

# INDIANA UNIVERSITY

## TRANSPORTATION RESEARCH CENTER

School of Public and Environmental Affairs

501 S. Madison Street-Suite 105

Bloomington, Indiana 47403-2452

(812) 855-3908 Fax: (812) 855-3537

## REMOTE NOT IN TRAFFIC SURVEILLANCE CARBON MONOXIDE POISONING INVESTIGATION

CASE NUMBER - IN09014

LOCATION - NEBRASKA

VEHICLE - 2007 CHEVROLET MONTE CARLO LT

INCIDENT DATE - February 2009

Submitted:

May 20, 2009



Contract Number: DTNH22-07-C-00044

Prepared for:

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
National Center for Statistics and Analysis  
Washington, D.C. 20590-0003

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

|  |  |   |  |                                   |   |
|--|--|---|--|-----------------------------------|---|
| 1. <i>Report No.</i><br>IN09014  |  | 2. <i>Government Accession No.</i>                          |  | 3. <i>Recipient's Catalog No.</i> |   |
| 4. <i>Title and Subtitle</i><br>Remote Not In Traffic Surveillance Carbon Monoxide Poisoning Investigation<br>Vehicle - 2007 Chevrolet Monte Carlo LT<br>Location - Nebraska   |  |   | 5. <i>Report Date:</i><br>May 20, 2009   |                                   |   |
|  |  |   | 6. <i>Performing Organization Code</i>   |                                   |   |
| 7. <i>Author(s)</i><br>Special Crash Investigations Team #2  |  |   | 8. <i>Performing Organization Report No.</i>   |                                   |   |
| 9. <i>Performing Organization Name and Address</i><br>Transportation Research Center<br>Indiana University<br>501 South Madison, Suite 105<br>Bloomington, Indiana 47403-2452  |  |   | 10. <i>Work Unit No. (TRAIS)</i>   |                                   |   |
|  |  |   | 11. <i>Contract or Grant No.</i><br>DTNH22-07-C-00044  |                                   |   |
| 12. <i>Sponsoring Agency Name and Address</i><br>U.S. Department of Transportation (NVS-411)<br>National Highway Traffic Safety Administration<br>National Center for Statistics and Analysis<br>Washington, D.C. 20590-0003   |  |   | 13. <i>Type of Report and Period Covered</i><br>Technical Report<br>Incident Date: February 2009 |                                   |   |
|  |  |   | 14. <i>Sponsoring Agency Code</i>  |                                   |   |
| 15. <i>Supplementary Notes</i><br>Remote Not In Traffic Surveillance Carbon Monoxide Poisoning Investigation involving a 2007 Chevrolet Monte Carlo LT.  |  |   |  |                                   |   |
| 16. <i>Abstract</i><br>This report covers a Remote Not In Traffic Surveillance Carbon Monoxide (CO) Poisoning Investigation involving a 2007 Chevrolet Monte Carlo and two female college students. The focus of this remote investigation was the circumstances surrounding the CO poisoning of two female victims that occurred within their residence. The 22-year-old driver of the Chevrolet shared a 3-bedroom duplex with the 21-year-old victim and a third uninvolved female. The 22-year-old returned to the residence at approximately 0100 hours on the morning of the incident. She parked the Chevrolet in the attached garage and closed the garage door, but forgot to turn the ignition off. She entered the residence and went to bed while the vehicle remained running in the garage. Later that morning, she and the 21-year-old were overcome by CO and lost consciousness approximately between 0730 and 0800 hours. Prior to losing consciousness for a second time, the 21-year-old called her boyfriend for help. The boyfriend heard her collapse and called 911. Emergency responders found both victims unconscious and transported them by ambulance to a local university medical center. Both victims were treated and released later the same day. Fire rescue personnel measured the level of CO in the victims's residence, which peaked on the instrument at 9999 parts per million (ppm). At sustained CO concentrations above 150 to 200 ppm, disorientation, unconsciousness, and death are possible. |  |   |  |                                   |   |
| 17. <i>Key Words</i><br>Noncollision<br>Carbon Monoxide Poisoning  |  |   | Motor Vehicle Traffic Incident<br>Injury Severity  |                                   | 18. <i>Distribution Statement</i><br>General Public |
| 19. <i>Security Classif. (of this report)</i><br>Unclassified  |  | 20. <i>Security Classif. (of this page)</i><br>Unclassified |  | 21. <i>No. of Pages</i><br>5      | 22. <i>Price</i>                                    |

