

THE ALPINE MEADOWS  
AVALANCHE RESCUE DOG PROGRAM

Jamie Maddox

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Abstract.--A carefully selected dog of considered breed is put through an orderly, carefully documented sequence of search training, with extensive socialization and obedience, starting in puppyhood. The goal is to have a certified dog, still the best all-around means of avalanche search, on standby above any potential in-area accident.

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### PHILOSOPHY

The purpose of our program is to provide a qualified dog on standby above any potential avalanche accident site within the ski area. We feel that the importance of time in effecting a live rescue justifies the dogs' presence at the top of a complex, rather than in the ski patrol room or elsewhere in the area. For our purposes, this requires three dogs on duty on any given day. We presently have eight qualified dogs and no trainees on the ski patrol.

Aside from the obvious function of avalanche rescue, for which they are primarily trained, the dogs can be used as an aid in area search for a missing person or article. We have on record an instance of a dog locating a "dud" explosive charge which would probably not have been found otherwise. Care must be taken, however, that the dog understand the priority of finding human victims in a situation where there may also be buried articles carrying human scent. Most trainers agree, and experience confirms, that this is not a problem.



Figure 1.--Alpine Meadows Avalanche Rescue Dogs, Spring '86: (l. to r.) Choucas, Babbit, Sam, Banu, Chester, Sundance, Sheba, Abby.

Another secondary function of the dogs is their value to the area as a public relations tool. Direct public contact and television coverage of the program have helped promote a positive image of the area. The public loves the dogs because they are cute and friendly as well as potential lifesavers.

### INITIAL CONSIDERATIONS

These basic building blocks are integral to the success of the program as we have developed it at Alpine. They involve qualities of the dog and handler, as well as the working environment experienced by the team.

#### Selection of Breed

The German Shepherd is the dog most often seen in search work. Its loyalty and trainability are highly regarded by all experienced trainers. Most agree, however, that the German Shepherd is not the most sociable breed and is indeed often found to be less outgoing, and more aloof and standoffish, in meetings with strangers. We have no rule at Alpine on breed selection. Most of our dogs are Golden Retrievers, a breed usually found to make friends easily. Due to the fact that we allow our dogs to interact with the public and indeed find this to be a positive aspect of the program, the personality shown by the Golden Retrievers suits our function well. We also have a mixed breed and a Belgian Sheepdog.

#### Scope of Training

The commitment of time required in dog training is easily underestimated. Particularly in the beginning, time must be given

daily to the training program. Dog and handler should be together more or less all the time. The training of an expert working dog demands no less than this degree of commitment, and the results gained will prove satisfying in proportion. In the Alpine program training takes place in three basic categories.

#### Search Training

Starting typically at 4-6 months, the puppy is put through a systematically designed course of problems of increasing difficulty until he is able to pass the qualifying tests.

#### Obedience Training

We encourage training to the level of Companion Dog as defined by the American Kennel Club. We further require response to certain hand signals as part of the search procedure. The obedience exercises to be mastered early in the dog's training are the basic Sit, Stay, Down, Heel, and Recall(come).

#### Incidental Training

This highly general category is the unseen part of the iceberg in ski area working dog training. Due to the closeness between the dogs and the skiing public, training beyond the scope of basic obedience is required. This "incidental" training may be seen as a highly specialized set of obedience exercises which are part of the dog's job description.

Riding Lifts.--This is probably the single most difficult task for the dogs to accomplish. We try to give the puppies a lot of practice on stationary lifts at first. The basic move of hopping onto the chair may be taught and practiced anywhere the handler can find a bench or love-seat of approximately the right proportion. There are more ways than one for a dog to load a lift and we leave it to the handler's preference as to exactly how he will teach this exercise. Riding a snowmobile may be taught similarly.

Skiing with the Dog.--The injury most often seen is the edge cut suffered by the dog while running too close to the skiing handler. The dog must learn to run near the handler but not get in the way. At slower speeds the Heel may be safe, and some handlers teach an exercise in which the dog trots between the handler's legs as he moves in a slow snowplow. Others use commands such as Close and Look Out to re-

gulate the distance between dog and handler.

Socialization.--The dog must learn to get along well with the other dogs and handlers on the team, and with members of the skiing public. From puppyhood the dog is encouraged to interact with other dogs and people; favorable reactions are praised, and unfavorable ones are disciplined. Specialized social behavior is dictated by the ski area environment. The dog must, for instance, learn to stay close to the standby area and not follow friendly skiers even though he may be outside unsupervised for appreciable lengths of time. He must learn where it is appropriate to relieve himself. Avalanche dog handlers joke about the real reason they carry shovels. Aggressive behavior toward people or other dogs is not permitted.

