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

U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

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*** *** ***

TRANSPORTATION SCIENCES CENTER
ACCIDENT RESEARCH GROUP

Division of Arvin/Calspan
[redacted]

CALSPAN REMOTE AIR BAG DEPLOYMENT INVESTIGATION

CALSPAN CASE NO. 93-11

VEHICLE - 1992 TOYOTA CAMRY
LOCATION - [redacted]PA
ACCIDENT DATE - [redacted] 1993

Contract No. DTNH22-93-Q-07222

Prepared for:

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

TECHNICAL REPORT STANDARD TITLE PAGE

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15. *Supplementary Notes*
Remote investigation of an air bag deployment crash that resulted in fatal injuries to the belted 62 year old female driver.

16. *Abstract*

This remote investigation was a follow-up of a [redacted] crash investigation [redacted] that focused on a single vehicle roadside departure crash that involved a 1992 Toyota Camry. The vehicle was equipped with a Supplemental Restraint System (SRS) that consisted of a driver's side air bag that deployed at impact. The vehicle was driven by a 62 year old female with a height of 158 cm (62") and weight of 81 kg (180 lbs.). She was wearing the manual 3-point lap and shoulder belt system.

The driver was traveling in a westerly direction on a two lane roadway with a 4% downgrade in a 64 KPH (40 mph) speed zone. She apparently fell asleep and as a result, the vehicle drifted off the right roadedge and impacted a wooden utility pole with the right frontal area of the vehicle. The Toyota sustained 83 cm (32.7") of front bumper crush from the 12 o'clock direction of force impact and underwent a velocity change of 46 KPH (29 mph).

The driver initiated a forward trajectory and loaded the manual belt system which resulted in contusions across the chest and abdominal areas. She was subsequently contacted by the deploying air bag which fractured ribs 1-9 bilaterally, lacerated the right ventricle, ruptured the pericardial sac, lacerated the liver, and contused the right breast. Her face subsequently contacted the bag which abraded the left cheek. She remained conscious in the vehicle and was flown by helicopter to a trauma center where she expired approximately 2.5 hours following the crash.

17. *Key Words* Supplemental Restraint System (SRS) Right frontal impact Velocity change of 46 KPH (28.6 mph) AIS-5 level injuries	18. *Distribution Statement* General Public

19. *Security Classif. (of this report)* Unclassified	20. *Security Classif. (of this page)* Unclassified	21. *No. of Pages* 67	22. *Price*

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CALSPAN REMOTE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 93-11
VEHICLE -1992 TOYOTA CAMRY
LOCATION [redacted] PA

SUMMARY

This remote investigation focused on a single vehicle roadside departure crash that involved an air bag equipped 1992 Toyota Camry. The crash was initially researched as a [redacted] case ([redacted]) and was expanded upon for this Special Crash Investigative effort. The crash occurred on a two-lane urban roadway during daylight hours in a 64 KPH (40 mph) speed zone. The dry asphalt road surface was straight with a downgrade of 4 percent. The Toyota Camry was driven by a 62 year old female with a height of 158 cm (62") and weight of 81 kg (180 lbs.).

The Toyota Camry was traveling in a westerly direction at an estimated speed of 56-64 KPH (35-40 mph). The driver apparently fell asleep and as a result, the vehicle drifted off the north (right) edge of the road at a shallow departure angle. The right side tires overrode a low profile barrier curb as the vehicle continued in a tracking orientation to impact. There was no evidence (i.e., skid marks) to indicate that the driver attempted to avoid the crash.

The right frontal area of the vehicle impacted a wooden utility pole that was located approximately 0.6 m (2') outboard of the curbline. Impact speed was computed at 53 KPH (33 mph) by the damage and trajectory algorithm of the CRASHPC program. The Toyota sustained 83 cm (32.7") front bumper crush from the 12 o'clock direction of force impact (CDC: 12-FREN-3). As a result of the impact, the Toyota underwent a CRASHPC generated velocity change of 56 KPH (29 mph) which deployed the supplemental driver's side air bag system. The vehicle rotated approximately 40° in a clockwise direction before coming to rest diagonal to the westbound travel lane.

