

**Police Traffic
RADAR & LIDAR
Instructor Course Agenda
by
Law Enforcement Services, LLC**



<u>Day 1</u>	<u>08:00 - 12:00</u>	<u>4 hours</u>	<u>Day 1</u>	<u>13:00 - 17:00</u>	<u>5 hours</u>
Objectives, Handouts, & Testing		.5	Radar Basics (slide 126)		2.0
Student Introductions		.5	4.1 Types of Radar		
The Speed Problem (slide 20)		1.0	4.2 The Doppler Effect		
1.1 History			4.3 Waves and Frequencies		
1.2 National Statistics			4.4 Characteristics of Radio Waves		
1.3 NHTSA Statistics			4.5 The Doppler Shift		
1.4 Recognition and Reaction Time			4.6 Police Traffic Radar		
1.5 Braking and Total Stopping Distance			4.7 The Radar Beam		
1.6 Velocity and Speed			4.8 Understanding Trigonometric Functions		
1.7 Momentum and Kinetic Energy (chapter review questions)			4.9 Determining Beam Widths		
Speed Laws and Public Safety (slide 56)		1.0	4.10 Lines of Equal Sensitivity		
2.1 Basic Speed Law			4.11 Inverse Square Law		
2.2 Speed Limit Misconceptions			4.12 Contour Lines of Equal Sensitivity		
2.3 Speed Limits and Compliance			4.13 Beam Range - Sensitivity		
2.4 85th Percentiles			4.14 Automatic Gain Circuitry		
2.5 Public Safety (chapter review questions)			4.15 Target Reflectivity		
Speed Enforcement (slide 77)		1.0	4.16 Range Control Techniques		
3.1 Pacing			4.17 Doppler Audio		
3.2 Time-Distance			4.18 Cosine Effect (chapter review questions)		
3.3 Time-Distance Computers			Installation, Testing and Operation (203)		1.0
3.4 RADAR			5.1 Installation		
3.5 LIDAR			5.2 Testing		
3.6 Estimating Distances			Practical Exercise		1.0
3.7 Estimating Speeds			Light Segment Test		
3.8 Stopwatch Calibration Checks			Internal Circuitry Test		
3.9 Distance Calibration Checks			Tuning Fork Tests		
3.10 Speedometer Calibration Checks			Tuning Fork Mode		
3.11 Checking Radar with GPS (chapter review questions)			Stationary Mode		
			Front & Rear Antenna		
			Faster Vehicle Mode		
			Moving Mode		
			Front Opposite & Same		
			Rear Opposite & Same		
			Home Work		1.0
			Review Chapters 1-5 (read IACP testing)		

**Police Traffic
RADAR & LIDAR
Instructor Course Agenda**

by
Law Enforcement Services, LLC



<u>Day 2</u>	<u>08:00 - 12:00</u>	<u>4 hours</u>	<u>Day 2</u>	<u>13:00 - 17:00</u>	<u>5 hours</u>
	Installation, Testing and Operation	1.0		Modern Police Radar (slide 335)	2.0
	(continued - slide 230)			7.1 Digital Signal Processing	
	5.3 Operation			7.2 Patrol 5/20 or 10/20	
	5.4 Tracking History			7.3 Continuous Tracking	
	5.5 Radar Effects (stationary)			7.4 Same Lane Tracking	
	5.6 Enforcement Considerations			7.5 Track Thru Locking (TTL)	
	5.7 RADAR/LIDAR Detectors			7.6 Patrol Speed Blank	
	5.8 RADAR Detector/Detectors (RDD)			7.7 Fastest Vehicle Mode	
	5.9 RADAR/LIDAR Jammers			7.8 Complete Tracking History	
	(chapter review questions)			7.9 Counting Unit Displays	
	Practical Exercise	1.0		7.10 Counting Unit Controls	
	Light Segment Test			7.11 Rechargeable Battery Handles	
	Internal Circuitry Test			7.12 Directional Sensing Radar	
	Tuning Fork Tests			7.13 Vehicle Speed Sensor	
	Tuning Fork Mode			7.14 STALKER DSR 2X	
	Stationary Mode			7.15 POP Technology	
	Front & Rear Antenna			7.16 Target Acquisition	
	Faster Vehicle Mode			7.17 Speed Detection Video Interface	
	Moving Mode			7.18 STALKER II MDR	
	Front Opposite & Same			7.19 Decatur Radar Mirror Display	
	Rear Opposite & Same			7.20 MPH Ranger EZ	
				7.21 OBD-II output and VSS	
				(chapter review questions)	
	Understanding Moving RADAR (295)	2.0		Radar and Occupational Safety (387)	1.0
	6.1 Principles of Moving Radar			8.1 Energy Levels of Microwave	
	6.2 Cosine Effects in Moving Radar			8.2 Microwave and Cancer	
	6.3 Shadowing Effects in Moving Radar			8.3 Safety Rules	
	6.4 Eliminating Low Doppler Errors			(chapter review questions)	
	6.5 Calculating Moving Cosine and Shadowing Effects			Photo Radar (slide 395)	1.0
	6.6 Moving Radar Operation			9.1 General Operation	
	6.7 Radar Effects (moving)			9.2 Photo Radar and Private Enterprise	
	6.8 Enforcement Considerations			9.3 Photo Radar Court Cases	
	(chapter review questions)			9.4 State Laws Regulating Photo Radar	
				9.5 Photo Lidar	
				9.6 ASE and Public Safety	
				(chapter review questions)	
				Homework	1.0
				Review Chapters 5-9	

