

Police and Military Dogs

*Criminal Detection,
Forensic Evidence, and
Judicial Admissibility*



 CRC Press
Taylor & Francis Group

JOHN J. ENSMINGER

A solid, hands-on, quick reference source for K9 officers to use as guidance in their normal day-to-day cases. Also, an excellent reference tool for state and district attorneys to use when researching case law. Truly exceptional!

Detective Jan Scofield, Master Trainer, North American Police Work Dog Association; National Instructor, National Narcotic Detector Dog Association

A must for all police and military law enforcement personnel and prosecutors. The book illustrates the fundamentals of working dogs on search for a scent that may be looking for a person or drugs. The book is very detailed in explaining the laws of search and seizure and how and what motivates the dog to work. I strongly recommend this book to all law enforcement officers, military police, and all county and state prosecutors. If you want to know how and why a dog works, here is the book. If you are a law enforcement officer you have to read this!

Detective Mike Drake, Kentucky State Trooper (Ret.), Pennyrile (Kentucky Regional) Narcotics Task Force (Former) (Renowned for Having Dismantled More Than 500 Meth Labs)

The most comprehensive summary of law enforcement K9 legal and scientific information I have ever seen. Every handler, prosecutor, and judge should read it. Providing K9 support in several homicides referenced in the book, it certainly brings to light many aspects of K9 issues of which everyone should be aware. Even with all the other support materials available for law enforcement K9, having faced one of the best K9 defense experts and coming out victorious as we did, our preparation would have been much easier for me and the prosecutor with a reference tool like *Police and Military Dogs*.

**Corporal Jim DeCamp, Clermont County, Ohio,
Sheriff's Department, K-9 Unit Supervisor**

Police and Military Dogs

*Criminal Detection,
Forensic Evidence, and
Judicial Admissibility*

Police and Military Dogs

*Criminal Detection,
Forensic Evidence, and
Judicial Admissibility*

JOHN J. ENSMINGER



CRC Press

Taylor & Francis Group

Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

Any legal information in the book should not be construed as advice or writ; for legal advice and the such, please consult an attorney, and so forth.

CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

© 2012 by Taylor & Francis Group, LLC
CRC Press is an imprint of Taylor & Francis Group, an Informa business

No claim to original U.S. Government works
Version Date: 20110817

International Standard Book Number-13: 978-1-4398-7240-6 (eBook - PDF)

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the author and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The authors and publishers have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

For permission to photocopy or use material electronically from this work, please access www.copyright.com (<http://www.copyright.com/>) or contact the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. CCC is a not-for-profit organization that provides licenses and registration for a variety of users. For organizations that have been granted a photocopy license by the CCC, a separate system of payment has been arranged.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Visit the Taylor & Francis Web site at
<http://www.taylorandfrancis.com>

and the CRC Press Web site at
<http://www.crcpress.com>

Contents

List of Figures	xv
List of Tables	xvii
Author	xix
Contributors	xxi
Introduction.....	xxiii

SECTION I Police and Military Dogs in the Twenty-First Century

Chapter 1	Development of Police and Military Dog Functions.....	3
	Categories of Canine Functions	4
	The Right Dog for the Job	6
	Training Philosophies.....	7
	Canine Behavior and the Alert.....	7
	The Sniff.....	8
	Lineups in Police Dog Work	9
	Dog and Handler as a Team	9
	Canine Evidence.....	10
	Not All Canine Evidence Becomes Trial Evidence	11
	Lack of Judicial Uniformity	11
	Economics of Canine Work	12
	Dangers of Police Work.....	12
	Military Applications.....	12
	The Future	13
	Notes.....	14
Chapter 2	Canine Biology and Behavior	19
	Genetics	19
	Canine DNA as Evidence	19
	Canine Olfaction	20
	Ability of Dogs to Remember and Distinguish Odors	20
	Interference with Scent Perception.....	21
	Canine–Human Communication	21
	Sleep Patterns	22
	Notes.....	22

SECTION II Tracking, Trailing, and Scent Identification

Chapter 3	History and Judicial Acceptance of Tracking and Trailing Evidence	27
	States Accepting Tracking Evidence.....	27

States Rejecting Tracking Evidence	27
Foundational Requirements for Tracking Evidence	28
Qualifications of the Handler	28
Is the Handler an Expert?	29
Professional Guidelines for Trainer Qualification	29
Breeds Appropriate for Tracking	30
Pedigree	30
Word of Handler on Dog's Origins	30
Kennel Club Registration	31
Pedigree Sometimes of Little Importance	31
The Bloodhound Myth	32
A Viable Requirement?	32
Training	32
Professional Guidelines for Tracking and Trailing Dog Training	33
Reliability	34
Success Rates	35
Unusually Effective Dogs	36
Jury Determination of Reliability	37
Period of Reliability	37
Weather Conditions	38
Records and Certification	38
Accuracy Requirements in Professional Guidelines	38
Corroboration	39
Examples of Corroboration	39
Failure to Corroborate	40
Jury Instructions	40
Appellate Review	41
Notes	41

Chapter 4 Scientific Analysis of Tracking, Trailing, and Scent Identification	49
<i>John J. Ensminger and Tadeusz Jezierski</i>	
Human Odor	49
Primary and Secondary Odors	50
Effects of Tertiary Odors	50
Odors of the Trail	50
Collecting Scent and Scent Enhancement	51
Items Used to Scent Dogs	52
Scent Pads	52
Storage of Scent Samples	52
Scent Transfer Units	52
How Long Does Scent Last?	54
Contamination	56
Transfer of Scent through Clothes	56
Ability of Dogs to Distinguish and Remember Odors	57
Length of the Sniff	57
Scent from Different Parts of the Body	57
Distinguishing Genders	59
Research on Tracking and Trailing	59
Direction of the Trail	60
Length of the Trail	62

