400 Seventh Street, S.W.
Washington, D.C. 20590

U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Dear Crash Data Researchers/Users:

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If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

*** *** ***

TRANSPORTATION RESEARCH CENTER

Indiana University
[redacted]

# REMOTE AIR BAG INVESTIGATION

CASE NO. - 94-21
FLEET - PRIVATE VEHICLE
LOCATION - [redacted]
ACCIDENT DATE [redacted] 1994

Submitted By:

[redacted]

[redacted] 1995

Revised Submission:

[redacted], 1995

Contract Number: DTNH22-94-D-17058

Prepared for:

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

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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. Report No. | 2. Government Accession No. | 3. Recipient's Catalog No. |
|---|---|---|
| TRC/IU Case No. 94-21 | | |

| 4. Title and Subtitle | 5. Report Date |
|---|---|
| Remote Air Bag Investigation<br>Private Vehicle<br>Location - [redacted] | [redacted] 1995; R[redacted]95 |
| | 6. Performing Organization Code |
| 7. Author(s)<br>[redacted] | 8. Performing Organization Report No.<br>TRC/IU 94-21, Task 9507 |
| 9. Performing Organization Name and Address<br>Indiana University<br>Transportation Research Center<br>[redacted], Indiana[redacted] | 10. Work Unit No. (TRAIS) |
| | 11. Contract or Grant No.<br>DTNH22-94-D-17058 |
| | 13. Type of Report and Period Covered<br>[redacted]1994 |
| 12. Sponsoring Agency Name and Address<br>U.S. Department of Transportation (NRD-32)<br>National Highway Traffic Safety Administration<br>National Center for Statistics and Analysis<br>Washington, D.C. 20590 | 14. Sponsoring Agency Code |

15. Supplementary Notes

Remote air bag investigation involving a 1993 Toyota Camry, 4-door sedan, with manual lap and shoulder belts and driver's air bag

16. Abstract

This report covers a remote investigation of an air bag deployment crash that involved a 1993 Toyota Camry, a 1993 Ford Escort LX, and a 1993 Jeep Grand Cherokee Limited. The Camry was traveling south in the southbound lane of a two-lane, undivided, city roadway and, according to its driver, braked and swerved right just prior to the crash. The Escort was traveling east in the eastbound lane of an intersecting two-lane, undivided, city roadway. Based on the Police Accident Report sketches and the interview with the case vehicle driver, the front left of the Camry (case vehicle) impacted the left front of the Escort (vehicle #2) causing the case vehicle's driver side supplemental restraint system (air bag) to deploy. The case vehicle rotated approximately 30 degrees counterclockwise after impact and came to rest in the middle of the intersection heading south-southeast. Vehicle #2 was deflected south-eastward after the initial impact and subsequently impacted the Grand Cherokee (vehicle #3) which was stopped, on the south leg of the four-leg intersection, heading northward, in the northbound lane of the same two-lane, undivided, city roadway as the case vehicle. Vehicle #2 most likely came to rest just south of the intersection heading east-southeast. Vehicle #3 most likely remained near its impact position after impact and came to rest heading essentially northward. The case vehicle's driver (49 year-old female) was also restrained by the available, active, three-point lap and shoulder belt and sustained bilateral forearm injuries of an undetermined nature. According to her interview, she had multiple fractures to her forearms; according to the Police Accident Report, her forearms were contused. Because of a lack of cooperation, this discrepancy cannot be reconciled.

| 17. Key Words | 18. Distribution Statement |
|---|---|
| Motor Vehicle Traffic Accident<br>Air Bag<br>Deployment<br>Injury Severity | General Public |

| 19. Security Classif. (of this report) | 20. Security Classif. (of this page) | 21. No. of Pages | 22. Price |
|---|---|---|---|
| Unclassified | Unclassified | 41 | $4,100 |

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized



* U. S. GOVERNMENT PRINTING OFFICE : 1973 725-504/328

# TABLE OF CONTENTS

**TRC/IU REMOTE AIR BAG REPORT**

TRC/IU CASE NO. 94-21

FLEET - PRIVATE VEHICLE
LOCATION - [redacted] NEW YORK

## Summary

This report concerns a motor vehicle crash involving an air bag equipped 1993 Toyota Camry, a 1993 Ford Escort LX, and a 1993 Jeep Grand Cherokee Limited occurring on [redacted] 1994 at [redacted] a.m., in the village of [redacted] New York on a city street. This crash is of special interest because the air bag in the case vehicle is alleged to have caused arm fractures as a result of a *"low-speed"* crash.

The Camry was traveling south in the southbound lane of a two-lane, undivided, city roadway and, according to the driver, braked and swerved right just prior to impacting the Escort which was traveling east in the eastbound lane of an intersecting two-lane, undivided, city roadway. The Camry rotated approximately 30 degrees counterclockwise after impact and came to rest in the middle of the intersection heading south-southeast. The Escort was deflected southeastward after the initial impact and subsequently im-pacted the Grand Cherokee which was stopped, on the south leg of the four-leg intersection, heading northward, in the northbound lane of the same two-lane, undivided, city roadway as the Camry. The Escort most likely came to rest just south of the intersection heading east-southeast next to the Grand Cherokee. The Grand Cherokee most likely remained near its impact position after impact and came to rest heading essentially northward.

Based on the Police Accident Report sketches and the interview with the case vehicle driver, the front left of the Camry impacted the left front of the Escort. Subsequently, the front right of the Escort impacted the left front of the Grand Cherokee. With no available vehicle photographs, the CDCs are not estimable for the Camry, Escort, and Grand Cherokee. No reconstruction program was used on this crash because the NASS, CDS, CRASH3PC protocol requires that actual vehicular crush measurements be ob-tained.

The 1993 Toyota Camry was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the left front impact. The driver of the Camry (49 year-old female) was also restrained by the available, active, three-point lap and shoulder belt. According to her interview, she sustained multiple fractures to both forearms. The driver of the Camry was listed on the Police Accident Report as sustaining a "B" (nonincapacitating-evident) injury, and her forearms were indicated to be contused. Because of a lack of cooperation, this discrepancy cannot be reconciled, and the forearm injuries are considered to be of an undetermined nature. The driver (26 year-old female) of the Escort was listed on the Police Accident Report as sustaining a "C" (possible) injury (i.e., complaint of head pain), and the driver (42 year-old male) of the Grand Cherokee was listed on the Police Accident Report as not sustaining any injury as a result of this crash.

# TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 94-21

FLEET - PRIVATE VEHICLE
LOCATION - [redacted] NEW YORK

## ACCIDENT DATA[1]

| | |
|---|---|
| Location/Street: | City Street |
| City/Township: | [redacted] County, village of [redacted] near [redacted] City, New York |
| Area/Type: | Urban, residential |
| Accident Date/Time: | [redacted] 1994, @ [redacted] a.m. |
| Investigating Police Agency: | [redacted] City Police Department[1] |
| Accident Type: | Car / Car - right angle |
| Occupant Injury Severity (air bag vehicle): | Bilateral forearm injuries of undetermined nature (AIS-7) |

## AMBIENT CONDITIONS

| | |
|---|---|
| Light Conditions: | Daylight |
| Weather Condition: | Clear |
| Precipitation: | None |
| Road Surface: | Wet |

## ROADWAY

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Location: | City street | City street | City street |
| Number of Travel Lanes: | 2-lanes, undivided | 2-lanes, undivided | 2-lanes, undivided |
| Width: | Unknown | Unknown | Unknown |
| Surface Type: | Unknown | Unknown | Unknown |

[1] See APPENDIX A for approximate location of the [redacted] This map was taken from the [redacted]

## ROADWAY (CONTINUED)

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Horizontal alignment: | Straight | Straight | Straight |
| Vertical alignment: | Level | Level | Level |
| Traffic Density: | Unknown | Unknown | Unknown |
| Speed Limit: | Unknown | Unknown | Unknown |
| Traffic Controls: | Flashing red intersection control beacon and most likely a STOP sign | Flashing yellow intersection control beacon | Flashing red intersection control beacon and most likely a STOP sign |

## VEHICLES

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Year: | 1993 | 1993 | 1993 |
| Make: | Toyota | Ford | Jeep |
| Model: | Camry | Escort | Grand Cherokee Limited |
| Body Type: | 4-door sedan | 3-door hatchback | 4-door sport utility |
| V.I.N.[2] | 4T1VK12E6PU------[2] | 1FAPP11J1PW------ | 1J4GZ78S9PC------ |
| Mileage: | ~ 20,900 km (~ 13,000 m) | Unknown | Unknown |
| Securiflex windshield: | None | None | None |
| Windshield damage/source: | Unknown | Unknown | Unknown |
| Active Restraints: | 3-point, manual, lap and shoulder belts in front and rear outboard seating positions; lap belt only at rear center position | 2-point, manual, lap belts in front outboard seating positions; 3-point, manual, lap and shoulder belts in rear outboard seating positions, and lap belt only at rear center position | 3-point, manual, lap and shoulder belts in front and rear outboard seating positions; lap belt only at rear center position |

[2] The case vehicle's, vehicle #2's and vehicle #3's Vehicle Identifiction Numbers were obtained from the State of New York's vehicle registration records.

## VEHICLES (CONTINUED)

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Passive Restraints: | Factory installed driver supplemental restraint system (air bag) | 2-point shoulder belts in front outboard seating positions | None |
| Fleet: | Private vehicle | Private vehicle | Private vehicle |
| Tow status: | Towed due to damage | Towed due to damage | Driven from scene |
| Reported Defects: | Unknown | Unknown | Unknown |

## VEHICLE DAMAGE[3]

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Deployment Impact | | | |
| Event number: | First | First | |
| Object struck: | Vehicle #2 | Case Vehicle | |
| Damage location: | Front | Unknown if front or left | |
| CDC: | Unknown[3] | Unknown | |
| Estimated maximum crush: | Unknown | Unknown | |
| Damaged components: | Unknown[3] | Unknown | |
| Repair estimate: | Unknown[3] | Unknown | |
| Interior damage: | Unknown[3] | Unknown | |
| Nondeployment Impact | | | |
| Event number: | | Second | Second |
| Object struck: | | Vehicle #3 | Vehicle #2 |
| Damage location: | | Front | Front |
| CDC: | | Unknown | Unknown |

[3] The case vehicle driver promised this contractor photographs of the damaged case vehicle and a copy of the repair estimate. This promise was reinterated several times by the case vehicle's driver over a three-month period (i.e., [redacted] 1994 through [redacted] 1995). This contractor finally concluded that needed materials were never going to be forthcoming.

## VEHICLE DAMAGE (CONTINUED)

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Nondeployment Impact (Continued) | | | |
| Estimated maximum crush: | | Unknown | Unknown |
| Damaged components: | | Unknown | Unknown |
| Repair estimate: | | Unknown | Unknown |
| Interior damage: | | Unknown | Unknown |

## COLLISION SEQUENCE

Pre-Crash: According to the Police Accident Report and the case vehicle's driver, the case vehicle (Camry) was traveling south in the southbound lane of a two-lane, undivided, city roadway and was attempting to continue in its southward direction of travel. Vehicle #2 (Escort) was traveling east in the eastbound lane of an intersecting two-lane, undivided, city roadway and was attempting to continue in its eastward direction of travel. Vehicle #3 (Grand Cherokee) was stopped, on the south leg of the four-leg intersection, heading northward, in the northbound lane of the same two-lane, undivided, city roadway as the case vehicle, and waiting to proceed northward through the intersection. According to the case vehicle's driver, the case vehicle entered the intersection after stopping for the flashing control beacon and prior to observing vehicle #2 enter the intersection. After observing vehicle #2, the case vehicle driver indicated that she attempted to brake and swerve right just prior to impacting vehicle #2. According to the Police Accident Report, the driver of vehicle #3 indicated that the case vehicle never stopped prior to entering the intersection[4]. Based on the Police Accident Report sketches and the interview with the case vehicle driver, the case vehicle swerved sharply toward the right prior to impact. Based on the Police Accident Report, the driver of vehicle #2 made no pre-crash avoidance maneuvers. Vehicle #2 continued straight ahead prior to impact. Based on the Police Accident Report, the driver of vehicle #3 made no pre-crash avoidance maneuvers. Vehicle #3 remained headed northward prior to impact. The crash occurred in the four-leg intersection of the two roadways.

Crash: Based on the Police Accident Report sketches and the interview with the case vehicle driver, the front left of the case vehicle impacted the left front of vehicle #2 causing the driver side supplemental restraint system (air bag) to deploy. According to the case vehicle driver, the case vehicle rotated approximately 30 degrees counterclockwise after impact and came to rest in the middle

[4] The issue of whether or not the case vehicle driver stopped prior to entering the intersection is not important from a crashworthiness standpoint. However, the factual contradiction is discussed here because this issue reflects on the trustworthiness and credibility of the case vehicle driver's allegations of severe forearm fractures resulting from the deployment the driver's side air bag.

