

# N.Z. LAND SAR Inc.

## STANDARDS

### Search and Rescue Dog Teams

#### Introduction

This document specifies the standards of performance required by search and rescue dog teams used in Land SAR.<sup>1</sup>

Responsibility for implementing and maintaining these standards resides with local or district NZLSAR committees, the working party on search dogs under the Specialist Sub-committee, including its chairperson, and representatives of the NZ Police Dog section.

These NZLSAR Standards should help strengthen existing organizations, enlighten newcomers, empower the users and provide a mechanism for dialogue, training, and assessment among the SAR Dog Organisations, groups they work with, and the agencies who request their assistance. It is recommended that this can all be done at the district level where it is most effective. The district must become familiar with the capabilities of the groups called upon in an emergency. The district committee must get to know, train with, and understand the capabilities of its resources.<sup>2</sup> This document provides district committees with a mechanism to become involved with the SAR Dog Organisations within their area.

These standards will:

- Provide the Police, Land SAR Advisors, and Field Controllers with confidence that calling for operational SAR Dog teams from any SAR District will provide adequately trained and assessed resources.
- Provide the Police, Land SAR Advisors, and Field Controllers with performance expectations for both the SAR Dog and the Handler at a search scene.
- Provide SAR Dog Organisations and/or Teams with assessment standards of performance against which to develop their own training programmes and to provide expectations and requirements for what it takes to contribute successfully to searching for a missing person.

Explanation for the purpose of these standards has been divided into **three** parts.

<b>Part 1</b>	<b>Non Operational</b>
<b>Part 2</b>	<b>Operational</b>
<b>Part 3</b>	<b>Appendicies</b>

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<sup>1</sup> A Glossary of specialist terms used in these standards is provided in Appendix A.

<sup>2</sup> Background Information on Search and Rescue Dog Teams is provided in Appendix B.

## **Part 1      Non Operational**

### **1.1    Participate in training, meet and maintain operational SAR readiness status**

#### **Criteria**

##### **1.1.1    Dog handlers develop and maintain field search competencies.**

Prior to commencing any of the (operational) search-dog team assessment standards laid out below, the handler must have achieved the competencies for volunteer dog handlers as set out here. Prior to presenting for operational assessment, dog handlers will be required to produce endorsements from their local district NZLSAR committee they are approved SAR field team members.

Competencies include:

- Handlers are members of their local New Zealand Land Search and Rescue District Organisation, and are competent in all aspects of team member performance as required by NZLSAR. See the “NZ LAND SEARCH AND RESCUE FIELD GUIDE” by Roger Curl, and the NZLSAR “SAR TEAM MEMBER Course Workbook”.
- Handlers have a current basic First Aid Certificate, and have attended an introductory Track and Clue Awareness Course.
- Handlers have sufficient skills, knowledge and equipment to be able to sustain the handler, his/her dog, and the lost subject for a minimum of 48 hours.
- Handlers acquire and maintain the equipment listed in Appendix E.
- Handlers are capable of travelling (with their dogs) in any form of transport likely to be used during a search operation. For example, cars, trucks, Unimogs, boats, and aircraft including helicopters. Specialist transport (e.g., skidoos and chair-lifts) may be used in some search scenarios.
- Handlers must have received safety instruction in helicopter/light aircraft transportation for both them and the dog. Handlers (with dogs) must have received recognised training in helicopter winching and/or strop work as appropriate for the machines and methods in their districts.
- Handlers understand and have received a course in basic canine first aid.
- Handlers should maintain a training log that documents all training, SAREXS, courses and seminars attended with dates for both themselves and their dog.
- Given handlers often liaise with SAR controllers to establish a search plan, basic knowledge of the following are highly recommended: search methods, lost person behaviour, managing search operations, team leading, field controlling, and SAR advising.
- Handlers must (ideally with others from a search dog organisation) implement a training programme of sufficient regularity to maintain their dog at an operational level at all times they remain as call-out ready.

1.1.2 SAR dogs are expected to be controlled, confident, and ready and willing to take instruction in even the most distracting circumstances.

There are no specified formal assessment standards for dog obedience and agility, but handlers should pay attention to the following:

- on and off lead control
- transportability
- confidence and behaviour of dog with others
- ability to be recalled
- distance and directional control
- ability to be left.
- confidence and ability to handle natural obstacles.

1.1.3 SAR Dogs are non-aggressive to people and other animals.

1.1.4 SAR Dogs are sufficiently trained to be under the handler's control at all times, and capable of being controlled by others, if necessary.

1.1.5 SAR Dogs should be capable of continuing to work in the presence of any distracters that might be encountered during a search. Such distracters might include, but are not limited to – other people, other dogs, wildlife, stock, equipment and machinery, and food.

1.1.6 SAR Dogs should be in good physical condition and have all current vaccinations or documentation from a registered vet that the dog is disease free.

## **1.2 SAR Dog Team Search Assessments**

### **Criteria**

1.2.1 NZLSAR has determined that to be designated operational, SAR Dog teams must meet **minimum assessment standards** at the determination of NZLSAR approved assessors.

1.2.2 All NZLSAR approved SAR Dog team assessments for search will require the presence of one NZ Police Dog Section assessor and one NZLSAR approved civilian assessor.

1.2.3 NZLSAR SAR Dog assessors will be appointed by the National Committee of NZLSAR (Inc.) upon the recommendation of the Specialist Sub Committee.<sup>3</sup>

1.2.4 First-time operational assessments must be conducted at NZLSAR approved annual training and assessment courses; these evaluations must be conducted by approved assessors.