Judicial Perspectives on Scientific Aspects of Tracking	62
Admission of Scientific Evidence	62
Evidence from Scent Transfer Units	63
Notes	63
 Chapter 5 Tracking and Trailing in Criminal Investigations and Prosecutions	69
Dogs at the Crime Scene	69
Scenting to Footprints	69
Scenting to Locations	69
Trailing to Where the Perpetrator Was before the Crime	71
Dogs Put on the Trail Too Far from the Crime Scene	71
Dogs Scented to Objects	71
Dogs Tracking Not to Find the Perpetrator But to Find Other Evidence	72
Tracking from Secondary Locations	72
Tracking Where the Suspect Lives	72
Scenting to Items or Locations with Odors of Multiple Individuals	73
Missing Member	73
Circumstances of the Trail	73
Dogs Tracking to Multiple Items or Suspects	75
Retracing the Track	76
Dog's Attention Focused on Points along a Trail	76
Taking the Dog Off the Trail and Forcing the Trail	76
Following Animal Trails	77
Scenting First to Suspect	77
Contamination of the Trail	77
Contamination Is Different for Tracking and Trailing Dogs	79
Purposeful Contamination by the Perpetrator	79
Contamination Negating Identification	79
Identifications	80
Alert as Identification	81
Lack of Alert	82
Exonerating Identifications	82
Is Trailing More Successful Than Identification?	82
Station Identifications	83
Notes	84
 Chapter 6 Judicial Admissibility of Scent Lineup Evidence	89
Breeds for Scent Lineup Work	90
Training	90
Training in Holland	90
Handler's Qualifications	90
Accuracy Rates	94
Corroboration	94
Jury Instructions	94
Judicial Perspectives on Scientific Reliability of Scent Identifications	95
Foreign Judicial Perspectives on Scent Identification	96
Notes	97

Chapter 7	Scent Lineups in Criminal Investigations and Prosecutions.....	101
	<i>John J. Enslinger and Tadeusz Jezierski</i>	
	Beginning of Formal Identification Procedures.....	101
	Scent Lineups of People	102
	Cueing	104
	Scent Matches.....	104
	Scent-Matching Materials	105
	Selecting Foils	106
	Number of Stations in a Lineup.....	106
	Scent Attractiveness	106
	Scientifically Conducted Scent Lineups.....	107
	Success Rates of Scent Lineup Procedures	108
	Designing Protocols to Optimize Accuracy Rates.....	108
	Comparison with Visual Lineups	109
	FBI Use of Dutch Procedures	109
	Guidelines of Professional Organizations.....	110
	Notes.....	110

SECTION III Detection Functions

Chapter 8	Judicial Admissibility of Canine Detection Evidence	117
	Breed Preferences.....	117
	Training	118
	Lack of Training Resulting in Exclusion.....	119
	Training Considered with Other Factors	119
	Training Aids.....	120
	Handler's Training.....	120
	Certification.....	121
	Is Certification Sufficient When Security Reasons Preclude Discovery of Field Records?	122
	Reliability	122
	Accuracy Rates.....	123
	Discovery of Reliability.....	126
	Defendant's Right to an Expert on Reliability	126
	The Handler as an Expert.....	128
	Alerting	128
	Strong Alerts.....	128
	Alert Effectively Becoming a Search.....	129
	Dog Taught Two Separate Alerts.....	129
	Specificity of Alert	130
	Showing Interest without a Clear Alert.....	130
	Questioning Whether a Dog Actually Alerted.....	132
	Rewarding for Alert.....	133
	Alert Recognized by Someone Other Than the Handler	133
	Alerts to Residual Odor.....	133
	Alerts to Items Not Trained to Recognize.....	134
	Falsely Stating That Dog Had Alerted	135
	Cueing.....	135

Human Sense of Smell Can Support Probable Cause	136
Types of Narcotics Sniffs	136
Notes.....	139
Chapter 9 Scientific Issues in Detection Functions.....	147
Recognition of Illegal Substances and Secondary Chemicals.....	147
Cocaine.....	147
Number of Target Odors That Dogs Can Retain.....	148
Detection of Cocaine on Currency	148
Methamphetamine.....	150
Ecstasy	150
Dogs Compared to Other Technologies	150
Scientific Standards and Detection Evidence.....	151
Notes.....	151
Chapter 10 Automobile Sniffs	153
<i>Illinois v. Caballes</i>	153
Alerts during the Initial Reason for the Stop	154
Extending the Stop	155
Diligence and Consent.....	155
Request to Open Vents Prior to Sniff	156
Jumping into a Vehicle	156
Alert Outside a Car Providing Probable Cause for a Search Inside.....	158
Alert Justifies Two Searches.....	158
Use of More Than One Dog	159
Body Sniffs of Passengers	159
Drugs No Longer Present	159
Alerts after Initial Reason for Stop Is Completed.....	159
Dog Alerts But Not during Sniff	160
Alerts at Secondary Locations	161
Officers Move a Vehicle to Aid in Sniff.....	161
Arrest before Moving a Vehicle to a Secondary Location	161
Sniffs at Checkpoints, Roadblocks, and Prison Entrances	162
Temporary Checkpoints	162
Border Checkpoints.....	162
Exiting Early to Avoid Checkpoints.....	163
Searches at Weigh Stations.....	163
Prison Entrances and Military Facilities.....	163
Sniffs of Parked Vehicles	163
Inventory Search after an Arrest.....	165
Consent in Vehicle Searches	165
Notes.....	166
Chapter 11 Sniffs of Luggage, Transportation Facilities, and Hotels.....	173
<i>U.S. v. Place</i>	173
State Constitutions and <i>Place</i> Situations.....	174
Reasons for Investigatory Stops	175
Training Exercises.....	176

Conduct of the Sniff	176
Officer Did Not Need to Do a Background Check on a Dog That the DEA Supplied	176
Checked Luggage	176
Carry-On Luggage.....	177
Baggage Cars.....	177
Moving Luggage So That the Dog Can Sniff.....	177
Manipulating a Bag to Feel or Smell What Is Inside	178
Requiring Passengers to Remove Luggage	178
Abandonment of Luggage	179
Interest without Alerting	179
Alert in One Jurisdiction Supporting Warrant in Another.....	179
Dog Alerts But Other Contraband Is Found.....	179
Railroad Police	180
Buses at Immigration Checkpoints	180
Luggage Lineups	181
Delays for Sniffs.....	181
No Requirement for Having a Dog Immediately Available	183
Searches of Passenger Compartments of Trains	184
Dog Escaping a Handler's Control	184
Consent to Luggage Searches.....	184
Sniffs Leading to Body Searches	185
Hotels and Motels.....	185
Search of a Hotel Room Leads to Sniff of a Car.....	186
Cruise Ships	186
Private Vessels.....	187
Private Airplanes.....	187
Consent to a Private Plane Search.....	188
Notes.....	188
 Chapter 12 Mail and Package Sniffs.....	193
Reasons for Investigation of Packages	193
Postal Inspections.....	193
Package Lineups.....	194
Length of Detention	195
Multiple Sniffs.....	195
Notes.....	196
 Chapter 13 Sniffs of Storage Areas, Cargo, and Commercial Spaces.....	199
Warehouse and Storage Locker Sniffs	199
Training Exercise Results in Real Alert.....	199
State Constitutional Law	200
Safe Deposit Boxes.....	201
Cargo Containers.....	201
Notes.....	202
 Chapter 14 Residential Sniffs	203
Sniffs in Common Areas of Apartment Buildings	203

