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Standard for Training and Certification of Canine Detection of Illicit Drugs

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Colorado Springs, CO 80904

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Foreword

This document serves as a baseline for the general protocols for training, certification, and documentation pertaining to canine detection of illicit drugs. This standard promotes consistency across organizations utilizing canines for the detection of illicit drugs and relieves the judicial system of conflicting protocols. The standard represents the current ASB Dogs and Sensors consensus body's consensus between veterinarians, scientists, and practitioners regarding available relevant scientific understanding and practical experience.

This standard is intended to be applied prospectively, and not retroactively.

The training programs described in this standard have not been validated because there are no validated training programs. Given the lack of validation studies in this area, the standard assembled expert opinions about best practices into a training document so that the training and accreditation of canine teams across this discipline of canine detection is standardized. Although validated training standards are the goal, this is a consensus-based training document that, when followed correctly, will increase standardization. Standardization is a form of quality control that seeks to increase consistency in canine detection results, independent from validation. The result of this will be increased repeatability and reproducibility within the discipline while the necessary research develops[1].

To understand the value of standardization in canine detection disciplines, this standard needs to be assessed with the role of forensic canine detection in mind. Detection canine teams serve as an investigative tool. The results of detection may be used to establish “probable cause,” develop leads that investigators can pursue, or to assist emergency professionals. Detection teams, like many forensic techniques, cannot confirm someone’s involvement in a crime, confirm the nature of any materials at a crime scene, or determine details or timelines associated with crime events. Confirmatory analyses that serve this purpose may require additional investigation, laboratory testing, and (ideally) other corroborating evidence. Confirmatory testing might occur because of the work done by a canine team, and confirmatory techniques also have limitations and error rates—some known, some not. A result from a detection canine team alone is insufficient as a basis for closing investigations or be used alone as a basis for charging someone.

While the proposed standard has not been validated, there is research that provides evidence that standardized training and testing increases consistency and reliability [1]. Standardization can advance our ability to research specific aspects of training in combination with specific detection purposes. It is expected as the research continues that this standard will evolve and additional specific citations to research to support or alter specific aspects of the training standards are expected as a result of this standard.

Standardized training protocols and certification criteria produce several benefits. First, any canine detection teams that meet the criteria set forth in this training and certification standard have passed a predetermined minimum level of the performance and have been required to follow a specific set of rules and guidelines to achieve that. The goal of this standard is to encourage all canine teams to perform at least as well as this training/certification protocol requires and to minimize individual discretion on the part of handlers and examiners/assessors. Standardization also leads to general improvements in reproducibility between canine teams or across time for a particular canine team. Even though these protocols have not been validated, having a detailed protocol like the ones described in this standard is expected to increase the likelihood that different canine teams trained under this regimen react the same to the same evidence or materials. Finally,

the required documentation allows appropriately trained individuals to assess and review the canine team's performance. Thus, standardization is a form of quality control and a way to increase consistency in canine detection results, independent from validation.

The American Academy of Forensic Sciences established the Academy Standards Board (ASB) in 2015 with a vision of safeguarding Justice, Integrity and Fairness through Consensus Based American National Standards. To that end, the ASB develops consensus based forensic standards within a framework accredited by the American National Standards Institute (ANSI), and provides training to support those standards. ASB values integrity, scientific rigor, openness, due process, collaboration, excellence, diversity and inclusion. ASB is dedicated to developing and making freely accessible the highest quality documentary forensic science consensus Standards, Guidelines, Best Practices, and Technical Reports in a wide range of forensic science disciplines as a service to forensic practitioners and the legal system.

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. This document is based on the scientific working group on dog and orthogonal guidelines (SWGDOG) Approved SWGDOG SC8– SUBSTANCE DETECTOR DOGS Narcotics Section.

Questions, comments, and suggestions for the improvement of this document can be sent to AAFS ASB Secretariat, asb@aafs.org or 410 N 21st Street, Colorado Springs, CO 80904.

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

ASB procedures are publicly available, free of cost, at www.aafs.org/academy-standards-board.

Keywords: *narcotics, illicit drugs, initial training, canine team assessments, canine certification, maintenance training, record keeping and document management*

Table of Contents *(to be updated when the document is final)*

Canine Detection of Illicit Drugs

1 Scope

This standard contains requirements for the development of training of canine handlers and canines and will also detail the canine team assessments and the basis for certification procedures including record keeping and document management. This Standard addresses the canine odor detection discipline of illicit drug detection which entails canine teams (canine handlers and canines) trained to search for illicit drugs.

2 Normative References

There are no normative reference documents. Annex A and Annex B (Bibliography), contains informative reference.

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[2] for a comprehensive listing of detailed general canine detection definitions

3.1
alert
A characteristic change in ongoing behavior in response to a trained odor, as interpreted by the canine handler. The components of the alert may include: change of behavior (COB), interest, and final response or indication.

3.2
alternative training aid
Any type of training material that does not use target material as ordinarily encountered by detection canine while deployed; commonly used in the cases where the true material is hazardous, has limited availability, or controlled access; subclassifications include, Sorption, Mimic, Dilution, and Vigilance Aids.

3.3
assessor
An individual with relevant training and experience in the discipline being evaluated, who assesses the performance of canine, canine handler, or canine team while showing no bias or partiality.

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

3.5
behavior
Any measurable, physical response of a canine. Can be voluntary (goal directed) or involuntary (reflexive).

3.6
blank search
A training or certification exercise in which the target odor is not present.

3.7
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.

3.8
canine team
A human and working canine that train and work together as an operational unit.

3.9
certification
A process that attests to the successful completion of an examination of relevant skills for the canine team.

NOTE Certifications are comprised of operational assessments (see **3.46 operational assessment**).

3.10
certification component
An element of the odor recognition or operational assessment.

3.11
certifying authority
The organization authorizing the certification of a canine team.

3.12
certifying official
A person who has been delegated the authority to conduct a 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.

3.13
Change of Behavior
COB
A characteristic pattern of behaviors, as recognized by the canine handler, that occurs when the canine detects a trained odor. This differs from other olfactory interest that otherwise is exhibited by the canine in response to the daily environment. The canine's initial change of behavior typically leads to following the odor to its source/target. The pattern of behavior may be unique to each canine.

3.14
competent canine trainer
A person having the skills, knowledge, and experience to train canines and canine handlers, who has demonstrated, through education, training, and operational experience, extensive skills 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.

3.15
concealed
Refers to the location of the training aid which is hidden from sight.

3.16
concealment layer
The deliberate placement or covering of a training aid (i.e., the target odor source) in a manner that obstructs direct visual or physical access to it, without preventing the controlled release of odor.

3.17
concentration (chemical)
The amount of a constituent expressed as a mass or volume divided by the total amount of material expressed as a mass or volume.

3.18
confirmed operational outcome
Verification of search results following a deployment of a canine team(s).

3.19
contamination
When an odor is inadvertently introduced. Contamination can include the following: contamination of a search area with a target odor or contamination of a training aid with competing odor.

3.20
containment systems
Any means of restricting target odor to prevent cross-contamination, odor dispersion, or odor transfer of any means of limiting access to training aid sources during training or certification to prevent consumption, movement, or relocation.

3.21
control
A sample used as a quality control measure to demonstrate that the system is working to an optimum level and/or that the integrity of the analytical process is maintained. Material of established origin that is used to evaluate the performance of a test or comparison. A test with an expected positive or negative result often used to confirm the reliability of the method being used.