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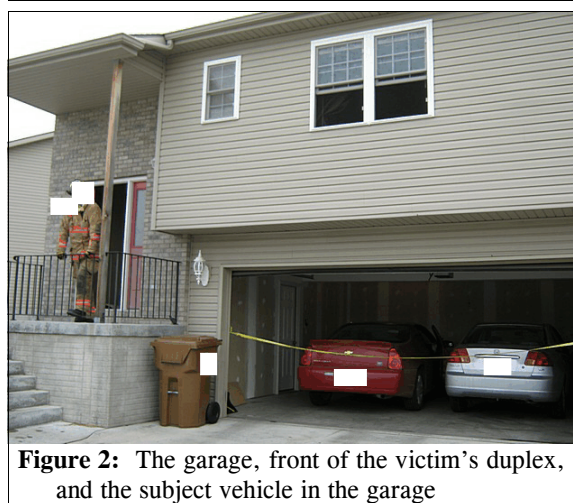
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The focus of this remote investigation was the circumstances surrounding the Carbon Monoxide (CO) poisoning of two female victims that occurred within their residence. This incident was brought to the National Highway Traffic Safety Administration's attention on February 25, 2009 by an on-line news article. This remote investigation was assigned on April 3, 2009. The incident involved a 21-year-old female, a 22-year-old female, and a 2007 Chevrolet Monte Carlo LT (Figure 1). The incident occurred in February, 2009 at a police reported time of 0826 hours, in Nebraska, and was investigated by the applicable city police department. The case information indicated that the actual time that the victims were overcome was between 0730 and 0800 hours. This contractor obtained a copy of the police incident report and the on-scene police photographs on April 6 and 10, 2009, respectively. The deputy fire chief, investigating police officer, and the 22-year-old victim were interviewed on April 23, 28, and May 17, 2009, respectively. The 21-year-old victim would not cooperate.



**Figure 1:** Police photograph of the 2007 Chevrolet Monte Carlo LT



**Figure 2:** The garage, front of the victim's duplex, and the subject vehicle in the garage

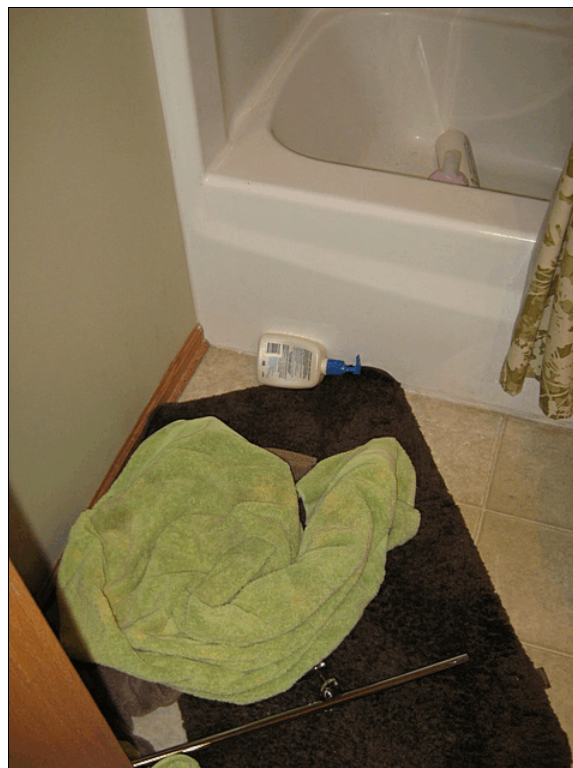
## INCIDENT CIRCUMSTANCES

**Incident Environment:** This incident occurred within a two-story duplex with an attached two-car garage that was located below the two residential units (Figure 2). The two female victims and a third female lived in the unit where the incident occurred. They were all students at a local university and had lived in the duplex since August of 2008. Their unit consisted of three bedrooms, and unknown number of bathrooms, a kitchen, and family room. The 21-year-old victim's and the uninvolved roommate's bedrooms were located on the second floor above the garage. The 22-year-old victim's bedroom was located on the ground floor adjacent to the garage. The 22-year-old was the owner of the Chevrolet that was left running in the garage the morning of the incident. The other residence in the duplex was occupied by a male and female. They both had left their residence around the time the incident was taking place and were not affected by the CO. This report is based on the police incident report, police on-scene photographs, and interviews with the deputy fire chief, investigating police officer, and the 22-year-old victim.

**Pre-Incident:** The 22-year-old had been ill for a week leading up to the incident and had returned to her normal schedule the day prior to the incident. On the night of the incident, she left the residence at approximately 2245 hours to help a friend with a film studies project. After helping her friend, she returned to her residence at approximately 0100 hours. The 22-year-old stated in

her interview that she was very tired due to the late hour and after being ill that week. She further stated that she had “a lot on her mind” related to her studies. She parked the Chevrolet in the garage and closed the garage door, but forgot to turn the ignition off. She told the police investigator that it was her habit to leave the keys in the ignition when she parked the vehicle in the garage. She also stated that the fuel tank was approximately half full of gasoline. She entered the residence through the door within the garage, which was located adjacent to the Chevrolet (**Figure 1**) and went to bed. At this time the 21-year-old and the uninvolved roommate were asleep in their upstairs bedrooms. The 22-year-old went to bed at approximately 0130 hours. She stated she did not notice any unusual smell at that time.

**Incident:** In the morning, the 21-year-old awoke at approximately 0700 hours and went into the bathroom to take a shower. The bathroom was directly across the hall from her bedroom. While she was showering, she began to feel dizzy and lost consciousness. She fell against a wall, dislodged a towel rack (**Figure 3**), and collapsed onto the floor. She regained consciousness at approximately 0745 hours and went into her bedroom and sat down on the bed. At approximately 0800 hours, she called out to the 22-year-old to come upstairs to the bedroom because she was feeling ill. Upon arrival at the bedroom, the 22-year-old noticed a strong smell. The 21-year-old asked the 22-year-old to call her father. The 21-year-old was having trouble talking and could not make the call herself. While still in the bedroom, the 22-year-old attempted to contact the 21-year-old’s father by phone, but she too began to feel ill. The 22-year-old left the bedroom and went back downstairs where she too was overcome and lost consciousness. The 21-year-old, while still in her bedroom, managed to call her boyfriend. As she was attempting to talk to him, she was overcome for a second time and lost consciousness. The boyfriend heard her collapse and called 911. The third roommate had departed the residence at approximately 0700 hours. She had suffered no adverse effects but went to the hospital later that day as a precautionary measure. She was examined in the emergency room and released.