#### Support of Management

Acceptance of dogs as a practical tool in avalanche rescue by ski area management is desirable, if not prerequisite, for the success of the program. The value of properly trained dogs in public relations is clear. We are fortunate at Alpine that management encourages our efforts and regards the dogs as a part of the professional ski patrol team.

#### Documentation

Search dog trainers and their organizations may have many differences as to methods, preference of breed, and scope of training, but they all agree on one point--the need for written documentation of each dog's training and testing. Documentation is important for a variety of reasons. Should a dog's performance ever be questioned in court, such evidence of his competence would clearly be valuable. It is useful to the trainer to be able to review his dog's early training at later stages, and such a record is a teaching aid for later dogs for the same or other trainers. Records are necessary if a dog is to join a new group without being retested. Figure 3 shows the form used currently at Alpine Meadows. On the back, the handler makes a sketch of the problem.



Figure 2.--Dog loading on a lift.

Date: 1-27-86 MON Time: 6 AM  
 Dog: SAM Master: MADDIX  
 Victim(s): JOANNE BARNES Helpers: DAVIS

Type of Problem: AGAINST WIND | DOG | VICTIM

WEATHER: Sky: CLEAR Precipitation: ---  
 Wind Speed: 0-5 Wind Direction: SW  
 Type of Snow: HARD AVALANCHE DEBRIS

Dog Standby: SUMMIT  
 Location of Problem: S. BEAVER

Size of Area Searched: 100 X 250 YDS

Description of Site: S. BEAVER AVALANCHE FROM TOP OF DEBRIS TO HOLE SITE NEAR TOE

Dog Starting Point: EDGE OF AVALANCHE

Position of Victims: <u>ON SIDE</u>	Depth <u>5'</u>

TIMING:  
 Burial Before Alert: 20 MIN.

From Standby to Starting Point: 6 MIN.

From Starting Point to Victim(s): 10 MIN. (2 MIN. REST, 8 MIN. SEARCH)

Dog's Total Time: 16 MIN.

Total Burial Time: 20 MIN.

Observations: RESPONSE TO HAND SIGNALS IS IMPROVING. GOOD COVERAGE OF WHOLE SLIDE. HE DIDN'T WANT TO SEARCH UPHILL - WENT UP WITH LITTLE ENTHUSIASM WHEN TOLD. MAYBE HE KNEW FROM WIND THERE WAS NOTHING ABOVE US.

Figure 3.--Form for recording dog problems. On the back of the form the handler sketches the problem, showing path of dog, path of handler, start(Search command), airscents alerts, victim's location, location of surface or buried articles, digging alert(s), corrections made, natural or manmade features such as trees, rocks, or skilifts, and any other items he feels are pertinent.

"Dog"ma

We try not to be restrictive as to methods in our training program. All our handlers at present use praise as the reward, but this is by individual choice and not by regulation. There are all kinds of expert opinions as to how to train your dog. We prefer to leave the method to the individual handler and try to remain open at all times to exchange of information between each other or from other sources.

Certain basic principles are employed. The bond between owner/handler and dog makes the reward of praise meaningful. Graduation to harder from simpler problems is the means to advancement. The dog must always succeed and be rewarded before proceeding to the next harder problem. The exact composition of the problem is left up to the handler/trainer or a trainer/helper.

### NOTES ON TRAINING

This paper is not intended as a step-by-step manual for the training of an avalanche rescue dog. For this endeavor a bit more information and experience will be needed, and the reader is urged to refer to the list of sources following, and in fact to any dog training literature he can find. The basic principles thus acquired can then be applied to the unusual requirements posed by the ski area working environment.

The notes that follow present a brief outline of the search part of the dog's training. Again the reader is reminded that this represents the "tip of the iceberg" as far as the overall scope of training the working ski area dog is concerned.

