

SWGDOG SC 9 - HUMAN SCENT DOGS

Avalanche Search

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AVALANCHE SEARCHES

Avalanche canines are typically used in areas such as ski areas, wilderness, highways and towns/villages including houses, to locate victims who are trapped in snow. The canine will cover the area independently and thoroughly, and give a recognizable alert (either passive or active) upon locating the target(s). This document focuses on the tasks the canine team is expected to perform, and describes the methodology needed to obtain certification.

Statement of Purpose: to provide recommended guidelines for training, certification and documentation pertaining to avalanche search canines.

1. INITIAL TRAINING

- 1.1. The canine shall be trained by a qualified canine trainer from an entity that uses a structured curriculum with specific training and learning objectives.
- 1.2. The handler shall be trained by a qualified canine trainer from an entity that uses a structured curriculum with specific training and learning objectives.
- 1.3. Handler training shall include, but is not limited to the following topics:
 - 1.3.1. Search planning techniques, tactics, safety and equipment.
 - 1.3.2. Scent dispersion and how it is affected by environmental conditions (i.e., movement of moisture within the slide and how it affects scent emanations and canine alerts).
 - 1.3.3. First aid and CPR for the canine team, target(s) and victims.
 - 1.3.4. Pertinent National Incident Management Systems (NIMS) training: ICS 100, 200, IS 700, 800 and/or any applicable updates.
 - 1.3.5. Blood-borne pathogens.
 - 1.3.6. Hazmat awareness.
 - 1.3.7. Avalanche awareness (National Ski Patrol level 1 or level 2, or equivalent).
 - 1.3.8. Winter survival training.
 - 1.3.9. Mountain rescue.
 - 1.3.10. Canine team helicopter safety/transportation.
 - 1.3.11. Canine team chairlift evacuation.
 - 1.3.12. Canine team snow mobile transportation.
 - 1.3.13. Handler snowshoe, downhill and/or cross-country skiing.
- 1.4. The handler should be trained to correctly use the following equipment:
 - 1.4.1. Probe pole.
 - 1.4.2. Shovel.
 - 1.4.3. Transceiver.
 - 1.4.4. Radio protocols.
 - 1.4.5. GPS.

- 1.5. Initial canine training shall include sufficient obedience training to ensure the canine will operate effectively based on mission requirements.
- 1.6. Initial training shall include a behavioral assessment of the canine, in search and rescue applications, to identify and dismiss those canines prone to unprovoked attacks on humans and/or animals.
- 1.7. The canine shall be trained to perform a pre-determined specific alert (passive or active).
- 1.8. Initial training shall include exposing the canine team to a variety of locations, expected situations, searches, and modes of transportation (helicopter, chairlift, snow mobile and/or snow shoe/skiing). This may include but is not limited to an avalanche environment where human scented articles (such as skis, ski poles, gloves, backpacks, etc.) or distractor scent sources (animal, fuel, human or canine urine, etc.) could be present, as well as noise distractions (e.g., people, explosions, snow mobiles, generators, helicopters.). It is important to simulate the chaos, confusion, and contamination that the canine team may be exposed to on a real avalanche.
- 1.9. The canine team's training shall include effective search strategy: hasty search and grid search.
- 1.10. The training shall be structured to meet the typical mission requirements of the canine team's department/organization.
- 1.11. The canine team's training shall be continued to achieve a level of operational proficiency until certification evaluation.

2. CANINE TEAM ASSESSMENTS

- 2.1. Assessments are part of certification, maintenance training and proficiency.
- 2.2. Each assessment is the evaluation of a search.
- 2.3. The canine team shall be assessed in the following ways:
 - 2.3.1. An odor recognition assessment: with the purpose of evaluating the canine team's ability to indicate on live subjects only and not on non-human distractors. The handler shall be advised of the parameters of the search, the number of targets (not placement), and the assessor shall know the desired outcome of the search. The odor recognition assessment shall evaluate the following:
 - 2.3.1.1. The handler's interpretation of the canine's behavior.
 - 2.3.1.2. The canine team's ability to locate all relevant human targets.
 - 2.3.1.3. The canine's response to a human target.
 - 2.3.1.4. The canine's ability to ignore distractions.
 - 2.3.2. An odor recognition assessment consists of a single search and shall be set-up according to the following parameters:
 - 2.3.2.1. A separate area containing a minimum of five snow caves/holes will be set up in an area of approximately 1000 square meters (¼ acre). The area shall be clearly marked, with the caves/holes approximately five (5) meters (15 feet) apart.

