

AREC

HEALTH AND SAFETY CONSIDERATIONS

INTRODUCTION There are a number of Government acts, that as a volunteer, you must be conscious of in particular, whilst operating under the CIMS (Co-ordinated Incident Management System) model. When involved as the Section Leader or her/his assistant, and are assisting other agencies, you need to be aware of safety and welfare of personnel that are under your management, as well as those you are working alongside of.

We will review our health and safety performance and practices on an annual basis, or more often if required. This will assist us to find better or safer ways of performing our tasks.

As part of our continuous improvement and engagement we will communicate regularly with other organisations of similar nature and work with any assisting agencies as well as any contractors we engage, to co-ordinate our activities in the best possible way.

We will advise all volunteers to our operation and those that work alongside us of the importance to advise us of incidents or near misses. If these are of a serious nature they will be an immediate investigation. If not of a serious nature each individual case will be looked at and discussed to determine if there are patterns forming. All incidents and near misses must be communicated with fellow members that may encounter the same issue on the field. All investigations will follow the same procedure as outlined in the section Investigation Procedure (unless the investigation is of a nature where another agency takes control and therefore will be followed as per their procedures.)

PERSONNEL REQUIREMENTS: The Health and Safety at Work Act 2015 covers people working as volunteers. The people, under this management expect Health and Safety laws of New Zealand will apply and their welfare will be a priority during the operation and in the immediate aftermath. This in essence means, as the Section Leader or her/his assistant, must as far as reasonably practicable ensure their health and safety. This also includes warning others outside your sphere of any health and safety matters that exist in your area of management e.g. antenna guys, generators, RF hazards and anything else that could injure other personnel that may not be familiar with the hazards. This amounts to managing risks of any hazards you identify by warning others by way of briefings, warning notices or segregating/isolating the area of hazard. Likewise the Incident Controller is responsible for the overall safety of all personnel with the ICP (Incident Control Point). This is why it is most important that AREC people involved in CD (Civil Defence) or SAR (Search and Rescue) operations attended a formal CIMS training course before they can be deployed on such operations and training events.

Just as important is the welfare of personnel under your management. There must be an awareness of such matters as hours of duty, adequate rest periods, sustenance and their own personal welfare requirements. People who have worked a full day's employment, may not then be able to work another 8 hour shift as an AREC volunteer.

In a CD event as Section leader or her/his assistant, you must be satisfied that their home situation is stable and that their family welfare has been attended to before they are called to assist AREC. It is probably better to enlist the assistance of AREC personnel from outside the affected area. The AREC Area Manager or AREC National Director will be able to assist in this matter.

RISK MANAGEMENT: Risks to health and safety arise from people being exposed to hazards. A hazard is anything that can cause harm. The Health and Safety at Work Act 2015 clarifies that “Hazard” includes behaviour that has the potential to cause death, injury or illness (whether or not that behaviour results from physical or mental fatigue, drugs, alcohol, traumatic shock or another temporary condition that affects behaviour).

Risks must be eliminated so far as is reasonably practicable. If a risk cannot be eliminated, it will be minimised so far as is reasonably practicable.

To identify the Risk Level of the hazard before determining what process needs to be followed we assess the likelihood versus the consequence to determine the level of management required for that hazard.

When thinking of hazards in the workplace we keep in mind the following types of hazards - Chemical, Noise, Radiation, Vibration, Temperature, Biological (organisms), Ergonomic, Lighting, Electrical, Physical, Psychosocial (stress/fatigue).

An important area that the Communications Unit Leaders must be aware of is what is known as Critical Incident Stress (CIS) and its signs and effects. When personnel are subjected to traumatic situations, they will

react in different ways depending how it has affected them. Some will be unaffected while others may have quite extreme reactions to the traumatic event. Some types of events that you should be aware of are traumatic injuries, serious injury or death to people involved. It may not be obvious as a serious event, but they may have emotional involvement with the victims, and this may have an effect on the outcome of an operation. If you find yourself or one of your team being affected, use professional help which would be available. In a SAR operation the Police have available their Psychological Support Services and it is available to all personnel involved in SAR operations, or to those who feel they are suffering Critical Incident Stress or Post Traumatic Stress Disorder (PTSD). There is also help available from Victim Support Services. As manager you must be aware of the signs of CIS or PTSD within the people under your management, as failure to do so could place yourself and those involved in a failure of “Duty of Care” situation: Some of the signs of a person who is suffering stress from an operation, are as follows:

- Signs of Situational Induced Stress
- Fatigue or Chronic fatigue
- Stress that shows as a change in behaviour or demeanour
- Becoming quiet and incommunicative
- Withdrawn into themselves
- Lack of motivation
- Shows signs of distress; teary, avoiding any reference to the event
- Difficulty sleeping
- Difficulty concentrating and making decisions

- Unusually argumentative
- Easily frustrated

Anyone who becomes aware of one of their peers showing any or all of the above stress signs should in the first instance, discuss your observations with another member of the group in a confidential manner. If it is then thought that mood change is a sign of stress, then action must be taken as soon as practical to remove the person from the situation and seek some support for them. Do not dismiss these situations out of hand, as it will further adversely affect the operation you are involved in.