**Figure 3:** 21-year-old victim dislodged a towel rack when she was initially overcome in the shower and collapsed onto the floor

**Post-Incident:** The police, local fire rescue, and emergency medical personnel responded to the scene. The fire department received the notification at 0826 hours and the first unit arrived on scene at 0831 hours. A total of two fire engines, one hazardous materials vehicle, two fire personnel units, two ambulances, a fire department command vehicle, and police responded to the scene. The fire rescue personnel found the 22-year-old unconscious laying on the floor just inside the front door. The 21-year-old was found unconscious laying on her bed. They were transported by ambulance to a local university medical center. The two victims were reportedly treated in a

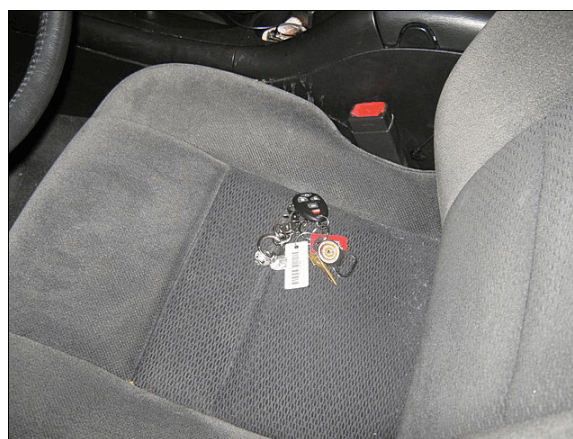


pressure chamber, which replaced the CO in their blood with oxygen. Both victims were released from the medical center the same day at approximately 2300 hours and have made a full recovery.

The fire rescue personnel found the Chevrolet in the garage. It was no longer running, but the key was in the ignition (**Figure 4**) in the “on” position and the engine was still hot. One of the on-scene photographs also showed a key chain on the driver’s seat cushion (**Figure 5**). According to the 22-year-old, it had come off the ignition key when fire rescue personnel attempted to remove the key from the ignition and had been placed by them on the seat cushion. There was no gasoline remaining in the vehicle’s fuel tank and the battery had discharged. The CO level within the victim’s residence was measured by fire rescue personnel and it registered at the peak of the measuring instrument, which was 9999 parts per million (ppm). Based on information from the Consumer Product Safety Commission<sup>1</sup>, most people will not experience any symptoms from prolonged exposure to CO levels of 1 to 70 ppm. As CO levels increase and remain about 70 ppm, symptoms become more noticeable and can include headache, fatigue, and nausea. At sustained CO concentrations above 150 to 200 ppm, disorientation, unconsciousness, and death are possible. The fire rescue personnel opened all the windows and doors and used a large fan to evacuate the CO gas from the victim’s residence. This was referred to as the positive pressure method.



**Figure 4:** Police on-scene photograph showing the status of the Chevrolet’s ignition key



**Figure 5:** Police on-scene photo showing key chain on Chevrolet driver’s seat cushion

The fire rescue personnel forced the front door of the adjacent residence open and confirmed that the residence was unoccupied. It was determined that the male resident had departed for work at approximately 0700 hours and the female resident had departed at approximately 0730 hours. The male resident told police that he did not hear a vehicle running in the garage when he left and felt no signs of illness. The CO level in this residence was also measured by fire rescue personnel and registered between 300 and 400 ppm. A specific value was not available.

<sup>1</sup>“Consumer Product Safety Commission, Carbon Monoxide Questions and Answers”, 5/12/09, <http://www.cpsc.gov/CPSCPUB/PUBS/466.html>

The 2007 Chevrolet Monte Caro LT was a front wheel drive, 2-door coupe (VIN: 2G1WK15N579-----) equipped with a 3.5 L, V-6 engine and an automatic transmission.

### 21 YEAR-OLD-VICTIM

The 21-year-old female victim was 170 cm (67 in) tall and weighed 57 kg (125 lbs). She was transported by ambulance to a local university medical center where she was treated for CO poisoning. She was released from the medical center the same day at approximately 2300 hours and has made a full recovery. The victim's injury is displayed in the table below.

| Injury Number | Injury Description (including Aspect)                            | NASS Injury Code & AIS 90 | Injury Source         | Source Confidence | Source of Injury Data  |
|---------------|--|---------------------------|-----------------------|-------------------|------------------------|
| 1             | Carbon monoxide exposure, non-intentional, not further specified | moderate<br>919200.2,0    | Motor vehicle exhaust | Certain           | Police Incident Report |

### 22 YEAR-OLD-VICTIM

The 22-year-old female victim was 180 cm (71 in) tall and weighed 79 kg (175 lbs). She was transported by ambulance to a local university medical center where she was treated for CO poisoning. She was released from the medical center the same day at approximately 2300 hours and has made a full recovery. The victim's injury is displayed in the table below.

