

NIST: Standards and guidelines for detection dogs - WHAT DOES IT MEAN FOR YOU?

Cynthia Otto, DVM PhD
Exec Director Penn Vet Working Dog Center

History



Scientific Working Group on
Dog and Orthogonal detector
Guidelines

- ▶ Establishing consensus based best practices for the use of detection teams aimed at improving the consistency and performance of deployed teams and *optimizing their combination with electronic detectors*



History: 2004-2012



Scientific Working Group on
Dog and Orthogonal detector
Guidelines

- ▶ Partnership of local, state, federal and international agencies including private vendors, law enforcement and first responders
- ▶ 55 members
- ▶ <http://swgdog.fiu.edu/>

SWGDOG was established as the reliability of detector dogs were increasingly under attack due to limited peer reviewed research and lack of best practices for the certification of teams



- 2nd District Court of Appeal, Matheson v. Florida, August 1, 2003. "Razor's reliability for detecting the presence of contraband in the field was unguaged... In light of these facts, Razor's alert could not have given the deputies probable cause to search under any test. "



- "Dog Trainer Given Maximum Sentence for Fraud: ... Convicted of Providing Bomb-Sniffing Dogs that Couldn't Smell Out Explosives" Washington Post, September 8, 2003



- "Bones of Contention: Cadaver-sniffing canine's finds are under suspicion" Detroit Free Press, July 14, 2003.



- "Scott Peterson's defense takes bite out of canine's tracking skills", CourtTV.com, Sept. 1, 2004. Where the defense attorney pointed out that a supervisor of the Contra Costa County search and rescue team said in a preliminary hearing that dog tracking was "not a science. It's an art."

- "Critics say it's 'scent' evidence that's suspect - Some - including jurors - doubt the bloodhound science used against a man awaiting possible retrial in Riverside serial arson.", LA Times, March 9, 2007.



SWGDOG Guidelines Recognized by:

- ▶ *2013 U.S. Supreme Court in FL vs. Harris*
- ▶ *HSPD-19: Combating Terrorist Use of Explosives in the United States*
 - ▶ an assessment of the effectiveness of, and, as necessary, recommendations for improving Federal Government training and education initiatives relating to **explosive attack detection**, including *canine training and performance standards*

By STEPHANIE CONDON / CBS NEWS February 19, 2013, 12:41 PM

Supreme Court rejects distinct limits on drug dog searches



A drug sniffing dog named Nikka is the last certified member of the police force in the eastern New Mexico town of Vaughn.

KROE
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In a unanimous reversal of a lower court ruling, the Supreme Court today rejected the notion that a distinct, "bright-line" test is necessary to determine whether a

Subcommittees

Scientific

Working

Group on

Dog &

Orthogonal detector

Guidelines

Unified
terminology

Min. Standards
Selection of dogs
Selection of handlers

Kenneling, health care
Presenting evidence in court
Research and Technology

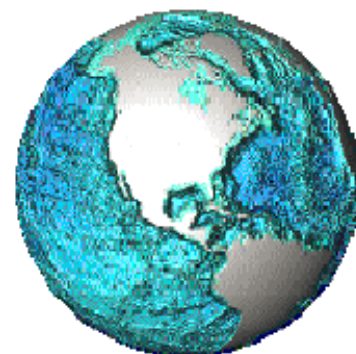
Training and certification of
Substance dogs: Explosives, Arson, Drugs
Scent dogs: Tracking, Trailing, Scent ID, SAR
Knowledge Management

Why was SWGDOG established?

In order to benefit local, state, federal and international law enforcement agencies by improvements in the performance and overall reliability of detector dogs and their optimized combination with electronic detection devices.

SWGDOG benefits:

- national security,
- border protection,
- drug and contraband interdiction,
- law enforcement and criminal investigations,
- disaster response



Establishing best practices for detection teams improves interdiction efforts as well as courtroom acceptance of dog alert evidence by improving the consistency and performance of deployed detector dogs.

WE WILL BE ADOPTING
THE BEST PRACTICES
IN OUR INDUSTRY,
JUST LIKE EVERYONE
ELSE.



www.dilbert.com

scottadams@aol.com

IF EVERYONE IS
DOING IT, BEST
PRACTICES IS THE
SAME THING AS
MEDIocre.