1.2.5 Operational SAR Dog teams are required to be re-assessed once every twelve months for the field of search for which they are operational. Ordinarily, this re-assessment will also be conducted at a NZLSAR approved annual training and assessment course. This evaluation should be conducted by approved assessors, and within 60 days of the anniversary of the previous successful assessment.

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<sup>3</sup> Guidelines for Appointment of NZLSAR Search Dog Assessors are provided in Appendix C.

- 1.2.6 Any operational dog which is out of service (i.e. unable to train and maintain standard) for more than **90 days** should be re-evaluated, unless this out of service period coincides with the annual anniversary date, in which case a normal annual assessment will be conducted.
- 1.2.7 Where a SAR Dog team fails the assessment, a re-test may be held sooner than the normal elapsed 12 months on the recommendation of the assessors. The SAR Dog team will be non-operational until a re-test has been satisfactorily passed. Times, dates and places for re-tests of dog teams will be by agreement between the handler, the NZ Police Dog Section assessor and the NZLSAR approved assessor.

### **Minimum Assessment Standards**

The following minimum assessment standards are divided into **three** categories as follows: area search, track search and avalanche search. Each category represents a separate field (and hence qualification) for search. Each of the standards specifies a purpose, the assessment conditions, and the performance criteria required.

### **1.3 Area Search Standard**

#### **Purpose**

- 1.3.1 The assessment is to test that a dog has been trained to search for, and locate two missing people. The assessment should ensure the dog (and not the handler) can find and indicate two missing people. The assessment is also to test that a handler can plan the search, and manage the dog during the search.

#### **Assessment Conditions**

- 1.3.2 In a simulated situation, one victim on or near the ground surface, and one concealed are placed 30 minutes prior to the start of the search, a minimum of 50 metres apart, and concealed from the handler from a distance of 7 metres. The assessors are aware of the exact location of each victim, and in radio contact with them.
- 1.3.3 The search should be conducted in an area that can be worked by a dog and handler to locate both finds within 60 minutes.
- 1.3.4 The size of the search area should be determined by the assessors depending upon the terrain, vegetation cover, and climatic conditions. The terrain should be varied and may include the following – bush, gullies, ridges, steep areas, or open tussock areas.
- 1.3.5 Environmental conditions during the search could include – wind, rain, snow, calm.
- 1.3.6 A find is the dog's location of the source of human scent.
- 1.3.7 An indication is a recognisable reaction on finding, for example, barking or returning to handler, barking, and then re-finding with handler.

## **Performance Criteria**

- 1.3.8 On being presented with the search scenario, and an outline of the search area, the handler is able to develop and offer a search plan for the effective conduct of the search.
- 1.3.9 The search plan is expected to take into consideration known vegetation, terrain and climatic conditions.
- 1.3.10 As necessary, handlers should be capable of adjusting their search plan in accordance with changing environmental conditions, progress of plan, and current rescue work being undertaken.
- 1.3.11 Handlers on completion of their search task should be capable of being debriefed. At such a debriefing the handler should be able to describe and show on a control map: their route; the area/s searched/not searched; clues; wind direction; and probability of detection (POD).
- 1.3.12 Assistance provided to the dog during the search aids the search process. Assistance may include but is not limited to – stopping the search, guiding the dog, and providing positive encouragement and praise to the dog where appropriate.
- 1.3.13 Dog is trained to search independently, persistently, and enthusiastically for either victim, working 50m or more from the handler as directed by the handler.
- 1.3.14 Dog is trained to work cones of scent all the way to the first and second victim, and continue working after finding.
- 1.3.15 Dog is trained to give appropriate responses on locating victim and may indicate on articles of victim. Range: barking on find to recall-re-find.
- 1.3.16 Dog is trained to respond immediately to handler's commands in the presence of distracters. Distracters can include: other dogs, other people, food, wildlife, stock.

## **1.4 Ground Scent/Track Search Standard**

### **Purpose**

- 1.4.1 The assessment is to test that a dog has been trained to find one missing person from an approximate known starting place. The assessment is to test that a handler can plan and systematically cast for ground scent and follow it, and manage the dog while working the ground scent.

### **Assessment Conditions**

- 1.4.2 In a simulated situation, one person lays a track with the time delay depending on the surface. The age of the track is timed from when it was commenced. All tracks are to be single laid, and should be laid if possible in a down-wind direction to prevent air-scent contamination from the subject.

- 1.4.3 New Zealand bush/rural area. Terrain should be varied and may include the following – grass paddocks, bush, gullies, ridges, steep areas and/or open tussock areas. 800 to 1000 meters long with 5– 6 directional changes with one subject at the end of the track. 3 hours old.
- 1.4.4 Gravel surface tracking. 500 to 600 meters long with 4 – 5 directional changes with one subject at the end of the track. 25 minutes old.
- 1.4.5 Handlers can request a zip-lock sealed bag containing an article of clothing with the track layer's scent.
- 1.4.6 Casting is a systematic process used to enable the dog to locate a track.
- 1.4.7 The casting area should be no greater than 20m by 20m.
- 1.4.8 Finding the track is a recognisable reaction by the dog on finding human scent on the ground.
- 1.4.9 On finding the track the dog is to follow the line of human scent to its conclusion.
- 1.4.10 Upon reaching the end of track the dog is to provide to the handler a recognisable indication of the presence of the human subject.

