

## Training Simulators

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### I. Introduction/Registration

### II. Training Philosophy

I (a)

#### A. Goals

1. Reduce collisions
  2. Reduce liability costs
  3. Improve safety
  4. Create positive attitude towards vehicle operations
  5. Improve driving skills
  6. Improve decision-making ability
- a. Training is not “skills” intensive

### I. Simulator Introduction

#### A. Equipment

1. 5 screens - 180° field of view
  2. Seat adjustment
  3. Seat belt
  4. Steering wheel (caster recovery)
  5. Ignition (starts simulator)
  6. Horn/siren
  7. Gauges/switches (similar to Crown Victoria)
  8. On-screen digital speedometer and compass
  9. Brakes (ABS)
  10. Radio with P.A.
  11. Emergency lighting controls
- a. Rotating lights switch activates emergency lighting
- b. Mode switch activates siren

### I. Fundamentals of Simulator Vehicle Control

I (b,c,d,g)

#### A. Vehicle/Driver Orientation

1. Scan all screens to develop good habits
2. Look left and right at intersections

3. Reference points

- a. Hood of vehicle covering far crosswalk line is a proper stop
- b. Compass at gutter for legal parking
- c. Right/left turns – use mirrors to “guide” along curbs

1. Vehicle “feel” created by:

- a. Seat speaker vibration for “road feel”
- b. Steering recovery “caster” out of turns
- c. Visual feedback matching driver actions

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A. Vehicle Control Techniques

I (g)

1. Steering

- a. Two hand method (shuffle steering)
- b. Smooth operation (steady wheel)
- c. Soft grip

1. Speed judgment

- a. Digital speedometer
- b. Broken yellow line
- c. Movement of objects
- d. Weight transfer

1. Road position

- a. Use proper driving line (center of road – Code 3)

- 1. Better visibility approaching blind corners
- 2. Improves visibility of your vehicle
- 3. Provides more room for evasive action

I. Simulator Introduction, Scenarios

A. “Safety City”

- 1. Contains signals, stop signs, yield signs
- 2. Numerous uncontrolled intersections
- 3. Variety of traffic (vehicle, bicycle, pedestrian, animal)

A. Scenarios

- 1. Pre-programmed set of circumstances

I (a,b,c,d,e,f)

- 2. Realistic driving situations (without risk)
  - a. Normal "routine" driving
  - b. Traffic stops
  - c. Emergency (Code 3) responses
  - d. Pursuits
  - e. Not intended to replace "hands-on" EVOC training
- 1. Progress from simple to complex
- 2. Requires demonstration of knowledge of rules
  - a. State laws governing emergency vehicles
  - b. Agency policy
  - c. Accepted standards and procedures
- 1. Requires decision making skills
- 2. Allows students to experience the consequences of their decisions
  - a. Proper driving tactics and hazard recognition
  - b. Replay of critical decision areas
  - c. Response to hazards
  - d. Collisions
  - e. Tactical decisions at end of scenario

A. Orientation (Scenarios chosen from POST list)

- 1. Familiarization 2
- 2. Directed
- 3. Follow
- 4. Linked

I. Defensive Driving I(c)

A. Defensive Drivers:

- 1. Avoid collisions regardless of right-of-way
- 2. Recognize hazards
- 3. React properly to hazards
- 4. Maintain a professional attitude
- 5. Recognize dangerous driver attitudes
  - a. Overconfidence
  - b. Self-righteousness
  - c. Impatience

d. Pre-occupation

A. Intersection Analysis

1. Scan ahead for dangers
2. Move vehicle to proper road position
3. Travel at a speed safe for conditions
4. Slow or stop, if necessary, to be safe

I. Emergency Vehicle Operation

I (f,h,j,k)

A. Laws

1. CA Vehicle Code 21052

- a. Non Code-3 driving
- b. Must obey all "rules of the road"

1. CA Vehicle Code 21055

a. Exempt from "rules of the road" for (FERP):

1. Fire
2. Emergency
3. Rescue
4. Pursuit

- a. Proper lighting
- b. Proper audio signal (siren)