## COLLISION SEQUENCE (CONTINUED)

Crash: (Continued)

of the intersection heading south-southeast. According to the Police Accident Report, vehicle #2 was deflected southeastward after the initial impact, and subsequently, the front right of vehicle #2 impacted the left front of vehicle #3. Vehicle #2 most likely came to rest just south of the intersection heading east-southeast next to vehicle #3. Vehicle #3 most likely remained near its impact position after impact and came to rest heading essentially northward.

## DRIVER DATA

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Age: | 49 | 26 | 42 |
| Sex: | Female | Female | Male |
| Height: | 165 cm (65 in) | Unknown | Unknown |
| Weight: | 48 kg (105 lbs) | Unknown | Unknown |
| Occupation: | Housewife | Unknown | Unknown |
| Active Restraint System/Usage: | 3-point lap and shoulder/used | 2-point lap/used | 3-point lap and shoulder/used |
| Usage Source: | Interviewee and Police Accident Report | Police Accident Report | Police Accident Report |
| Passive Restraint System/Usage: | Air bag/deployed | 2-point shoulder/used | Not applicable |
| Usage Source: | Intervieweee and Police Accident Report | Police Accident Report | Not applicable |
| Eye glasses/contacts: | None | Unknown | Unknown |
| Vehicle Familiarity: | Very familiar | Unknown | Unknown |
| Route Familiarity: | Once a month | Unknown | Unknown |
| Trip Plan: | Home to friend's house | Unknown | Unknown |
| Manner of Leaving Scene: | Ambulance | Ambulance | Drove vehicle from scene |

## DRIVER DATA (CONTINUED)[5]

| | Case Vehicle | Vehicle #2 | Vehicle #3 |
|---|---|---|---|
| Type of Medical Treatment: | Hospitalized[5] | Unknown treatment | Unknown if treated |

## DRIVER INJURIES[6,7]

| Description of Injury | A.I.S. | Source of Data | Injury Mechanism | Certainty |
|---|---|---|---|---|
| Fractured[6] right forearm | 751800.2,1 | 7 | Air bag[7] | {Possible} |
| Fractured[6] left forearm | 751800.2,2 | 7 | Air bag[7] | {Possible} |

[5] The case vehicle driver promised this contractor a signed medical release for each of the two medical facilities from which she allegedly received treatment (i.e., the hospital where she was allegedly hospitalized, and the physician from which she received follow-up treatment). This promise was reiterated several times by the case vehicle's driver over a three-month period (i.e., [redacted]1994 through [redacted]1995). This contractor finally concluded that the signed medical releases were never going to be forthcoming.

[6] The available evidence is contracdictory. The case vehicle driver alleges that both of her forearms were fractured in multiple places by the deploying driver's side air bag. In fact, the case vehicle driver alleges in her interview that her right forearm required *"plates and pins"* and her left required *"pins and rods"*. She promised this contractor her cooperation and agreed telephonically, on several occasions, to sign and send us a medical release, which this contractor supplied her on two distinct occasions. The case vehicle driver explained her tardiness in sending this contractor the information that she promised by using the excuse that both of her arms were in casts and that she could not drive to mail this contractor the promised information. She added that she had to depend on *"family"* to pick-up (e.g., the promised photographs) and send (e.g., mail) this contractor the promised information. All of this indicates that the alleged fractures were very severe. On the other hand, the investigating police officer--the only other source of information, indicated on the Police Accident Report that the case vehicle driver sustained *"elbow-lower arm-hand"* contusions. Given that injury to the forearm area was the only cited injury location by both the case vehicle driver and the investigating police officer, this contractor is skeptical that such severe (i.e., AIS-3 injuries if documented) injuries would be unobserved (i.e., swelling, deformity, etc.) at the crash scene. Given this discrepancy and the failure of the case vehicle driver to deliver on her promises, this contractor concludes that the case vehicle driver has injuries of an unknown nature to her forearms, bilaterally. Because AIS-'90 does not provide a code for "injured unknown severity" in the upper extremities, the injuries cited by the case vehicle driver are listed. This contractor would code unknown for the TYPE OF ANATOMIC STRUCTURE, SPECIFIC ANATOMIC STRUCTURE, AND LEVEL OF INJURY. In addition, this contractor considers the appropriate AIS to be "7", "INJURED UNKNOWN SEVERITY".

[7] The case vehicle driver indicated that the air bag fractured her arms. Because the SOURCE OF INJURY DATA used here is INTERVIEWEE, this contractor has chosen to report the *"air bag"* as the INJURY SOURCE to be consistent. However, if the alleged fractures to the case vehicle driver's ulna, radius, and/or carpel bones did actually occur, then this contractor believes that the steering wheel rim or the air bag's cover flaps would more likely be the INJURY SOURCE.

# Appendix A:

## LOCATION OF THE VILLAGE OF [redacted]

# Appendix B:

## POLICE ACCIDENT REPORT

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Page 1 of 2 Pages

# POLICE ACCIDENT REPORT

MV-104A (6/92)

## POLICE AGENCY COPY 1

Local Codes [redacted]

| Accident Date | Day of Week | Time | No. of Vehicles | No. Injured | No. Killed | Non-Highway | Not Investigated at Scene | Left Scene | Police Photos |
|---|---|---|---|---|---|---|---|---|---|
| Mo. [redacted] Year 94 | Mo | 0841 ☒AM ☐PM | 3 | 2 | — | ☐ | ☐ | ☐ | ☐ Yes ☒ No |

☐ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN

### VEHICLE 1

Name — exactly as printed on license: [redacted]

Number and Street: [redacted] Rt

City: [redacted] State: NY Zip Code: [redacted]

| Date of Birth Mo. / Day / Year | Sex | Unlicensed | No. of Occup. | Public Property Damaged | State of License |
|---|---|---|---|---|---|
| [redacted] 45 | F | ☐ | 1 | ☐ | NY |

Name — exactly as printed on registration: [redacted] Date of Birth: [redacted]

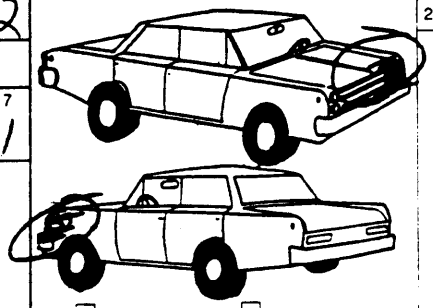
Number and Street: [redacted] Hazardous Material Code:

City: [redacted] State: NY Zip Code: [redacted]

| Plate Number | State of Reg. | Yr. & Vehicle Make | Vehicle Type | Ins. Code |
|---|---|---|---|---|
| [redacted] | NY | 93 Toyo T | 4 DSD | 011 |

Check if involved vehicle:
☐ is a commercial motor vehicle;
☐ is more than 95 inches wide;
☐ is more than 34 feet long;
☐ was operated with an overweight permit;
☐ was operated with an overdimension permit.

VEHICLE 1 DAMAGE



☐ No Damage ☐ Undercarriage

Vehicle Towed By: [redacted] Towing To: [redacted]

### VEHICLE 2

Name — exactly as printed on license: [redacted]

Number and Street: [redacted]

City: [redacted] State: NY Zip Code: [redacted]

| Date of Birth Mo. / Day / Year | Sex | Unlicensed | No. of Occup. | Public Property Damaged | State of License |
|---|---|---|---|---|---|
| [redacted] 68 | F | ☐ | 1 | ☐ | NY |

Name — exactly as printed on registration: [redacted] Date of Birth: [redacted]

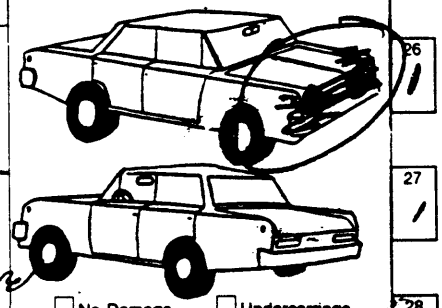
Number and Street: [redacted] OR. Hazardous Material Code:

City: [redacted] State: NY Zip Code: [redacted]

| Plate Number | State of Reg. | Yr. & Vehicle Make | Vehicle Type | Ins. Code |
|---|---|---|---|---|
| [redacted] | NY | 93 FORD | 2 DSD | 011 |

Check if involved vehicle:
☐ is a commercial motor vehicle;
☐ is more than 95 inches wide;
☐ is more than 34 feet long;
☐ was operated with an overweight permit;
☐ was operated with an overdimension permit.

VEHICLE 2 DAMAGE



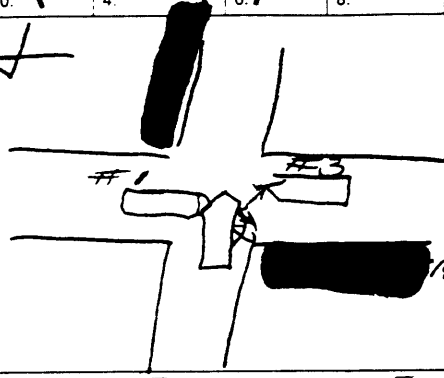
☐ No Damage ☐ Undercarriage

Vehicle Towed By: [redacted] To: [redacted]

### ACCIDENT DIAGRAM

Rear End 1. | Left Turn 3. | Right Angle | Right Turn 5. | Head On 7.

Overtaking 2. | Left Turn 0. | 4. | Right Turn 6. | Sideswipe 8.




Reference Marker

DMV USE ONLY

County: Rock ☐ City ☐ Town ☒ Village: [redacted]

Route No. and Street Name: [redacted] on Rt

☐ Miles ☐ Feet ☐ N ☐ S ☐ E ☐ W of ☒ At Intersection with [redacted] Ave.

Nearest Intersecting Route/Street

Ticket/Arrest ☐ Other ☐ Opr 1 ☐ Opr 2 ☐ Pedestrian ☐ Bicyclist

Ticket/Arrest Number(s)

Violation Section(s)

Accident Description/Officer's Notes: Vehicle #2 STATED She STopped AT Flashing light Vehicle #1 didnot Stop hit Vehicle #2 Causing Vehicle #2 TO hit Vehicle #3 AT Intersection of [redacted] Rt and [redacted] Ave. Vehicle #1 STATED Traveling SOUTH on [redacted] Rt She Did Stop AT Flashing light pulled into Intersection and hit Vehicle #2 Causing it To hit Vehicle #3.

USE COVER SHEET J

| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 BY | TO 18 | Names - If Deceased Give Date of Death |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL INVOLVED A | 1 | 1 | 3 | 1 | 49 | F | 8 | 10 | 6 | [redacted] | [redacted] | |
| B | 2 | 1 | 3 | 1 | 26 | F | 1 | 12 | 6 | | | |
| C | | | | | | | | | | | | |
| D | | | | | | | | | | | | |
| E | | | | | | | | | | | | |
| F | | | | | | | | | | | | |
| G | | | | | | | | | | | | |

SIGN HERE

Officer's Rank and Name: Po. [redacted] Badge No. [redacted] Department [redacted] Precinct/Post Troop/Zone [redacted] Station/Beat/Sector [redacted] Reviewing Officer [redacted] Date/Time Reviewed [redacted] 430 p.m.

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Page 2 of 2 Pages

# POLICE ACCIDENT REPORT

MV-104A (6/92)

## POLICE AGENCY COPY 1

| Day of Week | Time | | No. of Vehicles | No. Injured | No. Killed | Non-Highway | Not Investigated at Scene | Left Scene | Police Photos |
|---|---|---|---|---|---|---|---|---|---|
| MO | 0841 | ☒ AM ☐ PM | 3 | 2 | — | ☐ | ☐ | ☐ | ☐ Yes ☒ No |

### VEHICLE 1

Name — exactly as printed on license: [redacted]

Number and Street: [redacted] OR

City: [redacted] State: NY Zip Code: [redacted]

| Date of Birth (Mo. / Day / Year) | Sex | Unlicensed | No. of Occup. | Public Property Damaged | State of License |
|---|---|---|---|---|---|
| [redacted] 52 | M | ☐ | 1 | ☐ | NY |

Name — exactly as printed on registration: SAME AS ABOVE

Date of Birth (Mo. / Day / Year):

Number and Street:

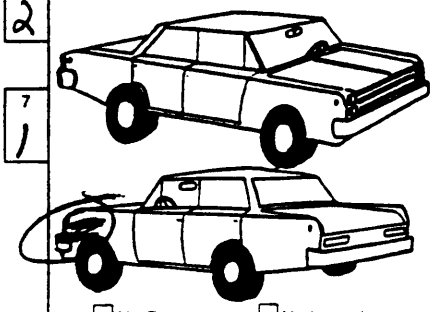
Hazardous Material Code:

City: State: Zip Code:

| Plate Number | State of Reg. | Yr. & Vehicle Make | Vehicle Type | Ins. Code |
|---|---|---|---|---|
| [redacted] | NY | 93 Jeep | Sedan | 011 |

Check if involved vehicle:
- ☐ is a commercial motor vehicle;
- ☐ is more than 95 inches wide;
- ☐ is more than 34 feet long;
- ☐ was operated with an overweight permit;
- ☐ was operated with an overdimension permit.