**Police Traffic
RADAR & LIDAR
Instructor Course Agenda**

by
Law Enforcement Services, LLC



<p><u>Day 3</u> <u>08:00 - 12:00</u> <u>4 hours</u></p> <p>LIDAR (slide 463) 2.0</p> <p>11.1 History of Laser</p> <p>11.2 Principles of Operation</p> <p>11.3 Lidar Sighting Systems</p> <p>11.4 Lidar Tracking History</p> <p>11.5 Lidar Effects</p> <p>11.6 Time-Distance</p> <p>11.7 Survey Measurements</p> <p>11.8 Distance Between Cars (DBC)</p> <p>11.9 Inclement Weather Program</p> <p>11.10 Auto Obstruction Mode</p> <p>11.11 HUD Speed & Distance Display</p> <p>11.12 Automatic Locks</p> <p>11.13 Rechargeable Battery Handles</p> <p>11.14 LTI TruCAM</p> <p>11.15 Safety Considerations</p> <p>11.16 Military Warning</p> <p>11.17 Testing Lidar</p> <p>11.18 Lidar Case Law</p> <p>11.19 LIDAR Case Law Conclusions</p> <p>11.20 Autovelox 105 SE (chapter review questions)</p> <p>Standards, Certification, and Law (423) 2.0</p> <p>10.1 Federal Standards</p> <p>10.2 IACP Standards and Testing</p> <p>10.3 Radar Case Law - United States</p> <p>10.4 Radar Case Law - Canada</p> <p>10.5 Radar Case Law Conclusions</p> <p>10.6 Tuning Fork Tests and Case Law</p> <p>10.7 Certification</p> <p>10.8 Court Testimony</p> <p>10.9 Traffic Evidence Kit (chapter review questions)</p> <p>Summary (slide 532) 0.0</p> <p>12.1 The Future of Radar and Lidar</p> <p>12.2 Public Opinion</p> <p>12.3 The Five Es of Public Safety</p>	<p><u>Day 3</u> <u>13:00 - 17:00</u> <u>5 hours</u></p> <p>Course Review & Questions 1.0</p> <p>Final Exam 1.0</p> <p>Moot Court (preparation) 2.0 Selection of: Officer, Defendant, Prosecutor, Defense Attorneys & Jury. The traffic stop roleplay: (officer & defendant)</p> <p>Homework 1.0 (Classroom Presentation Preparation)</p> <p><u>Day 4</u> <u>08:00 - 12:00</u> <u>4 hours</u></p> <p>Instructor Presentations 4.0 15 to 20 minute presentation before the entire class, regarding speed measurement instruments, speed laws, a chapter of Understanding Police Traffic RADAR & LIDAR, or a topic related to speed.</p> <p><u>Day 4</u> <u>13:00 - 17:00</u> <u>5 hours</u></p> <p>Instructor Presentations 1.5</p> <p>Practical Exercise 2.5 RADAR, LIDAR, Stopwatch Operation 85th Percentile Speed Survey Speed Estimates - Daylight Stationary</p> <p>Homework 1.0 (Moot Court Preparation)</p> <p><u>Day 5</u> <u>08:00 - 12:00</u> <u>4 hours</u></p> <p>Moot Court 3.0</p> <p>Course Evaluation .5</p> <p>Presentation of Certificates .5</p>
--	--