



Priority Action Report

Dogs and Sensors

Kenneth G. Furton

February 13, 2017



Subcommittee Leadership

Position	Name	Organization	Term	Email
Chair	Kenneth G. Furton, Ph.D.	Florida International University	3	furtonk@fiu.edu
Vice Chair	David Kontny	U.S. Department of Justice – Joint Program Office for Countering IEDs	3	david.kontny@ic.fbi.gov
Executive Secretary	Susan Stejskal, Ph.D.	St. Joseph County (Michigan) Sheriff's Department	3	sue.stejskal@gmail.com



Subcommittee Members



	Name	Affiliation	Position Held	Term
1	Kenneth G. Furton	Florida International University	Chair	3 years
2	David R. Kontny	Department of Homeland Security	Vice Chair	3 years
3	Susan Stejskal	St. Joseph County Sheriff's Department	Executive Secretary	3 years
4	John C. Pearce	AMK9 Academy	Task Group Chair - Document Review	3 years
5	L.Paul Waggoner	Auburn University	Task Group Chair - Integration of Dogs and Sensors	4 years
6	Barbara Weakley-Jones MD	Jefferson County Coroner	Task Group Chair - Topics that cross subcommittees	3 years
7	Frederick Helfers III	Retired - Police detective - City of Everett WA. Law Enforcement consulting business.	Task Group Chair - Training Competency	3 years
8	Deborah Burnett	Tennessee Task Force One-FEMA	Member	4 years
9	Terry Anderson	Retired: city of Pasadena Police Department, private sector business owner	Member	2 years
10	Terry R. Uetrecht	Retired Police Officer, National Secretary National Narcotic Detector Dog Assoc.	Member	3 years
11	Sara Suzanne (SUZY) Perry	Retired	Member	2 years
12	Donald Roberts	DHS Science & Technology	Member	2 years
13	Herbert Nakamura	Hawaii K-9 Concepts	Member	4 years
14	Craig Schultz	Federal Bureau of Investigation	Member	4 years
15	Cynthia M. Otto	University of Pennsylvania	Member	3 years
16	Paola Prada	Texas Tech University	Member	
17	John Kerwick	Metropolitan Transportation Authority Police	Member	



Discipline Description



The Subcommittee on Dogs and Sensors will focus on standards and guidelines resulting in continual improvement of consistency, performance, and legal acceptance of deployed detection teams. Focus areas will include the optimal integration with other sensors designed to improve overall detection capabilities.

Summary of Standards/Guidelines Priority Actions



Priority	Working Title of Document
HIGH	General Guidelines
HIGH	Terminology
MEDIUM	Tracking/Trailing People Based on Last Known Position
MEDIUM	Pre-Scented aged trails
MEDIUM	Pre-Scented location checks
MEDIUM	Selection of handlers/career field progression



Standards/Guidelines Development Priority 1 Document

Document Title: General Canine Guidelines

Scope: To establish consensus-based best practice general guidelines for training, certification, and documentation pertaining to all canine disciplines. Discipline specific guidelines are found within the corresponding subcommittee documents.

Objective/rationale: Ensure consistent application of guidelines for training, assessments, certification and documentation that can be used throughout the specific detector dog disciplines.

Issues/Concerns: None at this Time

Task Group Name: General Canine Guidelines

Task Group Chair Name: David R. Kontny

Task Group Chair Contact Information:

david.kontny@ic.fbi.gov

Date of Last Task Group Meeting: August, 2016



Priority 1: General Canine Guidelines

Task Group/Subcommittee Action Plan

Planned Actions	OSAC Process Stage (e.g., SDO 100)	Assignee	Estimated Completion Date
Reformat Existing SWGDOG Guideline to ASB Style Guide	SDO 0	Kontny	August 24, 2016
Coordinate Document Review Through OSAC Committees	SDO 100	Kontny	Approved by Sub Committee
Submit Document for SAC approval and SDO Submission	SDO 100	Kontny	March 8, 2017
Submit Approved SAC Document to SDO	SDO 100	Kontny	TBD



Standards/Guidelines Development Priority 2 Document

Document Title: Working Canine Terminology

Scope: To provide the industry with a comprehensive terminology list as it pertains to the working canine industry at large to ensure consistency and understanding of terms and the vernacular most commonly used across canine disciplines. This will benefit the forensic science community through consolidation of terms and definitions used for operational reports, testimony, report documentation, certification procedures, and training records documentation.