STOP MAKING
MEDIocrITY
SOUND BAD!



9-3-08 ©2008 Scott Adams, Inc./Dist. by UFS, Inc.

Guidelines

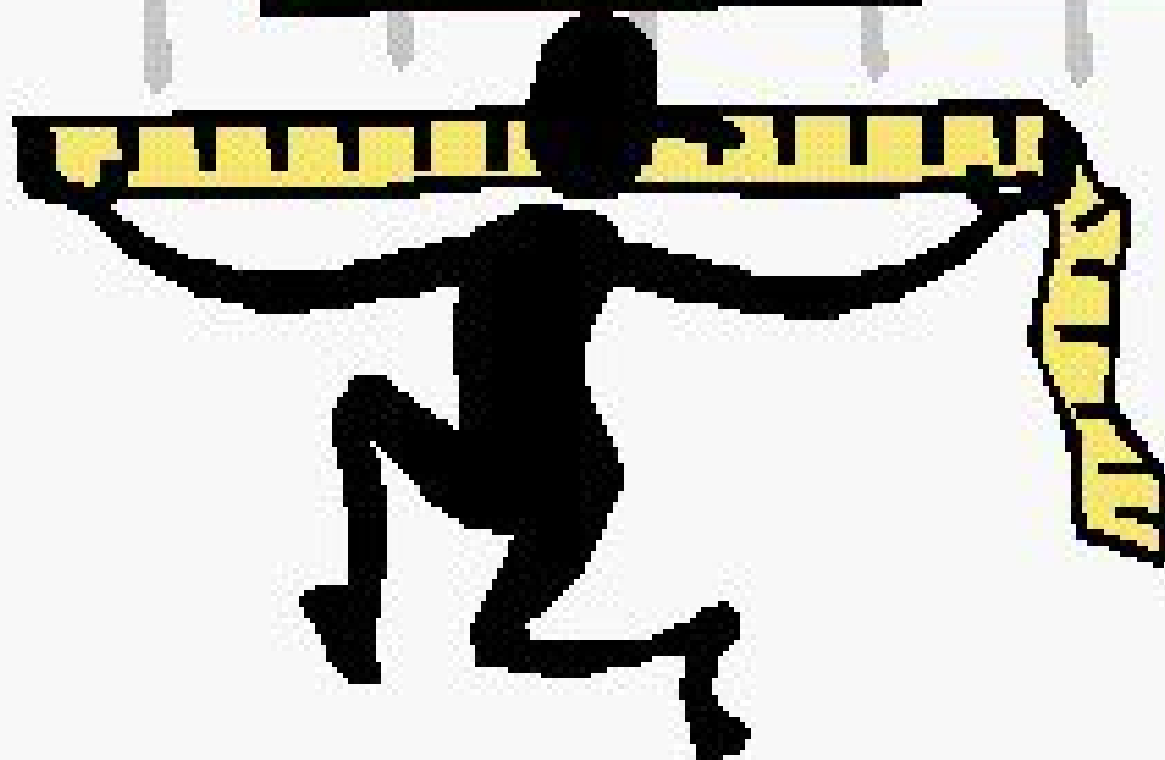


Standard (norm)



