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2020

Standard for Training and Certification of Canine Detection of Humans: Patrol Canine Team

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AAFS Standards Board

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Standard for Training and Certification of Canine Detection of Humans: Patrol Canine Team

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Foreword

Since there are no consensus standards for canine teams (canine and handler), this document is specifically dedicated to specialized protocols for patrol canines to conduct searching tasks. This standard promotes consistency across agencies, departments and organizations utilizing Patrol Canine Team(s) for searches and relieve the judicial system of conflicting protocol.

This document provides requirements for training, certification and documentation pertaining to Patrol Canine Teams within the detector dog community. This document serves as the progression of that effort. The goal is for the canine to detect and follow a target scent to conclusion while potentially identifying evidence left by the target by discriminating non-associated scent(s). Canines used in this discipline are typically deployed in law enforcement and forensic investigative functions.

This document was revised, prepared, and finalized as a standard by the Dogs and Sensors Consensus Body of the AAFS Standards Board. The draft of this standard was developed by the Dogs and Sensors Subcommittee of the Organization of Scientific Area Committees (OSAC) for Forensic Science.

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The following applies to all ASB documents:

the term **'shall'** indicates that a provision is mandatory, and can be audited for compliance

the term **'should'** indicates that a provision is not mandatory, but recommended as good practice.

All hyperlinks and web addresses shown in this document are current as of the publication date of this standard.

Key Words: *Initial Training, Canine Team Assessments, Canine Certification, Maintenance Training, Record Keeping and Document Management, Terms and Definitions, References, Cases and Legal References, Alert, Change of Behavior, Disclosure, Certifying Official, Scent Article, Olfactory, Patrol Dog*

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Standard for Training and Certification of Canine Detection of Humans: Patrol Canine Team

1 Scope

To provide standards for the training, certification, and documentation pertaining to canine teams (canine and handler) trained to search for specific person(s), location(s), and/or article(s) by starting from the last known position. This pertains to trails less than 24 hours old.

2 Normative References

There are no normative reference documents, Annex B, Bibliography, contains informative references.

3 Terms and Definitions

For purposes of this document, the following discipline specific definitions apply. Please refer to ASB Technical Report 025, Crime Scene/Death Investigation – Dogs And Sensors – Terms And Definitions, First Edition, 2017 for a comprehensive listing of detailed general canine detection definitions.

3.1
active alert
A type of response that the canine displays/indicates in a manner that may disturb the environment and or forensic evidence (i.e., dig, bark, scratch, paw, jump, and bite after the detector canine has detected a trained scent).

3.2
alert
A characteristic change in ongoing behavior in response to a trained scent, as interpreted by the canine handler. The components of the alert may include: change of behavior (COB), interest, and final response or indication. (See **3.25 final response**)

3.3
article
(1) A particular item or object, typically one of a specified type used to present to the canine for scent discrimination.
(2) Scented objects left on the track or in a search area at various intervals to which the canine is expected to indicate.

3.4
assessments
An evaluation during training and/or certification process; a tool to assess canine team ability.

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3.5
assessment record
A record of the assessments of the canine team, i.e., evaluations during either the training or certification to access the canine team's ability and proficiency. The assessment records may be combined with training and certification records or maintained separately. A record documenting the performance of the canine team, especially an account of an act or occurrence kept in writing or some other permanent form, i.e., digital format, which is discoverable.

3.6
associated scent trail
A pathway laid by a human subject whose scent is associated with the scent on the article presented to the canine.

3.7
blank search
A training or certification exercise in which the target scent is not present.

3.8
building search
A training or certification exercise that is conducted on the interior of a building or structure.

3.9
canine handler
A person who has successfully completed a recognized course of canine handling in a specific discipline and maintains those abilities through field applications, maintenance training, certification, recertification and agency or program required continuing canine education.

3.10
canine trainer
A person providing training/instruction who has demonstrated, through education, training and operational experience, extensive skill and knowledge in the subject field or discipline. This person would normally perform the maintenance training and proficiency training in the field and may train canines in preparation for a formal course of instruction.

3.11
certification
A process that attests to the successful completion of an examination of relevant skills for the canine team.

3.12
certifying authority
The organization authorizing the certification of a canine team.

3.13
certifying official
assessor
A person who has been delegated the authority to conduct an evaluation (assessment and/or certification) and/or sign certificates on behalf of an organization or entity, that recognizes a canine team has been trained to a particular standard within the organization.

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3.14
Change of Behavior
COB
A characteristic pattern of behaviors, as interpreted by the canine handler that occurs when the canine detects a target scent. This differs from other olfactory interest that otherwise are exhibited by the canine in response to the daily environment. The initial change of behavior typically leads to following the scent to its source/target. The pattern of behavior may be unique to each canine.

3.15
cognitive bias
A set of influences that may affect the reliability and validity of one's observations and conclusions.

3.16
competent canine trainer
A person having suitable or sufficient skill, knowledge, experience to train canines and canine handlers.

3.17
contamination
An odor/scent is inadvertently or purposefully introduced. Contamination can include the following: contamination of a search area with a target scent or contamination of a target aid with competing odor/scent.

3.18
control training
The training of an animal, especially a canine, to obey certain commands while working around a target person in protective gear.

3.19
controlled search
An experiment/training/testing exercise in which any defined variable(s) is consistent within specific parameters.

3.20
distractor
Non-target stimuli placed within a search area. These can include: humans, toys, food, animal odor, etc.

3.21
double-blind assessment/double-blind testing
In the evaluation of a canine neither the assessor nor the canine handler knows the location of the target scent or whether target scent is present (i.e., a blank/null search).

3.22
evidence
A body of facts, information, or material objects indicating whether a theory or proposition is true or valid.

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3.23
evidence search
The process of a canine locating and indicating items that contain a trained human scent. This may be non-targeted or targeted based on the discipline.

3.24
false positive
A response indicating that something is true or present when it is not true or absent. Scientific usage: Type I error.

3.25
final response
A behavior that a canine has been trained to exhibit in the presence of a target scent source. This behavior may be either passive (sit, stare, down, point, etc.) or active (bite, bark, scratch, jump, etc.). Also known as a trained final response. (See **3.2 alert**)

3.26
handler error
Any action or cue made by the handler that causes the canine to perform incorrectly.