- 2.3.2.2. The snow caves/holes should be made to give the optimum control of scent. The snow caves/holes need to be constructed to prevent canine penetration and shall include:
 - 2.3.2.2.1. Two blank snow caves
 - 2.3.2.2.2. Two snow caves/holes with non-human scented distractors (food and snow/ski equipment).
 - 2.3.2.2.3. One snow cave with the target.
- 2.3.2.3. The handler shall have a clear line of sight of the canine in the snow cave area.
- 2.3.2.4. The target and all distractors shall be placed approximately ten minutes before the start of the assessment.
- 2.3.2.5. The team shall have five minutes to complete the exercise.
- 2.3.2.6. The target shall not be known to the canine.
- 2.3.2.7. The assessor shall inform the handler of the search parameters.
- 2.3.2.8. The handler shall advise the assessor of how his/her canine works.
- 2.3.2.9. The handler must disclose the canine's response prior to the start of the assessment.
- 2.3.2.10. The assessor shall know the location of the target.
- 2.3.2.11. The canine must locate and alert on the target independently of specific directions from the handler.
- 2.3.2.12. Any false response constitutes a failure.
- 2.3.3. Comprehensive assessment (Single-blind Assessment). A comprehensive assessment examines the level of competence based on an average sized avalanche search area. The objective of the comprehensive assessment is to test the canine team's skills as they relate to the following:
 - 2.3.3.1. The handler's ability to set up a logical, systematic search pattern utilizing the wind and terrain to the canine's advantage.
 - 2.3.3.2. The canine's ability to perform an effective independent search without continuous handler guidance.
 - 2.3.3.3. The canine's ability to search among distractions.
 - 2.3.3.4. The canine's ability to recognize scent emanating from a live person(s) and respond to that scent with a final response.
 - 2.3.3.5. The handler's ability to interpret his or her canine's alert and articulate to the assessor when and where the target(s) is located.
 - 2.3.3.6. The handler's ability to conclude the search (no one left to find).
 - 2.3.3.7. The assessment shall occur in an avalanche environment similar to actual search conditions. Typically, this is an avalanche environment where target or distractor scent sources could be present, as well as noise distractions. It is important to simulate the environment that the canine team might be exposed to while working a real avalanche.
 - 2.3.3.8. The assessment area shall measure approximately 4050 square meters (approximately 1 acre) in size, unless the certifying agency specifies a search area more appropriate to the regional terrain. If the avalanche site provided is larger than required, the search area may be reduced and marked, using flagging or area security tape. If at all possible, the assessment area should be prepared, and caves/holes dug a day in advance of the assessment to minimize the residual scent of the burial sites. The assessment site should be designed to simulate human contamination, e.g., snowshoe, ski and snow machine tracks, that one might find when responding to an avalanche. There

must be enough caves/holes prepared to allow for multiple burials. There should be open snow caves/holes as well as covered snow caves/holes. Additional snow caves/holes can be dug, as needed.