3.22
controlled search
1) An experiment/training/testing exercise in which any defined variable(s) is consistent within specific parameters.

2) Handler maintains control of the canine during a test/assessment/training/search to ensure safety or adequate coverage using on or off lead verbal or visual commands.

3.23
corrective action plan
A training course of action to remediate performance deficiencies with a canine team.

3.24
deployment
Assignment of a canine team in an operational environment.

3.25
deployment record or utilization record
A record of the deployment and/or utilization of a trained canine team, maintained separately from other records, i.e., training, assessments or certifications. This record shall document the deployment and/or utilization of the canine team, especially an account of an act or occurrence kept in writing or some other permanent form, i.e., electronic format, which is discoverable.

3.26
detector/detection canine
detector dog
A canine trained to detect and give a trained final response to the presence of certain scents or odors for which it has been trained.

NOTE May be referred to as a law enforcement or search and recovery working canine, which is not to be confused with canines covered by the Americans with Disabilities Act (ADA).

3.27
distractor
Non-target stimuli placed or naturally occurring within a search area. These can include any item(s) used in the preparation, handling, storage (containment systems), and/or placement of target odor source(s).

3.28
double-blind assessment/double-blind testing
In the evaluation of a canine team, neither the assessor nor the canine handler knows the location of the target odor or whether target odor is present (i.e., a blank/null search) or the assessor is not in a position to influence the outcome (i.e., two-way glass, video monitoring, physical barriers, great distance).

3.29
false final response
In a controlled environment, the canine responds as if a target odor was present when it is known that it is not.

3.30
final response
A behavior that a canine has been trained to exhibit in the presence of a target odor source. This behavior may be either passive (sit, stare, down, point, etc.) or active (bite, bark, scratch, etc.). Also known as a trained final response.

3.31
handler error
Any action or cue made by the handler that causes the canine to perform incorrectly.

3.32
illicit drugs
Substances used non-medically that are prohibited by law, including but not limited to stimulants, cannabis, cocaine, heroin, other opioids, and MDMA.

3.33
initial training
The fundamental training associated with detector canine training which consists of, but not limited to: bonding/relationship building, obedience, basic odor/scent recognition and discrimination, and basic search techniques.

3.34
maintenance training
Continuing training conducted beyond the initial training of a discipline, designed to maintain a level or proficiency by ensuring the canine team's capability to perform desired tasks.

3.35
mission requirement
Performance demanded of a person or canine team in accordance with certain fixed regulations, needs of the department or agency. Compulsory pre-requisites needed before deployment.

3.36
non-productive response
A change of behavior of the canine followed by a positive indication which cannot be confirmed.

NOTE 1 This may be the result of residual odor that the canine can detect but which cannot be confirmed by technology or direct observation.

NOTE 2 A non-productive response may also be an error—a false final response—but these outcomes cannot be distinguished in an operational environment.

3.37
obedience training
The training of an animal, especially a canine, to obey certain commands.

3.38
objective-oriented training
Training to enhance a canine team's proficiency using specific goals established prior to the initiation of the training.

3.39
odor
Volatile chemicals emitted from a substance that can be perceived by olfaction.

NOTE "Odor" has traditionally referred to canine detection of a substance; "scent" has traditionally referred to canine detection of humans.

3.40 odor dispersion
The movement of odor in an environment, which is affected by environmental conditions/factors/influences.

3.41
odor recognition
Demonstration of the canine's ability to alert to a target odor(s).

3.42
odor recognition assessment
A test of the canine's olfactory ability to discriminate and perform its trained final response to target odor(s) in a controlled environment.

3.43
off-lead
Any work or interactions with the canine where the canine is not attached to a lead.

3.44
organization
An organized body with a particular purpose.

NOTE In this document, an organization can consist of a single canine team or any other organization, department, agency, or entity.

3.45
operational assessment
An evaluation conducted (single-blind or double-blind) in an operational environment in which the canine team will be deployed or utilized.

3.46
operational proficiency
A measure of the canine team's capability to perform desired tasks on operational search missions.

NOTE Ways of demonstrating such proficiency include certification, engaging in regular maintenance training, etc.

3.47
primary containment layer
Refers to the direct, immediate layer that holds the target material (explosive, illicit drug, etc. or the simulated substance used for training purposes). This layer is responsible for physically containing the substance and preventing it from leaking, spilling, or emitting odors prematurely. This could be a variety of materials (e.g. plastic bag, linen bag, glass vial, etc.).

3.48
proficiency assessment/testing
An evaluation during training; a tool to assess team ability.

3.49
random/randomized
When the choice of something or the placement of something is random, the source placed is equally likely to be in any location.

3.50
record
Documentation or the use of the canine and canine team for the working life of the canine kept in writing or some other permanent form, i.e., electronic format.

NOTE Including veterinary, training, certification, assessment, maintenance, deployment, etc.

3.51
reliability
The extent to which (1) an experiment, test, or measuring procedure yields the same results on repeated trials; (2) there is a low probability of alerting to anything other than a target odor and a high probability of alerting to a target odor; (3) evidence establishes a fair probability that a target odor is present; (4) a measurement is repeatable and consistent and free form random errors.

3.52
residual odor
Odor that originated from any target source/subject that lingers and may not be physically recoverable or detectable by other means.

3.53
routine training
Canine training conducted with regularity to maintains the canine's operational capabilities.

3.54
scent
Volatile chemicals emitted from a live human that are perceived by the canine through olfaction.

3.55
set time
The length of time between the target placement and when the canine is deployed to detect the target odor.

3.56
secondary containment layer
This layer of containment has the primary purpose to provide an additional level of security, ensuring that even if the primary containment fails or leaks, the substance will still be contained or protected. The secondary containment is often designed to mitigate the risk of exposure to the environment, the canine, or the handler, and it also minimizes odor release.

3.57
single-blind assessment
An evaluation of the canine team's ability to complete an exercise where the assessor/evaluator/certifying official knows the outcome and the canine team does not.

3.58
systematic search
A technique that employs a specific search pattern to increase accuracy and minimize omissions, while maximizing coverage.

3.59
trained final response
A behavior that a canine has been trained to exhibit in the presence of a trained odor. This behavior may be either passive (sit, stare, down, point, etc.) or active (bite, bark, scratch, jump, etc.).

NOTE 1 This term has traditionally been referred to as "final response." See ASB Technical Report 025 for definition of "final response."

NOTE 2 This term has also been referred to as "indication." See ASB Technical Report 025 for definition of "indication."

3.60
training aid
Target odor sources used for training, assessments, certification, maintenance training, and proficiency testing.

3.61
unconfirmed operational outcome
Lack of verification of search results following a deployment of a canine team.

3.62
voice inflection
Use of tonal changes and volume to effectively communicate with the canine.

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 canine trainer in illicit drug detection from a canine's team department, agency, entity, or organization, herein referred to as organization, that utilizes a structured curriculum with specific training and learning objectives.