### **Performance Criteria**

- 1.4.11 Dog is trained to find and follow on command, on track unknown to the handler, and to find/indicate the subject at the end of the track, and complete each task within 30 minutes.
- 1.4.12 The dog is cast with handler in stationary position, in a manner which allows the dog to find then follow the track.
- 1.4.13 The handler maintains even contact and control of the tracking line throughout tracking.
- 1.4.14 Commands given to the dog provide direction and encouragement.
- 1.4.15 Tracking speed and general direction of travel is maintained. In the event the dog loses the scent, handlers are permitted to return to re-find the scent track. Aimless wandering, however, is not permissible.
- 1.4.16 Dog is trained to respond immediately to handler's commands in the presence of distracters. Distracters may include but are not limited to – other dogs, other people, food, wildlife, and stock.
- 1.4.17 Handlers on completion of their search task should be capable of being debriefed. At such a debriefing the handler should be able to describe and show on a control map: their route and any indications made.

## **1.5 Avalanche Search Standard**

### **Purpose**

- 1.5.1 The assessment is to test that a dog has been trained to search for, and locate a missing person and articles buried in snow in a simulated avalanche. The assessment should ensure the dog (and not the handler) can find and indicate the missing person/articles. The assessment is also to test that a handler can plan the search, and manage the dog during the search.

## **Assessment Conditions**

- 1.5.2 An avalanche search is a search for persons and articles buried in snow or ice avalanches in a simulated situation.
- 1.5.3 A simulated situation is an area of approximately 100m by 100m square, with the surface broken and disturbed, with at least one empty hole, and sufficient personnel to ensure safety of the buried victims. There is one subject and two articles buried, with the subject buried to ensure their comfort and safety. Subjects are buried to a depth of 1 metre for a maximum time of 40 minutes.
- 1.5.4 A find is the dog's location of the source of human scent.
- 1.5.5 An indication is a recognisable reaction of the dog on finding. For example, barking and/or digging.

## **Performance Criteria**

- 1.5.6 On being presented with the search scenario, and an outline of the search area, the handler is able to develop and offer a search plan for the effective conduct of the search.
- 1.5.7 The search plan is expected to take into consideration known snow deposit, terrain and climatic conditions, as well as any clues gained from a hasty visual inspection of the avalanche site and/or from any witnesses present.
- 1.5.8 Handlers are expected to understand the need for and be able to execute with their dog a hasty (coarse) search of all the likely snow deposits before commencing a systematic grid (fine) search.
- 1.5.9 Handlers should recognize all alerts, even weak alerts, and be able to mark them on the debris field with flags and on a map.
- 1.5.10 As necessary, handlers should be capable of adjusting their search plan in accordance with changing environmental conditions, progress of plan, and current rescue work being undertaken.
- 1.5.11 Handlers on completion of their search task should be capable of being debriefed. At such a debriefing the handler should be able to describe and show on a control map: their route; the area/s searched/not searched; wind direction; and indications made.
- 1.5.12 Assistance provided to the dog during the search aids the search process. Assistance may include but is not limited to – opening airways in snow, calling for shovellers when a find is indicated, providing positive encouragement and praise where appropriate.
- 1.5.13 Dog is trained to search independently, persistently, and enthusiastically for either victim, or articles of victim, working no more than 50m from the handler as directed by the handler.
- 1.5.14 Dog is trained to work cones of scent all the way to the subject, and continue working after finding as necessary.

- 1.5.15 Dog is trained to give appropriate responses on locating victim and articles of victim. Range: barking and/or digging on find. The dog must remain at the point of indication until the handler arrives.
- 1.5.16 Dog is trained to continue working in the presence of distracters. Distracters can include: other dogs, other people, food, equipment and machinery.

## **Part 2      Operational**

### **2.1      Operational Deployment Policy<sup>4</sup>**

- 2.1.1 Only SAR Dog teams which have met the assessment standards specified in Part 1 are used for search and rescue operations for which they are qualified.
- 2.1.2 Operational SAR Dog teams must always be deployed with at least one other NZLSAR or Police team member, and ideally at least two. Team members, experienced in navigation and communications, are desirable.
- 2.1.3 A SAR Dog team deemed operational will hold that status for 12 months from the date of qualification.

#### **Provide SAR operational expertise during a SAR Operation**

These criteria can be divided into **two** main areas: bush/wilderness SAR Dog teams, and avalanche SAR Dog teams. Bush/wilderness SAR Dog teams are also sub divided into Area SAR Dog Teams and Tracking SAR Dog Teams.

### **2.2      Area SAR Dog Teams**

#### **Criteria**

- 2.2.1 The Area SAR Dog team will be able to search assigned segments to locate lost subjects. These persons may be alive or dead.
- 2.2.2 The operational handler understands a basic theory of scent distribution, and the impact of climatic conditions on scent distribution to formulate an effective and efficient search pattern to cover the assigned area.
- 2.2.3 The operational handler understands their individual dog's ability to range and "alert" on scent, and can utilise this knowledge to formulate a search pattern to efficiently and effectively search an assigned area.
- 2.2.4 The operational handler has sufficient understanding of the climatic effects of temperature and wind on scent distribution and their dog to be able to advise when and where during a search operation they can be most effectively deployed. For example, depending upon search urgency, a search conducted during the cool evening when air movement is at a maximum may be more effective than a midday search in hot still conditions.
- 2.2.5 The operational handler can identify any clues such as footprints, articles, and/or alerts seen or found during the search, and be able to accurately mark these on a map and radio these to search base.
- 2.2.6 The operational handler on completion of their search task is capable of being debriefed by the field controller. At such a debriefing the handler should be able to describe and show on a control map: their route; the area/s searched/not searched; clues; wind direction; and probability of detection (POD).
- 2.2.7 The operational handler carries the equipment listed in Appendix E.