| Injury Number | Injury Description (including Aspect)                            | NASS Injury Code & AIS 90 | Injury Source         | Source Confidence | Source of Injury Data  |
|---------------|--|---------------------------|-----------------------|-------------------|------------------------|
| 1             | Carbon monoxide exposure, non-intentional, not further specified | moderate<br>919200.2,0    | Motor vehicle exhaust | Certain           | Police Incident Report |

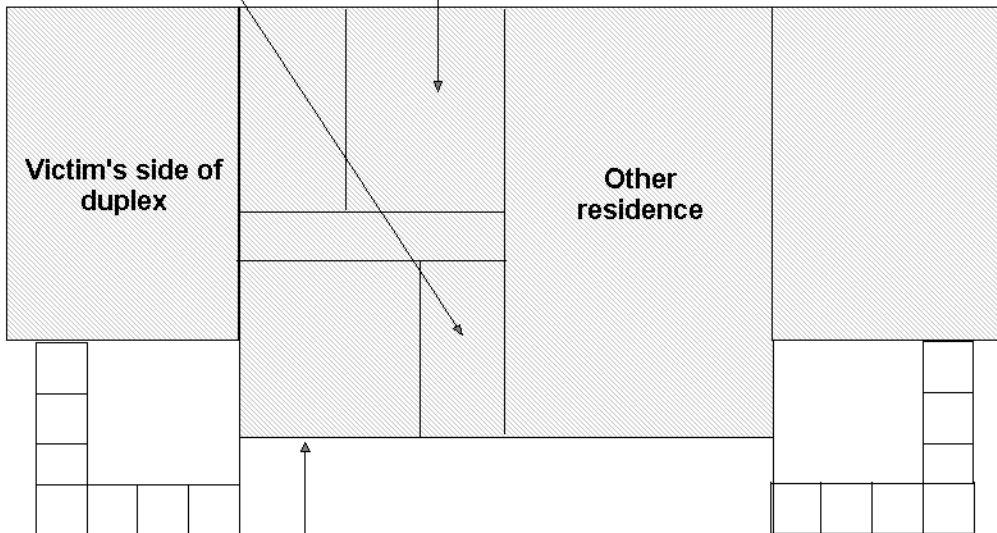


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## Sketch of Incident Location

Bathroom where  
21-year-old initially  
lost consciousness

21-year-old  
victim's bedroom



City Street



1. Case Number

\_\_\_\_\_

## IDENTIFICATION

2. Date of Crash \_\_\_\_ / \_\_\_\_ / \_\_\_\_

3. Time of Crash \_\_\_\_\_

Code reported military time of crash.

NOTE: Midnight = 2400  
Unknown = 9999

## AMBIENT CONDITIONS

4. Light Conditions

- Daylight
- Dark
- Dark but lighted
- Dawn
- Dusk
- Unknown

5. Atmospheric Conditions  
(Select all that apply)

- Clear-No adverse conditions
- Cloudy
- Rain
- Snow
- Fog, Smog, Smoke
- Sleet, Hail (freezing rain or drizzle)
- Blowing Snow
- Severe Crosswinds
- Blowing Sand, Soil, Dirt
- Other (specify):
- Unknown

6. Temperature

- Below 0 degrees Celsius (Below 32 F)
- 1-10 degrees Celsius (33-50 F)
- >10-24 degrees Celsius (51-75 F)
- Over 24 degrees Celsius (Over 75 F)
- Unknown

## SCENE INFORMATION

7. Type of area in which crash occurred  
(Select all that apply)

- Single family residential
- Row houses/townhouses
- Multi family housing
- Commercial
- Industrial
- Rural
- Unknown

8. Driver exterior sightline obstructions  
(Select all that apply)

- None
- Other vehicles
- Building
- Trees
- Shrubby
- Other (specify) \_\_\_\_\_
- Utility poles
- Signs
- Glare
- Unknown
- No driver present

9. Crash location

- Driveway
- Parking Lot
- Sidewalk
- Alley
- Intersection of driveway and sidewalk
- Road / street
- Roadside / shoulder
- Other (specify) \_\_\_\_\_
- Unknown

10. Non motorist sightline obstructions  
(Select all that apply)

- None
- Other vehicles
- Building
- Trees
- Shrubby
- Utility poles
- Signs
- Glare
- Other (specify) \_\_\_\_\_
- Unknown

11. Grade at parked position \_\_\_\_\_ +/- %

12. Estimated distance from parked position to impact

\_\_\_\_\_ m

13. Estimated speed at impact \_\_\_\_\_ +/- kmph

14. Grade at impact \_\_\_\_\_ +/- %

15. Estimated distance from impact to vehicle final rest

\_\_\_\_\_ m

Unknown = 999 Reference Items 11,12, 13, 14, 15



# VEHICLE FORM

1. Case Number \_\_\_\_\_

## VEHICLE IDENTIFICATION

2. VIN \_\_\_\_\_

3. Model Year \_\_\_\_\_

4. Vehicle Make (specify): \_\_\_\_\_

5. Vehicle Model (specify): \_\_\_\_\_

## GLAZING

| Location              | Presence (check) | Status (select)                                  | Clarity (select)                    | Tint (check) | Glazing Obstructions (specify if present) |
|-----------------------|------------------|--|-------------------------------------|--------------|---|
| Windshield            |                  | Fixed / Closed / Open / Partially Open / Unknown | Clear / Hazy / Very Dirty / Unknown |              |   |
| LF                    |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| RF                    |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| 2 <sup>nd</sup> Left  |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| 2 <sup>nd</sup> Right |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| 3 <sup>rd</sup> Left  |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| 3 <sup>rd</sup> Right |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| Backlight             |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| Left Backlight        |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| Right Backlight       |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| Roof                  |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |
| Other (specify)       |                  | Fixed / Closed / Open / Partially Open           | Clear / Hazy / Very Dirty           |              |   |