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

a) education on illicit drugs as hazardous materials, to include safety storage, disposal, transportation, and handling;

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

c) the acquisition and processing of odor/scent by the canine;

d) education on the various environmental (e.g., weather, air movement, settings) conditions affecting odor/scent dispersion;

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

f) rewarding the canine (e.g., type of reward, timing, reward schedules);

g) education on the aspects of cognitive bias and the effects of handler influence[16,30];

h) basic care for the canine (see ANSI/ASB Standard 085, *Standard for Detection Canine Selection, Kenneling and Health Care*, 2021. 1st Ed.);

i) first aid for canine and handler;

j) medical interventions for canine and handler;

k) decontamination protocols for canine and handler;[11,22,27]

l) proper use of personal protective equipment (PPE) for canine and handler;

m) fitness for canine and handler;

n) preparation of training logs;

o) education on crime scene preservation;

p) orthogonal detectors (see Annex A, Table A.3 for additional details);

q) relevant legal aspects to include:

— articulate the effect of odor/scent dispersion,

— relevant case law,

— applicable Fourth Amendment to the US Constitution (or equivalent for relevant operational jurisdiction) limitations with respect to person screening,

— preparation of documentation, and

— preparation for courtroom testimony.

4.1.3 Canine handler training may include techniques for collecting, handling, storing and disposing of illicit drug training aids and seized drug evidence as required by the canine handler's organization.

4.1.4 Education on basic drug classification, scheduling, and available forms (e.g., powders, pills, and liquids) to effectively identify drug trends.

4.1.5 The handler shall understand the application of search techniques to maximize search efficiency and the canine's opportunity to encounter target odor(s).

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 initial training shall include, but not be limited to the requirements and recommendations in 4.2.1.1 through 4.2.1.6.

4.2.1.1 The canine shall undergo sufficient obedience training to ensure it can operate safely and effectively in accordance with mission requirements. This training should include on and/or off-lead control, as well as responsiveness to verbal and visual commands.

4.2.1.2 The canine shall undergo sufficient control training to ensure it can operate safely and effectively in accordance with mission requirements. This training should include on-and/or off-lead control, as well as responsiveness to verbal and visual commands.

4.2.1.3 The canine shall be trained to perform a predetermined specific trained final response (active or passive) upon locating the odor of targeted illicit drugs.

4.2.1.4 The initial training shall include exposure of the canine to illicit drugs as defined by the legal and operational deployment needs of local, state and federal jurisdictions.

a) Illicit substances to be detected shall include: cocaine, heroin, and methamphetamine (see Annex A, Table A.1 for additional details).

b) Recommended optional target odors should be included in the training based on mission specific requirements such as: marijuana, MDMA, and Fentanyl (see Annex A, Table A.2 for additional details).

4.2.1.5 Training shall include exposing the canine to a variety of different types of searches, locations, and environments including the following variables:

a) variety of concentration/amounts of available odor;

b) a variety of depths, containment systems, and distraction odors/scents;

c) a variety of types of search environments (buildings, vehicles, open areas, etc.);

d) a variety of weather conditions;

e) a varying duration of search times;

f) a variety of training aid set times;

g) a variety of search area sizes; and;

h) a variety of blank searches in different environments.

4.2.1.6 Training shall include exposing the canine to a variety of different noise, visual and odor/scent distractors.

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).

5 Canine Team Certification

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

5.2 The canine team shall perform regular documented maintenance training, periodic proficiency assessments, double-blind assessments, and follow other recommended Federal, state, and local guidelines. Certification does not remove the requirement for continuing proficiency training.

5.3 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.

5.4 The certification shall be comprised of the assessments listed in Table 1 (single- and/or double-blind assessment, or a combination of both). If the canine is a dual purpose (illicit drug/alternate detection discipline) then the canine team shall pass all parameters outlined in Section 6, in both this document and the certification requirements of the corresponding detection discipline ASB standard (e.g., ANSI/ASB Std 024, ANSI/ASB Std 026, ANSI/ASB Std 027).

Table 1—Certification Assessments

Required Assessments	Additional Required Assessment(s)	Additional Non-Required (Optional) Assessment(s)
— Building/room — Motor vehicles	Select One or More: — Baggage/parcels — Lockers — Open area / perimeter — Odor recognition (operational or non-operational)	— Aircraft — Maritime vessel — Mass transit vehicles — Large cargo configurations

5.4.1 Only identified illicit drugs shall be utilized, all alternative training aids are not permitted.

a) Illicit substances to be detected shall include: cocaine, heroin, and methamphetamine (see Annex A, Table A.1 for additional details).

b) Recommended optional target odors should be included in the certification based on mission specific requirements such as: marijuana, MDMA, and Fentanyl (see Annex A, Table A.2 for additional details).

5.4.2 Only training aids that have been properly maintained, stored, and are in good condition shall be used.

5.4.2.1 Primary containers shall be as permeable as possible to allow for odor movement (vented jar, bag, etc.).

5.4.2.2 Primary containers shall be of a size that will prohibit or restrict a canine's ability to swallow the training aid(s).

5.4.3 All required illicit substances for which the canine will be certified shall be confirmed for chemical drug identity by a local, state, or Federal recognized facility or accredited laboratory.

5.4.4 All illicit target odor(s) on which the canine is being tested shall be represented a minimum of one time during the certification.

5.4.5 All required illicit substances shall weigh a minimum of ≈0.18 oz (5 g) of the actual substance to be detected.

5.4.6 Training aid(s) shall not be placed in plain sight. The concealment should be sufficient to avoid visual cues indicating the location of the training aid to the canine and/or handler.

5.4.7 Training aid(s) used in the certification process should not have been used in the training activities (maintenance training, periodic proficiency assessments, double-blind assessment, etc.) of the team being certified.

5.4.8 Certification shall not take place in areas/locations where regular training (maintenance training, periodic proficiency assessments, double-blind assessment, etc.) takes place.

5.4.9 Proofing/verification of the certification area should be conducted prior to the actual certification using a certified canine team who is not participating in the certification. This practice is designed to show that the trained odor is present in the target locations and nowhere else, including the blank areas.

5.4.10 At least one certification component should be a double-blind assessment. Certification components that are not double-blind shall be single-blind assessments.

5.5 For successful certification, the canine team shall successfully pass the required three (3) assessments established (See Table 1) and any additional non-required assessments included in the certification. Across all required assessments, a totality of only one (1) false alert/miss is allowed.

5.6 The canine team should be able to locate all target odor(s) within 3 ft (1 m) from the source, barring extenuating environmental conditions deemed relevant by the certifying official(s).

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

a) Not maintaining positive control of the canine.

b) Allowing canine outside of the search area.

c) Not following directions of the certifying official.

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

5.9 A mission-oriented environment(s) shall be used.

5.10 A canine team that fails the certification process shall complete a documented corrective action plan before making another attempt to certify.

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

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

5.11 Organization(s) may enhance the recommended standards in order to make the requirements more stringent.

6 Canine Team Assessments

6.1 Assessments shall be part of certification, maintenance training, and proficiency testing.

6.2 Each assessment shall be the evaluation of a search.

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

6.4 The desired outcome of the search is the correct identification of the number and placement of the target odor(s) by the canine team.

6.5 Safety considerations for canine team assessments include but are not limited to 6.5.1 through 6.5.4 .

6.5.1 All target odors should be placed inside the assessment areas in a manner so the canine cannot retrieve it.

6.5.2 The canine team should have access to necessary medical interventions (i.e., Narcan) available and appropriate for the target odor(s) being used.

6.5.3 The canine team should have necessary decontamination protocols available and appropriate for the target odor(s) being used.