The driver of the vehicle was wearing the manual 3-point lap and shoulder belt system. Belt usage was supported by a load induced D-ring transfer on the shoulder belt webbing and band-like contusions across the chest and abdominal areas of the driver. At impact, the driver was in a presumed forward driving position within a close proximity to the steering wheel and air bag module assembly. The nontethered air bag contacted the driver's thoracic area as it initially deployed from the module assembly. The deploying air bag compressed the driver's chest which resulted in multiple fractures of the left 1-9 ribs and antero-lateral fractures of the right 1-9 ribs. The anterior and lateral fractures of the ribs ruptured the pericardial sac and produced a 1 cm perforating laceration near the tip of the right ventricle of the myocardium. The rib fractures were probably contributory to a superficial 7 x 3 cm laceration of the lateral aspect of the right lobe of the liver. In addition to the internal injuries, the air bag produced extensive soft tissue contusions within the pleural sac, extensive soft tissue contusions of the chest in relation to the rib fractures, and a contusion of the right breast.

SUMMARY (CONT'D.)

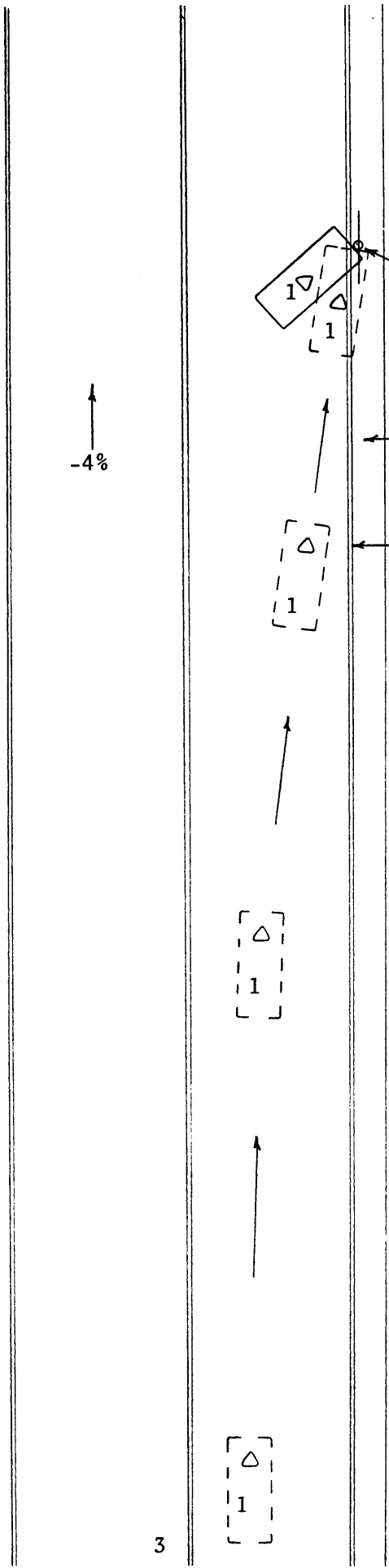
As the air bag expanded across the driver, the bag contacted and contused the anterior aspect of the driver's right upper arm. Her face also contacted the bag, depositing makeup and lipstick transfers at the lower left quadrant of the bag. As a result, she sustained abrasions of the cheek. She subsequently initiated a forward trajectory in response to the 12 o'clock impact force and loaded the manual belt system. Her loading force against the belt webbing produced a faint D-ring transfer on the belt webbing and band-like contusions that descended diagonally from the left neck across the chest to the right side and across the abdomen above the umbilicus. Her loading force was transmitted into the air bag which was compressed against the steering assembly, resulting in 3 cm (1.2") of upper rim deformation and compression of the energy absorbing column. The left shear capsule yielded 2 cm (0.8") of compression while the right side compressed 5 cm (2") and completely disengaged from the block.

The driver's left hand probably separated from the steering wheel rim and struck the turn signal lever. The contact fractured the lever at the column and contused the dorsal aspect of the left hand. Her left knee area impacted the left side of the knee bolster adjacent to the fuse box cover. The contact deformed the bolster and abraded the anterior left thigh directly above the knee. The driver's right knee area contacted the right side of the bolster and mid panel area which resulted in a 4 x 3 cm contusion of the anterior right thigh, directly above the knee.