### Puppy Problems

The puppy should know how to come when called (the Recall). A helper whom the puppy knows holds him while the handler/master runs animatedly a short distance away and pops out of sight behind some obstacle. The helper should point the dog's attention to the master while he is running away, saying something like, "Look, where's he going!" The handler while running away should call his dog's name, flap his arms, say goodbye, and in general act like he is leaving. Big enthusiasm is important in the puppy problems to hold the dog's short attention span. As soon as the handler has been out of sight a second or two, the helper releases the puppy (which should be struggling frantically) and simultaneously gives the handler's chosen search command in a firm, excited tone of voice. The puppy will run to the handler's hiding place and into his master's arms. He is praised profusely and rewarded. Most trainers suggest intense,

happy praise and play with some favorite or convenient toy as the best reward. The problem is only then considered complete.

The puppy will probably succeed in this simple runaway problem the first time. It should be noted at this point, however, and always remembered, that the dog should at no point in his training be rushed along in his progress from one exercise to the next harder one. A successful problem repeated a couple of times before advancing will reinforce the dog's motivation and give him a solid basis of experience from which to solve the next stage of problem. Complications are introduced one at a time into the problems given after this basic one is mastered until the dog passes his evaluation as a qualified search dog.

After the Master Runaway, roles are switched and the puppy is required to perform the exercise with the helper running off to hide.

Additional complications which need to be introduced follow. The order need not necessarily be as listed, but in any case the progression from one step to the next should be logical, orderly, and simple for the dog to grasp.

A total stranger runs away while the handler holds the dog and gives the search command.

The hiding place becomes an open hole in the snow.

The hiding place is directly upwind from the start. This is the critical step in which the dog is brought to realize that he can find the victim by scent and not just by sight.

The hiding place is an open hole in the snow upwind of a previously used hole. This step is best done immediately after the dog has found his victim in the first hole.

The victim is in a hole, covered with a few inches of snow with his face obviously exposed. At this point the digging indication can be encouraged.

The victim is in a shallow hole, completely covered with just a couple of inches of snow.

The distance traveled by the team to reach the problem site is increased.

Problems are run in less comfortable weather conditions.

### Advanced Problems

The dividing line between "puppy problems" and "advanced problems" is arbitrary and for the sake of classification, and is distinguished only by the addition of more complicating factors. A dog in the advanced stages of training will be showing a strong digging alert, a recognizable air scent alert, running through deep snow for the maximum expected distance to the problem site, and directability with hand signals and verbal commands over his position on

the avalanche. He will have solved problems containing complications such as:

Continuing to search after finding a first victim without being rewarded much and then finding a second victim.

Working with another dog on the same avalanche without distraction.

Working a site with spectators and other rescue workers without distraction.

Searching in extreme bad weather.

Working a site with buried and surface articles such as packs, skis, clothing, and so forth, without alerting to these if a live body is present. The latest thinking in avalanche dog training suggests either a separate command for the article search or the handler's cultivation of his own ability to read his dog's alert. Dogs may also alert differently to dead bodies than they would for live ones! Some trainers use a still different command for the search for a dead body.

The full-depth hole giving a burial depth of typically 2'-6' will be used.

Working at least 20 minutes without resting or showing signs of distraction.

Other complications may be dreamed up by the handlers. Some have been known to go so far as to strew bags of dog food over the search area or bury sandwiches!

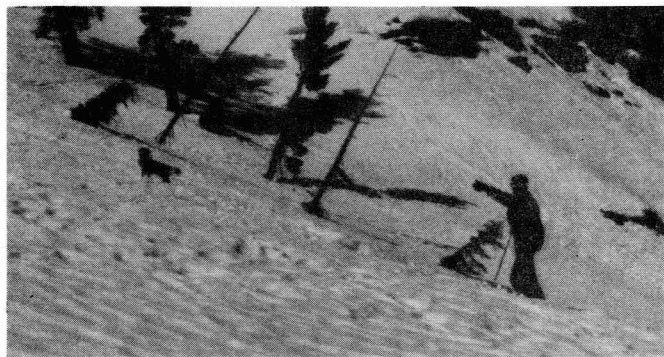


Figure 4.--Directability by hand signal.

### "Full-on" Problems

For purposes of testing and maintenance of training in a qualified dog, we define a full-on problem as containing any of the above-mentioned complications plus:

The full-on hole described in Figures 5 and 6 is used.

The dog is called out from its standby station at the start of the problem.

The handler must use terrain and wea-

<sup>1</sup>Epley, Dick. "SAR Dog Training-How Specific Can It Be?" Ski Patrol Magazine, a publication of the National Ski Patrol System, Vol. 3, #2, Winter 1987.