6.5.4 The canine team should have necessary PPE available and appropriate for the target odor(s) being used.

6.6 Only identified illicit drugs shall be utilized, all alternative training aids are not permitted.

6.6.1 llicit substances shall include: cocaine, heroin, and methamphetamine (See Annex A, Table A.1 for additional details).

6.6.2 Recommended optional target odors may be included in the certification based on mission specific requirements such as: marijuana, MDMA, and Fentanyl (see Annex A, Table A.2 for additional details).

6.7 Only training aids that have been properly maintained, stored, and are in good condition shall be used. Primary containers shall be as follows.

a) Primary containers shall be permeable to allow for odor movement (vented jar, bag, etc.).

b) Primary containers shall be of a size that will prohibit or restrict a canine's ability to swallow the training aid(s).

6.8 A minimum of 0.18 oz (5 g) of each target illicit drug substance should be used for all assessments.

6.9 Prior to the first canine handler team entering the assessment area; a separate, nonparticipating canine handler team should be walked through the assessment area.

NOTE This step randomizes canine odor if multiple canines are to be assessed in the same area.

6.10 The canine team assessments are outlined in 6.10.1 through 6.10.2.

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

6.10.1.1 Components and parameters of the odor recognition assessments are in 6.10.1.1.1 through 6.10.1.1.4.

6.10.1.1.1 Odor recognition assessments shall test the following.

a) The ability of the canine to detect the trained odor while discriminating from non-trained odor.

b) Demonstration of the canine's ability to perform a systematic search.

c) Demonstration of the canine handler's control of the canine during the execution of a systematic search.

d) The canine handler's recognition of the canine's behavior while searching.

e) The canine's trained final response.

f) The canine handler's recognition of the canine's trained final response.

6.10.1.1.2 Odor recognition assessments shall be conducted in an operational or non-operational testing setting.

6.10.1.1.3 The operational odor recognition assessment consists of the following components and parameters described in 6.10.1.2.

6.10.1.1.3.1 Unlike the assessments described in 6.10.1.2, the target odors shall be placed in a manner that the odor is readily available, but still visibly concealed from the canine and handler. Commonly, the baggage/parcels assessment (See 6.10.1.2.14.3) is utilized for an operational odor recognition assessment.

6.10.1.1.3.2 The canine handler shall be advised of the parameters of the assessment.

6.10.1.1.3.3 The canine handler shall not know the total number or placement of training aids for the totality of the exercise(s).

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

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

6.10.1.1.3.6 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.

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

6.10.1.1.4 The non-operational odor recognition assessment consists of the following components and parameters.

NOTE Successful completion of this assessment does not indicate proficiency in operational environments.

6.10.1.1.4.1 The canine handler shall be advised of the parameters of the assessment.

6.10.1.1.4.2 The canine handler shall not know the total number or placement of target odors for the totality of the exercise(s).

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

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

6.10.1.1.4.5 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.

6.10.1.1.4.6 A minimum of a primary containment layer and a concealment layer shall be used (See Figure 1 and Figure 2 for containment and concealment clarification).

a) The primary containment layer holds and is in direct contact with the drug sample and provides a physical barrier between the drug sample and the concealment layer.

b) Secondary containment layers may be used and placed inside the concealment layer for additional securement of drug sample and/or to minimize contamination.

c) The concealment layer (boxes, plastic tubs, lockers, etc.) visually hides the primary containment of the drug sample or distractor. The concealment layer can be placed in hiding or in the open.

6.10.1.1.4.7 All concealment layers shall be identical. Concealment layers should not be sealed or have lids and allow for odor to be readily available. All concealment layers shall be absent of visual cues and external markings of the contents of the container.

6.10.1.1.4.8 All primary containment and concealment layers shall be clean and free of contaminating odor(s) before being utilized.

6.10.1.1.4.9 A minimum of nine sample concealments shall be used.

6.10.1.1.4.10 The sample concealments shall comply with the following:

a) Each test sample (training aid or distractor) shall be placed in a location that minimizes environmental influences that may affect the odor.

b) Each test sample (training aid or distractor) shall be spaced at least 3 ft (~1 m) apart and arranged to minimize contamination of containers and training aids.

c) All mandatory illicit drugs shall be placed randomly among the sample containers.

d) A minimum of three different distractor odors, uncontaminated by illicit drugs, shall be placed randomly among the sample concealment layers (dog food, gloves, human food animal remains, a handler's scented article, etc.).

6.10.1.1.4.11 The assessor shall select the overall arrangement of the sample concealment layers (e.g., individual lines of containers or circular configurations of containers).

6.10.1.1.4.12 The training aid(s) shall be placed a minimum of 30 minutes before the assessment begins.

6.10.1.1.4.13 The canine team shall be allowed a maximum of 5 minutes to search the nine sample concealments in the assessment.

6.10.1.1.4.14 Successful completion of the non-operational odor recognition assessment shall require the canine team to locate the target odor with no false final responses.

6.10.1.1.4.15 Failure of the non-operational odor recognition assessment shall include:

a) the canine team fails to locate the target odor(s);

b) the canine team fails to complete the assessment within the specified search time.

c) the canine team has a false or nonproductive response(s) and/or;

d) the assessor can fail the canine team if it is determined that the canine is no longer actively searching.