Yards of Houses.....	204
Sniffs at Front Doors of Houses	204
Sniffs on Military Bases	205
Notes.....	205
Chapter 15 Currency Sniffs	207
Unreasonably Long Seizures.....	207
Evidentiary Value of a Dog's Alert	208
Method of Concealment	209
Inability to Explain Presence or Amount of Currency.....	210
Alerts as Money Laundering Evidence	210
Currency with Visible Levels of Cocaine.....	211
Currency in Mail Packages	211
Reliability of Dog Questioned.....	211
Sniffs Where Connection to Drug Trafficking Was Not Established	212
Fitting a Courier Profile Is Not Enough	212
Currency Sniffs Come Back into Favor	213
Notes.....	213
Chapter 16 School Sniffs	215
<i>John J. Ensminger and L.E. Papet</i>	
Sniffs of Students	215
Locker and Parking Lot Sniffs.....	218
Immunity.....	219
Notes.....	219
Chapter 17 Explosives, Landmine, and Bioweapons Detection	221
<i>John J. Ensminger, John Grubbs, and L.E. Papet</i>	
Training	222
Training Aids.....	225
Requirements for Handlers	225
Reliability	225
Visual Factors in Explosives Detection.....	226
Working in Freezing Temperatures	226
Certification.....	226
Firearms Detection	227
Explosives Alerts in Case Law.....	228
Landmines.....	228
Chemicals in Landmines	228
Remote Mine Detection Dogs	229
Improvised Explosive Devices	229
Bioweapons Detection.....	230
Comparing Dogs and Explosives Detection Technology	232
Notes.....	232
Chapter 18 Accelerant Detection Dogs.....	235
Research on Accelerant Detection	235

Dog Outperforms Technology in Detecting Gasoline.....	236
Dogs May Alert Falsely Where Certain Products Are Present.....	237
Foundational Elements for Accelerant Detection Alerts	237
Scientific Evidence Standards Applied by Some Courts.....	237
Training	238
Reliability	239
Government Standard.....	239
Alerting to Specific Accelerants.....	239
Number of Samples	240
Corroboration	240
Canine Alerts without Laboratory Verification	240
Consent.....	242
Notes.....	242
Chapter 19 Cadaver Dogs	245
<i>John J. Ensminger and L.E. Papet</i>	
Scientific Aspects of Cadaver Dog Work	245
Minimal Contact Period for Detection.....	245
Odor of Decomposition	246
Distinguishing Cadaver Scent from Waste.....	247
Temperature and Depth of Burial.....	247
Elements of Admissibility.....	248
Scientific Threshold for Cadaver Dog Evidence	249
Training	250
Handler Qualification.....	251
Circumstances of a Search	251
Helping Get a Confession.....	251
Cold Cases	252
Interference by a Police Officer.....	253
Corroboration	253
Scent Lineups with Cadaver Dogs	253
Scenting Tracking Dogs from Cadavers	253
Notes.....	254
 SECTION IV <i>Apprehension and Rescue Functions</i>	
Chapter 20 Suspect Apprehension and Bite Issues	259
Apprehension Styles	259
Breeds in Apprehension Work	259
Training	260
Deadly Force	260
Excessive Force	262
Handler's History of Excessive Force Claims	263
Circumstances of the Apprehension.....	263
Deploying Dogs to Find Suspects	263
Bites during Struggles	264
Subduing Suspect by Dog as Arrest	264

Failure to Use Lead	264
Suspects Possibly Carrying Weapons.....	265
Sending a Dog into a House without a Warrant	265
Release of Suspect on Command	265
Failure to Shout Warning	266
Failure to Call Off Dog	267
Repeated Bite Commands	268
Bites of Bystanders	269
Innocent Suspects Acting Like Perpetrators	269
Sadistic Police Officers.....	270
Dogs Trained to Apprehend Suspects Alerts to Drugs	270
Crowd Control	270
Government Policies	271
Application of Dog Bite Laws to Police Dogs.....	272
Importance of Gear in Apprehension Work.....	272
Notes.....	272
 Chapter 21 Search and Rescue Dogs	277
Search and Rescue Work.....	277
Training	277
Clothing as Distraction.....	278
Certification.....	279
Using Dogs Trained in Other Functions	279
State Laws on Search and Rescue and Emergency Service Dogs.....	280
Therapy Dogs at Disaster Sites	281
Notes.....	281
 Afterword.....	283
 Appendix A: U.S. Police Canine Associations.....	285
 Appendix B: Bibliography.....	287
 Appendix C: Federal and State Cases Cited	299

List of Figures

FIGURE 1.1	Sergeant First Class Jesse Mendez parachuting with Army Scout Dog (PAL X296), Fort Benning, Georgia, April 17, 1969.	13
FIGURE 2.1	Sagittal section of canine nasal airway. This photograph was created by averaging multiple sagittal plane slices to represent the most prominent airway structures.	21
FIGURE 3.1	Suggested trails for tracking or trailing people.	34
FIGURE 4.1	Scent transfer unit sweeping car seat.	53
FIGURE 4.2	Determination of tracking direction by ten dogs sniffing 7, 5, or 3 squares.	61
FIGURE 6.1	Dutch scent identification training procedures. The “smeller” is the scent item....	92
FIGURE 7.1	Dog alerting in scent lineup. This dog at the Polish Academy of Sciences was trained to alert by sitting before the indicated sample and looking at the handler.	105
FIGURE 7.2	Dutch protocol for scent identification lineups since 1997.....	107
FIGURE 9.1	Two ways of testing currency for significant drug residue. On the left, equal amounts of currency are placed in envelopes. The dog alerts to crime-related currency (X), while not alerting to envelopes with bank currency (B). On the right, currency is placed in boxes with airholes.	149
FIGURE 10.1	A dog jumping into a car. Dogs sometimes jump in open windows or through open doors of vehicles trying to get at the source of a narcotics or explosives scent. This dog was trained to enter a vehicle in apprehension situations when a suspect refused to exit a vehicle.	156
FIGURE 13.1	Remote scent detection at a cargo facility.	201
FIGURE 17.1	President Ronald Reagan in 1988 in Santa Barbara with the White House Canine Unit. Dogs were cross-trained for patrol and explosives detection work.	222
FIGURE 17.2	Multiple-choice training apparatus for training dogs in remote landmine detection.	230
FIGURE 18.1	Arson dog at the scene of a suspicious fire. The arson dog, Charlotte, with her handler, Greg Keller, worked a scene in Lewiston, Idaho.....	236
FIGURE 21.1	A handler directing a dog in a FEMA test for responsiveness to the handler’s signals.....	278
FIGURE C.1	Map of the U.S Circuit Courts of Appeal. Precedential decisions of the federal circuit courts apply to federal districts in the states covered by the circuits.	300