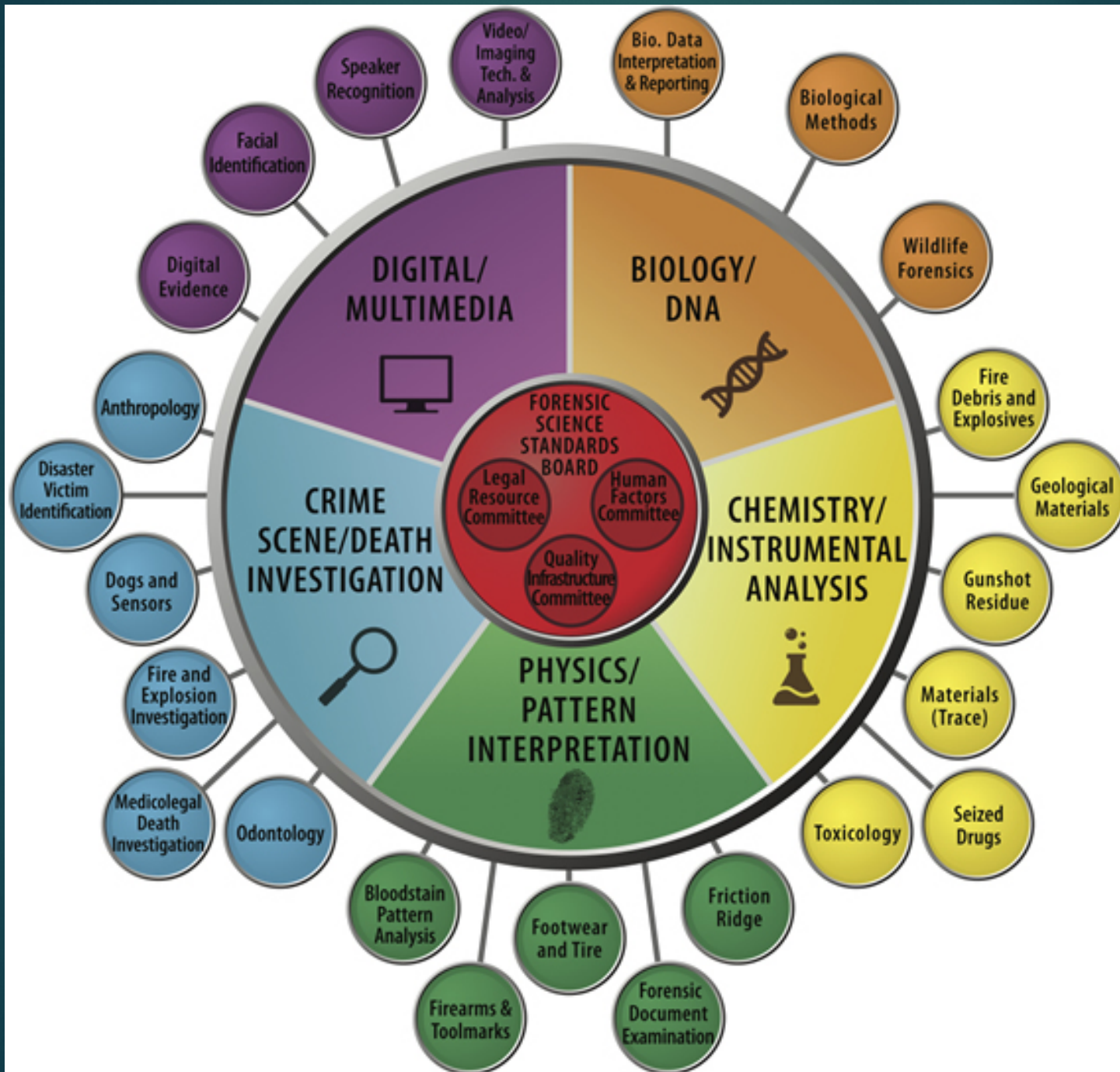
- ▶ established by consensus
- ▶ approved by a recognized body (SDO)
- ▶ based on science, technology, and experience, and aimed at the promotion of optimum community benefits.

Standards





- ▶ 2014
- ▶ AIM: strengthen forensic science
- ▶ collaborative body
 - ▶ > 500 forensic science practitioners/experts
 - ▶ From local, state, and federal agencies; academia; and industry.
- ▶ Development and promulgation of forensic science consensus documentary standards and guidelines,
- ▶ Ensure that a sufficient **scientific basis** exists for each discipline.



Subcommittee on Dogs and Sensors



Focus on standards and guidelines for continual improvement of

- consistency
- performance
- legal acceptance

of deployed detection teams.

& the optimal integration with other sensors designed to improve overall detection capabilities.