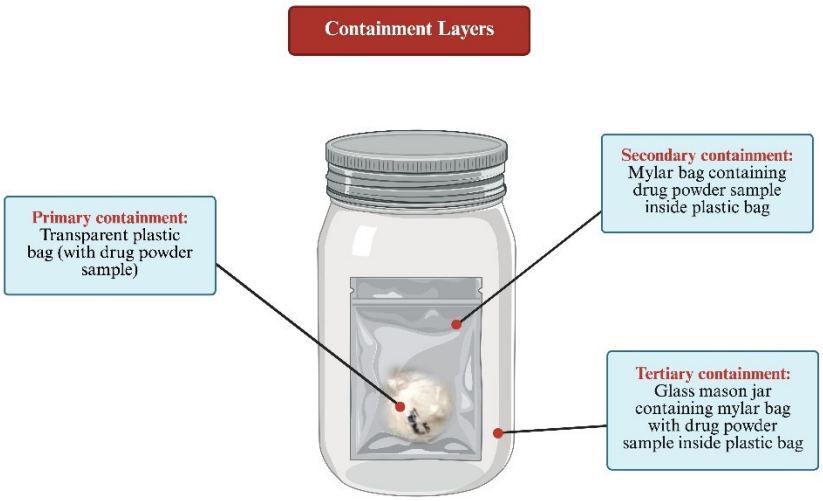

Figure 1—Containment Layers

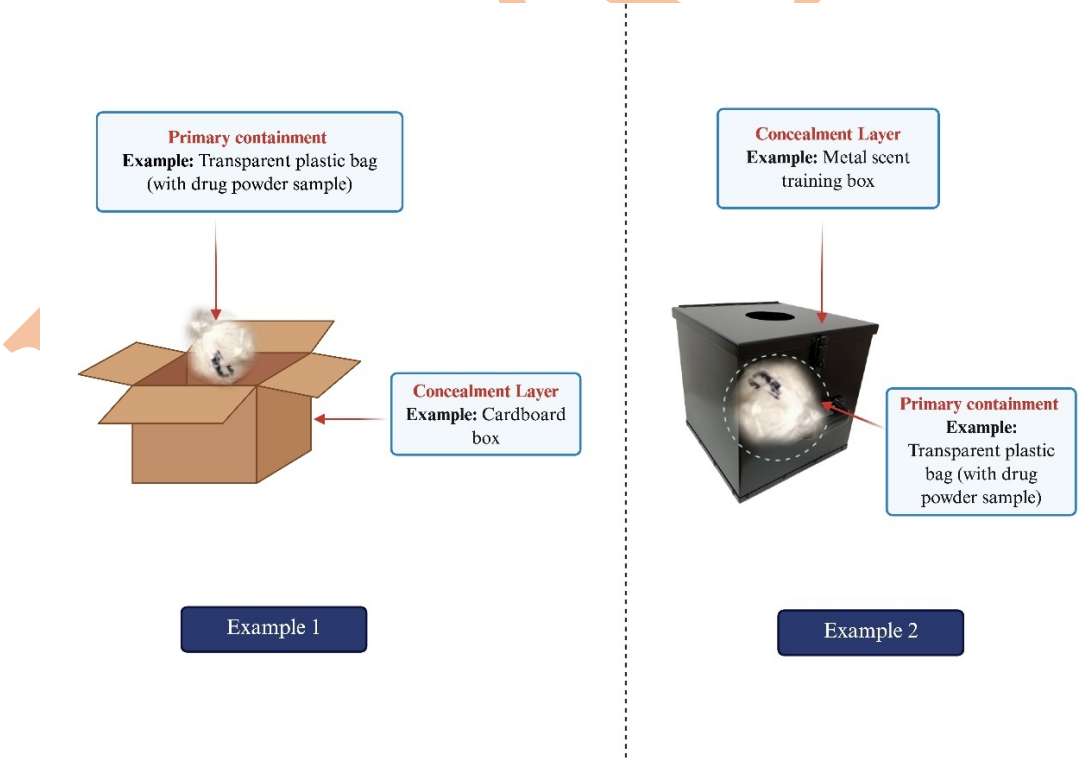

Figure 2—Containment and Concealment Layers Combinations

6.10.1.2 Components and parameters of the operational assessments are in 6.10.1.2.1 through 6.10.4.

6.10.1.2.1 *Operational assessments* shall test the following.

a) The ability of the canine to detect the trained odor while discriminating from non-trained odor/scent.

NOTE There is no prohibition to adding additional distracters [e.g., commonly associated material that are uncontaminated with illicit drugs (e.g., cotton scent bags, plastic bags, plastic containers, glass jars; metal pipes; handling gloves; barriers)] beyond the naturally occurring distracters in each operational assessment. Routine incorporation of intentional distracters ensures the canine is locating target odors, rather than unintended commonly associated materials.

b) Demonstration of the canine's ability to perform a systematic search.

c) Demonstration of the canine handler's control of the canine during the execution of a systematic search.

d) The canine handler's recognition of the canine's behavior while searching.

e) The canine's final response.

f) The canine handler's recognition of the canine's final response.

6.10.1.2.2 The assessor shall observe the canine team. The assessor shall compare the search results with the parameters of the search. This comparison shall be done immediately after the handler determines the canine has made its final response.

6.10.1.2.3 The canine handler shall be advised of the parameters of the assessment yet shall not know the desired outcome.

6.10.1.2.4 The canine handler shall not know the number or placement of the training aid(s).

6.10.1.2.5 If training aid has to be moved to a new location, the previously used area shall be removed as a testing site.

6.10.1.2.6 The assessor shall know the desired outcome of the assessment.

6.10.1.2.7 Natural distractors are normally present and vary depending on the assessment area. Placement of distracters in the assessment area shall be required when no natural distracters are present. Care must be taken not to place artificial distractions in a manner that causes contamination with the target odor.

6.10.1.2.8 The target odors shall be concealed within the operational assessment area a minimum of 30 minutes prior to the first search.

6.10.1.2.9 The training aid(s) shall be concealed sufficiently to avoid visual cues indicating the location of the training aid to the canine and/or handler.

6.10.1.2.10 The operational assessments shall be representative of the canine's expected operational environment.

6.10.1.2.11 The assessor may take into consideration the environmental influences on the odor in determining whether or not the canine team has successfully completed the operational assessments.

6.10.1.2.12 Successful completion of the operational assessments shall require the canine team to achieve at least a 90% positive alert rate combined with a false alert rate not to exceed 10% as defined and calculated in ANSI/ASB Std 088 and within the specified search time.

6.10.1.2.13 Failure of the operational assessments includes the following.

a) The canine team fails to achieve a 90% positive alert rate.

b) The canine team fails to complete the assessment within the specified search time.

c) The canine team exceeds a 10% false or non-productive response rate.

NOTE Organizations can set the threshold below 10% false or non-productive response rates.

d) The assessor can fail the canine handler team if it is determined that the canine is no longer actively searching.

6.10.1.2.14 Operational assessments to include, but are not limited to, the testing parameters in 6.10.1.2.14.1 through 6.10.1.2.14.6.

6.10.1.2.14.1 The ***building/room*** operational assessments are designed to evaluate the canine team's ability to locate an illicit drug contained within a building/room. The building/room operational assessments consists of the components and parameters in 6.10.1.2.14.1.1 through 6.10.1.2.14.1.10.

6.10.1.2.14.1.1 The assessment shall include a minimum of six (6) rooms.

6.10.1.2.14.1.2 The rooms shall be between 200 ft^2 to 1200 ft^2 (18.6 m^2 to 111.5 m^2) containing items (i.e., furniture, shelves, boxes, distractors). Large rooms may be sectioned off to meet the 200 ft^2 (20 m^2) requirement.

6.10.1.2.14.1.3 The illicit drug target odor(s) shall be placed anywhere from ground level to 6 ft (2 m) high.

6.10.1.2.14.1.4 The assessment shall include at least two blank room(s).

6.10.1.2.14.1.5 The assessment shall include each room containing zero to two target odors.

6.10.1.2.14.1.6 The canine handler shall not change the search environment (open any closed doors, cabinet's desk drawers, etc.) during the assessment.

6.10.1.2.14.1.7 The desired outcome of the search is the correct identification of the number and placement of the target odor(s) by the canine team.

6.10.1.2.14.1.8 The assessment should take no more than 1.5 minutes per 100 ft^2 searched (e.g., if the room is 500 ft^2 it should take no more than 7.5 minutes to complete the search).

6.10.1.2.14.1.9 Successful completion of the building/room operational assessment shall require the canine team to achieve at least a 90% correct identification of location of target odor(s) by the handler.

6.10.1.2.14.1.10 Failure of the building/room assessment shall include the following:

a) the canine team fails to achieve a 90% correct identification of location of target odor(s) by the handler;

b) the canine team fails to complete the assessment within the specified search time;

c) the canine team exceeds a 10% false or non-productive response rate;

NOTE Organizations can set the threshold below 10% false or non-productive response rates.

d) the assessor can fail the canine handler team if it is determined that the canine is no longer actively searching.

6.10.1.2.14.2 The ***motor vehicle*** operational assessments are designed to evaluate the canine team's ability to locate a target odor(s) placed in the exterior or the interior of a vehicle. The vehicle operational assessment consists of the components and parameters in 6.10.1.2.14.2.1 through 6.10.1.2.14.2.12.