VEHICLE 1 DAMAGE



☐ No Damage ☐ Undercarriage

Vehicle Towed By:

Vehicle Towed To: N/A

### VEHICLE 2 / BICYCLIST / PEDESTRIAN

Name — exactly as printed on license: N/A

Number and Street:

City: State: Zip Code:

| Date of Birth (Mo. / Day / Year) | Sex | Unlicensed | No. of Occup. | Public Property Damaged | State of License |
|---|---|---|---|---|---|
| | | ☐ | | ☐ | |

Name — exactly as printed on registration:

Date of Birth (Mo. / Day / Year):

Number and Street: N/A

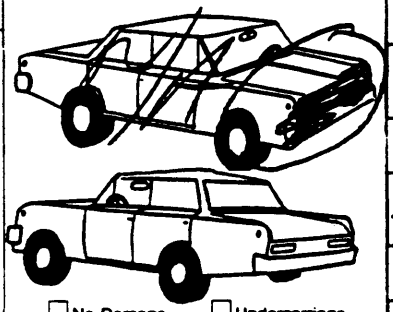
Hazardous Material Code:

City: State: Zip Code:

| Plate Number | State of Reg. | Yr. & Vehicle Make | Vehicle Type | Ins. Code |
|---|---|---|---|---|
| | | | | |

Check if involved vehicle:
- ☐ is a commercial motor vehicle;
- ☐ is more than 95 inches wide;
- ☐ is more than 34 feet long;
- ☐ was operated with an overweight permit;
- ☐ was operated with an overdimension permit.

VEHICLE 2 DAMAGE



☐ No Damage ☐ Undercarriage

Vehicle Towed By:

Vehicle Towed To:

### ACCIDENT DIAGRAM

| Rear End | Left Turn | Right Angle | Right Turn | Head On |
|---|---|---|---|---|
| 1. | 3. | | 5. | 7. |
| **Overtaking** | **Left Turn** | | **Right Turn** | **Sideswipe** |
| 2. | 0. | 4. | 6. | 8. |

9.

| Reference Marker | DMV USE ONLY |
|---|---|
| | |

County: Rock ☐ City [redacted] ☐ Town ☒ Village

Route No. and Street Name: on [redacted] Rd

☐ Miles ☐ N ☐ E ☐ Feet ☐ S ☐ W of ☒ At Intersection with [redacted] Ave

Nearest Intersecting Route/Street

Ticket/Arrest ☐ Other ☐ Opr 1 ☐ Opr 2 ☐ Pedestrian ☐ Bicyclist

Ticket/Arrest Number(s)

Violation Section(s)

Accident Description/Officer's Notes

Vehicle #3 was stopped at [redacted] Rd Intersection of [redacted] Ave. At this time Vehicle #1 Traveling South on [redacted] Rd Did not stop at Flashing Light Hit Vehicle #2 in the intersection Causing Vehicle #2 to hit Vehicle #3.

USE COVER SHEET J

| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 BY | TO 18 | Names - If Deceased Give Date of Death |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALL INVOLVED | A | 3 | 1 | 3 | 1 | 42 | M | — | — | — | — | — |
| | B | | | | | | | | | | | |
| | C | | | | | | | | | | | |
| | D | | | | | | | | | | | |
| | E | | | | | | | | | | | |
| | F | | | | | | | | | | | |
| | G | | | | | | | | | | | |

SIGN HERE

Officer's Rank and Name: P.O. [redacted]

Badge No.: [redacted] Department: [redacted] Precinct/Post Troop/Zone: [redacted] Station/Beat/Sector: [redacted] Reviewing Officer: [redacted] Date/Time Reviewed: [redacted] 94 4:30 AM

New York State
Department of Motor Vehicles

# POLICE ACCIDENT REPORT

MV-104A (6/92)

* EXPLAIN IN ACCIDENT DESCRIPTION

If a question DOES NOT APPLY, enter a dash (—).

If an answer is UNKNOWN, enter an "X"

**1 PEDESTRIAN/BICYCLIST LOCATION**
1. Pedestrian/Bicyclist at Intersection
2. Pedestrian/Bicyclist Not at Intersection

**2 PEDESTRIAN/BICYCLIST ACTION**
1. Crossing, With Signal
2. Crossing, Against Signal
3. Crossing, No Signal, Marked Crosswalk
4. Crossing, No Signal or Crosswalk
5. Riding/Walking Along Highway With Traffic
6. Riding/Walking Along Highway Against Traffic
7. Emerging from in Front of/Behind Parked Vehicle
8. Going To/From Stopped School Bus
9. Getting On/Off Vehicle Other Than School Bus
10. Pushing/Working On Car
11. Working in Roadway
12. Playing in Roadway *
13. Other Actions in Roadway *
14. Not in Roadway (Indicate)

**3 TRAFFIC CONTROL**
1. None
2. Traffic Signal
3. Stop Sign
4. Flashing Light
5. Yield Sign
6. Officer/Guard
7. No Passing Zone
8. RR Crossing Sign
9. RR Crossing Flashing Lt.
10. RR Crossing Gates
11. Stopped School Bus-Red Lights Flashing
12. Construction Work Area
13. Maintenance Work Area
14. Utility Work Area
20. Other *

**4 LIGHT CONDITIONS**
1. Daylight
2. Dawn
3. Dusk
4. Dark-Road Lighted
5. Dark-Road Unlighted

**5 ROADWAY CHARACTER**
1. Straight and Level
2. Straight and Grade
3. Straight at Hillcrest
4. Curve and Level
5. Curve and Grade
6. Curve at Hillcrest

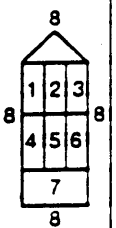
**6 ROADWAY SURFACE CONDITION**
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
0. Other *

**7 WEATHER**
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
0. Other *

**8 WHICH VEHICLE OCCUPIED**
1. Vehicle No. 1
2. Vehicle No. 2
B. Bicyclist
O. Other *
P. Pedestrian

**9 POSITION IN/ON VEHICLE**
1. Driver
2-7. Passengers
8. Riding/Hanging on Outside

**SAFETY EQUIPMENT USED**
1. None
2. Lap Belt
3. Harness
4. Lap Belt/Harness
5. Child Restraint Only
6. Helmet
7. Air Bag Only
8. Air Bag/Lap Belt
9. Air Bag/Harness
A. Air Bag/Lap Belt/Harness
B. Air Bag/Child Restraint
0. Other *




**10 EJECTION FROM VEHICLE**
1. Not Ejected
2. Partially Ejected
3. Ejected

**11 AGE** | **12 SEX M / F**

**APPARENT CONTRIBUTING FACTORS**

HUMAN
2. Alcohol Involvement
3. Backing Unsafely *
4. Driver Inattention (Indicate) *
5. Driver Inexperience (Indicate) *
6. Drugs (Illegal)
7. Failure to Yield Right-of-Way
8. Fell Asleep
9. Following Too Closely
10. Illness
11. Lost Consciousness
12. Passenger Distraction
13. Passing or Lane Usage Improper
14. Pedestrian's/Bicyclist's Error/Confusion
15. Physical Disability
16. Prescription Medication
17. Traffic Control Disregarded
18. Turning Improperly
19. Unsafe Speed
20. Unsafe Lane Changing
40. Other Human *

VEHICULAR
41. Accelerator Defective
42. Brakes Defective
43. Headlights Defective
44. Other Lighting Defects
45. Oversized Vehicle
46. Steering Failure
47. Tire Failure/Inadequate
48. Tow Hitch Defective
49. Windshield Inadequate
60. Other Vehicular *

ENVIRONMENTAL
61. Animal's Action
62. Glare
63. Lane Marking Improper/Inadequate
64. Obstruction/Debris
65. Pavement Defective
66. Pavement Slippery
67. Shoulders Defective/Improper
68. Traffic Control Device Improper/Non-Working
69. View Obstructed/Limited
80. Other Environmental *

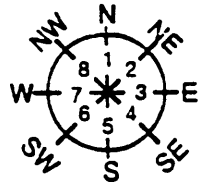
**LOCATION OF MOST SEVERE PHYSICAL COMPLAINT**
1. Head
2. Face
3. Eye
4. Neck
5. Chest
6. Back
7. Shoulder-Upper Arm
8. Elbow-Lower Arm-Hand
9. Abdomen - Pelvis
10. Hip-Upper Leg
11. Knee-Lower Leg-Foot
12. Entire Body

**TYPE OF PHYSICAL COMPLAINT**
1. Amputation
2. Concussion
3. Internal
4. Minor Bleeding
5. Severe Bleeding
6. Minor Burn
7. Moderate Burn
8. Severe Burn
9. Fracture - Dislocation
10. Contusion - Bruise
11. Abrasion
12. Complaint of Pain
13. None Visible

**VICTIM'S PHYSICAL AND EMOTIONAL STATUS**
1. Apparent Death
2. Unconscious
3. Semiconscious
4. Incoherent
5. Shock
6. Conscious

**INJURED TAKEN** 17 BY | TO 18

**DIRECTION OF TRAVEL**




**PRE-ACCIDENT VEHICLE ACTION**
1. Going Straight Ahead
2. Making Right Turn
16. Making Right Turn on Red
3. Making Left Turn
17. Making Left Turn on Red
4. Making U Turn
5. Starting from Parking
6. Starting in Traffic
7. Slowing or Stopping
8. Stopped in Traffic
9. Entering Parked Position
10. Parked
11. Avoiding Object in Roadway
12. Changing Lanes
13. Overtaking
14. Merging
15. Backing
20. Other *

**27 LOCATION OF FIRST EVENT**
1. On Roadway
2. Off Roadway

**28 TYPE OF ACCIDENT**
**COLLISION WITH**
1. Other Motor Vehicle
2. Pedestrian
3. Bicyclist
4. Animal
5. Railroad Train
10. Other Object (Not Fixed) *

**COLLISION WITH FIXED OBJECT**
11. Light Support/Utility Pole
12. Guide Rail
13. Crash Cushion
14. Sign Post
15. Tree
16. Building/Wall
17. Curbing
18. Fence
19. Bridge Structure
20. Culvert/Head Wall
21. Median/Barrier
22. Snow Embankment
23. Earth Embankment/Rock Cut/Ditch
24. Fire Hydrant *
30. Other Fixed Object

**NON-COLLISION**
31. Overturned
32. Fire/Explosion
33. Submersion
34. Ran Off Roadway Only
40. Other *

**VEHICLE 1 — 19**
**VEHICLE 1 — 20**
**VEHICLE 2 — 21**
**VEHICLE 2 — 22**
**VEHICLE 1 — 23**
**VEHICLE 2 — 24**
**VEHICLE 1 — 25**
**VEHICLE 2 — 26**
**First Event — 29**
**SECOND EVENT**
**VEHICLE 1 — 29**
**VEHICLE 2 — 30**

COVER SHEET **J**

# Appendix C:

## NASS CDS Accident Form

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

# ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421

## IDENTIFICATION

3. Number of General Vehicle Forms Submitted: 03
4. Date of Accident (Month,Day,Year): [redacted] 9 4
5. Time of Accident: 0841

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

## SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS14-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. ___SS15 Administrative Use ___
7. ___SS16 Pedestrian Crash Data Study ___
8. ___SS17 Impact Fires ___
9. ___SS18 _____ ___
10. ___SS19 _____ ___

## NUMBER OF EVENTS

11. Number of Recorded Events in This Accident: 02

Code the number of events which occurred in this accident.

## ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

| Accident Event Sequence Number | Vehicle Number | Class Of Vehicle | General Area of Damage | Vehicle Number or Object Contacted | Class Of Vehicle | General Area of Damage |
|---|---|---|---|---|---|---|
| 12. 01 | 13. 01 | 14. 02 | 15. F | 16. 02 | 17. 01 | 18. U |
| 19. 02 | 20. 02 | 21. 01 | 22. F | 23. 03 | 24. 11 | 25. R |
| 26. 03 | 27. ___ | 28. ___ | 29. ___ | 30. ___ | 31. ___ | 32. ___ |
| 33. 04 | 34. ___ | 35. ___ | 36. ___ | 37. ___ | 38. ___ | 39. ___ |
| 40. 05 | 41. ___ | 42. ___ | 43. ___ | 44. ___ | 45. ___ | 46. ___ |

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

## CODES FOR CLASS OF VEHICLE

(00) Not a motor vehicle
(01) Subcompact/mini (wheelbase < 254 cm)
(02) Compact (wheelbase ≥ 254 but < 265 cm)
(03) Intermediate (wheelbase ≥ 265 but < 278 cm)
(04) Full size (wheelbase ≥ 278 but < 291 cm)
(05) Largest (wheelbase ≥ 291 cm)
(09) Unknown passenger car size
(11) Compact utility vehicle
(12) Large utility vehicle (≤ 4,500 kgs GVWR)
(13) Passenger van (≤ 4,500 kgs GVWR)
(14) Other van (≤ 4,500 kgs GVWR)
(15) Pickup truck (≤ 4,500 kgs GVWR)
(18) Other truck (≤ 4,500 kgs GVWR)
(19) Unknown light truck type
(20) School bus
(21) Other bus
(22) Truck (> 4,500 kgs GVWR)
(23) Tractor without trailer
(24) Tractor-trailer(s)
(25) Motored cycle
(28) Other vehicle
(99) Unknown

## CODES FOR GENERAL AREA OF DAMAGE (GAD)

### CDS APPLICABLE AND OTHER VEHICLES

(0) Not a motor vehicle
(N) Noncollision
(F) Front
(R) Right side
(L) Left side
(B) Back
(T) Top
(U) Undercarriage
(9) Unknown

### TDC APPLICABLE VEHICLES

(0) Not a motor vehicle
(N) Noncollision
(F) Front
(R) Right side
(L) Left side
(B) Back of unit with cargo area (rear of trailer or straight truck)
(D) Back (rear of tractor)
(C) Rear of cab
(V) Front of cargo area
(T) Top
(U) Undercarriage
(9) Unknown

## CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
(31) Overturn — rollover
(32) Fire or explosion
(33) Jackknife
(34) Other intraunit damage (specify): _____
(35) Noncollision injury
(38) Other noncollision (specify): _____
(39) Noncollision — details unknown

Collision With Fixed Object
(41) Tree (≤ 10 cm in diameter)
(42) Tree (> 10 cm in diameter)
(43) Shrubbery or bush
(44) Embankment
(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
(50) Pole or post (≤ 10 cm in diameter)
(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
(52) Pole or post (> 30 cm in diameter)
(53) Pole or post (diameter unknown)
(54) Concrete traffic barrier
(55) Impact attenuator
(56) Other traffic barrier (includes guardrail) (specify): _____
(57) Fence
(58) Wall
(59) Building
(60) Ditch or culvert
(61) Ground
(62) Fire hydrant
(63) Curb
(64) Bridge
(68) Other fixed object (specify): _____
(69) Unknown fixed object

Collision with Nonfixed Object
(71) Motor vehicle not in-transport
(72) Pedestrian
(73) Cyclist or cycle
(74) Other nonmotorist or conveyance _____
(75) Vehicle occupant
(76) Animal
(77) Train
(78) Trailer, disconnected in transport
(79) Object fell from vehicle in-transport
(88) Other nonfixed object (specify): _____
(89) Unknown nonfixed object
(98) Other event (specify): _____
(99) Unknown event or object

# Appendix D:

## NASS CDS General Vehicle Form: Case Vehicle

U.S. Department of Transportation

National Highway Traffic Safety Administration

# GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 01

## VEHICLE IDENTIFICATION

4. Vehicle Model Year: 93
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): TOYOTA — 49
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): CAMRY LE — 040
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type: 04
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number: 4T1VK12E6PU

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | T | 1 | V | K | 1 | 2 | E | 6 | P | U | | | | | | |

   Left justify; Slash zeros and letter Z (Ø and Ƶ)
   No VIN—Code all zeros
   Unknown—Code all nines

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 999
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown

    ___ mph X 1.6093 = ___ kph

11. Police Reported Alcohol Presence: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver: 96
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown

    Source: 1

## ACCIDENT RELATED

13. Speed Limit: 999
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown

    ___ mph X 1.6093 = ___ kph

14. Attempted Avoidance Maneuver: 09
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify): _____
    (99) Unknown

15. Accident Type: 88
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify): _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

## OCCUPANT RELATED

16. Driver Presence in Vehicle — 1
    (0) Driver not present
    (1) Driver present
    (9) Unknown

17. Number of Occupants This Vehicle — 01
    (00-96) Code actual number of occupants for this vehicle
    (97) 97 or more
    (99) Unknown

18. Number of Occupant Forms Submitted — 01

## VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight — 1330
    ____Code weight to nearest 10 kilograms.
    (045) Less than 450 kilograms
    (610) 6,100 kilograms or more
    (999) Unknown
    2943 lbs X .4536 = 1334.9 kgs
    Source: AUTO NEWS

20. Vehicle Cargo Weight — 0000
    0 Code weight to nearest 10 kilograms.
    (000) Less than 5 kilograms
    (450) 4,500 kilograms or more
    (999) Unknown
    ____.____ lbs X .4536 = ____.____ kgs

## RECONSTRUCTION DATA

21. Towed Trailing Unit — 0
    (0) No towed unit
    (1) Yes—towed trailing unit
    (9) Unknown

22. Documentation of Trajectory Data for This Vehicle — 0
    (0) No
    (1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V) — 0
    (0) Not collision (for highest delta V) with tree or pole
    (1) Not damaged
    (2) Cracked/sheared
    (3) Tilted <45 degrees
    (4) Tilted ≥45 degrees
    (5) Uprooted tree
    (6) Separated pole from base
    (7) Pole replaced
    (8) Other (specify): _____
    (9) Unknown

24. Rollover — 0
    (0) No rollover (no overturning)

    *Rollover (primarily about the longitudinal axis)*
    (1) Rollover, 1 quarter turn only
    (2) Rollover, 2 quarter turns
    (3) Rollover, 3 quarter turns
    (4) Rollover, 4 or more quarter turns (specify): _____

    (5) Rollover--end-over-end (i.e., primarily about the lateral axis)
    (9) Rollover (overturn), details unknown

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) — 0

26. Rear Override/Underride (this Vehicle) — 0

    (0) No override/underride, or not an end-to-end impact

    *Override (see specific CDC)*
    (1) 1st CDC
    (2) 2nd CDC
    (3) Other not automated CDC (specify): _____

    *Underride (see specific CDC)*
    (4) 1st CDC
    (5) 2nd CDC
    (6) Other not automated CDC (specify): _____

    (7) Medium/heavy truck or bus override
    (9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle — 999

28. Heading Angle For Other Vehicle — 999

29. Basis for Total Delta V (highest) 6

*Delta V Calculated*
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

*Delta V Not Calculated*
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

## COMPUTER GENERATED DELTA V

30. Total Delta V — Highest 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

31. Longitudinal Component of Delta V ± 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

Highest

32. Lateral Component of Delta V ± 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption 9999.900

_____ Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 0
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 0
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify):
_____

36. Is this an AOPS Vehicle? 1
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [✓] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 7
(0) No other drug(s) present
(1) Yes [other drug(s) present]
(7) Not reported
(8) No driver present
(9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
(0) No DEC process available or given
(1) DEC process given, results known
(2) DEC process given, results unknown
(3) DEC process available, unknown if given
(8) No driver present

39. Other Drug Specimen Test Type For Driver 0
(0) No specimen test given
(1) Blood test
(2) Urine test
(3) Other specimen tests (specify): _____
(7) Unspecified specimen test
(8) No driver present
(9) Unknown if specimen test given

## DRUG EVALUATION CLASSIFICATION
### OTHER DRUGS TEST RESULTS FOR DRIVER

| | DEC Test Results | Specimen Test Results |
|---|---|---|
| Narcotic Drug | 40. 0 | 41. 0 |
| Depressant Drug | 42. 0 | 43. 0 |
| Stimulant Drug | 44. 0 | 45. 6 |
| Hallucinogen Drug | 46. 0 | 47. 0 |
| Cannabinoid Drug | 48. 0 | 49. 0 |
| Phencyclidine (PCP) | 50. 0 | 51. 0 |
| Inhalant Drug | 52. 0 | 53. 0 |
| Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash) | 54. 0 | 55. 0 |

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

## OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin 1
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify): _____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

## ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 0
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify): _____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 00

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(8) Non-contact rollover forces (specify): _____
(9) Unknown

63. Direction of Initial Roll 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

## PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 03
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify): _____
(98) No driver present
(99) Unknown

## PRECRASH DATA (Continued)

65. Critical Precrash Event 17

*This Vehicle Loss of Control Due To:*
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

*This Vehicle Traveling*
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

*Other Motor Vehicle In Lane*
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

*Object or Animal*
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): _____
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 1
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 1
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avoidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), *****
**DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.**

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
**THE EXTERIOR VEHICLE, INTERIOR VEHICLE,**
**OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.**

# Appendix E:

## NASS CDS General Vehicle Form: Vehicle #2

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

# GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 02

## VEHICLE IDENTIFICATION

4. Vehicle Model Year: 93
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): FORD 12
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): Escort LX 013
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type: 03
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | F | A | P | P | 1 | 1 | J | 1 | P | W | | | | | | |

   Left justify; Slash zeros and letter Z (0 and Z)
   No VIN—Code all zeros
   Unknown—Code all nines

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 999
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown

    __ __ mph X 1.6093 = __ __ __ kph

11. Police Reported Alcohol Presence: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver: 96
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown

    Source: _____

## ACCIDENT RELATED

13. Speed Limit: 999
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown

    __ __ mph X 1.6093 = __ __ __ kph

14. Attempted Avoidance Maneuver: 99
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify): _____
    (99) Unknown

15. Accident Type: 89
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify): _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******



Wheel base = 98.4" = 249.9 cm

## OCCUPANT RELATED

16. Driver Presence in Vehicle: 0
(0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle: 01
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted: 00

## VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight: 1050
____Code weight to nearest 10 kilograms.
(045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown
2307 lbs X .4536 = 1046 kgs
Source: _____

20. Vehicle Cargo Weight: 999
____Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown
__ __.__ __ __ lbs X .4536 = __.__ __ __ kgs

## RECONSTRUCTION DATA

21. Towed Trailing Unit: 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle: 0
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V): 0
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify): _____
(9) Unknown

24. Rollover: 0
(0) No rollover (no overturning)

*Rollover (primarily about the longitudinal axis)*
(1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify): _____
(5) Rollover--end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle): 0

26. Rear Override/Underride (this Vehicle): 0

(0) No override/underride, or not an end-to-end impact

*Override (see specific CDC)*
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify): _____

*Underride (see specific CDC)*
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify): _____

(7) Medium/heavy truck or bus override
(9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle: 999

28. Heading Angle For Other Vehicle: 999

29. Basis for Total Delta V (highest) 6

*Delta V Calculated*
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

*Delta V Not Calculated*
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

## COMPUTER GENERATED DELTA V

30. Total Delta V — Highest 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

31. Longitudinal Component of Delta V ± 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

32. Lateral Component of Delta V — Highest ± 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption 9999.900

_____ Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 0
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 0
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify):
_____

36. Is this an AOPS Vehicle? 3
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [✓] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 7
(0) No other drug(s) present
(1) Yes [other drug(s) present]
(7) Not reported
(8) No driver present
(9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
(0) No DEC process available or given
(1) DEC process given, results known
(2) DEC process given, results unknown
(3) DEC process available, unknown if given
(8) No driver present

39. Other Drug Specimen Test Type For Driver 0
(0) No specimen test given
(1) Blood test
(2) Urine test
(3) Other specimen tests (specify): _____
(7) Unspecified specimen test
(8) No driver present
(9) Unknown if specimen test given

## DRUG EVALUATION CLASSIFICATION
### OTHER DRUGS TEST RESULTS FOR DRIVER

| | DEC Test Results | Specimen Test Results |
|---|---|---|
| Narcotic Drug | 40. 0 | 41. 0 |
| Depressant Drug | 42. 0 | 43. 0 |
| Stimulant Drug | 44. 0 | 45. 0 |
| Hallucinogen Drug | 46. 0 | 47. 0 |
| Cannabinoid Drug | 48. 0 | 49. 0 |
| Phencyclidine (PCP) | 50. 0 | 51. 0 |
| Inhalant Drug | 52. 0 | 53. 0 |
| Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash) | 54. 0 | 55. 0 |

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

## OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin 9
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify): _____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

## ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 0
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify): _____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 00

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(8) Non-contact rollover forces (specify): _____
(9) Unknown

63. Direction of Initial Roll 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

## PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 01
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify): _____
(98) No driver present
(99) Unknown

## PRECRASH DATA (Continued)

65. Critical Precrash Event 66

*This Vehicle Loss of Control Due To:*
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

*This Vehicle Traveling*
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

*Other Motor Vehicle In Lane*
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

*Object or Animal*
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): _____
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 9
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 9
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avoidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), *****
**DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.**

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
**THE EXTERIOR VEHICLE, INTERIOR VEHICLE,**
**OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.**

# Appendix F:

## NASS CDS General Vehicle Form: Vehicle #3

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

# GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 03

## VEHICLE IDENTIFICATION

4. Vehicle Model Year: 93
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): 02
   JEEP
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): 404
   Grand Cherokee Limited
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown
   4x4, 6 cylinder 4.0L

7. Body Type: 14
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number
   1J4GZ78S9PC_____
   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
   Left justify; Slash zeros and letter Z (0 and Z)
   No VIN—Code all zeros
   Unknown—Code all nines

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 0
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 999
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown
    ___ mph X 1.6093 = ___ kph