There is also a process called Critical Incidents Debriefing, where these issues can surface and remedial steps initiated.

To further assist with the welfare of personnel while deployed, the Section Leader or her/his assistant should ensure that rosters are established and adhered to, rest periods are taken away from ICP, and meal/refreshment breaks are taken. Associated with this, if the anticipated duration of the operation appears to become protracted, then the planning for the replacement shift of operators at an early stage is very important. Any replacement people may have to travel some distance and the earlier they are placed on standby the better. Changing the entire shift is not good practice, but a staggered change of people will ensure continuity of the situational awareness.

INVESTIGATION PROCEDURE: The incident investigation is to find out just what did happen, how it happened, and why it was able to happen. The information obtained through the investigation is a necessary start for deciding what needs to be done to avoid a repeat incident.

Who and how many complete the investigation will be decided by the Section Leader or her/his assistant and the information recorded.

Four Basic Rules when Investigation

- This is not a time to be blaming anyone
- Be pleasant when asking questions
- The task is to find out all about the incident and the lead up to the incident (in detail)
- Make NO Assumptions

When all the information is gathered and written down, it must be studied to find out what the root cause was and list the sequential effects of the root cause, right up to the end result (the incident).

Only then is it time to determine the control strategies needed, what control actions need to be taken, who will do which actions, by when, who will check the actions are completed and who will sign the completion off. The outcome of the investigation then needs to be portrayed to all those that may encounter a similar experience along with the National Director.

TRAINING/INDUCTION: All volunteers involved in an operation must have read this Chapter and signed a verification page to confirm so. We invite all volunteers to any meetings we hold for their input and periodically hold training sessions for certain activities to keep volunteers up to date with their knowledge and our requirements. Any volunteer involved in work around a helicopter must attend a formal helicopter safety briefing. These are normally also put on as refreshers on an annual basis.

If formal helicopter briefing has not been attended but someone is faced with helicopter work (ie they are being collected from the field) then we would expect the helicopter crew to take control and guide them appropriately bearing in mind they have already read and understood the helicopter safety section of this chapter.

SAFETY REQUIREMENTS: There are many safety matters that you must be aware of and these include:-

- Electrical Safety
- Equipment Safety
- Vehicle Safety
- Helicopter Safety

Allied with this is the provision of any personal protection equipment needed and should include:-

- Hi-Viz jerkins
- Suitable clothing and footwear
- First Aid Kits
- Hearing protection

ELECTRICAL SAFETY:

Learn how to apply first aid or identify any person that has attended a First Aid course.

Be fully conversant with the potential of electrical shock hazards from 230v, especially when operating from 230V generators or portable equipment. Ensure that all extension leads, splitter boxes and lighting equipment are regularly inspected and in good order. To maintain good readiness, repair any faulty items as soon as they are found.

If the building you are operating from has no RCD protection, then any extension lead from the mains outlets should use an RCD device.

230V Gensets: Their initial use should be carefully considered as to whether or not they are actually required. A better option would be to plan on using 12V engine driven alternators to charge batteries. Considering that almost all radio equipment used within AREC is powered from 12V, this should be the preferred option. Low voltage LED type lighting is also now available for use in emergency situations and again should be used for safety reasons.

Some generators have provision for external earth pegs which should be used. This is more for helping suppress any interference to the radio's reception than to be an effective electrical earth. RCD protection devices should also be employed and plugged into the generator outlet.

When using a 230V generator in damp or wet conditions, precautions must be taken to prevent the ingress of water into electrical connections. Use tape and plastic bags to waterproof joins in leads.

Safety matters when using 230V generators.

- Do not tie the earth and neutral conductors together at the generator.
- Do not plug the generator into an electrical wall socket to back feed power circuits.
- Do not run extension leads through traffic areas or thoroughfares where they may be damaged.
- Place downwind, in a clear location and beware of grass/combustible organic material lying around the exhaust as the hot exhaust will soon

dry it out and set fire to it. Always be aware of the noise made by a generator and site it for best attenuation of the motor noise (noise reduction).