The driver rebounded into the left front seat back where she came to rest. She remained conscious and verbally communicated with emergency medical personnel as they arrived on-scene. She was transported by helicopter to a local trauma center where she expired approximately 2.5 hours following the crash.

Accident Schematic

Calspan Case No. 93-11



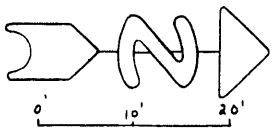
Vehicle:

#1 - 1992 Toyota Camry, 4 Dr Sedan

Struck Utility Pole

Sidewalk

Barrier Curb



Scale 1"=20'

CALSPAN REMOTE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 93-11
VEHICLE -1992 TOYOTA CAMRY
LOCATION - [redacted] PA

CRASH DATA

Location:	State route
City/Township:	[redacted] PA
Area/Type:	Urban/residential
Crash Date/Time:	[redacted] 1993, daylight hours
Investigating Police Agency:	[redacted] State Police
Crash Type:	Car/utility pole, right frontal impact
Air Bag Vehicle Driver Injury Severity:	Critical (AIS-5)

AMBIENCE

Viewing Conditions:	Daylight
Weather:	Clear
Precipitation:	None
Road Surface:	Dry

HIGHWAY

Type:	State route
Number of Lanes:	2
Width:	10.9 m (35'9")
Surface:	Asphalt
Median:	None
Edge:	North edge - Barrier curb South edge - Barrier curb

HIGHWAY (CONT'D.)

Vertical Alignment:	4% downgrade
Horizontal Alignment:	Straight
Estimated Coefficient of Friction:	.75
Traffic Density:	Light to moderate

TRAFFIC CONTROLS

Signals:	None
Signs:	No pertinent signs
Markings:	Yellow full barrier center lines
Speed Limit:	64 KPH (40 mph)

VEHICLE

Description:	1992 Toyota Camry, 4 dr. sedan
V.I.N.:	JT2SK12EXNO (production number deleted)
Color:	Burgundy
Odometer:	39,769 km (24,701 miles)
Engine:	4 cylinder, 2.2 liter
Transmission:	4-speed automatic overdrive
Steering:	Power-assisted rack and pinion
Brakes:	Power-assisted
Padding:	Upper and mid instrument panel, knee bolster, glove box door, soft edged steering wheel rim, air bag module cover, transmission shifter, door panels, door armrests, adjustable head restraints, sunvisors, and headliner
Manual Restraints:	3-point lap and shoulder belts in the four outboard seated positions, center rear lap belt, adjustable D-rings for the front seat shoulder belts

VEHICLE (CONT'D.)

Automatic Restraints:	Supplemental Restraint System (SRS) that consisted of a driver's side air bag system
Defects:	None reported
Tow Status:	Towed due to damage

VEHICLE DAMAGE

Exterior:

The 1992 Toyota Camry drifted off the right roadedge and impacted a 30.5 cm (12") diameter wooden utility pole with the right frontal area of the vehicle. The 12 o'clock direction of force impact produced moderately severe frontal damage. Maximum crush was 83 cm (32.7" located on the bumper facia at the C_4 and C_5 locations. Direct contact damage began 6.6 cm (2.6") right of center and extended approximately 40 cm (15.7") to the right. The utility pole impact deformed both bumper corners inboard which resulted in a combined induced and direct contact damage length of 73 cm (28.7 cm). Crush values at bumper level were as follows: C_1 = 0 cm, C_2 = 8 cm (3.1"), C_3 = 32 cm (12.6"), C_4 = 83 cm (32.7"), C_5 = 83 cm (32.7"), C_6 = 47 cm (18.5").

The impact displaced the right front wheel rearward which resulted in a 18 cm (7") reduction of the right wheelbase. The rear edge of the Toyota's hood was displaced rearward into the base of the windshield; however, it did not penetrate the laminated glass.

Damaged components included the bumper facia and reinforcement bar, grille, both headlamp assemblies, hood, radiator support, both front fenders, the front unitized chassis, windshield, right front door, right A-pillar, and roof.

Interior:

The interior of the Toyota Camry sustained moderate damage that resulted from exterior deformation and occupant contact. The impact displaced the engine and transaxle rearward which deformed the toe pan into the occupant space. The toe pan intruded 13 cm (5.1") on the driver's side and 29 cm (11.4") into the unoccupied right front occupant space. The right A-pillar was also displaced rearward approximately 22 cm (8.7") which produced 22 cm of right instrument panel intrusion.