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<sup>4</sup> Full details of the Operational Deployment Policy can be found in Appendix D.

- 2.2.8 The Area SAR Dog team is physically able to work the required shift(s) as determined by the handler in conjunction with the search controller. This will be dependent upon environmental conditions (e.g., terrain, vegetation etc.).
- 2.2.9 The Area SAR Dog is able to work off lead, and independently of the handler ranging reasonable distances (50m +) in search of air (or in some cases ground) scent.
- 2.2.10 The Area SAR Dog can, on locating scent, follow it to its source.
- 2.2.11 The Area SAR Dog has a distinct alert readable by the handler.
- 2.2.12 The Area SAR Dog will upon finding a subject either indicate by: (1) Barking on Find or (2) Recall-Re-find. In cases of buried or concealed subjects, the dog may indicate a find by barking/refind and/or digging, scratching or biting at the ground or other materials. All forms of indication are considered acceptable as long as they are consistent and readable by the handler.
- 2.2.13 The Area SAR Dog is capable of continuing to search for additional subjects, once it has found and been praised for finding one subject.
- 2.2.14 The following problems represent typical searching scenarios in rural or wilderness situations. The Area SAR Dog is expected to have been trained and be competent in tackling each of these scenarios.

Corridor Search. A path, trail, logging road or the like approximately 1km in length. One subject is hidden within about 10m of the trail. The subject must be camouflaged and hidden from view. The dog should alert and locate the subject from the trail or road. The handler should be able to describe the alert, recognize the alert and follow the dog to the subject if trained to recall-re-find, or locate the barking dog and subject together. The handler should assess the subject for injury, accurately place the subject on the map, call the coordinates into the base and recommend any medical assistance as required.

Night Search. An area of 5 to 10 hectares depending upon density of undergrowth. Handler should evaluate information provided regarding missing subject, determine search strategy, and search the area for the subject. The search should begin at least one hour after dark and the subject should be placed at least 30 minutes prior to the start of the search. The subject should be well-hidden in dark clothing. Handler should direct search activity according to wind, terrain and cover. Handler should identify the dog's indication and should follow the dog in to the subject in the case of a re-find, or move to the barking dog and subject. Handler should assess subject, identify location, contact base with location and medical assessment.

Open area, multi-subject problem. An area of 10 to 25 hectares depending upon density of ground cover. (25 hectares for open areas with some cover, e.g. tussock grasslands with rocks and flax; 10 hectares for denser bush). Two or three persons (number of subjects known to handler) hidden out of handler and dog's sight must be found within a set time limit, generally not less than one hour and not more than two hours. Subjects should be placed 30 minutes prior to commencement of search. The handler should assess the sector on the map, determine the most effective way to search it, work the dog effectively, assess any subjects, determine their exact location, and notify base of their needs. Then, handler should continue on to next subject. The

dog should eagerly find each subject with an identifiable alert and re-find or bark on find.

2.2.15 Depending upon the duration and nature of the search, operational handlers and dogs may be expected to perform the search scenarios outlined in 2.2.14 up to three or four times for a given 6-8 hour shift.

## **2.3 Ground Scent/Tracking SAR Dog Teams**

### **Criteria**

2.3.1 The operational handler is able to demonstrate a careful and systematic "casting" procedure to locate ground scent at a point last seen (PLS).

2.3.2 The operational handler understands a basic theory of scent, and the possible impact of climatic conditions on scent distribution to formulate an understanding of the likelihood of the dog being able to find ground scent.

2.3.3 The operational handler is able to tell when the dog has and has not located a ground scent.

2.3.4 The operational handler can, as necessary, collect and handle scent material (typically articles of clothing) necessary for the commencement of a search.

2.3.5 The operational handler understands that articles or other items found during a search must always be left undisturbed and protected.

2.3.6 If the dog is worked on a line, the operational handler is physically capable of handling a 25-30 foot line in rough and varied terrain and handling their dog on tracks of 3 to 4 hours duration.

2.3.7 The operational handler is able to recognize a scent-pool and/or "dead ends", and be able to assist their dog out of them as necessary.

2.3.8 The operational handler is able to tell when the dog is no longer working the track or if no further scent is available.

2.3.9 The operational handler is capable of assisting their dog over or under fences, across streams or breaks in the terrain.

2.3.10 The operational handler should be knowledgeable about and aware of visual clues in the urban and wilderness environments, and be able to accurately mark these on a map, and radio these to search base.

2.3.11 The operational handler is able to recognize when their dog needs a break from tracking especially in hot weather.

2.3.12 The operational handler on completion of their task is capable of being debriefed by the field controller. At such a debriefing the handler should be able to describe and show on a control map: their route; and assessment of their confidence regarding the track's location and person's direction of travel.