11. Police Reported Alcohol Presence: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown
    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver: 96
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown
    Source: _____

## ACCIDENT RELATED

13. Speed Limit: 999
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown
    ___ mph X 1.6093 = ___ kph

14. Attempted Avoidance Maneuver: 01
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify):
    _____
    (99) Unknown

15. Accident Type: 98
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify):
    _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

## OCCUPANT RELATED

16. Driver Presence in Vehicle — 1
    (0) Driver not present
    (1) Driver present
    (9) Unknown

17. Number of Occupants This Vehicle — 01
    (00-96) Code actual number of occupants for this vehicle
    (97) 97 or more
    (99) Unknown

18. Number of Occupant Forms Submitted — 00

## VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight — 1,670
    ____Code weight to nearest 10 kilograms. * See below
    (045) Less than 450 kilograms
    (610) 6,100 kilograms or more
    (999) Unknown

    3,674 lbs X .4536 = 1,667 kgs

    Source: _____

20. Vehicle Cargo Weight — 999
    ____Code weight to nearest 10 kilograms.
    (000) Less than 5 kilograms
    (450) 4,500 kilograms or more
    (999) Unknown

    ___,___ lbs X .4536 = ___,___ kgs

## RECONSTRUCTION DATA

21. Towed Trailing Unit — 0
    (0) No towed unit
    (1) Yes—towed trailing unit
    (9) Unknown

22. Documentation of Trajectory Data for This Vehicle — 0
    (0) No
    (1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V) — 0
    (0) Not collision (for highest delta V) with tree or pole
    (1) Not damaged
    (2) Cracked/sheared
    (3) Tilted <45 degrees
    (4) Tilted ≥45 degrees
    (5) Uprooted tree
    (6) Separated pole from base
    (7) Pole replaced
    (8) Other (specify): _____
    (9) Unknown

24. Rollover — 0
    (0) No rollover (no overturning)

    *Rollover (primarily about the longitudinal axis)*
    (1) Rollover, 1 quarter turn only
    (2) Rollover, 2 quarter turns
    (3) Rollover, 3 quarter turns
    (4) Rollover, 4 or more quarter turns (specify): _____

    (5) Rollover--end-over-end (i.e., primarily about the lateral axis)
    (9) Rollover (overturn), details unknown

## OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) — 9

26. Rear Override/Underride (this Vehicle) — 0

    (0) No override/underride, or not an end-to-end impact

    *Override (see specific CDC)*
    (1) 1st CDC
    (2) 2nd CDC
    (3) Other not automated CDC (specify): _____

    *Underride (see specific CDC)*
    (4) 1st CDC
    (5) 2nd CDC
    (6) Other not automated CDC (specify): _____

    (7) Medium/heavy truck or bus override
    (9) Unknown

## HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle — 999

28. Heading Angle For Other Vehicle — 999

* Shipping Weight (Branham's)
3,574 lbs
100
3,674

29. Basis for Total Delta V (highest) 6

*Delta V Calculated*
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

*Delta V Not Calculated*
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

## COMPUTER GENERATED DELTA V

30. Total Delta V — Highest 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

31. Longitudinal Component of Delta V ± 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

32. Lateral Component of Delta V — Highest ± 999

_____ Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption 9999.900

_____ Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 0
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 0
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify):
_____

36. Is this an AOPS Vehicle? 0
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [✓] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 7
(0) No other drug(s) present
(1) Yes [other drug(s) present]
(7) Not reported
(8) No driver present
(9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
(0) No DEC process available or given
(1) DEC process given, results known
(2) DEC process given, results unknown
(3) DEC process available, unknown if given
(8) No driver present

39. Other Drug Specimen Test Type For Driver 0
(0) No specimen test given
(1) Blood test
(2) Urine test
(3) Other specimen tests (specify): _____
(7) Unspecified specimen test
(8) No driver present
(9) Unknown if specimen test given

## DRUG EVALUATION CLASSIFICATION
### OTHER DRUGS TEST RESULTS FOR DRIVER

| | DEC Test Results | Specimen Test Results |
|---|---|---|
| Narcotic Drug | 40. 0 | 41. 0 |
| Depressant Drug | 42. 0 | 43. 0 |
| Stimulant Drug | 44. 0 | 45. 0 |
| Hallucinogen Drug | 46. 0 | 47. 0 |
| Cannabinoid Drug | 48. 0 | 49. 0 |
| Phencyclidine (PCP) | 50. 0 | 51. 0 |
| Inhalant Drug | 52. 0 | 53. 0 |
| Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash) | 54. 0 | 55. 0 |

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

## OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin 9
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify):
_____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

## ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 0
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify):
_____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 00

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify):
_____
(8) Non-contact rollover forces (specify):
_____
(9) Unknown

63. Direction of Initial Roll 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

## PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 04
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify):
_____
(98) No driver present
(99) Unknown

## PRECRASH DATA (Continued)

65. Critical Precrash Event 78

*This Vehicle Loss of Control Due To:*
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

*This Vehicle Traveling*
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

*Other Motor Vehicle In Lane*
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

*Object or Animal*
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): _____
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 0
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 0
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avoidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), *****
**DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.**

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
**THE EXTERIOR VEHICLE, INTERIOR VEHICLE,**
**OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.**

# Appendix G:

## NASS CDS Interview Form:

## Case Vehicle Driver

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

# INTERVIEW FORM (A)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 94 21
3. Vehicle Number 01

Interviewee(s) Role or Name(s): DRIVER

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

## DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

I was N/B into intersection (RED Blinking light) proceeded 5-10 m.p.h. CAR came from (R) (Blinking yellow) I braked and turned (R) into the other CAR that was westbound

## OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

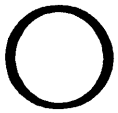
Repair Bill AVAIL DOT 45

[redacted] Co. NY

HS Form 433D (1/94)

Information collected in this report is used to complete HS Forms 433A and 433B. These reports are authorized by P.L. 89-563, Title 1, Section 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

## ACCIDENT DIAGRAM



NORTH

**The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.**

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

# INTERVIEW FORM (B)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9421
3. Vehicle Number 01

Interviewee(s) Role or Name(s): DRIVER

## ACCIDENT DATA QUESTIONS

1. Can you tell me in which direction you were traveling?

[X] North [ ] South [ ] East [ ] West

(Optional - Where were you coming from or going to?

2. In which lane were you traveling?
(Note: Lane 1 is designated as the right curb lane.)

(1) [2] [3] [4] [ ] Other (specify):

3. Can you remember your estimated travel speed (in miles per hour) before the accident?

| | | |
|---|---|---|
| [ ] Stopped | [X] 1-10 | [ ] 10-20 |
| [ ] 20-30 | [ ] 30-40 | [ ] 40-50 |
| [ ] 50-60 | [ ] 60-70 | [ ] 70+ |

4. Just before the accident, can you tell me what you were intending to do or were doing?

| | |
|---|---|
| [X] Going straight | [ ] Stopped |
| [ ] slowing | [ ] Accelerating |
| [ ] Turning left | [ ] Turning right |
| [ ] Changing lanes to left | [ ] Changing lanes to right |
| [ ] Backing | |
| [ ] Other (specify): | |

5. Did you experience any loss of control due to weather conditions or mechanical problems?

[X] No
[ ] Yes (If yes, describe below)

6. Did you have to take any avoidance actions prior to the accident?

[ ] No - Go to question 7
[X] Yes - Go to question 6a

6a. What actions did you take?

[ ] Braking with lock-up
[X] Braking without lock-up
[ ] Releasing brakes
[ ] Accelerating
[ ] Steering left
[X] Steering right
[ ] Other (specify):

7. Where was your vehicle at the time of the collision?

| | |
|---|---|
| [ ] Original travel lane | [ ] Different travel lane |
| [X] In intersection | [ ] Off roadway to right |
| [ ] Off roadway to left | |
| [ ] Other (specify): | |

8. Was your travel speed at the time of the collision different from your previous travel speed?

[X] No
[ ] Lower
[ ] Higher
[ ] Unknown

8a. Can you estimate your speed at the time of the collision?

| | | |
|---|---|---|
| [ ] Stopped | [ ] 1-10 | [ ] 10-20 |
| [ ] 20-30 | [ ] 30-40 | [ ] 40-50 |
| [ ] 50-60 | [ ] 60-70 | [ ] 70+ |

9. Immediately following the collision, can you describe how your vehicle moved to its stopped position?

10. Can you tell me how many collisions your vehicle had during the accident and the source of the collisions?

1 collision

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 01
4. Occupant Number: 01

## VEHICLE/DRIVER DATA QUESTIONS

1. Can you tell me the year, make, model of your vehicle?
   1993 (Year) TOY (Make) CAMRY (Model)

2. Can you describe the damage to your vehicle?
   FRONT END MINOR

3. Was there any previous damage to your vehicle that is not related to this accident?
   [X] No
   [ ] Yes (If "yes", describe below)

4. Did any of the doors (hatch, tailgate) open during the accident?
   [X] No
   [ ] Yes (If "Yes", describe below)

5. Did any of the windows break during the accident?
   [X] No
   [ ] Yes (If "Yes", describe below)

6. Does your vehicle have a glove compartment?
   [ ] No
   [X] Yes

6a. Did the glove compartment door come open during the accident?
   [ ] No
   [ ] Yes
   [X] Unknown

7. Does your vehicle have "seat belts"?
   [ ] No (If "No", go to question 7b)
   [ ] Yes (If "Yes", go to question 7a)

7a. Can you describe the type of seat belt for each seat?

| | | |
|---|---|---|
| Driver's seat | [ ] Lap | [✓] Lap and shoulder |
| Front seat middle | [ ] Lap | [ ] Lap and shoulder |
| Front seat right | [ ] Lap | [✓] Lap and shoulder |
| Rear seat left | [ ] Lap | [✓] Lap and shoulder |
| Rear seat middle | [✓] Lap | [ ] Lap and shoulder |
| Rear seat right | [ ] Lap | [✓] Lap and shoulder |

(Identify seat belts for third row and beyond

7b. Were any of the belts removed or not functional prior to the accident?
   [ ] No
   [ ] Yes (If "Yes", specify which belt and describe problem)

8. Do any of the front belts move along a motorized track when the door is opened or closed?
   [ ] No (If "No", go to question 9)
   [ ] Yes (If "Yes", what seat location?)
      [ ] Left Front
      [ ] Right Front

8a. Were the motorized belts working properly before the accident?
   [ ] No (If "No", describe condition below)
   [ ] Yes

8b. Were the belts connected to the track prior to the accident?
   [ ] No
   [ ] Yes
   [ ] Unknown

9. Do any of the front "seat" belts attach to the door such that when the door is opened the belt travels with the door?
   [ ] No (go to question 10)
   [ ] Yes

9a. Does this belt come across the _____?
   [ ] Chest only
   [ ] Lap and chest

9b. Was this belt connected prior to the accident?
   [ ] No
   [ ] Yes
   [ ] Unknown

## AIR BAGS

10. Is your vehicle equipped with a driver's side air bag?
   [✓] No (go to question 11)
   [ ] Yes (go to question 10a)
   [ ] Unknown (go to question 11)

10a. Did the air bag inflate during the accident?
   [ ] No (go to questions 10b and 10c)
   [X] Yes (go to question 10e)

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9421
3. Vehicle Number 01
4. Occupant Number 01

## VEHICLE/DRIVER DATA QUESTIONS (CONTINUED)

10b. Was the air bag wiring disconnected prior to the accident?
[ ] No
[ ] Yes (If "Yes", describe previous condition)
_____
_____
[ ] Unknown

10c. Was your vehicle involved in any accidents prior to this accident which inflated the air bag?
[X] No (go to question 11)
[ ] Yes (go to question 10d)
[ ] Unknown

10d. Was the air bag re-installed after the accident?
[ ] No (go to question 11)
[ ] Yes
[ ] Unknown

10e. Did the air bag inflate as you expected?
[ ] No (If "No" describe below)
_____
[✓] Yes
[ ] Unknown

11. Is your vehicle equipped with a passenger side air bag?
[X] No (If "No", go to question 12)
[ ] Yes (If "Yes", go to question 11a)
[ ] Unknown (If "Unknown", go to question 12)

11a. Did the passenger air bag inflate during the accident?
[ ] No (go to question 11b)
[ ] Yes (go to question 12)

11b. Was the passenger air bag wiring disconnected prior to the accident?
[ ] No
[ ] Yes (If "Yes", describe below)
_____
_____
[ ] Unknown

11c. Was the passenger air bag inflated in a previous accident?
[ ] No (go to question 12)
[ ] Yes (go to question 11d)
[ ] Unknown

11d. Was the passenger air bag re-installed after the accident?
[ ] No (go to question 12)
[ ] Yes
[ ] Unknown

11e. Did the passenger air bag inflate as you expected?
[ ] No (If "No" describe below)
_____
[ ] Yes
[ ] Unknown

## CHILD SAFETY SEAT

12. Was there a person in a child safety seat in your vehicle?
[X] No (If "No", go to question 13)
[ ] Yes
[ ] Unknown

12a. Can you tell me the manufacturer and model of the child safety seat?
_____
_____

12b. Can you describe the type of child safety seat?
[ ] Infant
[ ] Toddler
[ ] Convertible
[ ] Booster
[ ] Other (specify): _____
[ ] Unknown

12c. Where was the child safety seat(s) located?
[12] [13]
[21] [22] [23]
[31] [32] [33]
[Other] (specify): _____

12d. Can you tell me which direction the child safety seat was facing prior to the accident?
[ ] Rear facing
[ ] Forward facing,
[ ] Other (specify):_____
[ ] Unknown

12e. Was a seat belt used to hold the child seat in place?
[ ] No (If "No", go to question 12g)
[ ] Yes (If "Yes", go to question 12f)
[ ] Unknown

12f. Can you describe how the seat belt was secured to the child seat?
[ ] Looped through designated rear framing struts?
[ ] Looped through arm rest slots?
[ ] Belt across safety shield?
[ ] Looped through rear frame outside the designated framing struts?
[ ] Other (specify): _____
[ ] Unknown

12g. What was the child safety seat equipped with at the time of purchase? (check all that apply)
[ ] Harness
[ ] Shield
[ ] Tether strap

If any box is checked, ask questions 12h - 12i.