VEHICLE DAMAGE (CONT.D)

Interior (Cont'd.):

The driver initiated a forward trajectory in response to the frontal impact sequence and loaded the manual 3-point lap and shoulder belt system. She subsequently contacted the deploying air bag with her face and thoracic area. Lipstick and makeup transfers were noted to the left center and lower left quadrant of the bag. The driver's loading force was transmitted through the bag and into the energy absorbing steering column. As a result, the column compressed and yielded 2 cm (0.8") of left shear capsule separation and 5 cm (2") of right shear capsule separation. The NASS researcher also identified 3 cm (1.8") of upper steering wheel rim deformation.

The driver's left hand apparently separated from the steering wheel rim and fractured the turn signal lever located on the left side of the steering column. Her left knee impacted the lower left area of the knee bolster. An approximate 13 cm (5") diameter dent was noted to the padded component. The driver's right knee contacted and fractured the right side of the bolster adjacent to the lower mid instrument panel. The lateral aspect of the driver's right thigh probably contacted and fractured the center mounted console adjacent to the transmission selector lever.

SUPPLEMENTAL RESTRAINT SYSTEM

The Toyota Camry was equipped with a Supplemental Restraint System that consisted of a driver's side air bag. The system deployed as a result of the right frontal impact sequence with a utility pole. The air bag module assembly was contained within the steering wheel assembly and appeared to have deployed as designed.

The module cover opened in a typical H-configuration with symmetrical cover flaps that measured 14.5 cm horizontally x 7 cm vertically. The air bag was constructed of a woven nylon type fabric with a neoprene liner. The bag was not tethered and was approximately 55 cm (22") in diameter in its deflated state. The bag was vented by two 3 cm (1.2") diameter ports that were located on the back side of the bag at the 11 and 1 o'clock positions. The peripheral seam of the bag was internal and there was no damage to the bag or module assembly. The air bag was stamped with the following number on the right side of the bag: [redacted]. The interior aspect of the upper module cover flap was identified by the following number: [redacted]. There was no generant residue visible in the area of the vent ports and module cover.

The driver's facial and thoracic areas contacted the air bag. The facial contact was evidenced by makeup and lipstick transfers that were located left of center on the face of the bag and at the lower left quadrant of the deployed air bag.

VEHICLE VELOCITY ESTIMATES

Travel Speed:	56-64 KPH (35-40 mph)
Impact Speed:	53 KPH (33 mph)
Total ΔV:	46 KPH (29 mph)
Longitudinal ΔV:	-46 KPH (-29 mph)
Lateral ΔV:	0 KPH (0 mph)
Energy Absorption:	134907 joules (99489 ft.lbs.)

The impact speed and ΔVs were computed by the damage and trajectory algorithm of the CRASHPC program. The final rest position of the vehicle was estimated from the police schematic of the crash scene.

COLLISION SEQUENCE

Pre-Crash:

The 1992 Toyota Camry was traveling in a westerly direction on the two-lane roadway at an estimated speed of 56-64 KPH (35-40 mph). As the driver was descending a 4 percent grade, she apparently fell asleep and, as a result, the vehicle drifted toward the right roadedge. The right side tires of the vehicle overrode a low profile barrier curb as the Camry departed the travel lane at a shallow angle. The vehicle continued in a tracking orientation toward impact.

Crash:

The right frontal area of the Toyota Camry impacted a 30.5 (12") diameter wooden utility pole that was located approximately 0.6 m (2') outboard of the north (right) curbline. Impact speed was computed by the damage and trajectory mode of the CRASHPC program at 53 KPH (33 mph). The vehicle sustained 83 cm (32.7") of front bumper crush as a result of the 12 o'clock direction of force impact. The Camry underwent a velocity change of 46 KPH (29 mph) which deployed the supplemental driver's side air bag system.

Due to the right frontal impact, the Camry subsequently rotated in a clockwise direction approximately 40 degrees before coming to rest diagonal to the westbound travel lane. At rest, the right frontal area of the vehicle was straddling the west curbline as the vehicle was facing in a northwesterly direction.

COLLISION SEQUENCE (CONT'D.)