Mr. Epley is a founding member of Rocky Mountain Rescue Dogs (RDI) and has participated in numerous rescue efforts.

ther factors to maximize the effectiveness of his dog. An exception to this would be a problem "against the wind" in which the handler is asked to work his dog from the upwind side of the site in order to have the dog work for a longer time before making the find. Problems against the wind are used to lengthen a dog's search time.

Full documentation using the form in figure 3 is required in all problems, from the first puppy problem to the final evaluation.

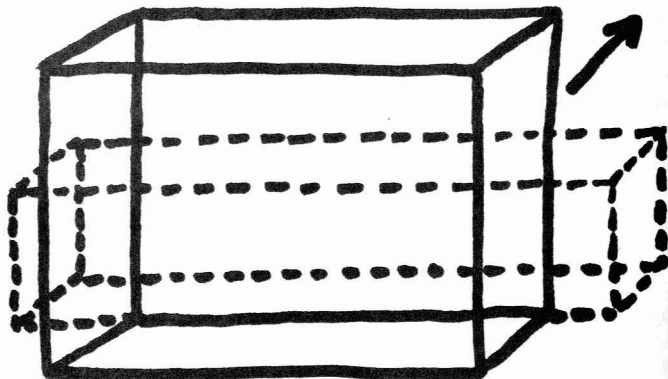


Figure 5.--Full-on hole for advanced problems. The solid lines represent a trench about 4' long dug to the depth desired. The dotted lines show the cavity dug into the hill. Arrow shows upslope. It is important that the shelf formed above the cavity support the weight of a person walking upon it. Before the victim is placed the shelf should be tested by walking on it on foot, not on skis.

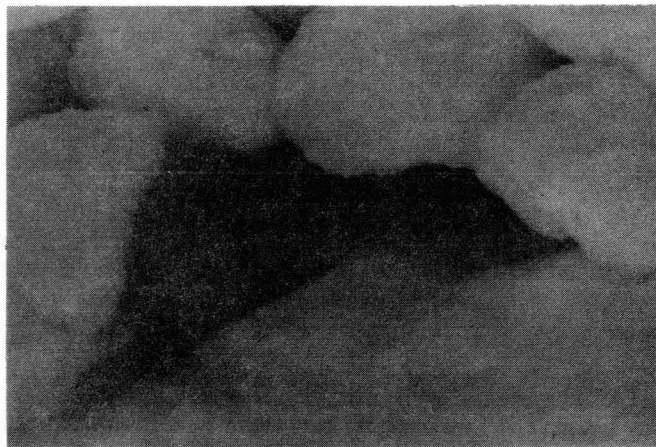


Figure 6.--In reality the hole is not as neat as the diagram in figure 5. The blocks of snow from digging the hole are used to wall off the cavity before filling the trench with loose snow. In this photo the victim is already in place. This full-body hole is very comfortable and safe.

## SOURCES

Numerous sources exist on the subject of dog training. Anything on the subject will doubtless prove useful to a degree. Search dog organizations are found in most countries and in nearly every state in the USA. In California, we have the California Rescue Dog Association, Wilderness Finders (WOOF), and various smaller groups associated with sheriff's departments and local search and rescue groups.

A few books we have found particularly useful:

Expert Obedience Dog Training by Winifred Strickland.

How To Be Your Dog's Best Friend by the Monks of New Skete.

Search Dog Training by Sandy Bryson of WOOF.

We would like to express our sincere thanks to Hill's Pet Products for their generous sponsorship in providing Science Diet dog food for the dogs in our program.



Figure 7.--The completed site of a full-on problem prior to the team's arrival.

Once the victim is buried, the snow surface over the hole is disguised as much as possible to eliminate the possibility of the team's locating the victim visually. The trainer/helper moves about over the site to diffuse his scent so it will not tend so much to draw the dog to the hole. The victim may be asked to contaminate the site before burial in the same way. Sometimes it is possible to sideslip some loose snow over the hole from above. The ultimate disguise is the rare occasion when it is possible to ski-cut a small avalanche over the site. The victim should be equipped with a radio and/or rescue beacon. Some trainers do not like to use a beacon because they are concerned the dog might be able to hear it. Our experience tends to show that the dog finds the victim by scent whether or not he hears the beacon.

Just as in the first puppy problem, once the find is made and the victim freed, the enthusiastic, happy reward must be given. It is this constant positive reinforcement throughout the training program that produces a dependable, happy, hard-working dog.



Figure 8.--Specialized obedience training for the ski area working dog must be employed in order to prevent occurrences such as this.