Objective/rationale: Ensure consistent application of terminology that can be used throughout the specific detector dog disciplines.

Issues/Concerns: None at this Time

Task Group Name: Canine Terminology

Task Group Chair Name: Craig Schultz

Task Group Chair Contact Information:

craig.schultz@ic.fbi.gov

Date of Last Task Group Meeting: August, 2016

Priority 2: Working Canine Terminology

Task Group/Subcommittee Action Plan

Planned Actions	OSAC Process Stage (e.g., SDO 100)	Assignee	Estimated Completion Date
Reformat Existing SWGDOG Guideline to ASB Style Guide	SDO 0	Schultz	January, 2017
Coordinate Document Review Through OSAC Committees	SDO 100	Schultz	Approved by Sub Committee
Submit Document for SAC approval and SDO Submission	SDO 100	Schultz	March 8, 2017
Submit Approved SAC Document to SDO	SDO 100	Schultz	TBD



Standards/Guidelines Development Priority 3 Document

Document Title: Tracking/Trailing People Based on Last Known Location

Scope: To provide recommended guidelines for the training, certification and documentation pertaining to canines trained to search for a specific person, location and/or article by starting from that person's last known position

Objective/rationale: The primary goal is for the canine to detect and follow the track/trail to the exclusion of all other tracks/trails, leading to a specific person, location, and/or article associated with that person.

Issues/Concerns: None at this Time

Task Group Name: Tracking/Trailing People Based on

Task Group Chair Name: Suzy Perry

Task Group Chair Contact Information:

olddominionsar@hotmail.com

Date of Last Task Group Meeting: January , 2017



Task Group/Subcommittee Action Plan

Planned Actions	OSAC Process Stage (e.g., SDO 100)	Assignee	Estimated Completion Date
Reformat Existing SWGDOG Guideline to ASB Style Guide	SDO 0	Perry	January, 2017
Coordinate Document Review Through OSAC Committees	SDO 100	Perry	Approved by Sub Committee
Submit Document for SAC approval and SDO Submission	SDO 100	Perry	March 8, 2017
Submit Approved SAC Document to SDO	SDO 100	Perry	TBD



Standards/Guidelines Development Priority 4 Document

Document Title: Pre-Scented Canine - Aged Trail Search

Scope: To provide the best recommended practice guidelines for training, certification and Documentation pertaining to pre-scented canine-aged trail search.

Objective/rationale: The goal is for the canine to detect and use a specific person's scent on a scent article to either search for and follow a matching scent trail to this specific person or a location associated with this person while discriminating from all non-matching scent trails, or to correctly demonstrate the absence of a matching scent trail

Issues/Concerns: None at this Time

Task Group Name: Tracking/Trailing People Based on

Task Group Chair Name: Suzy Perry

Task Group Chair Contact Information:

olddominionsar@hotmail.com

Date of Last Task Group Meeting: January , 2017



Task Group/Subcommittee Action Plan

Planned Actions	OSAC Process Stage (e.g., SDO 100)	Assignee	Estimated Completion Date
Reformat Existing SWGDOG Guideline to ASB Style Guide	SDO 0	Perry	January, 2017
Coordinate Document Review Through OSAC Committees	SDO 100	Perry	Approved by Sub Committee
Submit Document for SAC approval and SDO Submission	SDO 100	Perry	March 8, 2017
Submit Approved SAC Document to SDO	SDO 100	Perry	TBD



Standards/Guidelines Development Priority 5 Document

Document Title: Pre-Scented Canines - Location Check

Scope: To provide recommended guidelines for training, certification and documentation pertaining to canines trained to conduct location checks

Objective/rationale: To identify the presence or absence of the scent of a specific person to the exclusion of all other scents at a given location. In this discipline, the canine is used to scent match a “pre-scented” object or pad to the scents present at the check site.