List of Tables

TABLE 1.1	Significant Developments in Canine Procedures, Forensics, and Law	6
TABLE 2.1	Possible Sources of Identification Errors Correlated with Stages of Scent Perception in Dogs.....	22
TABLE 4.1	Perception Time of Tracking Dogs on Various Surfaces under Different Weather Conditions	55
TABLE 6.1	Differences between Tracking and Trailing and Scent Lineups	91
TABLE 8.1	Levels of Legal Certainty Required for Conducting Common Types of Sniffs and Obtaining Warrants	137
TABLE 9.1	Comparing Canine and Technology-Based Drug Detection	150
TABLE 17.1	Common Major Chemicals in Explosives and Explosive Mixtures	224
TABLE 17.2	Chemicals Found in Landmines	229
TABLE 17.3	Comparing Dogs and Technology-Based Explosives Detection Devices	231
TABLE 19.1	Carpet Square Test Results for Three Dogs	246

Author

John J. Enslinger is an attorney and a national consultant on canine legal issues involving skilled dogs and their handlers. His publications include: *Service and Therapy Dogs in American Society: Science, Law and the Evolution of Canine Caregivers* (Charles C Thomas, 2010); *Money Laundering, Terrorism, and Financial Institutions* (Civic Research Institute, 2003); the monthly *USA Patriot Act Monitor*; and contributions on canine legal issues to the *Journal of Animal Law*, *GP Solo: ABA General Practice*, and *Tax Notes*. Enslinger graduated from the University of California, Berkeley, where he majored in zoology, and was a member of the scientific team on an expedition of Stanford University's research vessel, *Te Vega*, to the Galapagos Islands. He earned his JD and LLM degrees from Hastings College of the Law and New York University School of Law, respectively, practices law in New York and is a member of the bar of the United States Supreme Court. He was chair of the Banking and Savings Institutions Committee of the American Bar Association Tax Section and was on the adjunct faculty of the Peter J. Tobin College of Business at St. John's University in New York, where he taught the taxation of complex financial transactions. Enslinger lives in Stone Ridge, New York, with his wife, Joan, and Chloe, a certified therapy dog. He reports on legal and scientific developments concerning dogs at: doglawreporter.blogspot.com.

Contributors

John G. Grubbs, president of United States Bomb Dogs, Inc., was a law enforcement officer for 20 years with the Explosives Detection Canine Unit of the U.S. Secret Service, in which capacity he guarded U.S. presidents, vice presidents, and world leaders.

Tadeusz Jezierski, Ph.D., head of the Department of Animal Behavior at the Institute of Genetics and Animal Breeding of the Polish Academy of Science, has published 65 scientific papers, including studies on canine scent detection.

L.E. Papet, Executive Director of K9 Resources, LLC, in Ohio, has developed 170 protocols for training, testing, and deploying canine units.

Introduction

This book describes police procedures, forensics studies, and the law that has been applied to evidence produced or affected by police canine work. It is my opinion that it is as artificial to separate these three aspects of dogs in law enforcement—indeed more artificial—than it is to combine them. A law enforcement canine handler should know how his work with a skilled police dog will affect the subsequent investigation and prosecution of the crime. A forensics scientist should be able to tell the handler how he and his dog can help solve the crime, and what procedures are optimal for finding and processing evidence. Similarly, the forensics specialist should understand the boundaries of admissibility of the evidence she produces, and in this way help the prosecutor. The prosecutor wants to be sure that the evidence provided by the police and forensics personnel will withstand challenges from the defense and skepticism from the courts. Defense counsel should be aware of the process by which evidence has been produced and should understand where that evidence might be sufficiently weak as to be excludable by a challenge. Finally, the judiciary—beginning with the trial judge but continuing up through the appellate system—must understand the value and limits of canine evidence.

It is with this continuum in mind that this book is written. The fact that many courts have made poor judgment calls as to certain types of canine evidence, such as with scent lineups, is not solely the fault of the judges. Police have often been able to dazzle lawyers and judges with stories about the perfection of their dogs, and far too many defense lawyers regard canine evidence as the least important element of the prosecution's case. This is most unfortunate given that many convictions have resulted almost exclusively from tracking or scent identification evidence, with supposed corroboration sometimes being almost fictional. The number of canine convictions where the defendant eventually argues ineffective assistance of counsel is disturbingly high. Many prisoners have lost years of their lives before finding exoneration, and one must believe that some never will.

It is also appropriate to say something about what this book does not attempt to do. This is not a training manual. Training issues are discussed where they have been the subject of research or judicial analysis and thus have received scientific scrutiny or legal attention, but I am not a trainer and defer to the many well-written books by highly experienced trainers that provide very detailed guidance. Since certification standards are sometimes used by courts in deciding on the admissibility of canine evidence, such standards will be discussed, but not with an eye to providing an ultimate “best practices” approach. Nor is this book a procedures guide. Again, where a handler's work is explained by police or military directives or policies that result in judicial scrutiny, the procedures and operations will be analyzed, but no set of guidelines will be categorized as optimal.

Many organizations that provide training guidelines and certification procedures will be mentioned here, but it is to be hoped that none of them have been favored. The standards provided by these organizations reflect the experience of their members, as well as the science and law at the time (or times) that the standards were drafted and instituted. These organizations provide useful resources, and Appendix A lists those whose officials or members have provided information to me, but the absence of a listing in a particular discussion (say, cadaver dogs) is not meant to indicate that the organization is inferior as to that issue. This too was a matter of conserving space in a manuscript that early on busted the bounds the publisher sought to impose on me, and I apologize to those officials whose efforts might not have received adequate recognition here.

I have placed certain boundaries on the topics covered here. Many areas of canine science and law can be seen as aspects of much larger subjects. The science of smell has filled many journals and books, but only studies directly relevant to canine police work will be reviewed here. Several sections of this book will discuss the qualification of a handler as an expert. This sometimes leads

to questions about the scientific aspects of canine work. Although scientific issues will be discussed extensively, the broad question of the admission of scientific evidence in trials will only be described as this relates to canine work. Other areas of the law that will receive only brief mention include compensation of police canine handlers, which involves areas of employment and tax law that would be out of place in this context but ultimately may be necessary to understand for any lawyer representing either an employer or an employee where compensation for canine work is involved. Cases in which public officials have been sued because a dog performing official functions has bitten someone are often resolved not on the facts of the case but on concepts of immunity for public officials. Limitations of space have required that a broader discussion of immunity concepts be avoided. Any first-year law student has heard the law described as a seamless web. Just about any area of the law connects to many others, and the decision of how far afield to go in discussing a specific case or concept is, inevitably, somewhat arbitrary.