## TIRE DATA

6. Vehicle Manufacturer Recommended Tire Size \_\_\_\_\_

7. LF Tire Size \_\_\_\_\_

9. RF Tire Size \_\_\_\_\_

8. LR Tire Size \_\_\_\_\_

10. RR Tire Size \_\_\_\_\_

**Seats / Head Restraint Data**

| Seat Position          | Seat Type<br>(Select from below ) | Head Restraint<br>(Check if available) | Head Restraint Adjustment<br>(select) | NOTES: |
|------------------------|-----------------------------------|--|---------------------------------------|--------|
| Front Left             |                                   |  | Full Down / Mid / Full Up             |        |
| Front Middle           |                                   |  | Full Down / Mid / Full Up             |        |
| Front Right            |                                   |  | Full Down / Mid / Full Up             |        |
| 2 <sup>nd</sup> Left   |                                   |  | Full Down / Mid / Full Up             |        |
| 2 <sup>nd</sup> Middle |                                   |  | Full Down / Mid / Full Up             |        |
| 2 <sup>nd</sup> Right  |                                   |  | Full Down / Mid / Full Up             |        |
| 3 <sup>rd</sup> Left   |                                   |  | Full Down / Mid / Full Up             |        |
| 3 <sup>rd</sup> Middle |                                   |  | Full Down / Mid / Full Up             |        |
| 3 <sup>rd</sup> Right  |                                   |  | Full Down / Mid / Full Up             |        |

**Seat Type codes:**

- |   |                                      |
|---|--------------------------------------|
| 0 = No seat or seat folded down           | 8 = Pedestal (i.e. column supported) |
| 1 = Bucket                                | 9 = Box mounted (i.e. van type)      |
| 2 = Bucket w/ folding back                | 10= Other seat type (specify)        |
| 3 = Bench                                 | 99= Unknown seat type                |
| 4 = Bench with folding back cushions      |                                      |
| 5 = Bench w/ folding back                 |                                      |
| 6 = Split bench w/ separate back cushions |                                      |
| 7 = Split bench w/ separate folding back  |                                      |

**VEHICLE MEASUREMENTS**

| Clearance Heights             | Measurements<br>(all from ground, and in centimeters) | NOTES |
|-------------------------------|---|-------|
| Beltline                      |   |       |
| Top of trunk/tailgate         |   |       |
| Bottom of bumper              |   |       |
| Trailer hitch (if applicable) |   |       |
| Undercarriage                 |   |       |
| Sway bar                      |   |       |
| Axle                          |   |       |
| Differential                  |   |       |
| Other (specify):              |   |       |
| Sensor Height (if equipped)   |   |       |
| Camera Height (if equipped)   |   |       |



1. Case Number

\_\_\_\_\_

### PARKING AID PRESENCE

2. Type of backing/parking aid present

- OEM camera
- OEM ultrasonic/radar sensor
- OEM combination camera-ultrasonic/radar sensor
- OEM Fresnel lens
- OEM interior mirrors
- Aftermarket camera
- Aftermarket ultrasonic/radar sensor
- Aftermarket combination camera-ultrasonic radar sensor
- Aftermarket Fresnel lens
- Aftermarket interior mirrors
- Other (specify): \_\_\_\_\_

### CAMERA INFORMATION

*Specify field of view measurements on diagram*

3. System make/model

\_\_\_\_\_

4. Video monitor type

- None present
- LCD (color)
- CRT (black & white)
- Unknown

5. Video display size \_\_\_\_\_ cm  
(Diagonal)

6. Camera location

- None present
- Bumper
- License plate
- Tailgate/Hatch/Trunk
- Other (specify): \_\_\_\_\_

7. Video image quality under scene lighting conditions

- None present
- Good
- Average
- Poor (specify): \_\_\_\_\_
- Unknown

8. Was the camera functioning properly

- None present
- Yes
- No, poor image quality due to glare
- No, poor image quality due to atmospheric conditions
- No, camera turned off
- No, camera inoperable
- Unknown

### ULTRASONIC/RADAR SENSOR

*Specify object detection range on diagram*

9. System make/model

\_\_\_\_\_

10. Auditory warning illumination

- No sensor present
- Yes
- No
- Unknown

11. Number of sensors \_\_\_\_\_

12. Sensor locations  
(Select all that apply)

- No sensor present
- Left bumper
- Center bumper
- Right bumper
- License plate area
- Tailgate/Hatch/Trunk

13. Was warning system functioning properly

- No sensor present
- Yes, system alerted driver
- No, system did not alert driver
- No, system turned off
- No, system inoperable
- Unknown

