
- Location, egress in an emergency, ease of finding location and extraction
- Location, Emergency Services are aware of your presence and know how to contact you
- Team & Participants, are there sufficient trained Leaders to run the activity
- Team & Participants, are the available Leaders/Parents able to control the participants
- Team & Participants, are there any medical conditions to consider
- Team & Participants, what facilities (eg water, toilet, cooking etc) are available on site
- Team & Participants, are the any disabilities which need to be addressed
- Team & Participants, in an emergency can you transport or care for all participants
- Team & Participants, do you have a complete first aid kit and someone trained
- Weather, cold, wet, heat, shelter. What can you cope with climate changes on site
- Communications, can you communicate out (mobile phone, radio) and can you be contacted
- Communications, the nominated home contact for emergencies **is** available

The list above is not all-inclusive, but it does give you and idea of the things that need to be considered with an abseiling activity.

#### **11.6.1 So what is Risk Management and how is it different to Duty of Care?**

Risk Management is a tool normally found in business where projects are undertaken. However, the fundamentals of the Risk Management process do apply to any and everything we do. The strange think is that we all Risk Manage everyday, when we go to do anything we have already assessed what could happen, how likely it is to happen and how to minimise the bad things happening.



### 11.6.2 The Risk Management Process

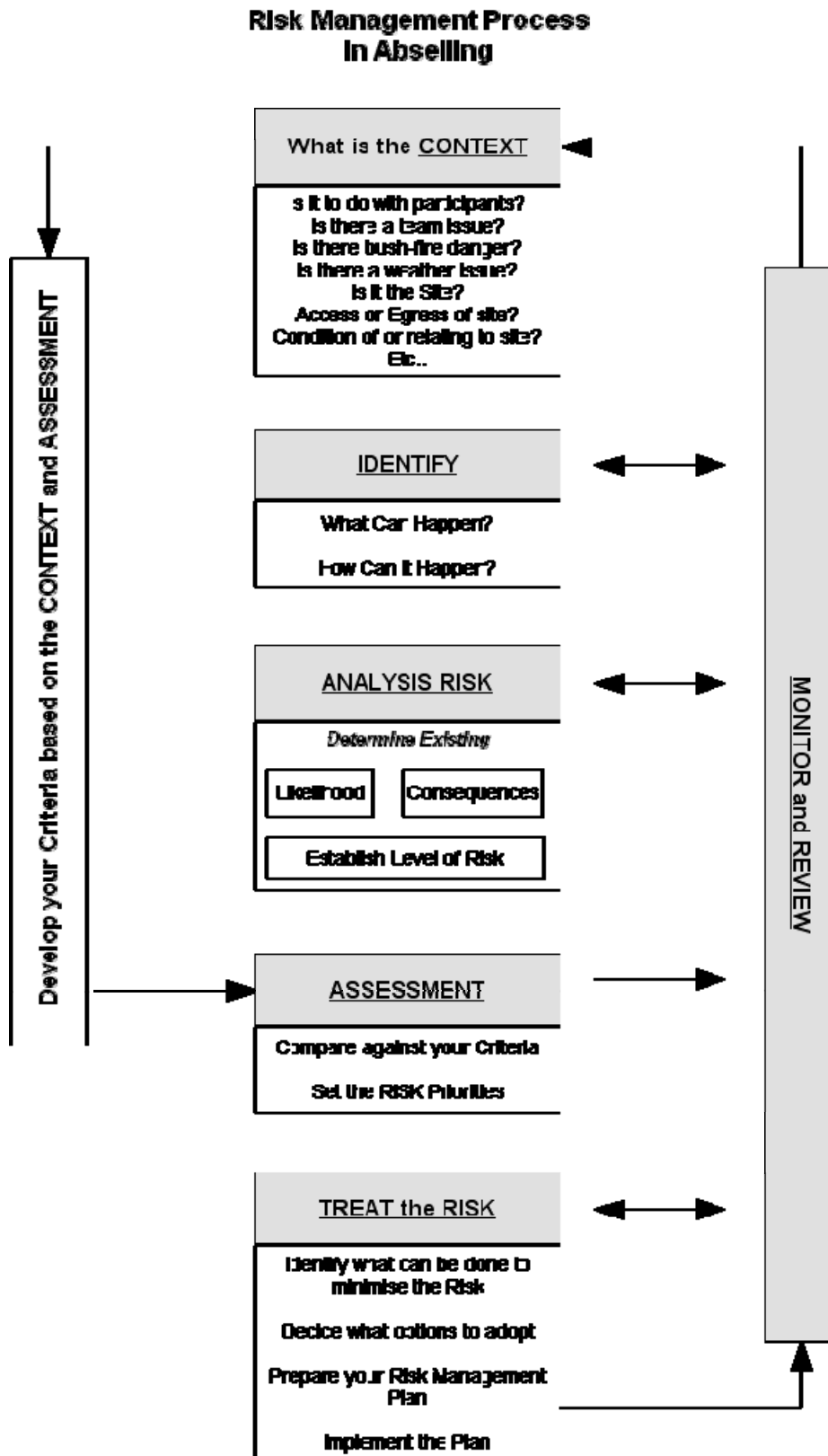


Figure 11-3 Risk Management Process



## 11.7 First Aid and the First Aid Kit

All abseiling activities must have a fully qualified First Aid officer with the appropriate first aid kit. The person who is qualified in First Aid is to be on site all day. The First aider must have a first aid kit and be identified by two green First Aid stickers on their helmet.

To be able to render assistance under all conditions, it is recommended that the First Aider be able to Abseil.

Every group should have a First Aid kit with them. The kit should be in movable dustproof box (unlocked) and be kept in an accessible location.

### Suggested First Aid Kit

4 Bandages triangular	1 Stingose
2 Bandages crepe 5cm	10 Wound closures
2 Bandages crepe 7.5 cm	1 Savlon 1:100 solution (bottle)
2 Bandages crepe 10cm	1 bottle Betadine 25ml
1 Adhesive tape 2.5cm	1 Medicine glass (plastic)
1 Adhesive tape 5cm	1 Paxyl creme (tube)
2 Gauze squares (envelope) 75mm x 75mm	4 Chux wipes