3.27
human distractor
Non-target person placed within a search area.

3.28
human scent evidence
A particular person's scented article collected for use for investigative purposes.

3.29
initial training
The fundamental training associated with detector canine training which consists of, but not limited to: bonding/relationship building, obedience, basic scent discrimination, and basic search techniques.

3.30
maintenance training
Continuing training conducted beyond the initial training of a discipline, designed to maintain a level of proficiency by ensuring the canine team's capability to perform desired tasks.

3.31
non-associated scent trail
A pathway laid by a human subject whose scent is not associated with the scent on the article presented to the canine, or the absence of an associated scent pathway.

3.32
obedience training
The training of an animal, especially a canine, to obey certain commands.

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3.33
off-lead
Any work or interactions with the canine where the canine is not attached to a lead.

3.34
on-lead
Any work or interactions with the canine where the canine is attached to a lead.

3.35
operational assessment
A test conducted (single- or double-blind) in an operational environment in which the canine team will be deployed or utilized.

3.36
operational proficiency
Training conducted beyond the initial training of a discipline and designed to maintain a high level of competence or skill by ensuring the canine team's capability to perform desired tasks.

3.37
passive alert
A trained final response given by the canine that requires an inactive behavior such as sitting, staring or lying down. These types of behaviors are typically trained so as not to disturb the environment and/or forensic evidence.

3.38
pre-scenting
A representative target scent that is presented to the canine prior to deployment. The canine's objective is to associate the scent article to the target scent. This is commonly used in tracking/trailing/location checks and/or scent discrimination line ups.

3.39
residual scent:
Scent that originated from any substance/subject that may or may not be physically recoverable or detectable by other means. The scent that originated from a target substance/subject and lingers after the target substance/subject has been removed or has totally decomposed (as in the case of human remains).

3.40
scent
Volatile chemicals emitted from a live human that are perceived by the canine through olfaction. "Scent" has traditionally referred to canine detection of humans. "Odor" has traditionally referred to canine detection of a substance.

3.41
scent article
An item that has been exposed to the target scent source that is used to put the canine on task.

3.42
scent association
When a canine learns to identify a trained scent with a specific reward.

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3.43
scent dispersion
Environmental conditions/factors/influences affecting the movement of scent from a fixed scent source.

3.44
scent discrimination
The ability of the canine to use olfactory capabilities to differentiate one scent from another.

3.45
scent recognition
Demonstration of the canine's olfactory ability to alert on a target scent(s).

3.46
scent recognition assessment
A test of the canine's olfactory ability to alert to target scent(s) in a controlled environment.

3.47
scent trail
Scent pathway left by an individual moving.

3.48
set time
The length of time between the target placement and when the canine is deployed to detect the target scent.

3.49
single-blind assessment
An evaluation of the canine team's ability to complete an exercise where the evaluator knows the outcome and the handler does not.

3.50
split trail
A training exercise in which two subjects walk the same pathway and then split into two different directions. When the canine is presented with a scent article from one of the subjects, the canine commences to trail and associate the correct person to the scent article. Despite the contamination of scent from the other person on the trail the canine is still able to discriminate between scents and identify the correct subject.

3.51
target
The scent for which the canine is trained to respond.

NOTE In patrol detection work the term "decoy" if often used.

3.52
target trail
A pathway that was laid by a target subject that is associated with the scent article presented to the canine.

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3.53
track/trail
The scent pathway left by an individual moving.

3.54
unconfirmed operational outcome
Lack of verification of search results following a deployment of a canine team(s).

4 Canine Team Requirements

4.1 Initial Training of the Canine Handler

4.1.1 The canine handler training shall be conducted by a competent trainer from an organization that utilizes a structured curriculum with specific training and learning objectives.

4.1.2 Canine handler training shall include, but not limited to the following:

a) the ability to "read the canine" (recognizing the canine's change of behavior to particular stimuli);

b) the acquisition and processing of scent by the canine;

c) education on the various environmental conditions affecting scent dispersion;

d) canine handling techniques (e.g., voice inflection and lead handling);

e) rewarding the canine;

f) education on cognitive bias;

g) first aid for canine and handler;

h) fitness for canine and handler, and

i) relevant legal aspects to include:

- effect of human scent dispersion;
- relevant canine case law;
- preparation of legal documentation; and
- preparation for courtroom testimony.

4.1.3 The training shall be structured to meet the typical mission requirements of the canine team's department, agency, or organization, herein referred to as organization.

4.1.4 Canine handler training may include techniques for collecting, handling, storing and disposing of articles and human scent evidence as required by the canine handler's organization.

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4.1.5 In order to maximize search efficiency, canine handler training shall include search techniques.

4.2 Initial Training of the Canine

4.2.1 Canine training shall be conducted by a competent canine trainer from an organization that utilizes a structured curriculum with specific training and learning objectives. The training shall include, but not be restricted to the following.

4.2.1.1 Initial training shall include sufficient obedience training to ensure the canine will operate safely and effectively based on mission requirements. Obedience training should include on- and/or off-lead control and responsiveness to verbal commands.

4.2.1.2 Initial training shall include sufficient control training to ensure the canine will operate safely and effectively based on mission requirements. Control training should include on- and/or off-lead training in the presence of a target and responsiveness to verbal commands.

4.2.1.3 The canine shall be trained to perform a pre-determined specific final response (e.g., apprehension or detaining/ bark and hold) upon locating the target.

4.2.1.4 Initial training shall include exposing the canine to a variety of expected situations and searches (e.g., track/trail, area search, building search, evidence search).

4.2.1.5 Training shall progressively include scent articles, aged scent, trail distances, locations, evidence, and environmental conditions typically expected in an operational search.

4.2.1.6 The canine shall be exposed to varying concentration/amount of available scent.

4.2.1.7 If article location is required, the canine shall be trained to leave the articles undisturbed.

4.2.1.8 Training shall include exposing the canine to a variety of different noise distractors (i.e., multiple weapons fire, loud deployment noises), visual, and scent distractors.