This book results from an effort that involved many people and I wish to credit those who helped at various stages. First, there are three contributors; one scientist, Tadeusz Jezierski; and two trainer-handlers, John Grubbs and L.E. Papet. Their biographies appear in the chapters they coauthored, but each of them is also responsible for many suggestions and corrections in other chapters. Gail K. McConnell, an assistant district attorney in Richmond, Texas, was kind enough to read and correct large portions of the manuscript. Gregory H. Keller, formerly Fire Chief of Salem, Oregon, provided a wonderful photo of himself and his arson dog, Charlotte, and read through the chapter on accelerant detection dogs. Professor Michael Perlin of New York Law School gave detailed notes regarding several papers that became the basis of chapters in this book. Professor Perlin's wide knowledge of constitutional law has undoubtedly saved me from many blunders as has been true in a friendship that goes back 35 years to when we worked together in the Department of the Public Advocate in New Jersey. J.J. Sullivan, official historian of the New York City Retired Transit Police Officers' Association, provided me with valuable leads on the history of police dogs in New York City. Jesse S. Mendez, a legend for his canine handling in Vietnam, was kind enough to provide me with an original photograph of himself jumping from a plane and forwarded useful materials on the history of military dogs. Ido Yitzhaki of DiagNose Consulting & Detection Services in France, answered many questions on European matters, and supplied the image used for the cover.

More people than I could safely remember commented on drafts of articles and blogs that became fodder for this book, and I hope that it lives up to their expectations.

My wife, in addition to tolerating the two years I spent in my foxhole working on this manuscript, also helped prepare a number of the photographs and diagrams. I also wish to thank Rodney Miller, who cheerfully endured long descriptions of many sections of this book and for giving me scientific perspectives of great value. Finally, Mark Listewnik and Linda Leggio of Taylor & Francis/CRC Press gave many suggestions that helped shape the book and edited the manuscript with great skill. No author should be without such skilled editors as a final safety net.

Police dog work is not a static subject, and procedures, research, and the law continue to evolve. Although this means that subjects treated here will more often sooner than later be out of date, it is as good a time as any to take stock of this very large area of science and law. Our best friend continues to amaze all of us who work with dogs, and I and those who have contributed to this book hope you enjoy taking the journey with us.

Section I

Police and Military Dogs in the Twenty-First Century

Police dogs now perform a great many functions that they did not perform before 1970. A summary of the changes that have occurred in the last four decades will explain the focus of much of this book. Dogs have been used for behaviors that are explained by their evolution and their adaptation as the first domesticated animal. This unique relationship and their ability to communicate with and understand us have allowed us to take advantage of their astounding skills. A brief overview of these issues will be provided in the following two chapters.

1 Development of Police and Military Dog Functions

- Two men are killed in their sleeping bags in a cabin used by campers in the Sierra Nevada Mountains. The cabin can only be reached by hiking several miles from a highway. Shell casings at the door of the cabin are placed in a sterile glass jar and taken to a police station where a scent transfer unit, a specialized suction device, is used to transfer scent from the casings to a gauze pad. A bloodhound is brought from Sacramento, California, to the crime scene and scented on the gauze pad. The dog is commanded to track on the porch of the cabin. Within 10 feet the handler tells a fellow officer that the dog has found a trail, but it is not the path leading to the highway. The dog and the two officers follow the trail for 2 miles, going deeper into the woods until the trail disappears. The dog goes around the edge of a small lake to an open area where there is a tent and a fire that has recently been put out. Inside the tent the officers see a rifle that could have fired the shells found at the crime scene. When the camper returns the officers ask him to come with them for questioning.
- In Rotterdam, the Netherlands, a woman puts a gauze pad in front of a dog's nose and commands the dog to sniff. After the dog has sniffed for a few seconds she steps back and the dog walks toward an elevated platform on which are six metal tubes in a row. The dog has been trained to sniff each tube, and after doing so lies down in front of the third tube in the row. A person watching on a video camera notes which tube the dog alerted to. The dog has matched a scent from an object probably handled by the perpetrator at the crime scene to a scent of a suspect who is already in custody. The room is cleaned, new metal tubes are put in place, and another dog performs the same test. The second dog also alerts to a tube that was held by the same suspect, ignoring the tubes that had been held by foils. One more link in the evidence that will lead to a conviction has been made.
- A dog at a French airport is brought into a room with five stations, each station holding a small bottle that contains air extracted from a confined space. Two of the bottles contain air taken from inside the plastic wrapping around a large group of packages consolidated for an airfreight company. The dog sits down before one of the air stations, which happens to be one of the consolidated packages. The handler notifies an observer that this is a clear alert. The company that uses the canine scent detection system notifies the freight company that the explosives detection dog has alerted to air from a specific wrapped pallet. The packages in the pallet are deconsolidated and sniffed individually by another dog, this one provided by airport police. The dog alerts to a package labeled as containing printer cartridges. The package is opened and found to contain an explosive device that was set to go off when the plane reached 25,000 feet, which would have likely happened over the Atlantic Ocean.
- A woman's naked body is found in a ravine. The body has been ravaged by animals and is highly decomposed. There is an abandoned van at the top of the ravine. Examination of the license plates verifies that the van was reported stolen. A dog trained to smell decomposing human remains is brought to the vehicle and alerts inside the back of the van. The police learn that the man who had reported the van stolen had a tempestuous relationship with a young woman whose parents had reported her missing a month before. The cadaver dog

is taken to the man's house and alerts to another vehicle outside the garage. DNA analysis verifies that the body is that of the missing woman. The man becomes the prime suspect and the police continue to look for evidence.

- A fire in an abandoned building is ruled suspicious by the New York City Fire Department. An accelerant detection dog alerts to a location where a fire inspector says the burn pattern suggests that kerosene or another accelerant may have been poured. Laboratory analysis of items in the area where the dog alerted fails to confirm the presence of any accelerant, however, and the police investigation, while remaining open, stalls. The owner files a claim with an insurance company, which conducts its own investigation, including using another accelerant detection dog owned by an independent contractor. This dog, 2 weeks after the first dog, also alerts at several places in the rubble of the building, including the place where the police dog had alerted. The insurance company declines to pay on the policy after finding that the owner has twice filed claims on suspicious fires before. The owner sues on the policy and the court must decide whether to let the jury hear the evidence of the two accelerant detection dogs despite the absence of laboratory confirmation of the presence of an accelerant.