2 Combine dressings (envelope)	1 Foil rescue sheet
20 Adhesive dressings (Assorted)	1 Note pad & pencil
1 Adhesive dressing strip (roll)	1 Torch
1 Cotton Balls (1 small bag)	1 Kidney bowl (small / plastic)
1 Cotton buds (1 small bag)	1 pkt Lo Asid / Mylanta tablets
1 wound dressing (small No. 13)	2 Eye pads
2 wound dressing (medium No. 14)	24 Safety pins, assorted
1 wound dressing (large No. 15)	5 pairs Disposable rubber gloves
4 Melolin dressing (5cm x 5cm)	1 Water bottle (plastic)
1 Scissors	Eye wash
1 Tweezers (fine point)	1 set Air splints
1 Splinter probe	Pads &/or tampons

Figure 11.7-4 First Aid Kit Contents

## 11.8 Safety

This section details the minimum safety precautions and procedures that should be observed during abseiling activities. These procedures must include consideration of the elements, which were identified in the Risk Management Plan for the activity (see 11.6).

The following precautions are to apply for the inspection and storage of equipment.

- A. The Leaders are to inspect the equipment daily before use and also during use.
- B. All abseiling equipment used in this activity is to be stored separately from general stores in a well-aired area away from fuels, chemicals or any other substance likely to cause them damage.

### 11.8.1 Supervision

The site controller is responsible for the overall control of the activity and safety of those participating in or observing the activity. They shall be proficient in all aspects of abseiling, safety, knots and equipment. This is inclusive of first aid requirements.



Clowning around or Harassing activities by students and in some cases team members cannot be tolerated in any form. If this happens, it is our policy that the student be set aside and does not participate for the rest of the day's abseiling. This is especially inclusive of derogatory comments 'baiting' of students who exhibit real fear of the activity. You do not want to force an individual into descending where this could either create an issue with them successfully completing the descent or instil sufficient fear that they will never again attempt the sport due to the perceived real risk of death from height or fall.

### **11.8.2 Student discipline**

Since this activity has some inherent dangers a degree of discipline, both personal and group is required. The Abseiling Leader must be continually aware of the situation and will apply appropriate disciplinary procedures to avoid breaches of safety. This is inclusive of a scouting leaders 'Duty of Care' to those under his/her charge. Extension of this duty is to all those who are present on site weather they be participants or spectators.