4.2.1.9 The training shall be structured to meet the typical mission requirements of the canine team's organization.

4.3 Initial Training of Canine Team

4.3.1 The canine team's training shall be structured to meet the typical mission requirements of the canine team's organization.

4.3.2 The bond between the handler and canine shall be developed through training, social interaction, and husbandry.

4.3.3 The canine team shall be trained to perform a safe, effective, and controlled search.

4.3.4 The canine team's initial training shall be continued until the required level of operational proficiency is achieved and the canine team is certified. (See Sections 5, 6, and 7).

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5 Canine Team Assessments

5.1 Assessments are part of certification, maintenance training, and proficiency testing.

5.2 Each assessment is the evaluation of obedience, control, and searches. Canine teams may not have an operational requirement for all of the assessments described in section 5.6.

5.3 The canine handler shall articulate the canine's final response (e.g., apprehension or detaining/ bark and hold) prior to the start of the assessment. The canine may not be able to make a final response due to the components and parameters of the assessment. Reasonable consideration by the assessor shall be given in these instances (i.e., the target is inaccessible for the canine to make a final response).

5.4 The canine handler shall demonstrate verbal control over the canine during assessments.

5.5 The canine handler shall announce deployment of the canine prior to releasing the canine for assessment(s) involving apprehension(s) per canine team's organization policy.

5.6 Safety considerations for canine team assessments include the following.

5.6.1 The target shall wear appropriate protective clothing (e.g., bite suit, protective sleeve, etc.).

5.6.2 The assessor shall confer with the canine handler on the best location for the assessor to stand while being completely able to observe the assessment and minimizing potential interference.

5.6.3 The assessor shall ensure the canine cannot leave the assessment search areas.

5.7 The canine team shall be assessed in the following methods.

5.7.1 Obedience assessments test the following while the canine is off-lead.

5.7.1.1 The canine shall respond to the canine handler's verbal commands.

5.7.1.2 With the canine in stationary position at a distance, the handler shall demonstrate the ability to verbally recall the canine to their side.

5.7.1.3 The canine handler shall maneuver the canine at their side while changing speed and direction.

5.7.1.4 The canine handler shall verbally recall the canine from a stationary position at a distance and at a point prior to reaching the canine handler, the canine handler shall verbally command the canine to stop and remain in a stationary position until verbally commanded to recall again.

5.7.1.5 Passing of the assessment requires the canine handler team to successfully complete all exercises.

5.7.1.6 The canine handler team failing at any single exercise within the assessment constitutes a failure.

5.7.2 Control assessments test the following while the canine is off-lead.

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5.7.2.1 The canine handler shall demonstrate the ability to verbally recall the canine from an apprehension [e.g., canine stops the apprehension and remains in place (e.g., down, bark and hold, etc.), or returns to the handler].

5.7.2.2 The canine handler shall demonstrate the ability to have the canine return from a pursuit of a moving target with a verbal command, colloquially known as an "out".

5.7.2.3 The canine handler shall demonstrate control over the canine while maneuvering around a target.

5.7.2.4 The canine shall demonstrate the ability to maintain control of the target with or without the presence of weapons fire. For the safety of the canine team and any additional personnel present, assessments using weapons fire shall be conducted with a .38 caliber blank gun or the audible equivalent (approximately 150 db). All assessments using weapons fire shall be conducted outdoors.

5.7.2.5 Passing of the assessment requires the canine handler team to successfully complete all exercises while demonstrating:

a) announcement of the impending release of the canine;

b) a confident pursuit;

c) a committed and controlling bite;

d) bite and hold behavior with no more than one rebite; and

e) releases the bite when commanded.

5.7.2.6 Failure of the assessment includes the following:

a) failing to announce the impending release of the canine;

b) incompletion of any exercise;

c) lack of pursuit;

d) hesitancy of pursuit;

e) failure to bite;

f) lack of commitment to bite (e.g., multiple rebites, nips, circling target, not directly engaging the target, etc.); and

g) failure to release the bite when commanded.

5.7.3 The assessments in this section are intended for *single blind assessments*.

5.7.3.1 An area assessment is a test designed to evaluate the canine team's capability in locating and responding to an outdoor concealed target in an operational environment. The following are the parameters of the area assessment test.

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5.7.3.1.1 The assessment may be conducted on- or off-lead. If on-lead the lead shall be no less than 15 feet (≈5 m).

5.7.3.1.2 Multiple canines may work sequentially on the same area search.

5.7.3.1.3 The assessment shall be conducted outdoors in an environment similar to where the canine usually works (e.g., urban, suburban or rural environments).

5.7.3.1.4 The assessment shall take no more than 20 minutes.

5.7.3.1.5 The target shall be concealed within the area to be searched a minimum of 10 minutes prior to commencing the search and the location of concealment shall only be known to the assessor.

5.7.3.1.6 The target shall be unfamiliar to the canine handler team.

5.7.3.1.7 Passing of the assessment requires the canine handler team to come to a final response at the location of the concealed target within 20 minutes while demonstrating:

a) announcement of the impending release of the canine; and

b) if the final response is apprehension, the canine shall demonstrate the following:

    1) a committed and controlling bite;

    2) bite and hold behavior with no more than one rebite; and

    3) releases the bite when commanded.

5.7.3.1.8 Failure of the assessment includes one or more of the following:

a) failure to locate the concealed target within 20 minutes;

b) failure to come to a final response at the target location;

c) failure to complete the final response as predetermined by the canine handler prior to the commencement of the assessment (e.g., the intended final response is a bark and hold, however the canine apprehends the target);

d) failure to announce the impending release of the canine;

e) failure to search; and

f) if the final response is apprehension, the canine fails to demonstrate one or more of the following;

    1) failure to bite;

    2) lack of commitment to bite (e.g., multiple rebites, nips, circling target, not directly engaging the target, etc.); and

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3) failure to release the bite when commanded.

5.7.3.2 A building assessment is a test designed to evaluate the canine team's capability in locating and responding to an indoor concealed target in an operational environment. The following are the parameters of the building assessment test.