OSAC Dogs and Sensors Subcommittee (20 members)



<http://www.nist.gov/forensics/osac/sub-dogs.cfm>

SWGDOG Workflow Process

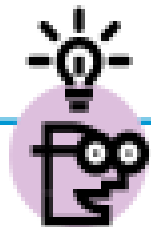
*Before and
at meeting*

*At SWGDOG
meeting*

*Target
< 1 month*

*¾ vote
required*

*Unanimous
vote req.*



Chair/exec cmt
assign task to
subcommittee



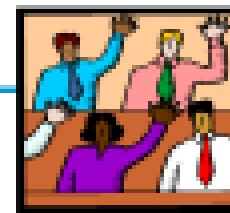
Subcommittee
produces draft
document



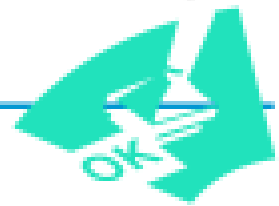
SWGDOG members
review draft
document



Subcommittee
revises draft
document



SWGDOG members
vote to approve
draft
≥ 14 days



SWGDOG Exec
Board votes to
approve draft
≥ 14 days

*¾ vote
required*

*Unanimous
vote req.*

*6 month
process*



Public
comments on
draft

≥ 60 days



Subcommittee
revises document
as necessary



SWGDOG members
vote to approve
final document

≥ 14 days



SWGDOG Exec
Board votes to
approve final
document
≥ 14 days



Guideline
disseminated

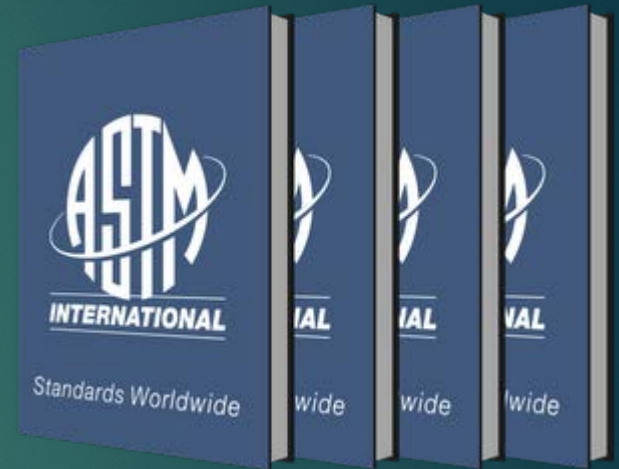
If significant revisions to the content are made

Target < 3 weeks

The Process

A standards developing organization (SDO)

- develops/coordinates,
- promulgates/publicizes,
- revises/amends/reissues,
- interprets,
- or otherwise produces



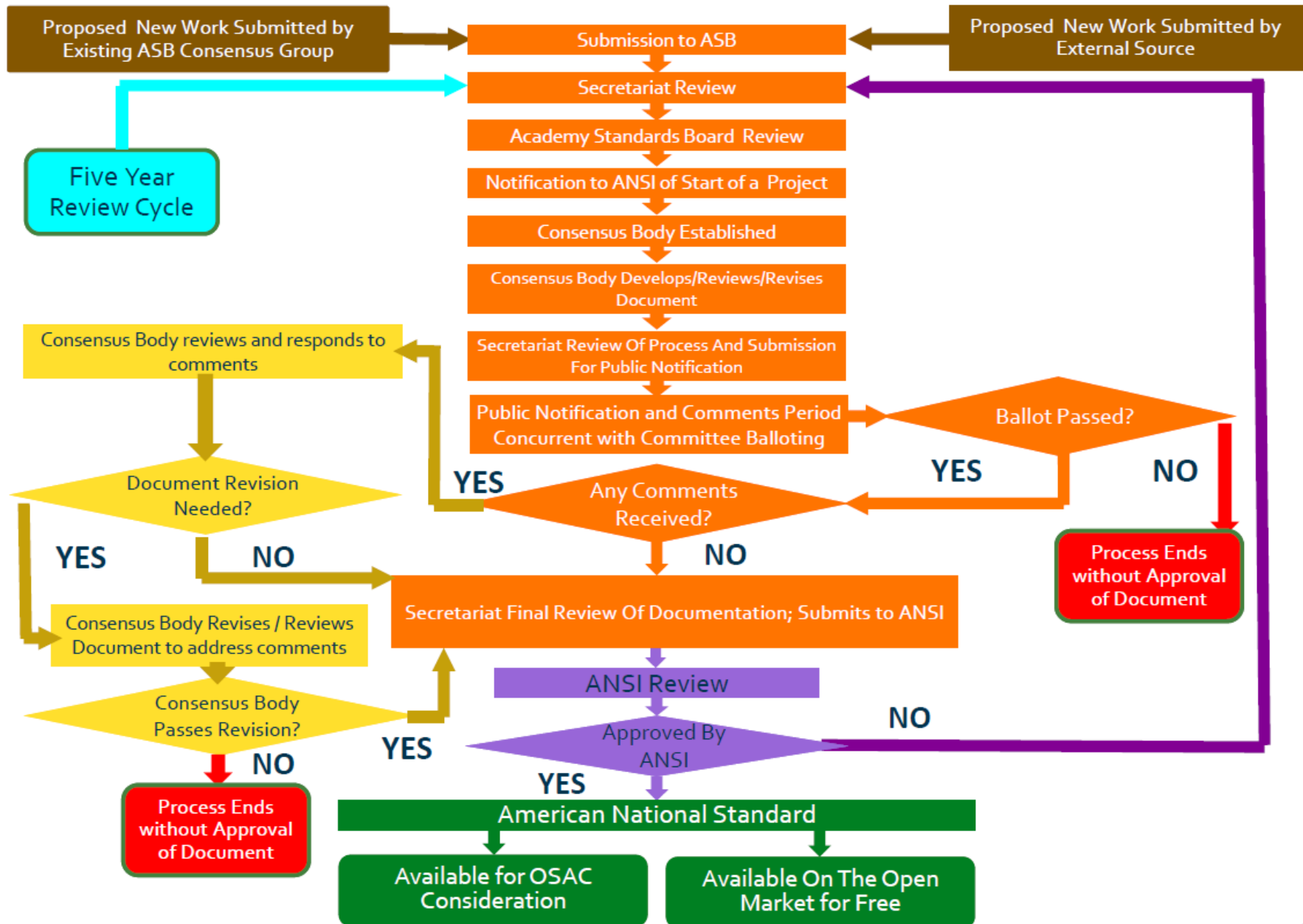
technical standards that are intended to address the needs of a relatively wide base of affected adopters.