Spectators who are not part of your party or group can not be 'directed' as such, but advised in relation to the 'risk' they [put themselves into. Where that risk translates to your group or party, your 'Duty of Care' has over-riding responsibility.

### **11.8.3 Briefing**

#### **A. PRE-JUMP TALK**

Before a beginners group does any Abseiling, it is recommended that a pre jump brief is done on their last meeting night before the Abseiling activity. This will allow you to explain and demonstrate all the equipment used and talk about general safety around the Abseiling site. With some groups it may be advisable to invite the parents along to alleviate any fears they may have in their child going Abseiling.

#### **B. ON SITE BRIEFING**

On arrival at the jump site, the Site Controller is to introduce all the Leaders and their duties to the students and brief all personnel on the location of:

1. The First Aider.
2. Way back to of the cliff
3. Days time table
4. First Aid Kit
5. Reaffirm site rules & safety
6. Emergency procedures
7. Brief Instructions on:
8. Site specific information
9. Location of basic rescue gear

#### **C. ON SITE Overview**

As part of the briefing an overview of the site including return paths from the base to the top and any other considerations need to be provided. Each participant should know were and if there are any toilet, water or rest locations, together with the location of first aid kits. Other elements of importance would include any areas were participates may park vehicles, which are closed for environmental reasons, which are out of bounds etc. It basically means that what you know about the site and identified during the site assessment should be pasted onto those using the site.



#### **11.8.4 Control of descents**

A brakeman is to be at the bottom of the cliff face on each line in use, in order to arrest an uncontrolled descent by placing downward tension on the rope.

#### **11.8.5 Wet Conditions**

Wet and slippery conditions must be avoided for beginners.  
Cliff faces often turn into waterfalls in heavy or sustained rain.

#### **11.8.6 Minimum safe number in a party**

The minimum number in a party should be four (4) persons, including the following:

- 1 Site Controller - must be one of the Abseiling Leaders
- 1 brakeman - must be one of the Abseiling Leaders or Assistant
- 2 Students

Note: An Assistant Abseiling Leader can be a Brakeman or a Jumpmaster under supervision.  
The ideal ratio should be better than 3 Abseiling Leaders to 8 students.

- 1 Site Controller - must be one of the Abseiling Leaders.
- 1 Jumpmaster - must be one of the Abseiling Leaders or Assistant under direct supervision.
- 1 brakeman - must be one of the Abseiling Leaders or Assistant.
- 1 First Aider - can be one of the Leaders or suitably qualified person.

#### **11.8.8 Role of and Use of Scouting Leaders for Abseiling Activities**

This is an area, which has in the past created a number of issues. What must be clearly understood is that the only 'experienced abseil leaders' on a site are those that have undergone a course of formal instruction. Using other warranted leaders cannot occur where it concerns a skill-based operation. This specifically includes braking and harnessing activities. The only role that scouters who do not have Abseil Training can undertake is to assist in the control of youth members and the general public in areas away from the jump sites.

#### **11.8.9 Notification of Police and Ambulance**

Since most jump sites are located in isolated areas we have been requested to notify both POLICE and the relevant AMBULANCE Services prior to the event. It is recommended that the nearest Police and Ambulance stations be notified at least twenty-four (24) hours prior to the day's activities and on the day itself. Since most country ambulance stations have only one vehicle it is recommended that the second closest station also be advised.

The information should include the exact location by means of a map (See Appendix D), including any local landmarks, the number in the party, the person in charge and the date and time of the activity.

#### **11.8.10 Night Jumps**

The standard procedure for any day jump must be followed, in addition the site must be checked in the daylight hours prior to use. This should include the abseilers jumping the cliff in daylight hours first to familiarise themselves with the cliff.

It is essential that the Emergency Services be notified as to the exact timing of the activity. Additional equipment required includes "cyalume" light sticks and should be used in the following way:

- To the free end of the rope to show that the rope is grounded,



- Tape one to the ankle of the left or right leg, and a different coloured cyalume stick to the opposite shoulder so that the student is visible for the entire descent.
- To mark the track back to the top.
- Radios should be used top and bottom to monitor the progress of the abseiler.