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9421
3. Vehicle Number 01
4. Occupant Number 01

## VEHICLE/DRIVER DATA QUESTIONS (CONTINUED)

12h. Were any of these items added after you owned the child safety seat?
[ ] Yes
(specify_____)
[ ] No
[ ] Unknown

12i. Were any of these items used during the accident?
[ ] Yes (If "Yes", check all that apply)
( ) Harness
( ) Shield
( ) Tether strap)
[ ] No
[ ] Unknown

## CARGO WEIGHT AND MILEAGE

13. Was there any cargo in your vehicle?
[ ] No (If "No", go to question 14)
[ ] Yes (If "Yes", go to question 13a)
[ ] Unknown

13a. Can you estimate the weight of the cargo?
0 lbs.

Cargo description
_____
_____

14. Can you tell me the mileage on the vehicle?
13000 miles

## OPTIONAL

If you do not know where the vehicle is or if the owner's permission is needed for inspection.

15. Do you know where the vehicle is currently located?
_____
_____

16. May I take a look at your vehicle to assess the damage?
[ ] No
[ ] Yes

## DRIVER ONLY

17. What race do you consider yourself?
[X] White
[ ] Black
[ ] American Indian, Eskimo or Aleut, Asian or Pacific Islander
[ ] Other (specify:_____)
[ ] Unknown.

18. Are you of hispanic origin?
[X] No
[ ] Yes

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 94 21
3. Vehicle Number 01
4. Occupant Number 01

## VEHICLE ROLLOVER/FIRE QUESTIONS

### ROLLOVER QUESTIONS

1. Did the vehicle rollover during the accident?
   [X] No (If "No", go to question 2.)
   [ ] Yes
   [ ] Unknown (skip to question 2)

1a. Describe where the rollover began.
   [ ] On roadway
   [ ] On shoulder
   [ ] On roadside or median
   [ ] Unknown

1b. What caused the vehicle to rollover?
   [ ] Other vehicle (specify vehicle number):_____
   [ ] Contacted object (specify): _____
   [ ] Other cause (specify):
   _____
   [ ] Unknown

1c. Describe which direction the vehicle rolled.
   [ ] Toward the right
   [ ] Toward the left
   [ ] End-over-end
   [ ] Unknown

1d. Estimate the number of sides (including the top and bottom) which contacted the ground during the rollover?
   [ ] 1 side
   [ ] 2 sides
   [ ] 3 sides
   [ ] 4 sides
   [ ] Unknown

1e. Did the vehicle roll over more than one complete turn (more than 4 sides)?
   [ ] No (If "No", go to question 1g.)
   [ ] Yes

1f. Estimate the number of complete turns.
   [ ] No
   [ ] Yes (specify): _____
   [ ] Unknown

1g. When the vehicle stopped rolling over, which side of the vehicle was in contact with the ground?
   [ ] Left side
   [ ] Right side
   [ ] Top
   [ ] Wheels
   [ ] Unknown

### FIRE QUESTIONS

2. Did the vehice experience a fire?
   [X] No (If "No", skip to Occupant Data Questions)
   [ ] Yes
   [ ] Unknown

2a. Describe where the fire started or where smoke was first seen.
   [ ] Under the hood
   [ ] Behind the instrument panel
   [ ] In the passenger compartment
   [ ] In the trunk/cargo area
   [ ] Under the vehicle
   [ ] From other involved vehicle
   [ ] Unknown

2b. Did the fire start with the electrical system?
   [ ] No
   [ ] Yes (specify): _____
   [ ] Unknown

2c. Did the fire start with the fuel system?
   [ ] No (If "No", skip to Occupant Data Questions)
   [ ] Yes (go to question 2d)
   [ ] Unknown

2d. Describe which part of the fuel system that may have been involved?
   [ ] No
   [ ] Yes (specify): _____
   ___ Fuel tank
   ___ Fuel lines
   ___ Engine compartment (specify component if known)
   [ ] Unknown

(Go To Occupant Data Questions)

### COMMENTS ON ROLLOVERS AND FIRES

_____

_____

_____

_____

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 01
4. Occupant Number: 01

## OCCUPANT DATA QUESTIONS

1. Was there anyone else in your vehicle at the time of the accident?
   - [X] No (If "No", go to question 4)
   - [ ] Yes (If "Yes", specify number in question 2 below and then go to question 3)
   - [ ] Unknown

2. How many?
   - [1] One other person
   - [2] Two other persons
   - [3] Three other persons
   - [4] Four other persons
   - [5] Five other persons
   - [6] Six other persons
   - [7] Seven or more other persons

   (specify number:)_____

3. Where was this person sitting? (Circle seating positions)

| | | |
|---|---|---|
| | [12] | [13] |
| [21] | [22] | [23] |
| [31] | [32] | [33] |

[ ] Other (specify:)_____

## OCCUPANT CHARACTERISTICS

4. Can I have your (his/her) height, weight, age, and sex?

Height 5'5" Weight 105 Age 49

Sex: [ ] Male [X] Female

## OCCUPANT POSTURE

5. Can you tell me how you (he/she was) were sitting in your vehicle?

NORMAL

5a. Can you describe the location of your (his/her) feet just prior to the collision?

(L) on floor (R) or BRAKE.

5b. Can you describe the location of your (his/her) arms?

Both ARMS on steering wheel

5c. Was your (his/her) back resting against the seat back rest?
- [ ] No (If "No", describe the position)_____
- [X] Yes
- [ ] Unknown

5d. Were you (Was he/she)
- [X] Sitting upright or
- [ ] Leaning to left side, or
- [ ] Leaning to right side?

## OCCUPANT EJECTION

6. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident?
   - [X] No (If "No", go to question 7)
   - [ ] Yes (If "Yes", go to question 6a)
   - [ ] Unknown

6a. Can you remember out of what area of the vehicle you were (he/she was) thrown?
- [ ] No
- [ ] Yes (Describe:)_____

## OCCUPANT RESTRAINT

7. Were you (Was he/she) wearing a seat belt just before the accident?
   - [ ] No (If "No", go to question 8)
   - [X] Yes
   - [ ] Unknown

7a. Were you (Was he/she) wearing the
- [ ] Lap belt?
- [X] Lap and Shoulder belt?
- [ ] Shoulder belt?

7b. Can you describe how you were (he/she was) wearing the lap belt?
- [ ] Across the stomach
- [X] Low on lap
- [ ] Other (specify:)_____
- [ ] Unknown

7c. Can you describe how you were (he/she was) wearing the shoulder belt?
- [X] Over the shoulder
- [ ] Under the arm
- [ ] Behind the back
- [ ] Behind the seat
- [ ] Other (specify:)_____

7d. Did any part of the belt system break or tear?
- [X] No
- [ ] Yes (If "Yes", describe)_____
- [ ] Unknown

## OCCUPANT ENTRAPMENT

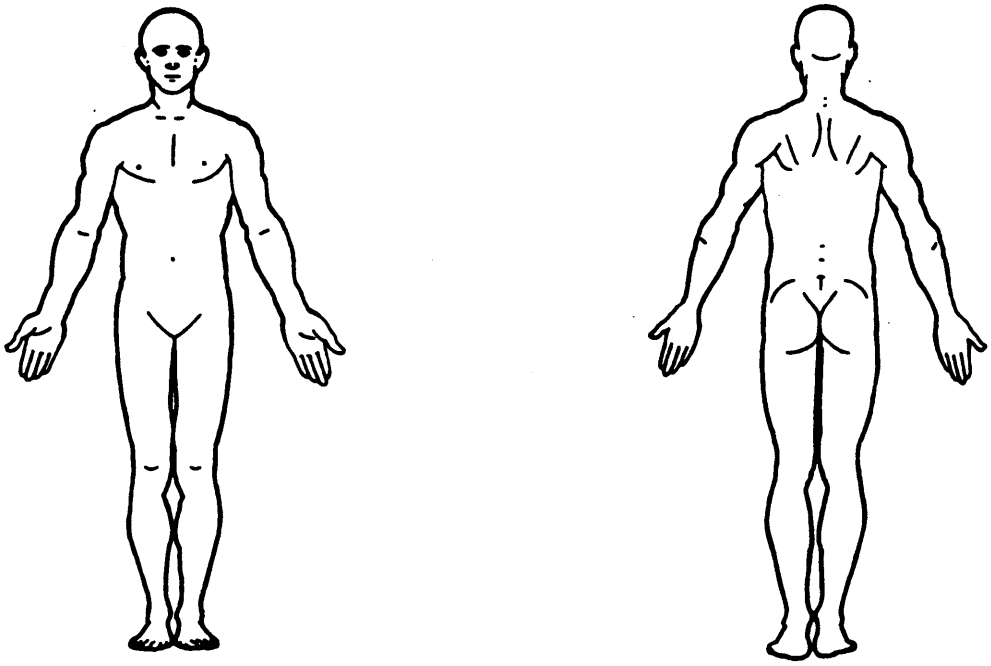
8. Were you (Was he/she) trapped in the vehicle?
   - [X] No
   - [ ] Yes (If "Yes", describe)_____
   - [ ] Unknown

PSU Number 18 Case Number–Stratum 94 21 Vehicle Number 01 Occupant Number 01

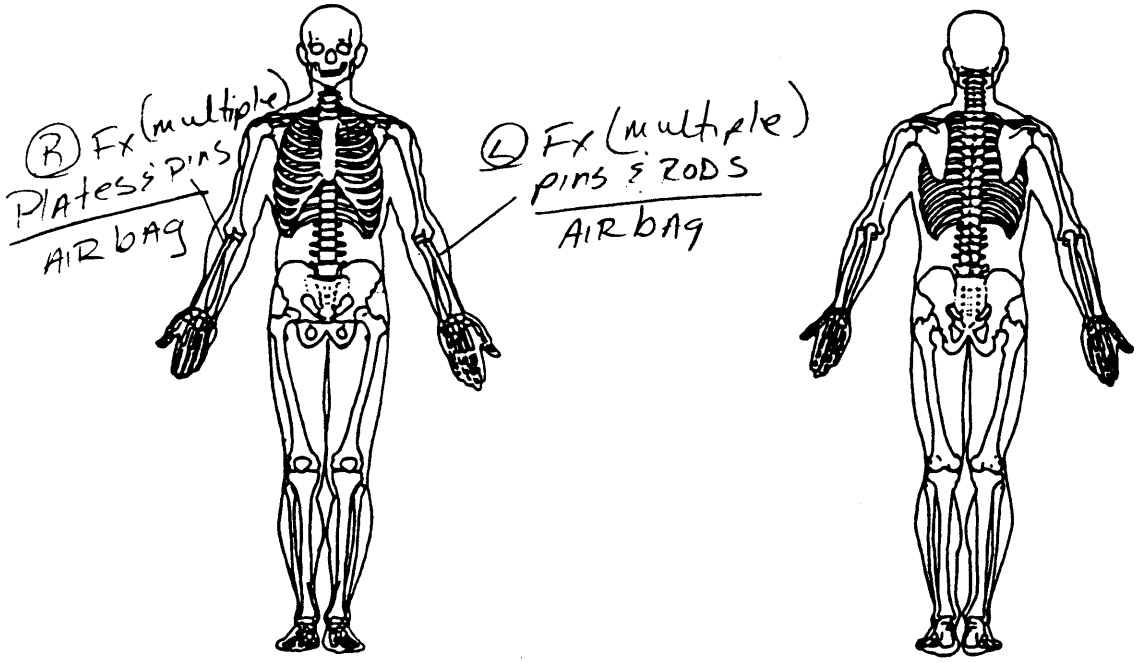
## INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): DRIVER