6.10.1.2.14.2.1 The assessment shall include a minimum of 3 vehicles.

6.10.1.2.14.2.2 The motor vehicle operational assessment shall include zero to two target odor(s).

6.10.1.2.14.2.3 Target odor(s) shall be randomly placed within the exterior and interior of the vehicles used in the assessment. Potential target odor placement may include, but is not limited to:

a) closed engine compartment;

b) closed passenger compartment with windows rolled up and doors/hatch closed;

c) drive shaft;

d) fuel tank exterior or fuel filler pipe;

e) closed trunk compartment with no additional concealment beyond the training aid packaging material;

f) open passenger compartment with window(s) rolled down and/or door(s) hatch open [i.e., console, glove box, in a parcel/luggage under seat(s)].

g) vehicle exterior (bumper, quarter panels, wheel wells, etc.); and/or

h) undercarriage.

6.10.1.2.14.2.4 Only one target odor shall be placed on or in each vehicle.

6.10.1.2.14.2.5 Training aids shall be placed in such a manner to mitigate the possibility of target odors being encountered at the same time.

6.10.1.2.14.2.6 Any type or model of passenger vehicle, including pickup trucks, tractor-trailers, vans, and buses shall be utilized for testing.

6.10.1.2.14.2.7 The parking area shall be consistent with the number of vehicles to be searched or larger, with ample room between each vehicle to allow the canine handler team to move around each vehicle.

6.10.1.2.14.2.8 The canine team shall conduct the search in accordance with their organization's requirements (e.g., the organization's requirements is that only exteriors of the vehicle are searched with window(s)/door(s)/other opening(s) closed and/or a specified number of passes around the vehicle).

6.10.1.2.14.2.9 The vehicle assessment should take no more than 2 minutes per vehicle searched. Based on the size of the vehicle and the complexity of the search, additional time may be allowed.

6.10.1.2.14.2.10 The desired outcome of the search is the correct identification of the number and placement of the target odor(s) by the canine team.

6.10.1.2.14.2.11 Successful completion of the motor vehicle operational assessment requires the canine team to achieve at least a 90% correct identification of location of target odor(s) by the handler.

6.10.1.2.14.2.12 Failure of the motor vehicle assessment includes the following:

a) the canine team fails to achieve a 90% correct identification of location of target odor(s) by the handler;

b) the canine team fails to complete the assessment within the specified search time;

c) the canine team exceeds a 10% false or non-productive response rate;

NOTE Organizations can set the threshold below 10% false or non-productive response rates.

d) the assessor can fail the canine handler team if it is determined that the canine is no longer actively searching.

6.10.1.2.14.3 The ***baggage/parcels*** operational assessments are designed to evaluate the canine team's ability to locate an illicit drug contained within baggage/parcels. The baggage/parcels operational assessment consists of the components and parameters in 6.10.1.2.14.3.1 through 6.10.1.2.14.3.11.

6.10.1.2.14.3.1 The assessment shall include a minimum of 10 baggage/parcels items.

6.10.1.2.14.3.2 The baggage/parcels operational assessment shall include zero to two target odor(s).

6.10.1.2.14.3.3 Target odors shall be randomly placed within the baggage/parcels items.

6.10.1.2.14.3.4 Training aids shall be placed in such a manner to mitigate the possibility of target odors being encountered at the same time. Distractors (gloves, plastic bags, food, packaging, items representative of the typical operational area etc.) shall be placed in at least one baggage/parcel item.

6.10.1.2.14.3.5 Examples of baggage/parcels include hard and soft-shell suitcases, attaché cases, clothing bags, briefcases, golf bags, sea bags, duffel bags, cardboard boxes, envelopes and other mail articles, etc.

6.10.1.2.14.3.6 The baggage/parcels utilized in the assessment shall be secured as encountered operationally (e.g. cardboard boxes taped with a minimum of 2in packaging tape across the top and bottom seams/closures, baggage's zippered/latched, etc.).

6.10.1.2.14.3.7 The layout area will be consistent with the number of baggage/parcels items laid out to be searched. Ample room 3 ft (1 m) between each article is required to allow the canine team to move around each baggage/parcel item.

6.10.1.2.14.3.8 The desired outcome of the search is the correct identification of the number and placement of the target odor(s) by the canine team

6.10.1.2.14.3.9 The baggage/parcel assessment should take no more than 2 minutes per 10 baggage/parcel items searched.

6.10.1.2.14.3.10 Successful completion of the baggage/parcels operational assessment requires the canine team to achieve at least 90% correct identification of location of target odor(s) by the handler.

6.10.1.2.14.3.11 Failure of the baggage /parcel assessment includes the following:

a) the canine team fails to achieve a 90% correct identification of location of target odor(s) by the handler;

b) the canine team fails to complete the assessment within the specified search time;

c) the canine team exceeds a 10% false or non-productive response rate.

NOTE Organizations can set the threshold below 10% false or non-productive response rates.

d) The assessor can fail the canine handler team if it is determined that the canine is no longer actively searching.

6.10.1.2.14.4 The ***lockers*** operational assessments are designed to evaluate the canine team's ability to locate illicit drugs contained within lockers. The lockers operational assessment consists of the components and parameters in 6.10.1.2.14.4.1 through 6.10.1.2.14.4.8.

6.10.1.2.14.4.1 The assessment shall include a minimum of twenty (20) lockers.

6.10.1.2.14.4.2 The locker assessment shall include zero to two target odors within the specified locker bay.

6.10.1.2.14.4.3 Training aids shall be placed in such a manner to mitigate the possibility of target odors being encountered at the same time.

6.10.1.2.14.4.4 Lockers operational assessment shall be defined as any locker compartment within schools, sport/athletic preparation rooms, and/ or any other related service locker structures.

6.10.1.2.14.4.5 The assessment should take no more than 5 minutes per twenty (20) lockers searched. Based on the size of the locker bay and the complexity of the search, additional time per area may be allowed.

6.10.1.2.14.4.6 The desired outcome of the search is the correct identification of the number and placement of the target odor(s) by the canine team.

6.10.1.2.14.4.7 Successful completion of the lockers operational assessment requires the canine team to achieve at least a 90% correct identification of location of target odor(s) by the handler.

6.10.1.2.14.4.8 Failure of the lockers assessment includes the following:

a) the canine team fails to achieve a 90% correct identification of location of target odor(s) by the handler;

b) the canine team fails to complete the assessment within the specified search time;

c) the canine team exceeds a 10% false or non-productive response rate;

NOTE Organizations can set the threshold below 10% false or non-productive response rates.

d) the assessor can fail the canine handler team if it is determined that the canine is no longer actively searching.

6.10.1.2.14.5 The ***open area/perimeter*** operational assessments are designed to evaluate the canine team's ability to locate illicit drugs contained within an open area/perimeter. The open area/perimeter operational assessment consists of the components and parameters in 6.10.1.2.14.5.1 through 6.10.1.2.14.5.10.

6.10.1.2.14.5.1 The assessment shall include a minimum of one (1) search area.

6.10.1.2.14.5.2 The assessment shall be a minimum of 1,000 ft^2 (93 m^2).

6.10.1.2.14.5.3 The open area/perimeter operational assessment shall include zero to two target odors within the open area/perimeter operational assessment.