14. Did driver react to warning

- No sensor present
- Yes
- No
- Unknown

15. Did driver report common false warnings

- No sensor present
- Yes
- No
- Unknown





# DRIVER FORM

1. Case Number  
\_\_\_\_\_

### DRIVER PROFILE

2. Driver's Age \_\_\_\_\_  
99 = Unknown

3. Driver's Sex  Male  
 Female  
 Unknown

4. Driver's Height \_\_\_\_\_ cm  
999 = Unknown

5. Driver's Weight \_\_\_\_\_ kg  
999 = Unknown

6. Driver eyewear worn  
(Select all that apply)  
 None  
 Eyeglasses  
 Sunglasses  
 Contacts  
 Unknown

7. Driver vision deficiency condition  
(Select all that apply)  
 None  
 Near sighted  
 Far sighted  
 Astigmatism  
 Other (specify): \_\_\_\_\_  
 Unknown

8. Non motorist's relationship to driver  
 No relationship  
 Child  
 Grandchild  
 Sibling  
 Neighbor  
 Friend  
 Other (specify): \_\_\_\_\_  
 Unknown

### DRIVER ACTIONS

9. Driver approach to vehicle for entry  
From left front  
 From left  
 From left rear  
 From right rear  
 From right front  
 Circled vehicle  
 Return trip (backing into driveway/lot)  
 Other (specify): \_\_\_\_\_  
 N/A  
 Unknown

10. Driver entry interruption  
(Select all that apply)  
 Direct trip from building to vehicle  
 Loaded items into vehicle  
 Spoke with family  
 Spoke with neighbors  
 Spoke with contacted nonmotorist  
 Return trip (backing into driveway/lot)  
 Other (specify): \_\_\_\_\_  
 N/A  
Unknown

11. Purpose of backing  
 Leaving parking space in parking lot  
 Backing onto roadway from driveway  
 Entering parking space in parking lot  
 Backing into driveway from roadway  
 Other (specify): \_\_\_\_\_  
 N/A  
Unknown

12. Where was driver going  
Description:  
\_\_\_\_\_  
\_\_\_\_\_

13. Driver in a hurry  
 Yes N/A  
 No Unknown  
 Unknown

14. How did driver check behind (rear area of vehicle)  
after vehicle entry  
(Select all that apply)  
 Did not look  
 Checked mirrors  
 Turned right and looked back  
 Turned left and looked back  
 Viewed Camera  
 Listened for auditory/visual warning from system  
 Other (specify): \_\_\_\_\_  
N/A Unknown

15. Estimated time between vehicle entry and start  
of backing  
 0-10 Seconds  Over 60 Seconds  
 11-30 Seconds  N/A  
 31-60 Seconds  Unknown

16. What direction was the driver looking during backing maneuver  
(Select all that apply)
- Straight ahead
  - Right
  - Left
  - Rearward
  - At object inside the car
  - At mirrors
  - Other (specify): \_\_\_\_\_
  - N/A
  - Unknown
17. Was the driver distracted during back up maneuver  
(Select all that apply)
- No non-driving activities
  - External**
  - Looking at other vehicles
  - Looking at other non motorist
  - Looking at intended turn destination
  - External focus, not specified
  - Other external focus (specify): \_\_\_\_\_
  - Internal**
  - Looking at other occupant
  - Talking to passenger
  - Dialing phone
  - Talking on phone
  - Listening to radio/cd/portable playback device
  - Adjusting radio/cd player
  - Adjusting climate controls
  - Using a device/controls integral to vehicle (specify): \_\_\_\_\_
  - Reading/adjusting navigation system
  - Eating or drinking
  - Smoking related
  - Retrieving fallen object (specify): \_\_\_\_\_
  - Internal focus, not specified
  - Focused on other internal object (specify): \_\_\_\_\_
  - N/A
  - Unknown
18. Driver avoidance actions prior to impact  
(Select all that apply)
- None
  - Braking
  - Steering left
  - Steering right
  - Accelerating
  - Other (specify): \_\_\_\_\_
  - N/A
  - Unknown
19. Did driver see struck non motorist prior to impact  
(Select all that apply)
- No, never saw non motorist
  - Saw non motorist prior to entering vehicle
  - Saw non motorist after entering vehicle
  - Other (specify): \_\_\_\_\_
  - N/A
  - Unknown
20. Est time between start of backing and impact
- <2 or = 1 second
  - 2-5 seconds
  - 6-10 seconds
  - > 10 seconds
  - N/A
  - Unknown
21. Driver interior sightline obstructions  
(Select all that apply)
- Pillar
  - Headrest
  - Cargo
  - Other occupant
  - Other (specify) \_\_\_\_\_
  - Unknown
  - None
22. Recent experience driving this vehicle
- More than 10 times the last three months
  - 6-10 times the last three months
  - 2-5 times the last three months
  - Less than 2 times the last three months
  - First time driving this vehicle
  - N/A
  - Unknown
23. Frequency of driving in this parking lot/driveway
- Daily
  - Weekly
  - Several times a month
  - Monthly
  - Rarely
  - First time in lot/driveway
  - N/A
  - Unknown
24. Driver Impairment  
(Select all that apply)
- No drugs or alcohol present
  - Alcohol present (specify BAC): \_\_\_\_\_
  - Drugs present (specify): \_\_\_\_\_
  - Unknown
25. Source of alcohol/drug results
- Police reported
  - Medical record
  - Other (specify) \_\_\_\_\_
  - Not Tested
  - Unknown if tested