5.7.3.2.1 The assessment may be conducted on- or off-lead. If on-lead the lead shall be no less than 15 feet (≈5 m).

5.7.3.2.2 Multiple canines may work sequentially on the same building search.

5.7.3.2.3 The assessment shall be conducted indoors in an environment similar to where the canine usually works (e.g., residential buildings, warehouses, barns, multi-room interior buildings, etc.).

5.7.3.2.4 The assessment shall take no more than 20 minutes.

5.7.3.2.5 The target shall be concealed within the area to be searched a minimum of 10 minutes prior to commencing the search and the location of concealment shall only be known to the assessor.

5.7.3.2.6 The target shall be unfamiliar to the canine handler team.

5.7.3.2.7 The canine shall be required to search for the target's scent trail (e.g., canine shall not encounter the target's scent trail prior to entering the search area).

5.7.3.2.8 Passing of the assessment requires the canine handler team to come to a final response at the location of the concealed target within 20 minutes while demonstrating:

a) announcement of the impending release of the canine; and

b) if the final response is apprehension, the canine shall demonstrate the following:

   1) a committed and controlling bite;

   2) bite and hold behavior with no more than one rebite; and

   3) releases the bite when commanded.

5.7.3.2.9 Failure of the assessment includes one or more of the following:

a) failure to locate the concealed target within 20 minutes;

b) failure to come to a final response at the target location;

c) failure to complete the final response as predetermined by the canine handler prior to the commencement of the assessment (e.g., the intended final response is a bark and hold, however the canine apprehends the target);

d) failure to announce the impending release of the canine;

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e) failure to search; and

f) if the final response is apprehension, the canine fails to demonstrate one or more of the following;

1) failure to bite;

2) lack of commitment to bite (e.g., multiple rebites, nips, circling target, not directly engaging the target, etc.); and

3) failure to release the bite when commanded.

5.7.3.3 An evidence assessment is a test designed to evaluate the canine team's capability in locating and responding to discarded evidence in an operational environment. The following are the parameters of the evidence assessment test.

5.7.3.3.1 The assessment may be conducted on- or off-lead.

5.7.3.3.2 The assessment shall be conducted outdoors in an area with a minimum of 10 inches (≈25 m) of vegetation.

5.7.3.3.3 Multiple canines may work sequentially on the same search area; however, new scent articles shall be introduced for each individual canine handler team in a different location within the search area.

5.7.3.3.4 The assessment shall take no more than 5 minutes.

5.7.3.3.5 The assessment area shall be no larger than 60 feet by 60 feet (≈18 m x18 m).

5.7.3.3.6 The assessment area shall contain multiple distractor (human and canine) scent trails.

5.7.3.3.7 The scent articles shall be scented for a minimum of 30 seconds in a clinched hand.

5.7.3.3.8 A minimum of two pre-scented articles shall be randomly thrown in the area to be searched.

5.7.3.3.9 Examples of scent articles include typical pocket items and tools commonly used in crimes {e.g., expended weapon cartridges, key ring, paper match book, empty weapon, plastic card [dark in color, approximately 2 inches by 3 inches (≈5 cm by ≈8 cm)], hand tool, etc.}.

5.7.3.3.10 Passing of the assessment requires the canine to locate a minimum of 90% of the pieces of evidence and an overall false alert rate not to exceed 10%, as defined and calculated in ANSI/ASB Standard 088 within the search area, within 5 minutes, while not disturbing the evidence.

5.7.3.3.11 The canine handler team failing to locate a minimum of 90% of the pieces of evidence and/or exceeding an overall false alert rate of 10%, as defined and calculated in ANSI/ASB Standard 088, within 5 minutes constitutes a failure of the assessment.

5.7.3.3.12 Disruption or mouthing of the evidence by the canine shall constitute a failure of the assessment.

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5.7.3.4 Scent recognition assessments shall test the following.

5.7.3.4.1 The ability of the canine to detect target scent and to follow the associated scent track/trail while discriminating from non-associated scent track/trails.

5.7.3.4.2 The ability of the canine to demonstrate the absence of an associated scent track/trail.

5.7.3.4.3 The canine handler's recognition of the canine's behavior on the track/trail.

5.7.3.4.4 The canine's final response.

5.7.3.4.5 The canine handler's recognition of the canine's final response.

5.7.3.4.6 The canine's ability to follow a simple human track/trail containing a minimum of one turn and a distractor track/trail.

5.7.3.4.7 The scent recognition assessment shall consist of the following components and parameters.

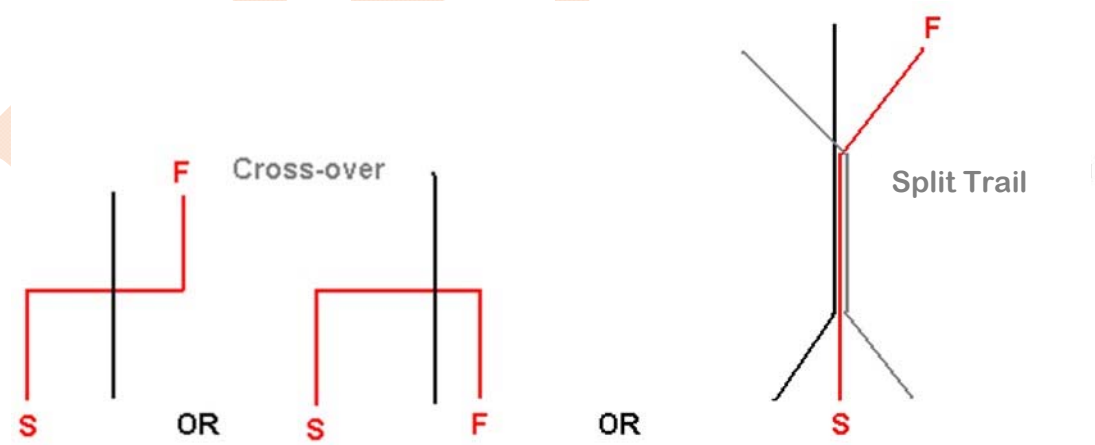
5.7.3.4.7.1 The assessment may be conducted on- or off-lead. If on-lead the lead shall be no less than 15 feet (≈5 m).