2.3.13 The operational handler carries the equipment listed in Appendix E.

2.3.14 The Tracking SAR Dog can demonstrate the ability to take scent from a variety of scent articles such as wood, metal, soil or any material presented to it by the handler whether it is bagged or in contact with a larger object such as

a door handle, window sill, footprint on the trail, or car seat.

- 2.3.15 The Tracking SAR Dog is able to find the track of a subject leaving the area from a contaminated area at least 20m by 20m.
- 2.3.16 The Tracking SAR Dog demonstrates a willingness to resume tracking after being rested by the handler without being re-scented.
- 2.3.17 The Tracking SAR Dog is physically capable and motivated to run a track of 3 to 4 hours duration.
- 2.3.18 The following problems represent typical search scenarios to which a Tracking SAR Dog team may be asked to respond. The Dog is expected to have been trained and competent in tackling each of these scenarios.

A night track. 2-4 hours old, approximately 750m in length, over varied terrain, in a rural or semi-rural environment. It should cross at least one road (paved or gravel) or stream. It may or may not follow a formed track, shall have at least one turn, and a scent-pool where the track-layer rested for several minutes.

A wilderness track. At least 8 hours old, and at least 2000m in length through varied terrain and vegetation. It should follow a dirt road or trail for part of it, have at least three turns and generally meander as a lost person may do. If the area is not subject to foot traffic, two deliberate fresh cross trails laid by others than the track-layer should be set just prior to beginning the exercise. The subject will be concealed and not readily visible from 15m. This track should be laid from a likely contaminated start point such as a road-end. The exact start of the track should be unknown to the dog and handler.

An urban track. Approximately 20 minutes old, and at least 500m in length. It should travel over a variety of surfaces including tar-sealed surfaces, pavement, grass (field), and foot trails, should follow a meandering pattern, and should have at least six turns. It should include such distractions as parked cars, and light vehicle and pedestrian traffic. The subjects should not be visible from the direction of the trail, i.e., in a doorway or behind an obstacle. The exact start point of the track should be known to the handler, i.e., a residential gateway, front door, or car door.

In all cases, the handler should be provided access to a zip-lock bag of scent material from the track-layer (such material ONLY having been handled by the track-layer). Whether this is used is at the discretion of the handler. The team must follow the direction of the path taken by the subject, giving consideration to the weather conditions, wind direction and traffic. The handler must be able to map the route of travel and provide an assessment of the work of the dog.

## **2.4 Avalanche SAR Dog Teams**

### **Criteria**

- 2.4.1 Operational handlers must be physically capable, trained, and equipped to work in cold, snowy environments to locate people buried under snow. These persons may be alive or dead.

- 2.4.2 Operational handlers will have above the snow line SAR or related professional experience.
- 2.4.3 Operational handlers must have back country/above the snow line survival knowledge/experience.
- 2.4.4 Operational handlers carry the equipment as specified in Appendix F.
- 2.4.5 Operational handlers must be capable of competent maneuvering on snow by snowshoes, alpine touring skis, and/or crampons with ice axe as necessary for the snow conditions (to standards set by NZLSAR approved training providers or local or national skiing related organizations).
- 2.4.6 Operational handlers must have attended a NZMSC avalanche awareness course or other recognized avalanche preparedness course (to standards set by NZLSAR approved training providers).
- 2.4.7 Operational handlers must have received recognised avalanche rescue training both with and without dogs (training and qualification from NZLSAR approved training providers).
- 2.4.8 Operational handlers have been trained in the use of an avalanche transceiver, and can find a buried backpack, recover it and report the find within a period of five minutes.
- 2.4.9 Operational handlers understand the characteristics of avalanche types and can determine the highest probability areas for locating subjects.
- 2.4.10 Operational handlers should understand scent theory and how snow and avalanche conditions affect scent.
- 2.4.11 Operational handlers are able to formulate a comprehensive and systematic plan to search all likely debris deposits containing buried subjects.
- 2.4.12 Operational handlers and dogs are able to work determined search zones in the presence of distractions by other people, dogs or other activities (e.g. probe lines, transceiver searchers etc.).
- 2.4.13 Operational handlers should recognize all alerts, even weak alerts, and be able to mark them on the debris field with flags and on a map.
- 2.4.14 Operational handlers have received training in the care and use of dogs in the winter environment.
- 2.4.15 Operational handlers have received training in first aid and care of subjects suffering from cold temperature injuries.
- 2.4.16 The Avalanche SAR Dog is physically able to work the required shift(s) as determined by the search controller, and capable of maneuvering through the snow.
- 2.4.17 The Avalanche SAR Dog is able to work off lead, and independently of the handler ranging reasonable distances (up to 50m) in search of air scent or scent being blown on the snow surface.
- 2.4.18 The Avalanche SAR Dog is capable of being worked in a tight and systematic manner over an avalanche debris field receiving and taking direction for the purposes of a fine area search.

- 2.4.19 The Avalanche SAR Dog will, on locating scent, follow it to its source.
- 2.4.20 The Avalanche SAR Dog has a distinct alert readable by the handler.
- 2.4.21 The Avalanche SAR Dog upon finding the strongest source of scent on the snow surface, will: (1) Bark on Find, and/or (2) Physically Indicate. All forms of indication are considered acceptable as long as they are consistent and readable by the handler.
- 2.4.22 The Avalanche SAR Dog is able to search even in difficult to reach areas (i.e., over and under large broken slabs, deposits behind rocks on steeper slopes, etc.).
- 2.4.23 The Avalanche SAR Dog is capable of continuing to search for additional subjects, once it has found and been praised for finding one subject. This should be the case regardless of whether the first subject indicated has been fully excavated.
- 2.4.24 The following problem represents a typical searching scenario in an avalanche situation. The Avalanche SAR Dog is expected to have been trained and competent in tackling this kind of scenario.