# Non Motorist Form

1. Case Number  
\_\_\_\_\_

## NON-MOTORIST PROFILE

2. Non-motorist's Age \_\_\_\_\_ Months  
\_\_\_\_\_ Years  
99 = Unknown

3. Non-motorist's Sex  
 Male  
 Female  
 Unknown

4. Non-motorist's Height \_\_\_\_\_ cm  
999 = Unknown

5. Non-motorist's Weight \_\_\_\_\_ kg  
999 = Unknown

6. Medical outcome  
 Not injured  
 ER only  
 Hospitalized 1-4 days  
 Hospitalized 5 days or more  
 Treatment later  
 Fatal  
 Unknown

7. Source of most severe injury  
 Bumper  
 Tire  
 Undercarriage  
 Other Specify: \_\_\_\_\_  
 Ground  
 N/A  
 Unknown

8. Non-motorist impairment  
*(Select all that apply)*  
 No drugs or alcohol present  
 Positive for alcohol (specify BAC): \_\_\_\_\_  
 Positive for drugs (specify): \_\_\_\_\_  
 Unknown

9. Source of alcohol/drug results  
 Police reported  
 Medical Report  
 Other (specify) \_\_\_\_\_  
 Not Tested  
 Unknown if tested

## NON-MOTORIST ACTIONS

10. Non-motorist attitude  
 Standing  
 Bending at waist  
 Sitting  
 Crouching  
 Kneeling  
 On skates/skateboard  
 On bike/scooter  
 Other (specify) \_\_\_\_\_  
 Unknown

11. Non-motorist motion  
 Not moving  
 Walking slowly  
 Walking rapidly  
 Running or jogging  
 Skipping/Hopping/Jumping  
 Falling/Stumbling/Rising  
 On skates/skateboard  
 On bike/scooter  
 Other (specify): \_\_\_\_\_  
 Unknown

12. Non-motorist approach relative to rear of vehicle  
 Stationary  
 From left  
 From right  
 From behind  
 Other (specify): \_\_\_\_\_  
 Unknown

13. Non-motorist first avoidance action  
 No avoidance actions  
 Stopped  
 Accelerated pace  
 Ran away (along vehicle path)  
 Jumped  
 Turned away from vehicle  
 Turned toward vehicle and braced  
 Dove or fell away from vehicle  
 Other (specify): \_\_\_\_\_  
 Unknown

14. Non-motorist primary focus of attention  
 Striking vehicle  
 Play object  
 Person  
 Surrounding traffic  
 Animal  
 Handheld electronic (phone, MP3 player, etc.)  
 Other Object (specify) \_\_\_\_\_  
 Unknown

15. Were any other Non-motorists present?  
*(Select all that apply)*  
 Alone  
 One adult present  
 One other child present  
 Multiple adults present  
 Multiple children present  
 Unknown

**NON MOTORIST CLOTHING**

**NOTES:**

- Specify Color, Fabric and Texture/Weight for outermost layer only
- Indicate "NONE" if applicable
- Available codes:

|                |                      |  |                       |  |                        |  |                       |
|----------------|----------------------|--|-----------------------|--|------------------------|--|-----------------------|
|                | <u><b>Colors</b></u> |  | <u><b>Fabrics</b></u> |  | <u><b>Textures</b></u> |  | <u><b>Weights</b></u> |
| Black          | Charcoal gray        |  | Natural               |  | Soft                   |  | Heavy                 |
| Lt gray/silver | Brown                |  | Synthetic             |  | Slick                  |  | Medium                |
| Gold/tan       | Purple               |  | Blend                 |  | Coarse                 |  | Light                 |
| Dark blue      | Light blue           |  |                       |  |                        |  |                       |
| Dark green     | Light green          |  |                       |  |                        |  |                       |
| Maroon         | Red                  |  |                       |  |                        |  |                       |
| Orange         | Yellow               |  |                       |  |                        |  |                       |
| White          | Other (specify)      |  |                       |  |                        |  |                       |

|   | <b>Clothing</b>           | <b>Color</b> | <b>Fabric</b> | <b>Texture</b> | <b>Weight</b> |
|---|---------------------------|--------------|---------------|----------------|---------------|
| <b>H<br/>E<br/>A<br/>D<br/>W<br/>E<br/>A<br/>R</b>            | Hat                       |              |               |                |               |
|   | Helmet                    |              |               |                |               |
|   | Hood                      |              |               |                |               |
|   | Other (specify):<br>_____ |              |               |                |               |
|   |                           |              |               |                |               |
| <b>U<br/>P<br/>P<br/>E<br/>R<br/><br/>B<br/>O<br/>D<br/>Y</b> | Short Sleeve              |              |               |                |               |
|   | Long Sleeve               |              |               |                |               |
|   | Light Jacket              |              |               |                |               |
|   | Heavy Jacket              |              |               |                |               |
|   | Other (Specify):<br>_____ |              |               |                |               |
|   |                           |              |               |                |               |
| <b>L<br/>O<br/>W<br/>E<br/>R<br/><br/>B<br/>O<br/>D<br/>Y</b> | Shorts                    |              |               |                |               |
|   | Pants                     |              |               |                |               |
|   | Shoes                     |              |               |                |               |
|   | Other (specify):<br>_____ |              |               |                |               |
|   |                           |              |               |                |               |