### SOFT TISSUE/INTERNAL INJURIES



### SKELETAL INJURIES




The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 01
4. Occupant Number: 01

## OCCUPANT INJURY DATA QUESTIONS

1. Were you (Was he/she) injured?
   [ ] No (If "No", skip to question 7)
   [X] Yes (If "Yes", complete Occupant Injury Questions)
   [ ] Unknown

2. Did you (he/she) receive any cuts, abrasions, or bruises?
   [X] No (go to question 3)
   [ ] Yes (If "Yes", record the exact location(s) and size on the manikin(s).)
   [ ] Unknown

2a. Do you know what caused your (his/her) injury(s)?
   [ ] No
   [ ] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).)
   [ ] Unknown

3. Did you (he/she) experience any broken bones?
   [ ] No (If "No", go to question 4)
   [X] Yes (If "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.)
   [ ] Unknown

3a. Do you know what caused the injury(s)?
   [ ] No
   [X] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).)
   [ ] Unknown

4. Did you (he/she) injure your (his/her) head? (skull/brain?)
   [X] No (If "No", go to question 5)
   [ ] Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.)
   [ ] Unknown

4a. Do you know what caused the injury(s)?
   [ ] No
   [ ] Yes (If "Yes", specify the component(s) on the manikin(s).)
   [ ] Unknown

5. Were any of your (his/her) internal organs injured?
   [X] No (If "No", go to question 6)
   [ ] Yes (If "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.)
   [ ] Unknown

5a. Do you know what caused this injury?
   [ ] No
   [ ] Yes (If "Yes", specify the component(s) on the manikin(s).)
   [ ] Unknown

6. Did you (he/she) suffer any joint sprains or muscle strains?
   [X] No (If "No", go to question 7)
   [ ] Yes (If "Yes", specify on the manikin(s), and then go to question 6a.)
   [ ] Unknown

6a. Do you know what caused the injury(s)?
   [ ] No
   [ ] Yes (If "Yes", specify the component(s) on the manikin(s).)
   [ ] Unknown

7. Did you (he/she) receive any treatment?
   [ ] No (If "No", go to question 8)
   [X] Yes (If "Yes", go to question 7a or return to question 2.)

7a. Were you (Was he/she) treated by (check all that apply):
   [X] Hospital/trauma center? (specify hospital name): [redacted] Co
   [ ] Medical clinic
   [ ] Out patient surgery? (specify medical facility:)_____
   [ ] Paramedics or first aid at the scene?
   [ ] A doctor in his/her office?
   [ ] Treated at home?
   [ ] None of the above, go to question 8.

7b. Were you (Was he/she) treated and released from the emergency room?
   [X] No (If "No", go to question 7c.)
   [ ] Yes (If "Yes", go to question 7e.)

7c. Were you (Was he/she) hospitalized?
   [ ] No (If "No", give an explanation)
   [X] Yes (If "Yes", go to question 7d.)

_____

_____

7d. How many days were you (was he/she) in the hospital?
5 days

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9421
3. Vehicle Number 01
4. Occupant Number 01

## OCCUPANT INJURY DATA QUESTIONS (CONTINUED)

7e. Have you (Has he/she) received any follow-up treatment?
[ ] No
[X] Yes (If "Yes", describe:)
_____
_____
[ ] Unknown

7f. In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a copy of your (his/her) medical reports. Would you (he/she) sign a medical release form?
[ ] No
[X] Yes (If "Yes", mail or present the form for signature.)

NO glasses
fairly once a month
very fam
going to friends.

inter
CAR

8. Have you (he/she) lost any days from work or school (college)?
[ ] No
[ ] Yes (If "Yes", determine the number of days lost) (Specify:)_____
[X] Not working prior to the accident
[ ] Unknown

Rehab Ins

AHN MED Rec

Hosp

AVE
, NY

Attn MED Rec.

# Appendix H:

## NASS CDS Occupant Assessment Form:

## Case Vehicle Driver

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

# OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9421
3. Vehicle Number: 01
4. Occupant Number: 01

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 49
   Code actual age at time of accident.
   (00) Less than one year old (specify by month): _____
   (97) 97 years and older
   (99) Unknown

6. Occupant's Sex: 2
   (1) Male
   (2) Female
   (9) Unknown

7. Occupant's Height: 165
   Code actual height to the nearest centimeter.
   (999) Unknown
   65 inches X 2.54 = 165 centimeters

8. Occupant's Weight: 048
   Code actual weight to the nearest kilogram.
   (999) Unknown
   105 pounds X .4536 = 47.6 kilograms

9. Occupant's Role: 1
   (1) Driver
   (2) Passenger
   (9) Unknown

## OCCUPANT'S SEATING

10. Occupant's Seat Position: 11
    *Front Seat*
    (11) Left side
    (12) Middle
    (13) Right side
    (14) Other (specify): _____
    (15) On or in the lap of another occupant

    *Second Seat*
    (21) Left side
    (22) Middle
    (23) Right side
    (24) Other (specify): _____
    (25) On or in the lap of another occupant

    *Third Seat*
    (31) Left side
    (32) Middle
    (33) Right side
    (34) Other (specify): _____
    (35) On or in the lap of another occupant

    *Fourth Seat*
    (41) Left side
    (42) Middle
    (43) Right side
    (44) Other (specify): _____
    (45) On or in the lap of another occupant

    (97) In or on unenclosed area
    (98) Other seat (specify): _____
    (99) Unknown

11. Occupant's Posture: 0
    (0) Normal posture

    *Abnormal posture*
    (1) Kneeling or standing on seat
    (2) Lying on or across seat
    (3) Kneeling, standing or sitting in front of seat
    (4) Sitting sideways or turned to talk with another occupant or to look out a rear window
    (5) Sitting on a console
    (6) Lying back in a reclined seat position
    (7) Bracing with feet or hands on a surface in front of seat
    (8) Other abnormal posture (specify): _____
    (9) Unknown

## EJECTION/ENTRAPMENT

12. Ejection 0
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area 0
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium 0
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment 0
    (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
    (0) Not entrapped
    (1) Entrapped
    (9) Unknown

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability — 4
(0) None available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown

*Integral Belt Partially Destroyed*
(6) Shoulder belt (lap belt destroyed/removed)
(7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use — 04
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____

(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____

(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts — 1
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

*Belt Used Improperly*
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident — 0
(0) No manual belt used
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____

(6) Broken retractor
(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Air Bag System Availability/Function — 1
(0) Not equipped/not available
(1) Air bag

*Non-functional*
(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment — 1
(0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

23. Are There Indications of Air Bag System Failure? — 1
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____

(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use — 4
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): _____

(8) Restrained, type unknown
(9) Police indicated "unknown"

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position: 9
    (0) No head restraints
    (1) Integral—no damage
    (2) Integral—damaged during accident
    (3) Adjustable—no damage
    (4) Adjustable—damaged during accident
    (5) Add-on—no damage
    (6) Add-on—damaged during accident
    (8) Other (specify): _____
    (9) Unknown

26. Seat Type (this Occupant Position): 99
    (00) Occupant not seated or no seat
    (01) Bucket
    (02) Bucket with folding back
    (03) Bench
    (04) Bench with separate back cushions
    (05) Bench with folding back(s)
    (06) Split bench with separate back cushions
    (07) Split bench with folding back(s)
    (08) Pedestal (i.e., column supported)
    (09) Other seat type (specify): _____
    (10) Box mounted seat (i.e., van type)
    (99) Unknown

27. Seat Performance (this Occupant Position): 9
    (0) Occupant not seated or no seat
    (1) No seat performance failure(s)
    (2) Seat adjusters failed
    (3) Seat back folding locks or "seat back" failed (specify): _____
    (4) Seat track/anchors failed
    (5) Deformed by impact of occupant
    (6) Deformed by passenger compartment intrusion (specify): _____
    (7) Combination of above (specify): _____
    (8) Other (specify): _____
    (9) Unknown

## CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 0 0 0
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):
_____
(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):
_____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 0 0
(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):
_____
(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):
_____
(19) Unknown orientation

*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):
_____
(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0 0

32. Child Safety Seat Shield Usage 0 0

33. Child Safety Seat Tether Usage 0 0

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

*Not Designed With Harness/Shield/Tether*
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

*Designed With Harness/Shield/Tether*
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

## INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 2

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment - Mortality 3

(0) No treatment
(1) Fatal
(2) Fatal - ruled disease (specify):
_____

*Nonfatal*
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(8) Treatment - other (specify):
_____
(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 1

(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):
_____
(9) Unknown

37. Hospital Stay 05

(00) Not Hospitalized
____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

38. Working Days Lost 97

____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

**STOP - GO TO VARIABLE 44 ON PAGE 7**

**VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**

39. Time to Death 00

____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 00

41. 2nd Medically Reported Cause of Death 00

42. 3rd Medically Reported Cause of Death 00

____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):
_____
(97) Other result (includes fatal ruled disease) (specify):
_____
(99) Unknown

43. Number of Recorded Injuries for This Occupant 01

____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

## AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/ Function 0
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

*Non-functional*
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use 0
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):

(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type 0
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System 0
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident 0
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):

(9) Unknown

49. Seat Orientation (this Occupant Position) 9
(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):

(9) Unknown

Check the Primary Source Used In Determining Belt Use.

[ ] Not equipped/not available/destroyed or rendered inoperative
[ ] Vehicle inspection
[ ] Official injury data
[✓] Driver/occupant interview
[ ] Other (specify):

[ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION? NO [✓] YES [ ]

UPDATE CANDIDATE? NO [✓] YES [ ]

**STOP – VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**

## TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score (at Medical Facility) 02
    (00) Not injured
    (01) Injured - not treated at medical facility
    (02) No GCS Score at medical facility
    (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
    (97) Injured, details unknown
    (99) Unknown if injured

51. Was the Occupant Given Blood? 9
    (1) No - blood not given
    (2) Yes - blood given
    (specify units):_____
    (9) Unknown if blood given

52. Arterial Blood Gases (ABG) - $HCO_3$ 01
    (00) Not injured
    (01) Injured, ABGs not measured or reported
    (02-50) Code the actual value of the $HCO_3$
    (96) ABGs reported , $HCO_3$ unknown
    (97) Injured, details unknown
    (99) Unknown if injured

## BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 3
    (0) Not equipped/not available/destroyed or rendered inoperative
    (1) Vehicle inspection
    (2) Official injury data
    (3) Driver/occupant interview
    (8) Other (specify):_____
    (9) Unknown if belt used

# Appendix I:

## NASS CDS Occupant Injury Form:

## Case Vehicle Driver

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

# OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

| | | | |
|---|---|---|---|
| 1. Primary Sampling Unit Number | 10 | 3. Vehicle Number | 01 |
| 2. Case Number - Stratum | 9421 | 4. Occupant Number | 01 |

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

| | Source of Injury Data | A.I.S. - 90 Body Region | Type of Anatomic Structure | Specific Anatomic Structure | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Injury Source Confidence Level | Direct/ Indirect Injury | Occupant Area Intrusion Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1st | 5. 7 | 6. 7 | 7. 5 | 8. 18 | 9. 00 | 10. 2* | 11. 1 | 12. 45 | 13. 3 | 14. 1 | 15. 99 |
| 2nd | 16. 7 | 17. 7 | 18. 5 | 19. 18 | 20. 00 | 21. 2* | 22. 2 | 23. 45 | 24. 3 | 25. 1 | 26. 99 |
| 3rd | 27. __ | 28. __ | 29. __ | 30. ___ | 31. ___ | 32. __ | 33. __ | 34. ___ | 35. __ | 36. __ | 37. ___ |
| 4th | 38. __ | 39. __ | 40. __ | 41. ___ | 42. ___ | 43. __ | 44. __ | 45. ___ | 46. __ | 47. __ | 48. ___ |
| 5th | 49. __ | 50. __ | 51. __ | 52. ___ | 53. ___ | 54. __ | 55. __ | 56. ___ | 57. __ | 58. __ | 59. ___ |
| 6th | 60. __ | 61. __ | 62. __ | 63. ___ | 64. ___ | 65. __ | 66. __ | 67. ___ | 68. __ | 69. __ | 70. ___ |
| 7th | 71. __ | 72. __ | 73. __ | 74. ___ | 75. ___ | 76. __ | 77. __ | 78. ___ | 79. __ | 80. __ | 81. ___ |
| 8th | 82. __ | 83. __ | 84. __ | 85. ___ | 86. ___ | 87. __ | 88. __ | 89. ___ | 90. __ | 91. __ | 92. ___ |
| 9th | 93. __ | 94. __ | 95. __ | 96. ___ | 97. ___ | 98. __ | 99. __ | 100. ___ | 101. __ | 102. __ | 103. ___ |
| 10th | 104. __ | 105. __ | 106. __ | 107. ___ | 108. ___ | 109. __ | 110. __ | 111. ___ | 112. __ | 113. __ | 114. ___ |