- 2.3.3.9. One to two (1-2) targets shall be placed into snow caves/holes, buried approximately 1 meter to 2 meters (3-6 feet) in depth in the search area, in such a way as to encourage the use of air scenting. The target(s) shall be placed as to be inaccessible and invisible to the canine team.
 - 2.3.3.9.1. The snow caves/holes shall be constructed in such a way as to ensure adequate air space as well as movement for the target (confined space requirements). The snow caves/holes with the target inside, shall be sealed with a minimum of approximately 1 meter (3 feet) of compacted snow. There shall be no partial burials.
 - 2.3.3.9.2. Distractions and debris such as rescue equipment, shovels, probes, articles of clothing and snow equipment (i.e., skis, ski poles, snowboards or snowmobile parts) may be left in the assessment area. They may be buried, partially buried or on the snow surface. They shall not be placed on or buried within 3 meters (approximately 10 feet) of the target(s).
 - 2.3.3.9.3. To prevent a sterile environment, the assessment site shall include human scent trails not associated with the buried target(s) to simulate a realistic avalanche working situation.
 - 2.3.3.9.4. If there are more canine teams testing than the time allows for the target(s) to be buried (up to sixty (60) minutes), the target(s) will be unburied, and one to two (1-2) new targets shall be placed into new un-used snow caves/holes.
 - 2.3.3.9.5. Used snow caves/holes would then be identified verbally as “holes where recoveries were made earlier”, as would be expected in an actual event.
- 2.3.3.10. Care must be exercised to ensure the safety of all involved in the assessment (especially the buried target(s)).
 - 2.3.3.10.1. The target(s) shall not be known to the handler.
 - 2.3.3.10.2. There shall be radio contact at all times with the buried target(s) (earpieces are preferred), and their transceivers shall be turned to transmit.
 - 2.3.3.10.3. The target(s) shall be instructed to be non-responsive to the canine team.
 - 2.3.3.10.4. All target(s) shall be placed no less than ten (10) minutes prior to the beginning of the assessment, and no target(s) will be buried over sixty (60) minutes.
- 2.3.3.11. Search time shall not exceed twenty (20) minutes. If the handler removes his or her canine from the avalanche area for any purpose during their search, that time is counted as part of their search time.
 - 2.3.3.11.1. The handler shall decide how to work his or her canine and will inform the assessor.
 - 2.3.3.11.2. The handler may not use a transceiver to assist in locating the target(s).
 - 2.3.3.11.3. The handler will work the area as if working on an actual avalanche search and perform a debriefing whether or not all finds were made.

- 2.3.3.11.4. It is the handler's responsibility to report to the assessor when the canine has alerted. At that time, the handler will mark the spot with a flag/marker (the handler may NOT probe the area, but may use a shovel to aerate the area), call for a shoveler, and continue to search for other potential targets. The handler may send his or her canine back into an area to confirm a find, at his or her discretion.
- 2.3.3.12. One person will be assigned as the safety observer. The safety observer will maintain radio contact with the target(s) during the assessment. There will always be at least one person assigned as a shoveler to each target.
- 2.3.3.13. All personnel, when working on or near an avalanche site, will wear a transceiver, and will be knowledgeable in its use, as well as carry a radio, shovel and probe.
- 2.3.3.14. Any false alert called by the handler constitutes a failure. A canine showing interest in any article containing human scent, is not considered a failure, but if the handler calls it as an alert, it constitutes a failure.
- 2.3.3.15. The canine team must locate 100% of the target(s).
- 2.3.3.16. A canine team which fails to complete the certification process shall complete a corrective action plan before making another attempt to certify.
- 2.3.4. Double-blind Assessments shall only be conducted in situations where safety is not an issue.

3. CANINE TEAM CERTIFICATION

- 3.1. Certification for the named canine team shall be valid for one year.
 - 3.1.1. Certification does not relieve the canine team from regular maintenance training, periodic proficiency assessments, and following other recommended SWGDOG guidelines.
 - 3.1.2. The certifying official(s) shall not routinely be involved in the day to day training of the canine team being evaluated.
 - 3.1.3. The certification shall be comprised of a comprehensive assessment which incorporates an odor recognition assessment to such an extent that a separate odor recognition test is not necessary, but recommended.
 - 3.1.4. Handler errors, when excessive, may result in failure of the team.
 - 3.1.5. A mission oriented test environment shall be used.
 - 3.1.6. A double-blind assessment shall only be conducted in situations where safety is not an issue.

4. MAINTENANCE TRAINING

- 4.1. The canine team shall conduct regular objective-oriented training sufficient to maintain and enhance operational proficiency.
- 4.2. Training is meant to sustain, enhance, and promote the performance of the canine team.
- 4.3. Canine teams shall be challenged during the regular maintenance training sessions within the operational environments for which the team may be deployed.
 - 4.3.1. Training shall include exposure to:

- 4.3.1.1. A variety of locations, expected situations, searches, and modes of transportation.
- 4.3.1.2. A variety of human targets.
- 4.3.1.3. A varied number of human targets.
- 4.3.1.4. A variety of expected human scents.
- 4.3.1.5. A variety of distractor scent sources.
- 4.3.1.6. A variety of noise distractions.
- 4.3.1.7. A varied duration of search times and times of day and night.
- 4.3.1.8. A variety of blank search areas.
- 4.3.1.9. A variety of methods and degrees of concealment.
- 4.3.2. Routine training conducted solely by the handler to maintain his or her canine's proficiency is acceptable, but should be periodically combined with supervised training.
 - 4.3.2.1. Supervised training by a qualified trainer or instructor is recommended in order to monitor and improve performance, identify and correct training deficiencies and perform proficiency assessments.
- 4.3.3. Avalanche training shall be included, when environmental conditions are appropriate, in the canine team's minimum of sixteen (16) hours of training per month, to maintain and improve the proficiency level of the team.
- 4.3.4. The canine team shall perform periodic proficiency assessments throughout the certification period as outlined in Section 2- Canine Team Assessments, including a variety of odor recognition assessments, comprehensive assessments and double-blind assessments (safety dependent).

5. RECORD KEEPING AND DOCUMENT MANAGEMENT

- 5.1. The handler/department/organization shall document training, certification, proficiency assessments and discipline-related deployment data.
 - 5.1.1. Training and proficiency assessment records may be combined or maintained separately.
 - 5.1.2. Discipline-related deployment records shall be maintained separately from training, certification and proficiency assessment records.
 - 5.1.3. Training and discipline-related records should be standardized within the department/organization.
- 5.2. Training records may include, but are not limited to, the following data:
 - 5.2.1. Name of handler and canine.
 - 5.2.2. Name(s) of individual(s) conducting/assisting training.
 - 5.2.3. Time and date training took place.
 - 5.2.4. Location and environmental conditions.
 - 5.2.5. Training design (non-blind, single-blind or double-blind).
 - 5.2.6. Description and number of target(s).
 - 5.2.7. Location of target(s).
 - 5.2.8. Set time.
 - 5.2.9. Size of search area.
 - 5.2.10. Length of session.
 - 5.2.11. Search results.
 - 5.2.12. Deficiencies and corrective measures implemented.

- 5.2.13. Other information required by department/organization.
- 5.3. Certification records shall be maintained by the certifying authority and the handler, and include the following information:
 - 5.3.1. Name of handler and canine.
 - 5.3.2. Date team certified.
 - 5.3.3. Certification authority, i.e., agency, professional organization, and/or individual(s).
 - 5.3.4. The standard or guideline under which the canine team is certified.
 - 5.3.5. Name of individual(s) awarding certification.
 - 5.3.6. Search area types included in certification assessment.
 - 5.3.7. Location of certification.
 - 5.3.8. Set time.
- 5.4. Proficiency assessment records maintained by the handler/department/organization may include, but are not limited to, the following data:
 - 5.4.1. Name of handler and canine.
 - 5.4.2. Name(s) of individual(s) conducting assessment.
 - 5.4.3. Time and date assessment took place.
 - 5.4.4. Location and environmental conditions.
 - 5.4.5. Assessment design (single-blind or double-blind).
 - 5.4.6. Search area types included in proficiency assessment.
 - 5.4.7. Set time.
 - 5.4.8. Size of search area.
 - 5.4.9. Proficiency assessment results.
 - 5.4.10. Other information required by department/organization.
- 5.5. Supervisory review of all records is recommended.
- 5.6. Keeping records in a digital format is recommended to facilitate compiling and analyzing data.
- 5.7. Records may be discoverable in court proceedings and may become evidence of the canine team's reliability. Record retention policy shall be determined by departmental/organizational guidelines.
- 5.8. Training records are necessary to illustrate the type and amount of training that the team has experienced before and after certification.
- 5.9. Confirmed operational outcomes can be used as a factor in determining capability.
- 5.10. Unconfirmed operational outcomes shall not be used as a factor in determining capability in that they do not correctly evaluate a canine team's proficiency, i.e., residual scent can be present or concealment may preclude discovery.
- 5.11. Veterinary Records
 - 5.11.1. Veterinary records shall be maintained in a manner such as they are accessible to the handler/department/organization.
 - 5.11.2. Vaccinations required by state or local law should be documented in the veterinary record of the canine.