Not Applicable

U.S. Department of Transportation  
National Highway Traffic Safety Administration

# Non Motorist Form

Special Crash Investigations  
Not In Traffic Surveillance

1. Case Number  
  I     N     0     9     0     1     4  

## NON-MOTORIST PROFILE

2. Non-motorist's Age   2     2    Months  
 Years  
99 = Unknown

3. Non-motorist's Sex  
 Male  
 Female  
 Unknown

4. Non-motorist's Height   1     8     0   cm  
999 = Unknown

5. Non-motorist's Weight   0     7     9   kg  
999 = Unknown

6. Medical outcome  
 Not injured  
 ER only  
 Hospitalized 1-4 days  
 Hospitalized 5 days or more  
 Treatment later  
 Fatal  
 Unknown

7. Source of most severe injury  
 Bumper  
 Tire  
 Undercarriage  
 Other Specify: Carbon Monoxide  
 Ground  
 N/A  
 Unknown

8. Non-motorist impairment  
(Select all that apply)  
 No drugs or alcohol present  
 Positive for alcohol (specify BAC): \_\_\_\_\_  
 Positive for drugs (specify): \_\_\_\_\_  
 Unknown

9. Source of alcohol/drug results  
 Police reported  
 Medical Report  
 Other (specify) \_\_\_\_\_  
 Not Tested  
 Unknown if tested

## NON-MOTORIST ACTIONS

10. Non-motorist attitude  
 Standing  
 Bending at waist  
 Sitting  
 Crouching  
 Kneeling  
 On skates/skateboard  
 On bike/scooter  
 Other (specify) 2nd floor  
 Unknown

11. Non-motorist motion  
 Not moving  
 Walking slowly  
 Walking rapidly  
 Running or jogging  
 Skipping/Hopping/Jumping  
 Falling/Stumbling/Rising  
 On skates/skateboard  
 On bike/scooter  
 Other (specify): N/A  
 Unknown

12. Non-motorist approach relative to rear of vehicle  
 Stationary  
 From left  
 From right  
 From behind  
 Other (specify): N/A  
 Unknown

13. Non-motorist first avoidance action  
 No avoidance actions  
 Stopped  
 Accelerated pace  
 Ran away (along vehicle path)  
 Jumped  
 Turned away from vehicle  
 Turned toward vehicle and braced  
 Dove or fell away from vehicle  
 Other (specify): N/A  
 Unknown

14. Non-motorist primary focus of attention  
 Striking vehicle  
 Play object  
 Person  
 Surrounding traffic  
 Animal  
 Handheld electronic (phone, MP3 player, etc.)  
 Other Object (specify) N/A  
 Unknown

15. Were any other Non-motorists present?  
(Select all that apply)  
 Alone  
 One adult present  
 One other child present  
 Multiple adults present  
 Multiple children present  
 Unknown

**NON MOTORIST CLOTHING**

**NOTES:**

- Specify Color, Fabric and Texture/Weight for outermost layer only
- Indicate "NONE" if applicable
- Available codes:

|                |                 |  |                |  |                 |  |                |
|----------------|-----------------|--|----------------|--|-----------------|--|----------------|
|                | <u>Colors</u>   |  | <u>Fabrics</u> |  | <u>Textures</u> |  | <u>Weights</u> |
| Black          | Charcoal gray   |  | Natural        |  | Soft            |  | Heavy          |
| Lt gray/silver | Brown           |  | Synthetic      |  | Slick           |  | Medium         |
| Gold/tan       | Purple          |  | Blend          |  | Coarse          |  | Light          |
| Dark blue      | Light blue      |  |                |  |                 |  |                |
| Dark green     | Light green     |  |                |  |                 |  |                |
| Maroon         | Red             |  |                |  |                 |  |                |
| Orange         | Yellow          |  |                |  |                 |  |                |
| White          | Other (specify) |  |                |  |                 |  |                |
| Pink           |                 |  |                |  |                 |  |                |

|            | Clothing                  | Color   | Fabric | Texture | Weight |
|------------|---------------------------|---------|--------|---------|--------|
| HEADWEAR   | Hat                       |         |        |         |        |
|            | Helmet                    |         |        |         |        |
|            | Hood                      |         |        |         |        |
|            | Other (specify):<br>_____ |         |        |         |        |
|            | Unknown                   | Unknown |        |         |        |
| UPPER BODY | Short Sleeve              |         |        |         |        |
|            | Long Sleeve               |         |        |         |        |
|            | Light Jacket              |         |        |         |        |
|            | Heavy Jacket              |         |        |         |        |
|            | Other (Specify):<br>_____ |         |        |         |        |
| Unknown    | Unknown                   |         |        |         |        |
| LOWER BODY | Shorts                    |         |        |         |        |
|            | Pants                     |         |        |         |        |
|            | Shoes                     |         |        |         |        |
|            | Other (specify):<br>_____ |         |        |         |        |
|            | Unknown                   | Unknown |        |         |        |