6.10.1.2.14.5.4 Target odor(s) may be placed no more than 1 ft (0.30 m) below the ground's surface (not buried, e.g., sewer drain) and no more than 6 ft (2 m) high above the ground.

6.10.1.2.14.5.5 Training aids shall be placed in such a manner to mitigate the possibility of target odors being encountered at the same time.

6.10.1.2.14.5.6 Open area/perimeter search shall be defined as building exteriors, open fields, wooded areas, and/or any area outside.

6.10.1.2.14.5.7 The assessment should take no more than 3 minutes per 1000 ft^2 (93 m^2). Based on the size of the area and the complexity of the search, additional time per area may be allowed.

6.10.1.2.14.5.8 The desired outcome of the search is the correct identification of the number and placement of the target odor(s) by the canine team.

6.10.1.2.14.5.9 Successful completion of the open area/perimeter operational assessment requires the canine team to achieve at least a 90% correct identification of location of target odor(s) by the handler.

6.10.1.2.14.5.10 Failure of the open area/perimeter assessment includes the following:

a) the canine team fails to achieve a 90% correct identification of location of target odor(s) by the handler;

b) the canine team fails to complete the assessment within the specified search time;

c) the canine team exceeds a 10% false or non-productive response rate;

NOTE Organizations can set the threshold below 10% false or non-productive response rates.

d) the assessor can fail the canine handler team if it is determined that the canine is no longer actively searching.

6.10.1.2.14.6 Additional operational assessment(s) areas are based on mission requirements and unique environments. The previously defined assessment areas shall be referenced for the preparation of the search area(s) with the time to complete the search scaled appropriate to the size/number of items/areas to be searched. Additional operational assessment areas may include, but are not limited to:

a) aircraft;

b) maritime vessels;

c) mass transit vehicles (i.e., buses, light rail cars, subway cars); and/or

d) large cargo configurations.

6.10.2 The assessments in this section are intended for *double-blind assessments*.

6.10.2.2 When a double-blind assessment is conducted, it shall be conducted with considerations for safety.

6.10.2.3 Odor recognition and operational assessments can all be conducted double-blind following the components and parameters described in 6.10.1.

6.10.2.4 Unlike the assessments described in 6.10.1, 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 or be in position to influence the outcome, including whether the search area(s) is a blank or includes a trained odor.

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

6.10.3 The canine team should be required to complete a double-blind assessment every 12 months.

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

7 Canine Team Maintenance Training

7.10 The canine team's training shall continue to maintain a level of operational proficiency and obtain and maintain organizational certification requirements (see section 5, and section 6).

7.11 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) various types of searches (i.e., parcel/baggage, building, vehicle, etc.);

e) a variety of search locations, environmental conditions (confined spaces, a variety of flooring, dark rooms, attics, modes of transportation, etc.), weather conditions, and search area sizes;

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

g) a variety of blank searches;

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

i) a variety of set times;

j) a variety of training aids, amounts, number of targets, and different sources (i.e., purity levels, seizure regions) of targets;

NOTE At the discretion of the trainer, the 0.18 oz (5 g) minimum can be lowered during the maintenance training to meet operational objectives.

k) the quantity and type of training aids used shall be dependent on the region, mission and operational deployment needs of the canine team;

l) a variety of degrees of concealment (heights, depths, enclosures, locations, etc.);

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

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

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

7.14 A canine team shall complete a minimum of 16 hours of training per month to maintain and improve the proficiency level of the team. The 16 hours can be comprised of various elements that maintain proficiency (odor detection, agility, obedience, direction and control, etc.) and handler education. This can be team or individual-based training.

7.15 The canine team shall perform periodic proficiency assessments throughout the certification period as outlined in section 6, including a variety of odor recognition assessments, operational assessments, and single- and double-blind assessments.

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

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

8 Training Aid Storage and Handling

8.1 Handling and storage of training aids shall be conducted in a manner that minimizes odor/scent contamination.

8.2 The procurement, use, handling, storage and disposal of training aids shall follow applicable organizational and other recommended Federal, state and local guidelines.

8.3 Training aids shall be stored in separate, individual, and labeled containers in a manner safe for both the handler and canine.

8.4 Each label shall contain a minimum of the following information:

a) training aid tracking codes and/or actual aid names;

b) emergency contact information.

8.5 Training aid tracking codes shall be cross-referenced to a refence log maintained within the respective organization. The log shall contain, but not be limited to, the following:

a) description of aid;

b) date acquired;

c) quantity and/or weight; and

d) source.

8.6 Training aids shall be stored individually and separately from non-target and masking odor/scent(s) to minimize contamination.

8.7 Every effort shall be made to train on actual illicit drugs.

8.8 Alternative training aids (dilutions, sorption, mimics) shall not be utilized for certification.

8.9 Training aids shall be appropriately disposed of and replenished as required and necessary due to odor/scent contamination and/or the perishable nature of the material. Disposal and or the destruction of the training aids shall follow Federal, state, and local regulations.

8.10 Training aids should be replaced every 1 to 3 years, sooner if contaminated or compromised, in accordance with organization requirements. Replacement of alternative training aids should be replenished as per manufacturer recommendations.

8.11 Appropriate records shall be maintained by the canine handler/organization in accordance with Federal, state and local requirements.

8.12 Security of the training aids shall follow local, state, and federal guidelines.

8.13 Each training aid shall be maintained in a manner to avoid loss and destruction.

8.14 Controlled illicit drug training materials should be inventoried monthly by two persons.

8.15 Controlled illicit drug training materials should be signed in and out by two persons.

8.16 Anyone handling the controlled illicit drugs should have documented training on the acquisition, handling, storing and disposing of training aids.

8.17 Training aids shall be obtained from a reliable and documented source such as local, state and/or federal laboratories.

8.18 Required substance registrations shall be current and accurate records maintained.

8.19 Safety Data Sheets (SDS) shall be available for each training aid material(s) utilized.

8.20 Documentation, depending on the type of training aid and state or local statutes, should be available while transporting aids.

8.20.1 Transportation and vehicle storage of training aids shall follow Federal, state, and local guidelines.

8.20.2 Training aids should be transported in such a manner that they are sequestered from the canine.

8.21 Training aids should be secured to prevent theft or loss.

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

a) Name of canine and canine handler.

b) Canine breed, description, age.

c) Canine team(s) organization.

d) Name of assessing organization.

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

f) Date and time of canine team assessment.

g) Type of canine trained final response stated to assessor.

h) Canine team assessment results [true positive, true negative, false positive(s), false negative(s)].

i) Operational assessment design (single-blind, or double-blind).

j) Type and size of search area [vehicle(s), building(s), etc.)]

k) Location, environment (i.e., urban, rural) and weather conditions during assessment (temperature, cloud cover, humidity, wind, etc.).

l) Time taken to complete assessment.

m) Set time.

n) Target descriptor(s):

— type(s) (e.g., substance, amount);

— location of training aids(s);

— the concealment of the target odor(s) (height, depth, etc.);

— containment of target(s) (glass jar, PVC pipe, metal box, cloth bag, etc.).

o) Number and type of distractor(s) (blank containers, animal remains, food, etc.)

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

q) Deficiencies and corrective measures noted for future training.

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

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

a) Name of canine and canine handler.

b) Canine breed, description, age.

c) Canine team(s) organization.

d) Name of certifying organization.