Ski-field/Back-country party buried in avalanche (multi-subject problem). In an area of 0.5 to 2 hectares, two or three persons (number of subjects known to handler) and articles are buried to various depths not exceeding 2 metres. The subjects/articles are buried out of handler and dog's sight and must be found within a set time limit, generally not more than 30 minutes. The handler should assess the debris field, and determine the most effective way to search it. This would typically involve a coarse (hasty) search of the entire debris field first, followed, if necessary, by a controlled and systematic 'fine' (grid) search. To maintain control of the search site, larger areas would be subdivided into approx. 0.5 hectares, marked out, and systematically searched. The handler should work the dog effectively, mark all indications on the debris field with flags, and request shovel crew assistance as necessary. The handler is not obliged to wait for a subject to be excavated before continuing on to the next subject. The dog should eagerly find each subject with an identifiable alert and indication at the strongest source of scent (e.g., stand and barking, digging, scratching or biting the snow).

## **Part 3      Appendices**

### **Appendix A:**

#### **Glossary of Terms**

<b>SAR Dog</b>	A dog that is being trained for Search and Rescue (SAR) work.
<b>SAR Dog Team</b>	A SAR Dog and Handler combination being trained for SAR
<b>Operational</b>	A SAR Dog Team that has been assessed and passed a set or sets of NZLSAR search standards.
<b>SAR Dog Organisation</b>	A civilian group of SAR Dog Teams organised on a district, regional or national basis for training purposes.
<b>Area SAR Dog</b>	A dog that is specifically trained to search areas and find people usually by scenting them in the air or on the wind, hence “air scenting” dog.
<b>Air-Scent Dog</b>	See <b>Area SAR Dog</b>
<b>Tracking SAR Dog</b>	A dog that is specifically trained to follow human scent left on or near to the ground by a person. The term in this document is defined as equivalent to “trailing”. A tracking dog as defined here follows a “corridor of scent” rather than footstep to footstep.
<b>Avalanche SAR Dog</b>	A dog specifically trained to find people and articles buried under snow.
<b>Ground-Scenting Dog</b>	See <b>Tracking SAR Dog</b>
<b>Alert</b>	A natural behaviour by the dog when it finds human scent. The behaviour should be recognisable by the handler and considered a clue.
<b>Indication</b>	A trained response from the dog upon finding a source of scent (e.g. a person or article). Indications include: (1) <b>Barking on Find</b> , (2) <b>Recall-Refind</b> , (3) <b>Physical Indication</b> .
<b>Barking on Find</b>	Dog remains at location of missing subject and barks. Handler locates subject and barking dog together.
<b>Recall-Refind</b>	Upon finding, dog returns to handler and indicates by barking, grabbing or some other trained response, and then returns handler to missing subject.
<b>Physical Indication</b>	In cases of buried, concealed or elevated subjects, dog indicates strongest source of scent by physically digging, scratching, and/or biting at ground or other materials.
<b>Scent Discriminating</b>	Many Tracking SAR Dogs are trained to follow an “identified individual human scent”. These dogs require a <b>Scent Article</b> .
<b>Scent Article</b>	An item of clothing or other item (e.g., car seat) that has been in contact with the missing subject ( <b>and no one else</b> ) that is used to allow the dog to identify the specific scent to be tracked.
<b>PLS</b>	Point Last Seen

## Appendix B:

### Background Information on Search and Rescue Dog Teams

Search Managers need to be aware that there are basically two kinds of trained dogs that can be used in search and rescue: **Air Scenting (i.e. Searching) Dogs and Ground Scenting (i.e. Tracking) Dogs**. The different training these dogs and their handlers undertake create different possible uses for the SAR Dog team, and each has their strengths and weaknesses. It is important that Search Managers familiarise themselves with the different ways in which these dogs work. A few dogs may have been trained to work in both ways, but most often a search dog is trained to work in only one way. Below an outline of each of these type of search dog is presented.

#### **Air Scent/Searching Dogs**

- Find people by locating human scent carried in the air (on the wind) from a scent source, usually a person, but can also include articles of clothing, packs etc.
- The breeds of dogs trained to air scent may include: Retrievers, Pointers, Collies, German Shepherds, but other breeds are also trained.
- Air scent dogs work off lead, away from the handler and cover large areas.
- Air scent dogs do not usually scent discriminate, and will locate any human scent in their up wind area (foot searchers are usually best kept out of the up-wind area **at the time the dog is working**).
- Air scent dogs, because they seek to locate a **source** of scent in the air are not affected by other searchers having been in the search area before or after the dog is worked. When practicable, an area can be cleared of contaminating scents by removing searchers (sources of scent) from an area 30 minutes before an air scent dog is worked. That said, however, air scent dogs will work with other searchers in an area, as long as the handler is aware of their presence, and the handler is contacted should the dog find them. Air scent dogs will be most effective if deployed early in areas kept clear of all searchers.
- Air scent dogs should have a distinct alert readable by the handler. Upon finding a subject, a dog may indicate by: (1) Barking on Find or (2) Recall-Refind. In cases of buried or concealed subjects, the dog may indicate a find by digging, scratching or biting at the ground or other materials. All forms of indication are acceptable as long as they are consistent and readable by the handler.
- Air scent dogs may have been trained to work in one or more of the following situations: (1) wilderness/bush area searches, (2) avalanche searches, (3) building/debris disaster searches. **Competence in one field of search (e.g., avalanche) does NOT qualify the dog to work in another (e.g., bush)**. Without each member of the SAR Dog team having had adequate training in the field in which they are to be used, a team should be regarded as unreliable. SAR controllers should know the specific and assessed capabilities of their local dogs.