5.7.3.4.7.2 Each canine team should work on a separate track/trail.

5.7.3.4.7.3 The assessment shall be completed within 15 minutes.

5.7.3.4.7.4 For each scent recognition assessment, one target and one or two human distractors shall be used. The target and distractors shall not be visible.

5.7.3.4.7.5 A scent recognition assessment track/trail shall consist of either one of two track/trail designs: a cross-over design or a split trail design (see Figure 1).



Examples of cross-over and split trail: S is starting point for the target, F is finishing point (or the mirror images).

FIGURE NOTE In a cross-over design, the target makes two turns and his track/trail is crossed once by a distractor fresher track/trail. In the split trail design, the target track/trail joins two separate distractor tracks/trails: one fresher, one the same age. After a common part, the tracks/trails split up and the target makes a turn. The target trail is indicated by the red, the distractor trails are indicated by the black.

Figure 1—Track/Trail Designs

5.7.3.4.7.6 Each scent recognition shall be between ≈100 to ≈200 yards (90 m to 183 m) in length. Adjacent tracks/trails shall have enough distance between them that they do not interfere with other tracks/trails.

5.7.3.4.7.7 Tracks/trails shall be laid on a minimum of two surfaces (e.g., dirt, grass, concrete, asphalt, etc.).

5.7.3.4.7.8 The target's track/trail of the cross-over track/trail shall be aged a minimum of 30 minutes and the distractor a maximum of 15 minutes.

5.7.3.4.7.9 The target's track/trail and one of the split trail human distractor trails shall be aged a minimum of 30 minutes and the other distractor track/trail shall be aged a maximum of 15 minutes.

5.7.3.4.7.10 Prior to the assessment, the start of the track/trail shall be marked by the assessor.

5.7.3.4.7.11 The canine handler shall be directed to the start marker, but not given the target's direction of travel.

5.7.3.4.7.12 The assessor shall know the correct outcome of the assessment.

5.7.3.4.7.13 The canine handler shall not know the correct outcome of the assessment.

5.7.3.4.7.14 A successful completion of the scent recognition assessment shall be the ability to find the correct direction of travel and follow the scent track/trail and correctly demonstrate the final response at the target within 15 minutes while demonstrating:

a) announcement of the impending release of the canine; and

b) if the final response is apprehension, the canine shall demonstrate the following:

    1) a committed and controlling bite;

    2) bite and hold behavior with no more than one rebite; and

    3) releases the bite when commanded.

5.7.3.4.8 Failure of the assessment includes one or more of the following:

a) failure to locate the concealed target within 15 minutes;

b) failure to come to a final response at the target location;

c) failure to complete the final response as predetermined by the canine handler prior to the commencement of the assessment (e.g., the intended final response is a bark and hold, however the canine apprehends the target);

d) failure to announce the impending release of the canine;

e) failure to search; and

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f) if the final response is apprehension, the canine fails to demonstrate one or more of the following;

1) failure to bite;

2) lack of commitment to bite (e.g., multiple rebites, nips, circling target, not directly engaging the target, etc.); and

3) failure to release the bite when commanded.

5.7.3.4.8.1 The assessor may take into consideration the environmental influences on the scent in determining whether or not the canine team has successfully completed the scent recognition assessment.

5.7.3.5 Operational assessments shall test the following.

5.7.3.5.1 The ability of the canine team to follow a track/trail on different surfaces and identify the specific target at the conclusion of the track/trail as required by the organization.

5.7.3.5.2 The canine handler's ability to recognize the canine's behavior while searching.

5.7.3.5.3 The canine's final response.

5.7.3.5.4 The canine handler's recognition of the canine's final response.

5.7.3.5.5 The operational assessment shall consist of the following components and parameters.

5.7.3.5.5.1 Each canine team should work on a separate track/trail.

5.7.3.5.5.2 A mission-oriented assessment environment shall be used.

5.7.3.5.5.3 Parameters of the assessment may vary based upon mission requirements.

5.7.3.5.5.4 The assessment may be conducted on- or off-lead. If on-lead the lead shall be no less than 15 feet.

5.7.3.5.5.5 Rural environment parameters include a track/trail that is a minimum of ≈ 800 yards (730 m) in length, a minimum of 4 turns, at least 2 surface changes and a minimum set time of 30 minutes (See Figure 2).

5.7.3.5.5.6 Urban environment parameters include a track/trail that is a minimum of ≈ 300 yards (275 m) in length, a minimum of 3 turns, at least 2 surface changes and a minimum set time of 30 minutes (See Figure 3).

5.7.3.5.5.7 The target may leave personally scented articles along the track/trail.

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Track/Trail is a minimum of ≈ 800 yards (730 m) in length, a minimum of 4 turns, at least 2 surface changes and a minimum set time of 30 minutes.

FIGURE NOTE The target track/trail is indicated by the blue, the distractor track/trails are indicated by the green.

Figure 2—Rural Environment Track/Trail

5.7.3.5.5.8 If the assessment location does not contain normally occurring distractors, such as human scent and animal odor, distractor odors/scents should be placed along the track/trail.

5.7.3.5.5.9 The assessment area shall contain other human tracks/trails (fresher than the target trail) occurring both intermittently across and along a section of the target track/trail.

5.7.3.5.5.10 The assessment location shall not be an area regularly used for the training of the canine team.

5.7.3.5.5.11 The canine handler shall be informed of the start location.

5.7.3.5.5.12 The assessment shall be completed in less than 30 minutes for rural environments, and in less than 20 minutes for urban environments.

5.7.3.5.5.13 The assessor shall know the correct layout of the track/trail.

5.7.3.5.5.14 The canine handler shall not know the correct layout of the track/trail.

5.7.3.5.5.15 The conclusion of the assessment shall be defined by the assessing agency.

5.7.3.5.5.16 A successful completion of the operational assessment shall be the ability to find the correct direction of travel and follow the target track/trail and correctly demonstrate the final response at the target within 30 minutes for rural environments, and in less than 20 minutes for urban environments while demonstrating:

a) announcement of the impending release of the canine; and

b) if the final response is apprehension, the canine shall demonstrate the following:

   1) a committed and controlling bite;

   2) bite and hold behavior with no more than one rebite; and

   3) releases the bite when commanded.