(Source: *Wikipedia*. Standards Organization.
https://en.wikipedia.org/wiki/Standards_organization)



American Academy of Forensic Sciences
Standards Board

Academy Standards Board (ASB) Document Preparation Process



Human factors



Current Resources

► SC1 Terminology

- <http://swgdog.fiu.edu/approved-guidelines/>
- ALERT: A characteristic change in ongoing behavior in response to a trained odor, as interpreted by the handler. The components of the alert may include: COB, interest, and final response or indication.



Current Guidelines



- SC2 General Guidelines
- SC3 Selection of Serviceable Dogs
- SC4 Kenneling and Healthcare
- SC5 Selection of Handlers
- SC5 Canine Career Field Progression System
- SC6 Presentation of Evidence in Court
- SC7 Research and Technology

Current Guidelines

- **SC8 Substance Dogs:** Accelerants; Agriculture; Contraband; Explosives; Human Remains; Narcotics; Pest & Insect
- **SC9 Scent Dogs:** Article Search; Avalanche Search; Location Checks; Non-specific Human Scent Wilderness Area Search; Pre-Scented Canine Aged Trail; Scent Identification Lineups; Searching for Live People in Disaster Environments; Track/Trail People based on Last Known Position

SC 9 - HUMAN SCENT DOGS

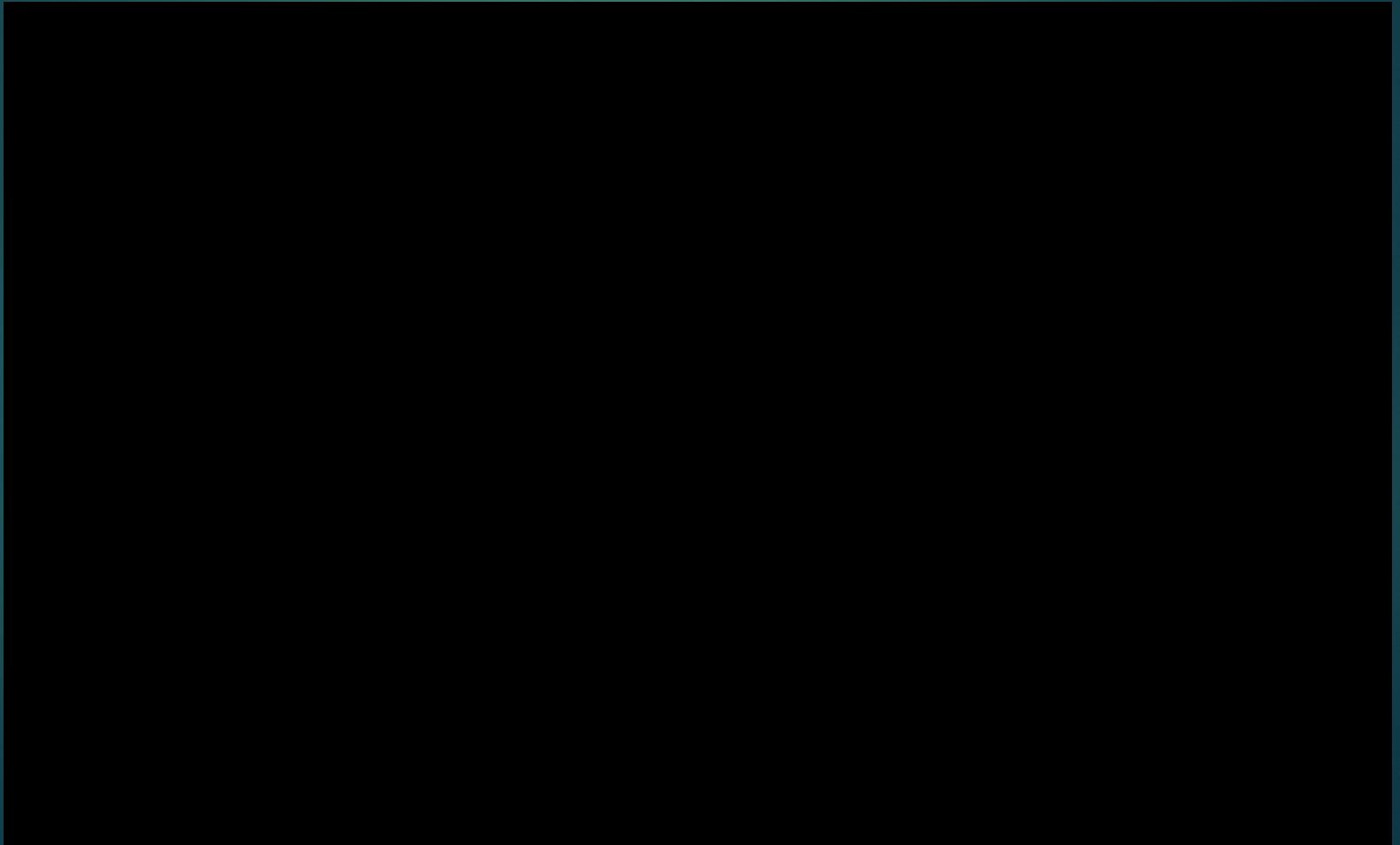
Searching for Live People in Disaster Environments



© Tracy Darling

INITIAL TRAINING

- ▶ Handler training
- ▶ Dog training



CANINE TEAM ASSESSMENTS

- ▶ Odor recognition



CANINE TEAM ASSESSMENTS

- comprehensive assessment



CANINE TEAM ASSESSMENTS

- ▶ comprehensive assessment (rubble search)



CANINE TEAM CERTIFICATION

- ▶ The certification shall be comprised of an operational assessment together with either an odor/scent recognition assessment or a double-blind assessment, or both.
- ▶ Every 3 years
 - ▶ Plus annual team assessments