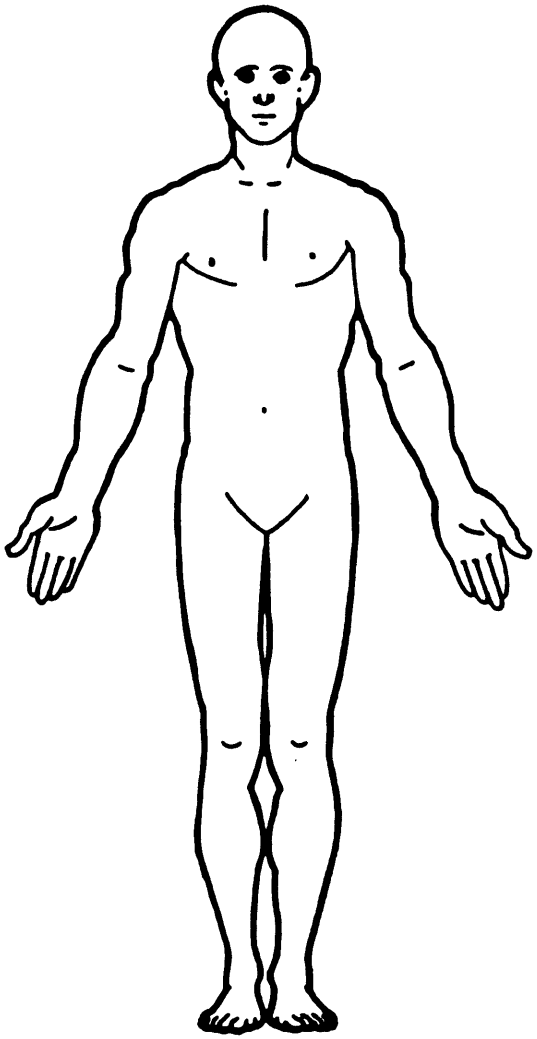
* This contractor has the dilemma of either not coding any injuries or coding the two injuries listed because AIS '90 does not allow coding unknown information. This contractor would prefer to code 0I07-0I09 and 0I18-0I20 as unknown, but cannot. In addition, this contractor would prefer to code 0I10 and 0I21 as 7.

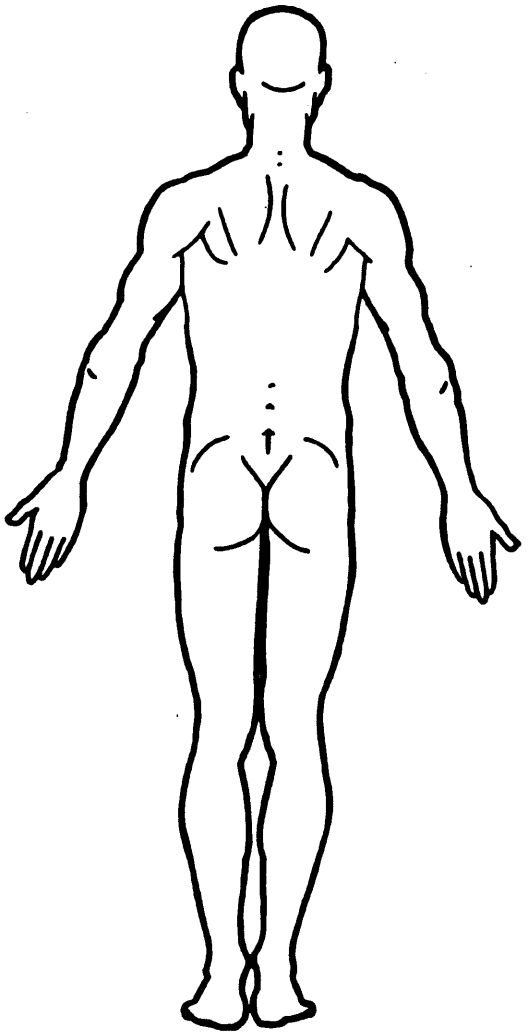
# OCCUPANT INJURY DATA

| | Source of Injury Data | A.I.S. - 90 Body Region | Type of Anatomic Structure | Specific Anatomic Structure | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Injury Source Confidence Level | Direct/ Indirect Injury | Occupant Area Intrusion Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 12th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 13th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 14th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 15th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 16th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 17th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 18th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 19th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 20th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 21st | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 22nd | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 23rd | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 24th | — | — | — | — — | — — | — | — | — — | — | — | — — |
| 25th | — | — | — | — — | — — | — | — | — — | — | — | — — |

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## SOURCE OF INJURY DATA

OFFICIAL
(1) Autopsy records with or without hospital/medical records
(2) Hospital/medical records other than emergency room (e.g., discharge summary)
(3) Emergency room records only (including associated X-rays or other lab reports)
(4) Private physician, walk-in or emergency clinic

UNOFFICIAL
(5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify):

_____

(9) Police

## INJURY SOURCE

FRONT
(01) Windshield
(02) Mirror
(03) Sunvisor
(04) Steering wheel rim
(05) Steering wheel hub/spoke
(06) Steering wheel (combination of codes 04 and 05)
(07) Steering column, transmission selector lever, other attachment
(08) Add on equipment (e.g., CB, tape deck, air conditioner)
(09) Left instrument panel and below
(10) Center instrument panel and below
(11) Right instrument panel and below
(12) Glove compartment door
(13) Knee bolster
(14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
(15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
(16) Driver side air bag compartment cover
(17) Passenger side air bag compartment cover
(18) Windshield reinforced by exterior object (specify): _____
(19) Other front object (specify):

_____

LEFT SIDE
(20) Left side interior surface, excluding hardware or armrests
(21) Left side hardware or armrest
(22) Left A (A1/A2)-pillar
(23) Left B-pillar
(24) Other left pillar (specify):

_____

(25) Left side window glass or frame
(26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(27) Other left side object (specify):

_____

(28) Left side window sill

RIGHT SIDE
(30) Right side interior surface, excluding hardware or armrests
(31) Right side hardware or armrest
(32) Right A (A1/A2)-pillar
(33) Right B-pillar
(34) Other right pillar (specify):

_____

(35) Right side window glass or frame
(36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(37) Other right side object (specify):

_____

(38) Right side window sill

INTERIOR
(40) Seat, back support
(41) Belt restraint webbing/buckle
(42) Belt restraint B-pillar or door frame attachment point
(43) Other restraint system component (specify): _____
(44) Head restraint system
(45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
(46) Other occupants (specify):

_____

(47) Interior loose objects
(48) Child safety seat (specify):

_____

(49) Other interior object (specify):

_____

ROOF
(50) Front header
(51) Rear header
(52) Roof left side rail
(53) Roof right side rail
(54) Roof or convertible top

FLOOR
(56) Floor (including toe pan)
(57) Floor or console mounted transmission lever, including console
(58) Parking brake handle
(59) Foot controls including parking brake

REAR
(60) Backlight (rear window)
(61) Backlight storage rack, door, etc.
(62) Other rear object (specify):

_____

EXTERIOR of OCCUPANT'S VEHICLE
(65) Hood
(66) Outside hardware (e.g., outside mirror, antenna)
(67) Other exterior surface or tires (specify): _____
(68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE
(70) Front bumper
(71) Hood edge
(72) Other front of vehicle (specify):

_____

(73) Hood
(74) Hood ornament
(75) Windshield, roof rail, A-pillar
(76) Side surface
(77) Side mirrors
(78) Other side protrusions (specify)

_____

(79) Rear surface
(80) Undercarriage
(81) Tires and wheels
(82) Other exterior of other motor vehicle (specify):

_____

(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT
(84) Ground
(85) Other vehicle or object (specify)

_____

(86) Unknown vehicle or object

NONCONTACT INJURY
(90) Fire in vehicle
(91) Flying glass
(92) Other noncontact injury source (specify): _____
(93) Air bag exhaust gases
(97) Injured, unknown source

## INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
(2) Probable
(3) Possible
(9) Unknown

## DIRECT/INDIRECT INJURY

(1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

## OCCUPANT INJURY CLASSIFICATION

### Body Region

(1) Head
(2) Face
(3) Neck
(4) Thorax
(5) Abdomen
(6) Spine
(7) Upper Extremity
(8) Lower Extremity
(9) Unspecified

### Type of Anatomic Structure

(1) Whole Area
(2) Vessels
(3) Nerves
(4) Organs (includes muscles/ligaments)
(5) Skeletal (includes joints)
(6) Head - LOC
(9) Skin

### Specific Anatomic Structure

Whole Area
(02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC
(02) Length of LOC
(04, 06, 08) Level of Consciousness
(10) Concussion

Spine
(02) Cervical
(04) Thoracic
(06) Lumbar

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

(1) Minor injury
(2) Moderate injury
(3) Serious injury
(4) Severe injury
(5) Critical injury
(6) Maximum (untreatable)
(7) Injured, unknown severity

### Aspect

(1) Right
(2) Left
(3) Bilateral
(4) Central
(5) Anterior
(6) Posterior
(7) Superior
(8) Inferior
(9) Unknown
(0) Whole region

## OFFICIAL INJURY DATA — SKELETAL INJURIES

**Restrained?**

___ No

___ Yes

**Blood Alcohol Level (mg/dl)**

BAL = ____

**Glasgow Coma Scale Score**

GCSS = ____

**Units of Blood Given**

Units = ____

**Arterial Blood Gases**

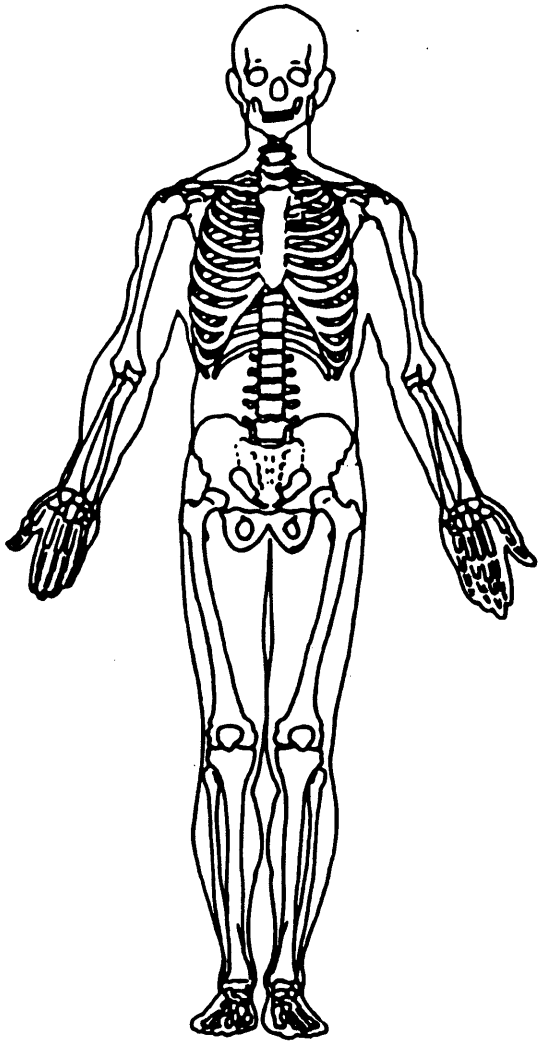
pH = __.__

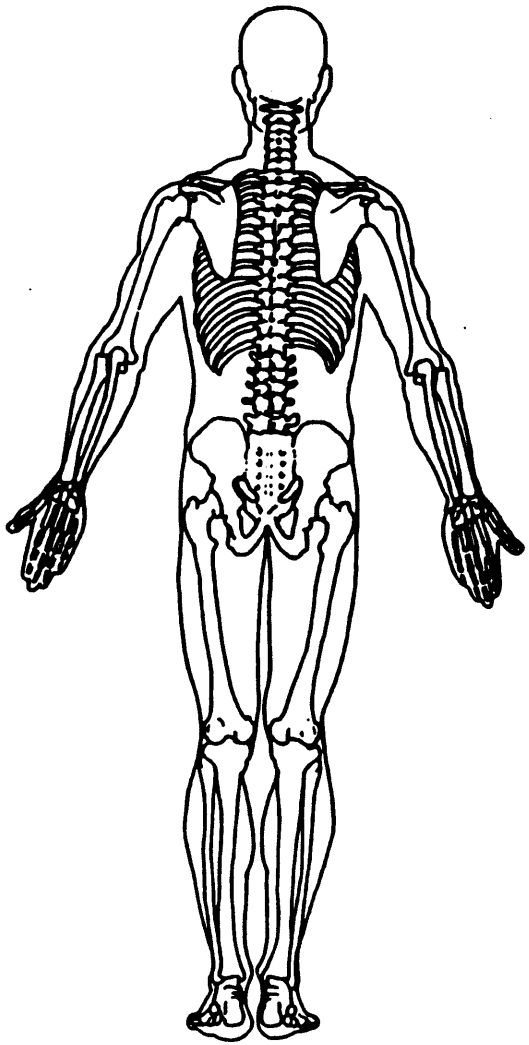
$PO_2$ = ____

$PCO_2$ ____

$HCO_3$ ____

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)