5.7.3.5.5.17 Failure of the assessment includes one or more of the following:

a) failure to locate the target within 30 minutes for rural environments, and in less than 20 minutes for urban environments;

b) failure to come to a final response at the target location;

c) failure to complete the final response as predetermined by the canine handler prior to the commencement of the assessment (e.g., the intended final response is a bark and hold, however the canine apprehends the target);

d) following a distracter odor/scent track/trail;

e) failure to announce the impending release of the canine;

f) any canine team that is determined by the assessing agency to be more than ≈50 yard (46 m) off the target's track/trail;

g) failure to search; and

h) if the final response is apprehension, the canine fails to demonstrate one or more of the following;

   1) failure to bite;

   2) lack of commitment to bite (e.g., multiple rebites, nips, circling target, not directly engaging the target, etc.); and

   3) failure to release the bite when commanded.

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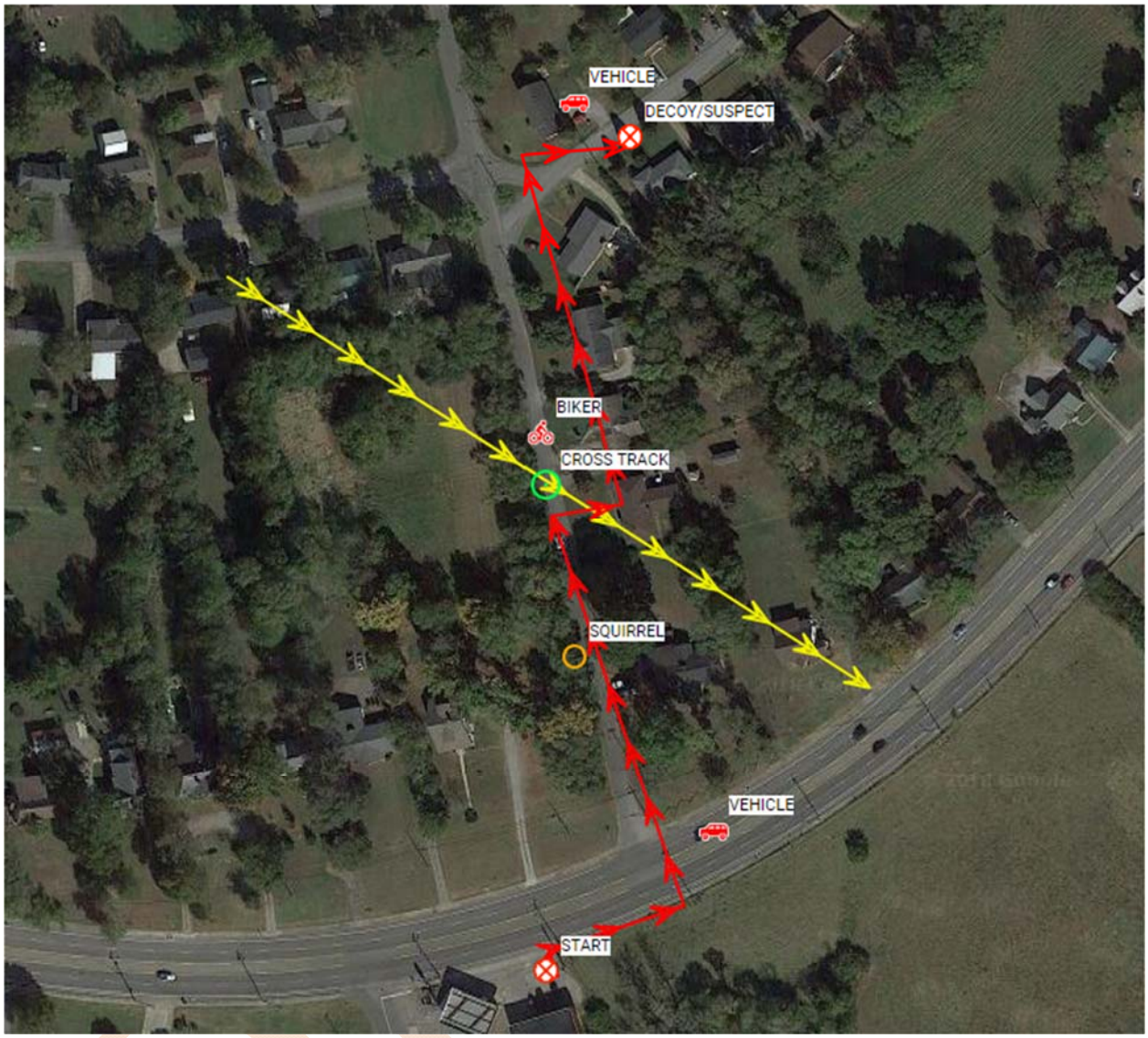

Track/trail that is a minimum of ≈ 300 yards (275 m) in length, a minimum of 3 turns, at least 2 surface changes and a minimum set time of 30 minutes.

FIGURE NOTE The target track/trail is indicated by the red, the distractor track/trails are indicated by the yellow.

Figure 3—Urban Environment Track/Trail

5.7.3.5.5.18 The assessor may take into consideration the environmental influences on the scent in determining whether or not the canine team has successfully completed the operational assessment.

5.7.4 The assessments in this section are intended for *double-blind assessments*. When a double-blind assessment is conducted, it shall be conducted with considerations for safety.

5.7.4.1 Area, evidence, building, scent, and operational assessments can all be conducted double-blind following the components and parameters described in 5.6.3.

5.7.4.2 Unlike the assessments described in Section 5.6.3, neither the canine handler, nor the assessor, nor any individual present with the canine team shall know the correct outcome of any portion of the assessment, including whether there is an associated scent.

5.7.4.3 The canine team shall be required to successfully complete the assessment as defined by the assessing agency.

5.7.4.4 The assessor shall observe the canine team. At the conclusion of the assessment, the assessor shall compare the search results with the parameters of the search. This comparison may be done immediately after the handler determines the canine has made its final response, or at the conclusion of the entire assessment.