- Do not use inside buildings that will allow the build-up of carbon monoxide fumes from the exhaust.
- Refuelling: Locate fuel supplies away from the generator and in a safe place away from ignition sources. Stop the motor before refuelling. Always use two people when refuelling and use suitable pourers and funnels. Have a fire extinguisher available and know how to use it.
- Always start and warm the generator motor before connecting a load.

EQUIPMENT SAFETY:

Installation and use of your equipment must be done in a safe manner, failure to do so could damage or destroy important equipment, which could have a detrimental effect on the whole operation and put AREC in a bad light with other agencies.

ANTENNA POLES:

When erecting, first check for overhead power wires, over-hanging trees or any other act that may entangle them and place the people involved at risk. Use enough people to do the job safely and have someone act as a safety man and guide the whole operation. Be aware of where you are driving in guy pegs in built up areas so as not puncture any underground services like gas or water pipes. Normally mains cables should be at least 600mm deep. Make sure the radio gear is carried in proper transit cases to ensure its safe carriage and won't be subject to getting wet or damaged. Assemble equipment in a safe and suitable location making sure that

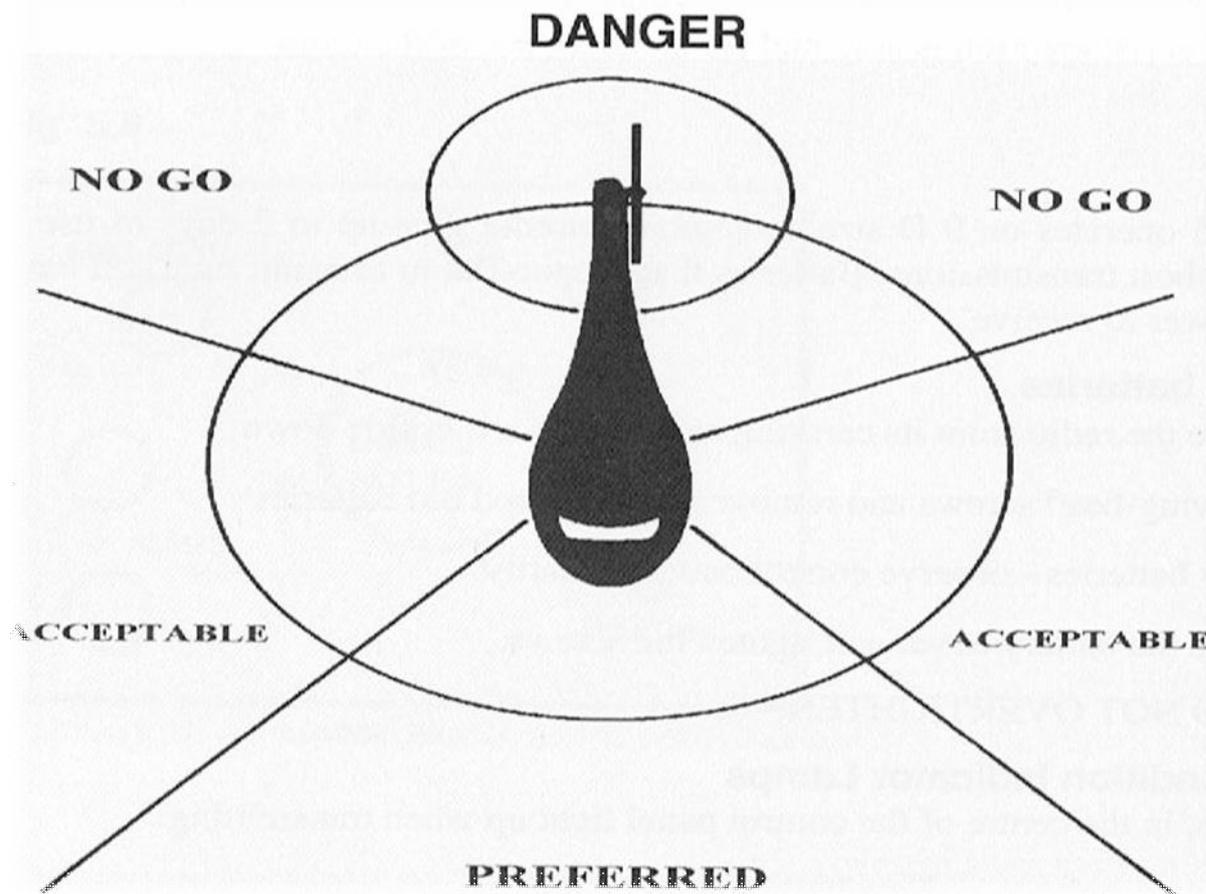
any cabling won't create a trip hazard to others. When external antennae are used, ensure that coax cable routes are clear of structures that can damage them, like getting cut in doors or windows. When joining coax cables it is suggested that silicon grease (DC4 Compound) be put into the connectors before making the join, to prevent moisture ingress that will degrade the cable performance. Make any installation in a tidy and professional manner. The connections of the DC cables should be done using the standard 'T' connector for 10Amp circuits and the double or 4 pin version of the 'T' connector for 20 Amp circuits.