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

f) Certification authority [i.e., agency, professional organization, and/or individual(s)].

g) Date and time of canine team certified.

h) Type of canine trained final response stated to assessor.

i) Canine team assessment results [true positive, true negative, false positive(s), false negative(s)].

j) Certification assessment design (single-blind, or double-blind).

k) Type and size of search area [vehicle(s), building(s), room(s), lockers, etc.].

l) Location, environment (i.e., urban, rural) and weather conditions during assessment (temperature, cloud cover, humidity, wind, etc.).

m) Time taken to complete certification assessment.

n) Set time.

o) Target descriptor(s):

- type(s) (e.g., substance, amount);
- location of training aids(s);
- the concealment of the target odor(s) (height, depth, etc.);
- containment of target(s) (glass jar, PVC pipe, metal box, cloth bag, etc.).

p) Number and type of distractor(s) (blank containers, toys, food, etc.).

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

r) Deficiencies and corrective measures noted for future training.

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

9.7 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) Canine breed, description, age

c) Canine team(s) organization.

d) Name of training organization.

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

f) Time and date of training.

g) Type of canine trained final response stated to trainer.

h) Canine team search results [true positive, true negative, false positive(s), false negatives(s)].

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

j) Type and size of search area [building(s), room(s), vehicle(s), baggage/parcel(s), locker(s), open area(s), etc.].

k) Location and environment of training (i.e., inside locker room, outdoor vehicle search) and weather conditions during assessment (temperature, cloud cover, humidity, wind, etc.).

l) Length of training session.

m) Set time.

n) Target odor descriptor(s):

— type(s) and amount;

— location of target odors(s);

— the concealment of the target odor(s) (height, depth, etc.);

— containment of the target odors (glass jar, PVC pipe, metal box, etc.).

o) Number and types of distractor(s) (blank containers, food, toys, etc.).

p) Deficiencies and corrective measures implemented during training regimen.

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

r) The concealment of the target(s) odor(s).

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 the canine and canine handler.

b) Canine team's organization.

c) Date of canine team's most recent certification.

d) Name(s) of organization(s) conducting search.

e) Requestor of deployment.

f) Date and time of deployment.

g) Search results.

h) Description and size of the search.

i) Environmental conditions at deployment

j) Information regarding any final response(s).

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

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

9.9 Seizure records maintained by the canine handler/organization shall document the illicit drugs seized to include, but are not limited to the following data.

a) Name of the canine and canine handler.

b) Date of seizure.

c) Location of seizure.

d) Length of search.

e) Description of activity.

f) Search results.

g) Non-productive responses (i.e., canine alerts with no detectable or seizable amounts of narcotics).

h) Seizure substance type.

i) Narcotics.

j) Currency.

k) Currency non-seizures.

l) Other information as required by the organization and/or agency.

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

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

9.12 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 factors in 9.12.1 and 9.12.2.

9.12.1 There may be an environmental inability or external factors that prevent locating the odor source.

9.12.2 Target odor or residual odor can be present below the measurable level of detection for laboratory instrumentation.

9.13 Supervisory review should be conducted of all records.

9.14 Records should be digitally formatted (with appropriate back up), versus handwritten to facilitate compiling and analyzing data.

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

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

9.17 Training records shall illustrate the type and amount of training that the team has experienced before and after certification.

9.18 Training aid records shall be maintained by the canine handler/organization including, but are not limited to, the following data.

9.18.1 Training aids shall be clearly labeled in a manner to support accountability.

9.18.2 Appropriate records shall be maintained by the canine handler/organization in accordance with Federal, state and local requirements.

9.19 Veterinary records shall be maintained by the canine handler/organization including, but are not limited to, the following data.

a) Veterinary records shall be maintained in a manner such that they are accessible to the canine handler/organization.

b) Vaccinations required by state or local law shall be documented in the veterinary record of the canine.

Annex A
(informative)

Tables

Table A.1—Examples of Mandatory Illicit Controlled Substances

Controlled Substance	Schedule	Scheduling Definition	Drug Class	Form
Heroin	I	High abuse potential with no accepted medical use; medications within this schedule may not be prescribed, dispensed, or administered	CNS depressant	Powder form (white or brown) Solid form – black tar
Cocaine	II	High abuse potential with severe psychological or physical dependence; however, these medications have an accepted medical use and may be prescribed, dispensed, or administered	CNS Stimulant/Local Anesthetic	White powder form – hydrochloric salt solid – crack, freebase form
Methamphetamine	II	High abuse potential with severe psychological or physical dependence; however, these medications have an accepted medical use and may be prescribed, dispensed, or administered	CNS Stimulant	Crystalline powder, commonly white (can also be yellow, pink, brown) Crystal meth is clear or blue, takes shape of coarser crystals

1038 **Table A.2—Examples of Optional Illicit Controlled Substances**

Controlled Substance	Schedule	Scheduling Definition	Drug Class	Form
Fentanyl	II	High abuse potential with severe psychological or physical dependence; however, these medications have an accepted medical use and may be prescribed, dispensed, or administered	Synthetic opioid used as analgesic	Powder form, commonly white Solid form – fake tablets Pharmaceutical products—oral lozenges, nasal sprays, transdermal patches, injectable formulations This category can include fentanyl analogs and/or fentanyl derivatives
Marijuana	I	High abuse potential with no accepted medical use; medications within this schedule may not be prescribed, dispensed, or administered	Hallucinogen	Dry, shredded green/brown mix of flowers, stems, seeds, and leaves Typically, is green, brown, or gray in color
MDMA	I	High abuse potential with no accepted medical use; medications within this schedule may not be prescribed, dispensed, or administered	CNS Stimulant	Tablet form available in many colors Capsules, powder, and liquid forms

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1041 **Table A.3—Examples of Field Portable Orthogonal Detectors[a]**

Type of Detector	Theory of Operation	Advantages	Disadvantages
Colorimetric	Predictable color change where a reagent interacts with specific functional group(s)	— Simple to use — Minimal training required — Inexpensive	— Presumptive identification of illicit drug — Increased false alarms — Some reagents/kits have short shelf lives
Raman	Light scattered from testing material is compared against a library of reference materials for identification	— Simple to use — Minimal training required	— Dark substances may catch on fire — Illicit drug must be in the library for accurate detection — Not all lasers are eye safe — Presumptive identification
Infrared (IR)/Fourier Transform Infrared (FTIR) Spectrometer	Presumptive identification of a molecules' characteristic absorption of infrared radiation	— Simple to use — Minimal training required	— Illicit drug must be in the library for accurate detection — Not all lasers are eye safe — Presumptive identification

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[a] This list is not intended as an exhaustive list and only provides basic information on field portable detectors that can be deployed in conjunction with canine teams.

1044 **Table A.4—Illicit Drug Exposure– Safety Recommendations for Handling**

Recommended	Not Recommended	Post-Search
Wear PPE to prevent exposure	Touch or disturb illicit drug	Remove PPE
Only allow properly trained personnel with the appropriate PPE to be in search area	Use hand sanitizer (may increase exposure)	Rinse with soap and water (no sanitizer)
Notify HAZMAT or DEA if quantities of illicit drugs are large	Consume food, drinks or smoke or use the bathroom while in an active working search area.	
Recognize signs and symptoms of poisoning from illicit drug exposure		

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Annex B
(informative)

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The following references are documents that are indispensable for the application of the standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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