5.7.4.5 The canine team should be required to complete a double-blind assessment every six months.

5.7.4.6 Any double-blind assessment may be used for proficiency testing.

6 Canine Team Certification

6.1 The certification shall be comprised of the assessments listed in Table 1 (non-, single-, and/or double-blind assessment, or a combination). In order to obtain certification, the canine team shall pass all required assessment parameters outlined in Section 5, Canine Team Assessments**.** If the canine is dual purpose, then the canine team shall pass all required assessment parameters outlined in Section 5, Canine Team Assessments in both this document and the corresponding detection discipline document.

Table 1—Certification Assessments

Required Assessments	Additional Optional Assessments (depending on the typical mission requirements of the canine)
- Obedience - Control - Area - Building	- Evidence - Operational - Scent recognition

6.2 For successful certification the canine team shall:

a) first pass the obedience and control assessments, then;

b) pass the area and building assessment, then;

c) complete the remaining optional assessments achieving at least an overall 90% positive alert rate and an overall false alert rate not to exceed 10%, as defined and calculated in ANSI/ASB Standard 088.

6.3 Certification for the named canine team (one canine handler and one canine) shall be valid for up to one year (365 days or 366 days in a leap year). Canine handlers with more than one canine shall be required to independently certify with each canine.

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6.4 The canine team shall perform regular maintenance training, periodic proficiency assessments, double-blind assessments, and follow other recommended local, state and/or federal guidelines. Certification does not remove the requirement for continued proficiency training.

6.5 The certifying official(s) shall not be routinely involved in the training (maintenance training, periodic proficiency assessments, double-blind assessment, etc.) of the canine team being evaluated.

6.6 The certifying authority may fail the canine team due to handler errors and breaches of safety, which may include, but are not limited to, the following.

a) Not maintaining positive control of the canine, which may lead to safety issues.

b) Allowing canine outside of search area.

c) Not following directions of the assessor.

6.7 Deliberate compromise of an evaluation will not be tolerated. Any communication concerning specifics of the evaluation will constitute a compromise and will lead to termination of the canine team's certification.

6.8 A mission-oriented test environment shall be used.

6.9 Target used in the certification process shall not have been used in in the training (maintenance training, periodic proficiency assessments, double-blind assessment, etc.) of the canine team being certified.

6.10 A canine team that fails the certification process shall complete a documented corrective action plan developed by the canine team's trainer before making another attempt to certify.

6.11 Certifying official(s) shall identify the performance deficiency(ies) to the canine handler so that the trainer can determine a minimum amount of time for that deficiency(ies) to be remediated before another certification attempt.

6.11.1 During this remediation time frame, documentation should be provided by the canine handler/trainer to demonstrate that efforts have been enacted to correct the deficiency.

6.12 Organization(s) may enhance the standards' requirements in order to make the organizational requirements more stringent.

7 Canine Team Maintenance Training

7.1 The canine team shall conduct regular objective-oriented training sufficient to maintain and enhance operational proficiency that includes:

a) enhancing the proficiency level of the canine team;

b) maintaining the necessary level of fitness of the canine team;

c) correcting identified deficiencies;

d) a variety of search locations, environmental conditions, weather conditions, and search area sizes;

e) a varied duration of search times at different times of day or night;

f) a variety of blank searches;

g) a variety of search areas that contain non-associated scent tracks/trails;

h) a variety of odor/scent distractions and/or odor/scent distractors in the search area;

i) a variety of set times;

j) a variety of target(s)

k) a variety of articles used for pre-scenting the canine;

l) a variety of evidence assessment scent articles (various shapes, sizes, manner and duration of contact, weights, materials, etc.);

m) a variety of degrees of concealment (behind a tree, behind a door, in a trunk of a car, above ground, in a tree, etc.); and

n) a variety of noise distractors (traffic, sirens, children playing, verbiage over a PA system, etc.).

7.2 Routine training conducted solely by the handler to maintain the canine's proficiency is acceptable, but not best practice, and shall be combined with supervised training on a regular basis.

Supervised training by a competent trainer is required in order to improve performance, identify and correct training deficiencies, and perform proficiency assessments.

7.3 A canine team shall complete a minimum of 16 hours, working as a team, of training per month to maintain and improve the proficiency level of the canine team.

In addition to the minimum 16 hours, the canine's handler shall conduct independent, daily documented training (e.g., down, recall, release, sit, etc.,) to maintain and improve the proficiency level of the canine team.

7.4 Training is meant to sustain, enhance, and promote the performance of the canine team.

7.5 The canine team shall perform periodic proficiency assessments throughout the certification period as outlined in Section 5, Canine Team Assessments, including a variety of assessments; operational assessments; and non-, single-, and double-blind assessments.

7.6 Canine teams shall be challenged during the regular maintenance training sessions within the operational environments for which the canine team may be deployed.

8 Scent Article Material Storage and Handling

8.1 Handling and storage of scent article materials shall be conducted in a manner that prevents odor/scent contamination.

8.2 Scent article materials shall be stored in separate, individual, and labeled containers.

8.3 Scent article materials shall be stored individually and separately from non-target and masking odor/scent.

8.4 Scent article materials shall be appropriately disposed of and replenished as required and necessary to prevent odor/scent contamination and/or account for the perishable nature of the material.

8.5 Scent article materials shall be maintained in a manner to avoid loss or destruction.

8.6 Scent article materials should be signed in and out.

8.7 Scent article materials should be inventoried monthly.

8.8 Documented training should take place on the acquisition, handling, storing and disposing of target scent.

9 Canine Team Records and Document Management

9.1 The canine handler/ organization shall document training, certification, canine team assessments and discipline-related deployment data as relevant.

9.2 Proficiency assessments and training records may be combined or separate documents.

9.3 Discipline-related deployment records shall be separated from training, proficiency assessment, and certification documentation.