Only the first of these situations, adapted from parts of cases and studies, describes a canine function—tracking—that existed before 1970. Scientifically conducted scent lineups date from after 1990. Remote explosives detection systems using dogs have been studied with regard to landmines and have begun to be used for airfreight. The first dog devoted solely to finding cadavers was deployed in 1974, the first arson dog in 1986. Even the tracking situation described in the first scenario involves the use of a device, a scent transfer unit, which was patented in 1998.¹

Police dogs today look much as they looked 50 years ago, though they now often travel in crates rather than in the backseats of squad cars, but it would be a mistake to think that there has not been a considerable amount of change in police work involving canines.

CATEGORIES OF CANINE FUNCTIONS

Police and military canine functions can be divided into four general categories: (1) tracking, trailing, and identification; (2) suspect apprehension and crowd control; (3) detection; and (4) rescue and protection. With modern scent lineup procedures, scent identification is increasingly separated from tracking and trailing functions, but since the same dogs sometimes do both tasks, particularly in the United States, they are grouped together here. Dogs trained in suspect apprehension are also often trackers or trailers, and the two responsibilities sometimes overlap in the same investigation with the same dog, yet the training regimens are considerably different. Detection functions are by far the largest category, both in terms of the broad range of scents detected and the number of dogs and handlers doing this type of work. This includes dogs trained to detect narcotics, explosives, and accelerants, as well as cadaver dogs. Detection work is also increasingly common in non-police work, such as with dogs trained to alert to bed bugs, termites, mold, or to detect illegal agricultural imports at borders. Almost all detection functions are relatively recent, most dating after 1970. The fourth category includes search and rescue dogs as well as military sentry dogs and dogs trained to protect diplomats and important political figures.

Many canine functions are the subject of intense research, and courts throughout the country are constantly being asked to rule on the admissibility of new types and variations of canine evidence. This book will discuss these developments in detail, chapter by chapter, but it is appropriate to begin with an overview and a discussion of issues common to all police dogs and the work they perform. Significant developments concerning police dogs are summarized in Table 1.1.

The number of police and military dogs in the United States is difficult to estimate, given the vast number of agencies that use dogs trained for police and military functions, the fluctuating nature of the needs of those agencies, and the increasing use of contract canine teams to perform certain

TABLE 1.1
Significant Developments in Canine Procedures, Forensics, and Law

Year	Development ²
1893	Tracking evidence begins to be accepted by U.S. courts ³ ; some judges express concern that raising bloodhounds to sell to police departments as tracking dogs will become a business activity for individuals looking for profit. ⁴
1903	Crime in Germany solved by perhaps first scent lineup; suspect and foils asked to hold stones and put them on the ground; dog scented to knife from crime scene alerted to stone held by suspect; suspect confessed. ⁵
1907	New York City begins use of police dogs (followed by New Haven, Connecticut, in 1910); male dogs preferred by most departments. ⁶
1909	Otto Kalischer discovers that dogs can be trained to detect specific odors, even when mixed with other odors. ⁷
1914–1918	Red Cross uses dogs on each side during World War I; dogs also work on battlefields as messengers and sentries ⁸ ; 28,000 dogs requisitioned for use in the war. ⁹
1917	Dogs follow a trail from the scene of the crime but do not encounter the perpetrator; later, such dogs sometimes alert to suspects in a police station; courts begin to admit such “station identifications” as evidence. ¹⁰
1923	Scent lineups of humans enter U.S. trials; rejected as evidence by Iowa Supreme Court ¹¹ ; <i>Frye</i> , decided by the Court of Appeals for the District of Columbia, requires that scientific procedures have received “general acceptance in the particular field in which it belongs” ¹² ; <i>Frye</i> is still valid for much state law and is occasionally applied to canine evidence.
1942	Dogs for Defense created to train dogs for scout, tunnel, and mine detection; dogs were taught to discover buried metallic and nonmetallic mines, trip wires, and booby traps. ¹³
1950	26th Infantry Platoon at Fort Riley, Kansas, trains dogs for Korean War; unit disbanded in 1953. ¹⁴
1958	U.S. military dog training transferred from U.S. Army to Air Force, which assigns the function to the Patrol/Sentry Dog Training Branch, Department of Security Police Training, 327th Technical School at Lackland Military Training Center near San Antonio, Texas. ¹⁵
1960	Scout, sentry, and mine detection dogs begin to be used in Vietnam; 1,100 trained dogs are with the troops by 1965, some of which are airborne. ¹⁶
1970	Experimental narcotic detector dog training program begins at Lackland Air Force Base in San Antonio, eventually moving to the Canine Enforcement Training Center near Washington, D.C. (in 1980). ¹⁷ Los Angeles Police Department begins using narcotics detection dogs. ¹⁸
1971	Air Force assumes responsibility for U.S. military working dogs. ¹⁹ Department of Defense obtains feasibility study on training dogs for explosives detection. ²⁰
1972	Transportation Security Administration Explosives Detection Canine Team Program begins. ²¹
1973	Narcotics detection dog alerts begin to be admissible evidence in criminal prosecutions. ²²
1974	New York State Police deploy first cadaver dog. ²³
Late 1970s	Schools concerned about increasing drug problems implement sniffs of students, lockers, and school parking lots. ²⁴
1982	Scent match lineups begin to be introduced as evidence in U.S. courts; research indicates lineups often fail to take many variables into consideration. ²⁵
1983	U.S. Supreme Court decides <i>U.S. v. Place</i> ²⁶ ; opinion of Justice O'Connor describes canine sniff of luggage as <i>sui generis</i> , not constituting a search under the Fourth Amendment. Federal and state courts begin to extend reasoning of <i>Place</i> to other situations.
1986	Connecticut State Police deploy an arson dog. Iowa trainer begins training accelerant detection dogs in 1985. ²⁷
1990	Professor Taslitz examines scent lineup evidence in U.S. courts and concludes that such lineups fail to meet adequate evidentiary standards for criminal prosecutions. ²⁸ While frequently cited in decisions, many courts accept such evidence anyway or declare that its admission by trial courts was harmless error.