## Ground Scent/Tracking Dogs:

- Find people (some will also find articles) by following a line of human scent on or near the ground.
- The breeds of dogs most typically trained to ground scent are Bloodhounds, or German Shepherds, but other breeds are also possible.
- Ground scent dogs are typically worked on a tracking line attached to a harness on the dog. Some dogs may also “free track” off-line on account of terrain, vegetation cover etc.
- Ground scent dogs require a point last seen (PLS) or an area of high probability from within which to locate the ground scent.
- Ground scent dogs are capable of determining a direction of travel from a PLS.
- Some ground scenting dogs are trained to follow identified individual human scent, while others are trained to follow generic (any human’s) ground tracks.
- Ground scenting dogs trained to follow an identified individual human scent require a “scent article”. In providing a “scent article” for a dog to use it is imperative that the article not have been contaminated with other peoples’ scents. While these dogs can work in areas where other searchers are looking at the same time, or where other people have been looking prior to using the dog, they are best worked at uncontaminated sites.
- While ground scent will “erode” or “decay” more quickly than a source of scent, ground scents under some conditions can remain for several days.

## **Appendix C:**

### **Guidelines for Appointment of NZLSAR Search Dog Assessors**

- NZLSAR Search Dog Assessors are appointed by the NZLSAR National Committee upon recommendation of the Specialist Sub-Committee Chairperson.
- The Specialist Sub-Committee Chairperson, for each year, and cumulatively, will keep a record of all search dogs and handlers assessed as operational, and the fields of search (e.g., bush/wilderness, avalanche) for which they are operational.
- Whenever practicable, assessors should be appointed to assess only the fields of search for which they themselves have been formally (i.e. with NZ police presence) assessed as operational. Ideally, such assessors would have had several years' experience as an operational handler in the field they are appointed to assess.
- It is also desirable to appoint assessors (from the pool of eligible operational dog handlers) who have played leadership/instructor roles in NZLSAR approved SAR dog training courses.
- It is recommended assessors attend a NZLSAR Advisors Standards Workshop.
- Terms of appointment (i.e. tenure) should be established for each assessor upon appointment. No single tenure period should exceed 3 years, although assessors would be eligible for re-appointment for further terms.
- Ideally, a pool of assessors with mixed tenure periods should be established for each field of search to create some continuity as assessors rotate in and out of the appointed role. A pool of assessors also ensures assessments are not delayed due to illnesses or absences overseas.
- Upon appointment, and once approved, a letter from the NZLSAR National Committee should be sent to the appointee specifying the field(s) of search for which they have been appointed assessor and the length of term of their appointment.
- Annually, the Specialist Sub-Committee Chairperson should notify of that year's appointed and approved search dog assessor pool. This could be achieved through the first issue of the year's NZLSAR News.

## Appendix D:

### Operational Deployment Policy

- Only SAR Dog teams which have met the assessment standards specified in Part 1 are used for search and rescue operations for which they are qualified.
- Operational SAR Dog teams must always be deployed with at least one other NZLSAR or Police team member, and ideally at least two. Team members, experienced in navigation and communications, are desirable
- SAR Dog teams that pass the operational assessments or annual re-assessments will be included on a list of operational units, which will be held on the local SAR plans. This list is to be kept up to date by the local police SAR coordinator.
- An up-to-date National List of all operational SAR Dog teams, and their specific qualifications is to be maintained by NZLSAR's Specialist Sub-Committee. This list should be made available on NZLSAR's website.
- Operational SAR Dog team lists will specify the field of search for which the dog/handler team is qualified (e.g., Bush/Wilderness (air scent or ground scent), and/or Avalanche).
- A SAR Dog team deemed operational will hold that status for 12 months from the date of qualification.
- SAR Dog teams who fail to meet their annual re-assessments will be removed from the operational list for which they are no longer qualified.
- Local SAR Dog Organisations/Teams will provide a training plan to the local NZLSAR district committee, and the local police dog section coordinator.

## **Appendix E:**

### **Equipment List for Operational Bush/Wilderness SAR Dog Team**

- Team Member Equipment and Clothing as specified in NZLSAR Field Guide p. 15

Plus:

- Local Maps and compass. (Other maps issued by SAR controllers).
- Hand-held GPS (optional). (If available, issued to SAR team by SAR controller).
- Radio telephone. (Issued to SAR team by SAR controller).
- First aid kit.
- Two days provisions + water for handler and dog.
- Dog Jacket.
- Bivouac sack/tent.
- Basic cooking equipment (optional).
- Sleeping bag (optional)

For helicopter winching/strop work:

- Climbing Harness
- Dog Harness
- Slings/Crabs etc

## **Appendix F:**

### **Equipment List for Operational Avalanche SAR Dog Team**

- Team Member Equipment and Clothing as specified in NZLSAR Field Guide p. 15

Plus:

- Skis skins and poles.
- Radio telephone.
- Avalanche transceiver.
- Snow shovel.
- First aid kit.
- Avalanche probe.
- Local Maps and compass.
- Hand-held GPS (optional).
- Two days provisions + water for handler and dog.
- Dog Jacket.
- Insulated ground sheet.
- Red marker flags.
- Bivouac sack/tent.