1. CA Vehicle Code 21056

- a. Drive with due regard for others
- b. Regardless of right-of-way issue

1. CA Vehicle Code 21806

- a. Motorist duty to yield
- b. Knowledge of approach
- c. See light and hear siren

1. CA Vehicle Code 21807

a. Drive with due regard for safety (Code-3)

1. Persons
2. Property

I. Emergency Driving Policy and Procedures

I (f,j,k)

A. Legal Provisions

1. State law
2. Agency policy
3. Case law

A. Initiation of Pursuits

1. Considerations

- a. Type of offense (Infraction/Misdemeanor?)
- b. Speeds involved
- c. Officer safety
- d. Public safety
- e. Traffic volume
- f. Time of day
- g. Weather/road conditions
- h. Familiarity with area

1. Emotional Factors

- a. Siren syndrome (physiological)
- b. Adrenaline rush
- c. Tunnel vision
- d. Need for self-control
- e. Post-pursuit discipline

1. Abandonment of Pursuits

- a. Decision to pursue is not irreversible
- b. Based upon all factors (past, current, and future)
- c. Unreasonable danger

I. Vehicle Operation Tactics

I (d,f,g,h,i,j,k)

A. Pursuits

1. Close distance before attempting stop
- a. Liability and immunity considerations
1. Pursuits are following actions
- a. No caravanning by non-involved units

- b. No passing (unless requested)
- c. Space units to ensure safety
- 1. Perception/reaction time
- 2. Braking distance
- a. Roadblocks
- 1. Generally ineffective
- 2. Last resort
- a. Spike strips
- 1. Time and availability of additional units
- 2. Controlled direction of travel necessary
- 3. Danger to pursuing units
- 1. Offensive Tactics (Legal Intervention)
- a. Boxing in
- b. Heading off
- c. Ramming
- d. Driving alongside
- e. P.I.T.
- f. Spike strips
- 1. Blocking Intersections
- a. For officer and public safety
- b. Have coordination/communications between units
- c. No guarantee of safe access through intersection
- 1. General Pursuit Considerations
- a. All persons involved are held accountable
- b. Balance need for apprehension vs. risk created
- 1. Safety is priority
- a. Roll of supervisor is well defined and understood
- b. Primary and back-up unit only
- 1. Unless more authorized
- a. Use air support whenever available
- b. Use of firearms limited to imminent danger (deadly force)

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1. Radio

- a. Broadcast while driving in a straight line
- b. Stay calm and speak clearly
- c. Make sure window is up

A. Emergency (Code 3) Driving

1. Intersections and Cross Traffic

- a. Observe cross street before entering (intersection analysis)
- b. Identify hazards and setup/move away from danger
- c. Slow or stop before entering intersection
- d. Look in all directions (left/right/left)
- e. Clear intersections lane by lane
  - f. Both hands on steering wheel
- g. Prima facie speed limits

- 1. Reasonable speeds (blind intersections – 15 mph)
- 2. Stop if vision obscured (even on green lights if necessary)
- 3. Per policy, 20 mph over posted speed limit

- a. Vary siren pitch when approaching (yelp)

1. Passing Other Vehicles

- a. Allow motorists time to see/hear and react
- b. Pass on left (as long as safe)
- c. Stop, if necessary, to allow motorists to pull to right
- d. If you must pass to right, SLOW DOWN (10 mph or less), to allow for reaction time

A. Use of MDT/Computer

- 1. Stop in a safe place before using any equipment that requires you to take your eyes off the road for extended periods of time
- 2. Use radio for communications of immediate nature
- 3. Collisions while operating MDT/computer will usually be preventable

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A. Collision Avoidance

- 1. Drive with anticipation, not automation
- 2. Look through the turns before entry
- 3. Consider steering behind (rear of) the moving vehicle
- 4. Drive around the problem – don't become part of it!

I. Simulator Exercises

I(b)

A. Scenarios chosen from California POST list

I. Critique

I(b)

A. Review and discuss learning methods

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