VEHICLE SAFETY:

When off-road there are a number of issues that must be taken into consideration. Farm tracks and unformed roads offer their own hazards especially in wet weather with some clay surfaces becoming very slippery. Just having a 4WD doesn't ensure that you can drive anywhere, so exercise caution. Keep uppermost in your mind, that when involved in an emergency response to be vigilant whilst driving and not be distracted by the urgency of the situation. When travelling into an unfamiliar area, be sure of your destination and get definite directions to the ICP location.

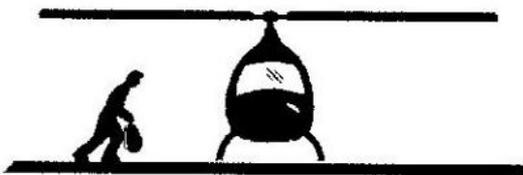
HELICOPTER SAFETY:

To become involved with working around helicopters you must have attended a formal helicopter safety briefing. These machines can be very dangerous. Apart from the obvious dangers to personnel, there is a clear danger that unsafe activity can endanger the machine itself and the crew who are attending. SAREX training is most important for ensuring you are competent to work around helicopters. Basic safety instructions are contained in the LandSAR NZ Field Guide and reproduced here.

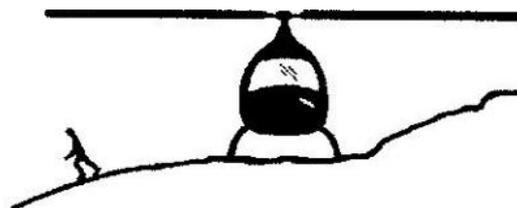


The above figure illustrates the safe zones to approach a running helicopter and the danger areas or no-go areas of a helicopter. Before proceeding toward an aircraft and proceeding into the rotary arch, wait outside the arch and only move forward when signalled to do so by a crew member. The approved method of signalling: this is to stand with your thumbs up facing the machine and await a thumbs up signal from the crew, which acknowledges their approval to approach the aircraft. When moving about helicopters that are running be sure that you are not carrying anything higher

than yourself and long objects must be carried horizontally. Ensure there are no loose articles like hats or clothing, secure them prior to approaching the landing area. When helicopters are operating nearby ensure that any loose items are secured, anything that can blow about in the rotor wash is an extreme hazard to the aircraft. When moving about operating helicopters be aware of blown debris especially sand which can cause you to become sight incapacitated when it enters the eyes. Face away or shelter your face until you are certain no grit has become airborne.



1. Approach and leave helicopter in a crouching manner.



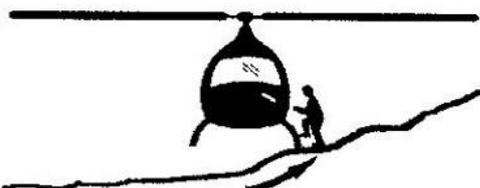
2. On sloping ground always leave and approach helicopter on the downhill side for maximum clearance.



3. Carry equipment horizontally, below waist level, never upright or on shoulder. Remove or secure loose hats, clothing, etc.



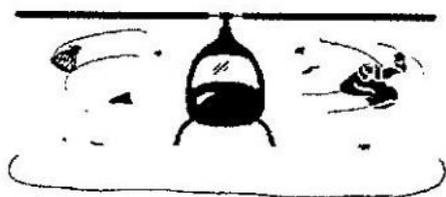
4. Teams being picked up or dropped off should stay well to one side of the landing site. They must be ready to board on signal from the pilot but, as much as possible, should protect their eyes by facing away from helicopter.



5. If embarking on a helicopter with one skid resting on slope, approach across front of machine from downhill slope, staying very close to uphill side before boarding. Reverse applies for disembarking.



6. If helicopter is hovering, use smooth, unhurried movement. Only one person may be on the skid at any time. Enter and exit only on signal from the pilot or crew.



The above illustrates the main safety precautions personnel are to observe when working about helicopters. There are a number of items that shouldn't be carried in Helicopters because they can endanger the aircraft, they include – flooded cell batteries, items containing Mercury, flammable liquids. They can however be transported with proper

packaging. This includes external repeater batteries which should be sealed gel type batteries or similar. For winching operations personnel must attend formal training at a SAREX or similar and be certified Competent.