For helicopter winching/strop work:

- Climbing Harness
- Dog Harness
- Slings/Crabs etc

## **Appendix G:**

### **Further Reading**

Along with regular hands-on training, reading and researching helps the handler grow and be more confident. Below is a basic suggested reading list. These are just a few of the books and articles available to assist in research.

Abels, Michael A.; Aspnes, John; and Carr-Lundfelt, Cathi; *Ground Pounders and K-9 Handlers - A Match Made in Fairbanks, Alaska*@ *Response, The Journal of the National Association for Search and Rescue*; Vol. 15, No.3 Spring 1996.

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Bryson, S. *Search and Rescue Dog Training*. Pacific Grove, CA.; The Boxwood Press (1976).

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Bulanda, Susan; *READY! The Training of the Search and Rescue Dog*. Portland, OR; Doral Publishing (1994).

Button, Lue; *Practical Scent Dog Training*. Loveland, CO; Alpine Publications, Inc. (1990).

Cornell, Edward H. and Heth, C. Donald. *Distance Traveled During Urban and Suburban Walks Led by 3 to 12 Year Olds*; *Response; The Journal of the National Association for Search and Rescue*; Vol 15, No.1. Winter 1996 .

Fear, Gene; *Surviving The Unexpected Wilderness Emergency*. Tacoma, WA; Survival Education Association, (1972).

Fleming, June. *Staying Found, The Complete Map and Compass Handbook*; New York; Vintage Books, a Division of Random House, (1982).

Graham, Hatch. *Search and Rescue Dogs Technical Notes 1,4,6*. Nokesville (1979).

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Hardy, Marian. *How to Develop and Train a Water Search Dog Team*. *Response Magazine* . NASAR, Vol. 12, No.1, Winter 1993.

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Jacobson, Cliff. *The Basic Essentials of Map and Compass* ; Merrillville, IN; I.C.S. Books, Inc. (1988).

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Locke, Angela, *Search Dog*, London: Souvenir Press Ltd. 1987.

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Moore, Judith A. *Cultural Clues: Information for Public Safety Interviewers; Response; The Journal of the National Association for Search and Rescue*; Vol. 15, No.1. Winter 1996.

Neudeck-Dicken, Marilyn, Ph.D. *A Practical Approach to SAR Stress Management; Response; The Journal of the National Association for Search and Rescue*; Vol. 14, No.3. Fall 1995.

Robbins, Roland. *Mantracking; Introduction to the Step-By-Step Method*. Montrose, CA. *Search and Rescue Magazine*. 1977.

Schroeder, M.J., Buck C.C. *Fire Weather*. Washington, USDA Forest Service (1970).

Setnicka, T. *Wilderness Search and Rescue*; Washington, Appalachian Mountain (1981).

Syrotuck, William G. *Analysis of Lost Person Behavior*; Clark Mills, NY. Arner Publications, Inc. (1980).

Syrotuck, William G. *Scent and the Scenting Dog*, Clark Mills, NY. Arner Publications, Inc., (1980).

Williams, Susan. *Desert Searching With Dogs; Response; The Journal of the National Association for Search and Rescue*; Vol. 14, No. 3. Fall 1995.

## **A Selection of Web-Sites**

New Zealand Land Search and Rescue (Inc.)	<a href="http://www.nzlsar.org.nz">www.nzlsar.org.nz</a>
New Zealand Alpine Search Dogs (Dunedin) Inc.	<a href="http://www.sar-dog.org.nz">www.sar-dog.org.nz</a>
New Zealand Alpine Search Dogs (Central Otago/Lakes Group).	<a href="http://www.sardogtraining.org">www.sardogtraining.org</a>
Search and Rescue Dog Association UK	<a href="http://www.nsarda.org.uk">www.nsarda.org.uk</a>
Search and Rescue Dogs of Maryland	<a href="http://www.sardom.org">www.sardom.org</a>
Dr P's Dog Training	<a href="http://www.uwsp.edu/psych/dog/work2.htm">www.uwsp.edu/psych/dog/work2.htm</a>
National Police Bloodhound Association (US).	<a href="http://www.icubed.com/~npba/">www.icubed.com/~npba/</a>
Absaroka Search Dogs	<a href="http://www.wtp.net/ASDK9SAR/">www.wtp.net/ASDK9SAR/</a>
Beartooth Search Dogs	<a href="http://www.wtp.net/~ASDK9SAR/">www.wtp.net/~ASDK9SAR/</a>
Search Dog Training Library	<a href="http://www.drizzle.com/~danc/SAR/library.html">www.drizzle.com/~danc/SAR/library.html</a>
SARBC	<a href="http://www.sarbc.org/dog1.html">www.sarbc.org/dog1.html</a>
Avalanche Dogs!	<a href="http://www.drizzle.com/~danc/avalanche.html">www.drizzle.com/~danc/avalanche.html</a>
Dog Training Library	<a href="http://www.leerburg.com/articles.htm">www.leerburg.com/articles.htm</a>
Jack Shuler Mantrailing	<a href="http://www.jackshuler.com">www.jackshuler.com</a>