MAINTENANCE TRAINING

- ▶ Minimum of 16 hours of training per month



RECORD KEEPING AND DOCUMENT MANAGEMENT

- ▶ Training
- ▶ Certification
- ▶ Proficiency
- ▶ Veterinary



RABIES VACCINATION CERTIFICATE				Tag fee \$: _____	
ADAPTED NASPHV FORM 51				Tag #: _____	
PRINT - use ball point pen or type				Cert. Serial #: _____	
Owner's Name & Address					
PRINT LAST		FIRST		MI	
PENN VET WORKING		DOG CENTER			
NO.	STREET	CITY	STATE	ZIP	TELEPHONE
3401	GRAYS FERRY AVE	PHILADELPHIA	PA	19146	215 898 2200
SPECIES:	SEX:	AGE:	SIZE:	PREDOMINANT BREED:	COLORS:
Dog <input checked="" type="checkbox"/>	Male <input checked="" type="checkbox"/>	3 Mo. to 12 Mo. <input checked="" type="checkbox"/>	Under 20 lbs. <input type="checkbox"/>	LABRADOR	YELLOW
Cat <input type="checkbox"/>	Female <input type="checkbox"/>	12 Mo. or older <input type="checkbox"/>	20 - 50 lbs. <input type="checkbox"/>		
Other <input type="checkbox"/>	Altered <input type="checkbox"/>		Over 50 lbs. <input checked="" type="checkbox"/>		
(Specify)					
DATE VACCINATED:		PRODUCER:		VETERINARIAN'S #	
03 21 14		BOE		BV 011659	
Month Day Year		(First 3 Letters)		License No.	
VACCINATION EXPIRES:		1 yr. Lic./Vacc. <input type="checkbox"/>		VETERINARIAN'S	
03 20 17		3 yr. Lic./Vacc. <input checked="" type="checkbox"/>		Signature	
Month Day Year		1215387A		Address	
		Vacc. Serial (Lot) No.			

K9 HANDLER		HRD TRAINING LOG		Date:	
FLANKER		Day / Dusk / Night		Problem #	
(circle all applicable)					
WEATHER	Winds: Light / Steady / Variable / Gusty Skies: Clear / Cloudy / Overcast / Precipitation				
SETUP/PLACEMENT	Temperature: _____				
Multiple x	Self-Setup Known / Unknown Blank Negative Visible / Hidden				
	Buried (depth) _____ Elevated (height) _____ Accessible / Inaccessible				
	On-Lead / Off-Lead Other: _____				
SOURCE	Blood Hair Teeth Bone Placenta Tissue Soil Fluids				
	Burned Cremains Trace Residual Human Remains Other				
ENVIRONMENT	Wilderness Disaster Urban Building Vehicle Debris Rubble Rocky				
	Desert Hilly Mountainous Roadside Blocks / Pots / Tubes				
VEGETATION	Open Field: Grass Tall / Medium / Short Woods: Open / Moderate / Dense				
WATER	Pond Lake River Stream Shoreline Open Saltwater Marsh / Swamp				
PROBLEM LENGTH	0-9 min		10-29 min		30 min-1 hr
for K9	1+ hrs		2+ hrs		Trained Response
					Yes No
Comments:					