—Continued

TABLE 1.1 (Continued)
Significant Developments in Canine Procedures, Forensics, and Law

Year	Development ²
1993	<i>Daubert</i> decided by U.S. Supreme Court, rejecting <i>Frye</i> general acceptance standard. ²⁹ Some states adopt <i>Daubert</i> standard while some retain <i>Frye</i> standard; <i>Daubert</i> sometimes applied to canine evidence.
1994	Schoon and de Bruin begin to describe scent lineups conducted with rigorous scientific standards ³⁰ ; police practice in Holland and Eastern Europe is heavily influenced by their protocol designs; FBI begins to adopt Schoon's protocols.
1998	Tolhurst and Harris patent the Scent Transfer Unit (STU 100) ³¹ ; courts begin accepting scent identifications where dogs were scented to pads obtained from STUs. ³²
2000	U.S. Supreme Court disapproves of checkpoint in Indianapolis set up for general purpose of uncovering any illegal activity, including sniffing all cars stopped with narcotics detection dog ³³ ; temporary checkpoints subsequently focus on road safety and sobriety issues, but continue to involve drug detection dogs.
2001	Explosives detection, search and rescue, and therapy dogs work at the World Trade Center site after terrorist attack ³⁴ ; 9/11 increases demand for explosives detection dogs. ³⁵
2004	First complete genome sequence of a domestic dog is made public ³⁶ ; genome studies provide sophisticated analysis of canine olfactory receptor genes, including breed and individual variations. ³⁷
2005	U.S. Supreme Court decides <i>Caballes</i> , approving use of narcotics detection dogs during traffic stops ³⁸ ; other courts begin exploring the significance of the case to various types of sniffs. Search and rescue dogs work in the aftermath of Hurricane Katrina, sometimes assisting in rescuing pets as well as humans. ³⁹
2009	Dispute over largest working dog contract award by the military is resolved after litigation in Federal Claims Court and reviews by the Government Accountability Office; government Web site reports final contract was valued at over \$44 million. ⁴⁰
2010	Handler of military working dogs in Iraq convicted of conspiracy and maltreatment of prisoners during interrogation at Abu Ghraib Prison, after years of press coverage of misuses of military working dogs. ⁴¹

functions. One estimate in 2002 was that there were 7,000 police dogs in the United States, but this estimate seemed largely focused on federal dogs (not including military working dogs).⁴²

THE RIGHT DOG FOR THE JOB

Deciding to train a puppy to perform a function for much of its adult life requires making an effort to find a dog that will have the right disposition for the work involved.⁴³ As with service dogs for individuals with physical and mental disabilities, training can be a long and expensive process, and constant reinforcement is required. Most types of police work require that dogs not be overly nervous or afraid, be lively and interested in their environment, willing to work long hours, and reasonably intelligent and quick to learn. Dogs must sometimes work off-lead.⁴⁴ Most functions require that the dog have a good searching drive and display an inclination to use their noses often.⁴⁵ Boldness has been correlated with success,⁴⁶ but too strong a prey drive may mean a dog will think too much about getting a reward.⁴⁷ One study found that dogs with a high probability of being certified as police dogs were, as puppies, willing to chase, catch, and fetch a tennis ball and follow a rag taken away from them; they did not show fear or run from a shovel striking a metal sewer lid, were willing to approach strangers, and passed obstacles at high speed with little hesitation.⁴⁸

The first tracking dogs were often bloodhounds, but even at the end of the nineteenth century, many other breeds and mixed breeds were used for this function. European police dogs at the beginning of the twentieth century were generally from shepherd breeds, particularly those associated with the countries of the police departments.⁴⁹ Thus, Malinois and German shepherds were, and are, widely used. Large size may be a factor in the selection of breeds for a variety of functions, including tracking and suspect apprehension,⁵⁰ but detection dogs can be smaller since the olfactory abilities of the animal are paramount. German shepherds are often chosen in the United States because

of their intimidating appearance, though other breeds have this quality as well. Some breeds known for aggressive appearance, such as pit bulls, may be avoided for reasons that are partly political. Breed preferences for specific assignments will be discussed in the following chapters.

TRAINING PHILOSOPHIES

Aversive training techniques preferred by many handlers 20 years ago have increasingly been replaced by techniques involving positive stimuli, such as treats, toys, and praise. This remains a matter of debate among trainers of police and military dogs as well as generally in the canine training industry. One Belgian and French team of researchers found that military working dogs trained with more aversive stimuli (such as yanking the leash and hanging dogs by their collars) performed less well than dogs that were trained with more positive stimuli (including stroking and petting). Handlers often used aversive stimuli when trying to get dogs to release a bite. “Hanging dogs by the collar to force them to release the sleeve is a rather ‘reactive’ training method: rather than forcing the dog to loosen its grip, this stimulus incites the dog to maintain this behaviour.”⁵¹ The researchers reaching this conclusion noted that improving dogs’ attention (and reducing their level of distraction) could be influenced by using rewards, such as tug and retrieve games that require their concentration. Handlers often rewarded intermittently, even when the dog performed a task correctly, so the researchers recommended that trainers be taught to reward consistently.⁵² Training handlers regularly was found to increase the use of positive stimuli and perhaps improved the welfare of the dogs.⁵³ Frequency of training sessions is also occasionally a matter of research. Training intensely may not be necessary, and may even be counterproductive. One study found that training dogs in a particular exercise—putting a paw on a mouse pad—was more effective if only done once a week than if done 5 days a week.⁵⁴

Most police dogs are trained in several and sometimes many functions. Police officers and researchers debate whether an increasing number of functions means that a dog will perform some of them less well than others or less well than specialized dogs. Often the duties imposed on a canine team are a matter of economics for a police department. Having dogs that only do one thing may be too costly. There has been some research in this area, such as the finding that dogs trained to find both live persons in disaster sites and cadavers in those sites are less effective in finding survivors than dogs trained only to find survivors. In wilderness searches, where the missing person may be either alive or dead, a dog trained in both live and cadaver finding may be required.⁵⁵ Various professional organizations describe training standards and testing requirements for specific canine functions, which will be discussed separately in the following chapters.

Training is serious business. A trainer who sold dogs supposedly trained in explosives detection to the State Department, the Federal Reserve, and the Internal Revenue Service (IRS), was sentenced to more than 5 years in prison when the dogs turned out to have virtually no detection ability.⁵⁶ Training standards are provided by a number of national police dog organizations and courts have often looked to such standards in determining whether a dog is adequately trained.⁵⁷

CANINE BEHAVIOR AND THE ALERT

Any study of skilled dogs requires frequent reference to canine behavior and, insofar as that behavior is interpreted, of human behavior. In analyzing the functions of police dogs, it must never be forgotten that the dogs and their handlers are teams, and their ability to work together depends on their ability to understand each other. Thus, studies about eye contact between humans and dogs and the ability of dogs to understand human pointing gestures are relevant to police dog functions.⁵⁸ The fact that dogs can understand pointing gestures when young, by 21 weeks of age, is important in designing training programs for police dogs.⁵⁹

Most police dog functions involve an *alert*, a specific and simple behavior pattern by which the dog indicates to the handler that a target odor is present. Alerts can be active, such as growling and pawing

the place where the odor is detected, or passive, such as sitting or lying down in front of the location of the odor. Alerts are taught for dogs trained in suspect identification and in all detection functions. Thus, dogs trained in scent identification, and in narcotics, explosives, and accelerant detection, as well as cadaver dogs and search and rescue dogs, are taught alerts. Whether the alert is active or passive may be partially the trainer's or handler's preference and partially the dog's inclination—what behavioral pattern emerges as most easy to reinforce during the training regimen—but may also be affected by the work the dog is being trained to perform. An aggressive alert, where the dog paws or bites the item from which the odor is emanating, is often preferred by narcotics dog handlers but can be dangerous where a dog is detecting hidden explosives or landmines. With accelerant detection and cadaver dog work, an aggressive alert can contaminate evidence. Search and rescue dogs may be taught to bark but not to growl, as this would frighten the person that the dog has found in the debris he is searching.