9.4 Training and discipline-related records should be standardized within the organization.

9.5 Training records maintained by the canine handler/organization shall include, but are not limited to the following data.

a) Name of canine handler and canine.

b) Name(s) of individual(s) conducting or assisting with training.

c) Time and date of training.

d) Location, environment, and weather conditions of training (urban, rural, wilderness, etc.).

e) Training design (i.e., daily, non-blind, single-blind, or double-blind).

f) Target descriptors (weight, gender, age, ethnicity, stature, etc.).

g) Location of target.

h) The evidence assessment scent articles (shapes, sizes, manner and duration of contact, weights, materials, etc.).

i) The concealment of the target.

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j) Set time.

k) Type of scent article/source (if applicable).

l) Length of track/trail.

m) Length of training session.

n) Canine team search results.

o) Deficiencies and corrective measures implemented during training regimen.

p) Other information required by organization.

9.6 Certification records shall be maintained by the certifying authority and the handler and shall include, but are not limited to, the following data.

a) Name of canine and canine handler.

b) Name(s) of individual(s) conducting, assisting, or awarding certification.

c) Date and time canine team certified.

d) Location, environment, and weather conditions during certification (urban, rural, wilderness, etc.).

e) Type and size of search area.

f) Certification assessment design (i.e. non-blind, single-blind, or double-blind).

g) Target descriptors (gender, age, ethnicity, stature, etc.).

h) Location of the target.

i) The concealment of the target.

j) Set time.

k) Type of scent article/source, [e.g., leather, plastic, metal, textile (if applicable)].

l) Time taken to complete certification assessment.

m) Canine team certification results.

n) Deficiencies and corrective measures noted for future training.

o) Other information required by canine team's organization.

p) Assessing agency (i.e., organization, professional organization, and/or individual(s)).

q) The standard or guideline to which the canine team is certified.

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9.7 Canine team assessment records maintained by the canine handler/organization shall include, but not be limited to, the following data.

a) Name of canine handler and canine.

b) Name(s) of individual(s) conducting, assisting, or awarding assessment.

c) Date and time of canine team assessment.

d) Location, environment, and weather conditions during assessment (i.e., urban, rural, wilderness, etc.).

e) Assessment design (non-blind, single-blind, or double-blind).

f) Location of target(s).

g) Target descriptors (gender, age, ethnicity, stature, etc.).

h) The concealment of the target.

i) Set time.

j) Type of scent article/source, [e.g., leather, plastic, metal, textile, etc. (if applicable)].

k) Time taken to complete assessment.

l) Location address (GPS coordinates optional) included in assessment.

m) Operational assessment type (including search area dimensions): area search, building search, evidence search, and/or track/trail.

n) Canine team assessment results.

o) Deficiencies and corrective measures noted for future training.

p) Other information required by canine team's organization.

q) The standard or guideline to which the canine team is assessed.

9.8 Deployment/utilization records maintained by the canine handler/ organization shall document the specifics of the deployment to include, but are not limited to, the following data.

a) Name of canine handler and canine.

b) Name(s) organization(s) conducting search.

c) Date and time of deployment.

d) Requestor of deployment

e) Location address (GPS coordinates are recommended but are optional) of deployment.

f) Environmental conditions at deployment.

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g) Search area type (urban, rural, wilderness, etc.).

h) Point last seen (PLS) (date, time, environmental conditions).

i) Name of target.

j) Description of target (gender, age, race, height, weight, dress, etc.).

k) Medical conditions/medications of target.

l) Type of search (missing person, criminal, run away, armed, etc.)

m) Type of scent article/source, [e.g., leather, plastic, metal, textile, etc. (if applicable)].

n) Back-up names.

o) Information regarding any final response(s).

p) Search results.

q) Other information required by the canine team's organization.

9.9 All documented training, assessment(s), and certification(s) shall be used to determine the canine team's proficiency.

9.9.1 Confirmed operational outcomes can be used as a factor in determining canine team's experience.

9.9.2 Unconfirmed operational outcomes shall not be used as a factor in determining a canine team's proficiency. Unconfirmed operational outcomes, including a non-productive response, may be relevant for investigative/testimony purposes because of the following.

9.9.3 Target scent or residual scent may be present below the measurable level of detection for laboratory instrumentation.

9.9.4 There may be an environmental inability or external factors which prevent locating the scent source.

9.10 Supervisory review of all records is recommended.

9.11 Digitally formatted records (with appropriate back up), versus handwritten are recommended to facilitate compiling and analyzing data.

9.12 All documented training, assessments, certification, and deployments shall be documented to include final response, any false positives, and any false negatives.

9.13 Records may be discoverable in court proceedings and may become evidence of the canine team's reliability. Record retention policy shall be determined by canine team's organization guidelines.

9.14 Training records are necessary to illustrate the type and amount of training that the canine team has experienced before and after certification.

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9.15 Scent article material records.

9.15.1 Scent article material(s) shall be clearly labeled in a manner to support accountability.

9.15.2 Appropriate records shall be maintained by the canine handler/ organization in accordance with federal/state/local requirements.

9.16 Veterinary Records.

9.16.1 Veterinary records shall be maintained in a manner such as they are accessible to the handler/organization.

9.16.2 Vaccinations required by state or local law should be documented in the veterinary record of the canine.

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Annex A
(informative)

Foundational Principles

The use of patrol dogs to locate persons and evidence has been a long-established practice. However, to ensure that the canines are properly trained and able to 'communicate' their detection to their handlers in an efficient manner, proper training protocols are necessary. This is a discipline that requires periodic re-evaluation of the canines and of the handlers' abilities to recognize the canine behavior.

Many canine organizations have established internal standards and standard operating procedures. The intent of this document is to provide a minimum standard which may be exceeded, thereby providing consistency in training, assessments, documentation, and terms and definitions.

This consensus standard: *Canine Detection of Humans: Patrol Canines* provides the critical foundation needed for the development and quality assurance for deployment of the use of the canine's functioning within this discipline.

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Annex B
(informative)

Bibliography

This is not meant to be an all-inclusive list as the group recognizes other publications on this subject may exist. At the time this standard was drafted, these were the publications available for reference. Additionally, any mention of a particular software tool or vendor as part of this bibliography is purely incidental, and any inclusion does not imply endorsement.

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