Research

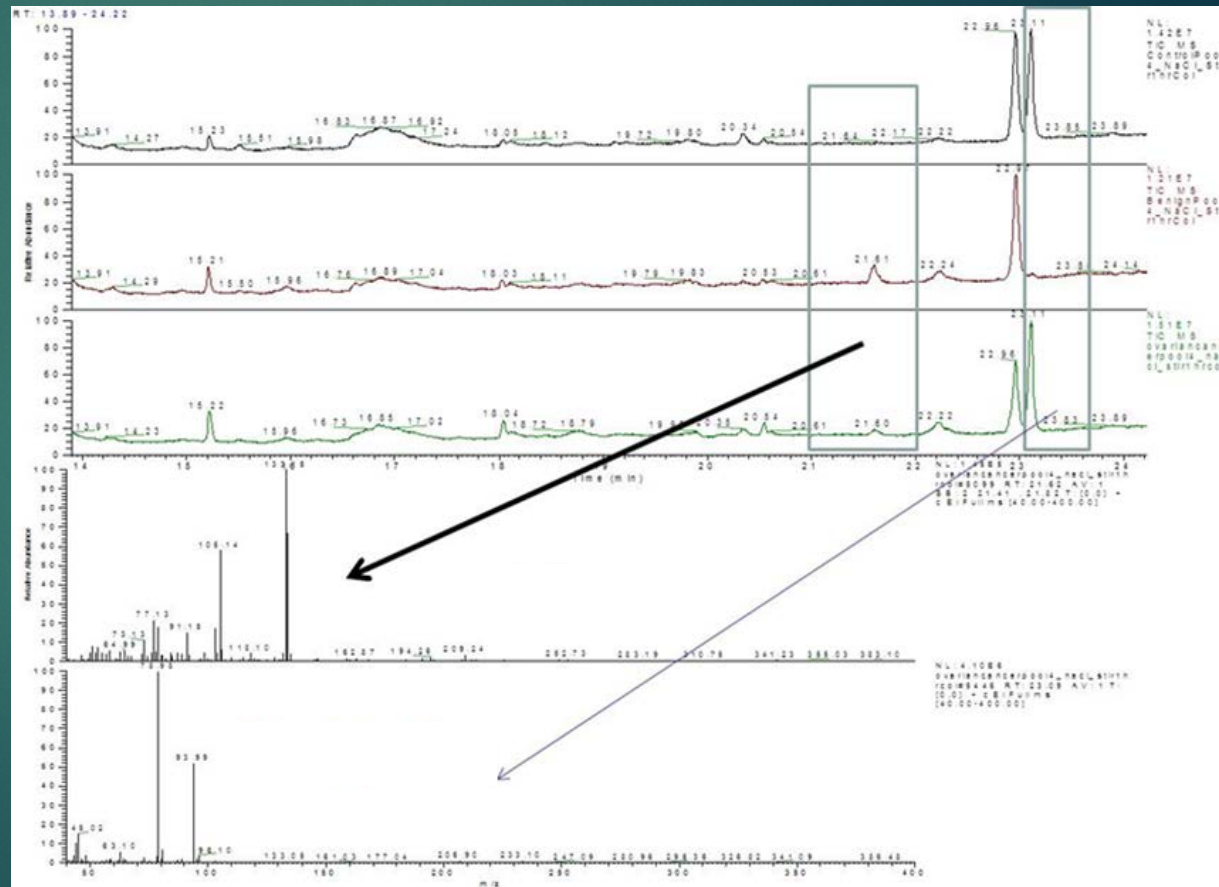


The
KNOWLEDGE
GAP

Priorities

- Identification of odorant chemicals
- Methods for monitoring levels of contamination of aids

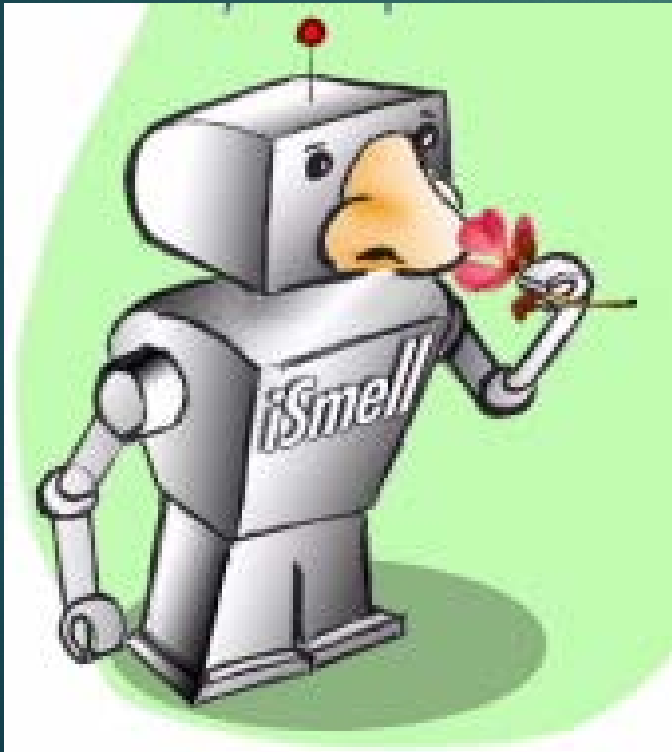
Relative
Intensity



Time

Priorities

- ▶ Reliable surrogate continuation aids
- ▶ Comparison of detectors



Get Involved!

- ▶ Apply for membership
- ▶ Comment on documents
- ▶ Contact:
- ▶ Dr. Ken Furton
 - ▶ – chair OSAC & ASB
 - ▶ furtonk@fiu.edu
- ▶ Dave Kontny – co-chair OSAC
 - ▶ David.Kontny@ic.fbi.gov
- ▶ Cindy Otto - member OSAC, vice chair ASB
 - ▶ cmotto@vet.upenn.edu



Save the Date

APRIL 20-23, 2018

PHILADELPHIA, PA



PENN VET
WORKING DOG CONFERENCE

2018

CREATING THE WORKING DOG:
Puppy to Professional