Issues/Concerns: None at this Time

Task Group Name: Tracking/Trailing People Based on

Task Group Chair Name: Suzy Perry

Task Group Chair Contact Information:

olddominionsar@hotmail.com

Date of Last Task Group Meeting: January , 2017



Task Group/Subcommittee Action Plan

Planned Actions	OSAC Process Stage (e.g., SDO 100)	Assignee	Estimated Completion Date
Reformat Existing SWGDOG Guideline to ASB Style Guide	SDO 0	Perry	January, 2017
Coordinate Document Review Through OSAC Committees	SDO 100	Perry	Approved by Sub Committee
Submit Document for SAC approval and SDO Submission	SDO 100	Perry	March 8, 2017
Submit Approved SAC Document to SDO	SDO 100	Perry	TBD



Standards/Guidelines Development Priority 6 Document

Document Title: Canine Career Field Progression

Scope: Provide recommended best practice guidelines for career progression system to ensure proper training and experience within canine organizations.

Objective/rationale: Ensure consistent application of canine career field progression to include, handlers, trainers, certifying officials, supervisors, and executive management that can be used throughout the specific detector dog disciplines.

Issues/Concerns: None at this Time

Task Group Name: Canine Career Field Progression

Task Group Chair Name: John Pearce

Task Group Chair Contact Information:

pearcejohn@aol.com

Date of Last Task Group Meeting: August, 2016

Priority 6: Canine Career Field Progression Task Group/Subcommittee Action Plan

Planned Actions	OSAC Process Stage (e.g., SDO 100)	Assignee	Estimated Completion Date
Reformat Existing SWGDOG Guideline to ASB Style Guide	SDO 0	Pearce	August, 2016
Coordinate Document Review Through OSAC Committees	SDO 100	Pearce	Approved by Sub Committee
Submit Document for SAC approval and SDO Submission	SDO 100	Pearce	March 8, 2017
Submit Approved SAC Document to SDO	SDO 100	Pearce	TBD



Standards/Guidelines to be Reviewed

Title	Developing Organization	Status*	OSAC Process Stage (e.g., RA 100)
HRD Live Disaster	SWGDOG	Evaluation	
HRD Disaster	SWGDOG	Evaluation	
Pest and Insect	SWGDOG	Evaluation	
Article Search	SWGDOG	Evaluation	
Selection of dogs/kenneling	SWGDOG	Evaluation	
Accelerant	SWGDOG	Evaluation	
Contraband	SWGDOG	Evaluation	



Research Gaps Identified (Priorities)

- Identification of odorant chemicals present in and above targets (particularly human remains, as well as live human scent, explosives and drugs) including novel applications (chemical, microbes, etc.).
- Development of methods for monitoring levels of contamination of aids. Identify when training aids are contaminated, how long it takes to dissipate the contamination odor off the pure odor training aid.
- Development of reliable surrogate aids (particularly for human remains, as well as live human scent, drugs and explosives). These must provide controlled delivery of chemicals to allow for an assessment of threshold variance, but not to be used for certification purposes. (canine and possibly equipment calibration). This also pertains to emerging threats.
- Integration of canine and instrumental detectors: Identifying applicability of certified detector dogs and sensors to reliably detect target odors; Comparison of detection capabilities of canines and instrumentation; Identifying complementary instrumentation for application with canines; Comparison of dogs to other biological detection entities.
- Evaluation of the dissipation of odorant Research is needed to understand the dissipation/permeation rates of various odors that originate from canine training aids. Currently odorants dissipate from canine training aids at unknown rates, this results in canines being exposed to aids without knowing if the aid is in fact releasing sufficient odor before, during or after use under various environmental conditions.



Research Gaps Identified (Additional Considerations)

- Evaluation of optimal storage and handling practices (including containers) to prevent cross-contamination of training aids.
- Evaluation of dissipation of odorant(s) after removal of targets. How soon can you reuse an area – time for dissipation/ decomposition of residual odors?
- Develop a scientifically valid odor list for testing detector dogs (particularly explosives).
- Research on the effectiveness of training aids. Does extensive experience with the training aid help or hinder the later detection of the real odor?
- Physical and physiological function of the dog as related to performance.
Identifying genetic markers associated with success.
- Conduct critical evaluations of the limitation of human scent dogs (aged trails, versus fresh trails, no scent article, large contamination)
- Use of bio-physiological sensors for detecting and correlating changes in dog physiology and behavior in the presence of specific environmental cues for the purpose of supporting canine training and operation.
- Devices used for the collection of scent in canine operational environments.



Priority Action Report

Dogs and Sensors

Kenneth G. Furton

February 13, 2017