Alerts are not always clearly made by dogs in the field, and handlers should not call an alert where there is not a clear and specific behavior. A dog sniffing a row of airline luggage may “show interest” in one bag without alerting. The bag may contain food that the dog would like to get to, but may also contain such a small residue of drugs or explosives that the dog is uncertain whether she is detecting a target odor. A good many prosecutions hinge on the difference between alerting and showing interest, as the subsequent actions of the handler and the police may or may not be justified by an interest level. For instance, if a dog shows interest, without alerting, at the rear door of a car, is the officer justified in opening the car door so that the dog can sniff inside? Perhaps the dog will then alert to a bag in the backseat of the car and drugs will be found. It is doubtful that the officer's decision to open the car door without the passenger's consent can be justified on constitutional grounds even though drugs are found. An officer describing the dog's interest as an alert may have to argue against the evidence provided by the dashboard video camera of his patrol car, an increasingly common record of police work.⁶⁰ A discussion of alerts must recognize that there is something of a continuum in the dog's behavior, from lack of interest to mild interest to high interest to a weak alert to a strong alert. All these terms appear in the cases that will be discussed throughout this book under the various police dog functions.

THE SNIFF

The greatest growth aspect of police dog work in the United States concerns narcotics and explosives detection dogs, and this has come about in part because the U.S. Supreme Court, and other courts, have set boundaries that allow deploying dogs to perform sniffs in many situations without any advance judicial approval—that is, without a warrant. This has been held in sniffs of luggage compartments on planes, trains, and buses; sniffs of luggage being loaded and unloaded from carriers; sniffs of the exteriors of lawfully stopped vehicles; sniffs outside the sleeper compartments of trains or in the aisles of buses; sniffs in the common areas of commercial storage facilities, warehouses, and hallways where students have lockers; sniffs outside safe deposit boxes; and sniffs of packages being moved by the U.S. mail or commercial carriers. Not only may the sniff be performed without judicial approval, but in some cases, such as vehicle sniffs, a positive alert by the dog provides probable cause for an immediate search without a warrant.⁶¹

Sniffs of locations where some expectation of privacy applies, however, may be searches for Fourth Amendment purposes. This amendment provides that the “right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.” An expectation of privacy has been found to apply to sniffs in residences, in the property close to a house (within what is called in law “the curtilage”), inside private compartments of trains and vessels, and sniffs of the person.⁶² In such cases, either a warrant or exigent circumstances may overcome a lack of consent to perform a search.⁶³ There are other exceptions to the warrant require-

ment, such as with a sniff incident to a lawful arrest, of a vehicle lawfully impounded, of items in plain view, or in a public emergency.⁶⁴

In some situations where a warrant is not required courts may nevertheless specify that police canine work requires that there be a “reasonable suspicion” (sometimes a “reasonable, articulable suspicion”) that criminal activity is taking place. This requirement has been applied to extending a traffic stop beyond the original reason the car was pulled over so that a drug dog could be brought to sniff the car, sniffs of luggage in possession of a suspect, and sniffs at the front door of a private residence. Here also, state and federal law sometimes diverge, and if the matter has not reached the U.S. Supreme Court, decisions by various federal courts may disagree as to what is permissible.

Not all states have followed the lead of the U.S. Supreme Court in some of these situations and have used language in state constitutions to provide protections—from a law enforcement perspective, barriers—to police conduct that do not apply under the U.S. Constitution. Thus, law enforcement agencies ideally should keep canine team officers familiar with situations where state law imposes additional requirements for sniffs and searches that do not apply for federal purposes.

LINEUPS IN POLICE DOG WORK

The canine alert is often used in a lineup setting, allowing the dog to choose between a number of items, only one of which will have prosecutorial significance. The procedure is similar to suspect lineups for visual identification by a victim or witness. In police dog work, lineups have been used with narcotics detection dogs sniffing a row of packages,⁶⁵ luggage,⁶⁶ and envelopes containing currency (where one of the envelopes contained cash taken from a suspected drug dealer).⁶⁷ Cadaver dogs have been used in lineups of vehicles, one of which was suspected of being used to transport a body.⁶⁸ In a California case involving a cadaver dog, a court imposed foundational requirements similar to those of basic tracking dog law—that the dog is trained, experienced, and proven reliable, that the lineup was properly and fairly conducted, and that the scent on the vehicle had not become stale. The tendency of courts to apply tracking dog requirements to nontracking situations will be discussed with regard to scent lineups.⁶⁹ Of course, narcotics and explosives detection dogs working at border checkpoints, airports, and other locations could be described as doing a sort of continual lineup work since they are being asked to identify a scent in a location containing a large number of objects that potentially could hold that scent.

DOG AND HANDLER AS A TEAM

A handler must learn many things about his or her dog’s behavior in addition to its alerting behavior. The handler of a tracking or trailing dog must recognize when the dog is following the trail taken by the individual on whom the dog has been scented and must be able to tell when the dog has lost the trail. The handler must learn what motivates his dog best—generally treats, toys, praise, or some combination of these. The dog’s assignment may limit which motivation may be used. Some trainers will not give treats or allow a toy before a tracking assignment is completed, as they believe this will give a new scent or distract the dog from the trail. The handler should sense when the dog is tired or becoming exhausted. Some agencies structure canine teamwork to take the dog’s attention span into account. Police canine work requires that dogs be rested and willing to work with a common “duty cycle” being about an hour.⁷⁰ Data collected for the Federal Aviation Administration at Auburn University found that dogs can work between 91 and 120 minutes continuously and remain effective.⁷¹

The dog needs sleep more than the handler, but dogs have different sleep patterns from humans: about 16 to 20 minutes of sleep followed by a brief period of wakefulness, then sleep, then wakefulness, for hours on end. But dogs can indulge themselves in this pattern both day and night, making them much better for the swing and graveyard shifts than is often true of their handlers.⁷² Dogs