Post-Crash:	The driver of the Toyota Camry remained conscious and in her vehicle following the crash. She repeatedly told the paramedics that she "couldn't believe [she] did this" and that she had fallen asleep. The paramedics requested helicopter transport for the driver to a local trauma center. She was removed from the vehicle and flown to the center where she expired approximately 2.5 hours following the crash.

HUMAN FACTORS/OCCUPANT DATA

Driver:	62 year old female
Height:	157 cm (62")
Weight:	81 kg (180 lbs.)
Manual Restraint System Usage:	3-point lap and shoulder belt
Usage Source:	Police report, vehicle inspection
Eyewear:	Eyeglasses
Vehicle Familiarity:	Unknown
Route Familiarity:	Very familiar with road, per family
Trip Plan:	Unknown
Mode of Transport From Scene:	Transported by helicopter to a trauma center where she expired 2.5 hours following the crash

DRIVER INJURIES

Injury	Severity (OIC/AIS)	Source
Multiple fractures of the left ribs 1-9, anterior, lateral, and posterior locations, right 1-9 ribs fractured mostly anterior and antero-laterally. Right lung was partially collapsed with patchy areas of hemorrhage in the hilar areas	Critical (450266.53)	Air bag

DRIVER INJURIES

Injury	Severity (OIC/AIS)	Source
1 cm perforating laceration near the tip of the right ventricle, 600 cc's of blood was drawn from the left pleural cavity and 20 cc's from the right pleural cavity	Critical (441012.54)	Result of rib fracture from air bag contact
Ruptured pericardial sac	Moderate (441602.24)	Result of rib fractures from air bag contact
Extensive soft tissue contusions within the pleural sac	Moderate (441804.20)	Air bag
7.3 cm superficial laceration that extends to less than 0.1 cm in depth on the lateral side of the right lobe of the liver	Moderate (541822.21)	Result of rib fractures from air bag contact
Extensive soft tissue contusions were present in relation to the rib fractures	Minor (490402.10)	Air bag
Extensive contusions on front of chest in a descending band-like fashion starting from the left neck, extending medially across the chest to the right side	Minor (490402.10)	Shoulder belt webbing
Band-like area of contusion on front of abdomen above the umbilicus which is distended	Minor (590402.17)	Lap belt webbing
Right breast is markedly contused with swelling	Minor (490402.11)	Air bag
1.5 cm x 1.2 cm abrasions on left cheek	Minor (290202.12)	Air bag
4 x 3 cm contusion of the anterior right thigh	Minor (890402.11)	Knee bolster/mid instrument panel

DRIVER INJURIES (CONT'D.)

Injury	Severity (OIC/AIS)	Source
1.5 cm abrasion of the anterior left thigh above the knee	Minor (890202.12)	Knee bolster
Extensive contusion of the anterior aspect of the upper right arm	Minor (790402.1)	Air bag
Contusion of the dorsal aspect of the left hand	Minor (790402.12)	Turn signal lever

DRIVER KINEMATICS

The driver of the Toyota Camry reportedly drove the vehicle with the seat track adjusted to a forward position. At the time of the vehicle inspection, the seat was adjusted to a rearward position which indicated that the adjustment was probably changed during the extrication of the driver. The driver was wearing a cotton blouse, shorts, earrings, a ring, and eyeglasses at the time of the crash. The post-crash condition of these items is unknown. She was wearing the manual 3-point lap and shoulder belt system at the time of the crash. Belt usage was supported by faint loading D-ring transfers on the shoulder belt webbing and band-like contusions across the driver's chest and abdominal regions.

At impact, the driver was in a presumed normal, upright position within close proximity to the steering assembly as the supplemental driver's side air bag system deployed. The nontethered air bag contacted the driver's thoracic area as it initially deployed from the module assembly. The deploying air bag compressed the driver's chest which resulted in multiple fractures of the left 1-9 ribs and antero-lateral fractures of the right 1-9 ribs. The anterior and lateral fractures of the ribs ruptured the pericardial sac and produced a 1 cm perforating laceration near the tip of the right ventricle of the myocardium. The rib fractures were probably contributory to a superficial 7 x 3 cm laceration of the lateral aspect of the right lobe of the liver. In addition to the internal injuries, the air bag produced extensive soft tissue contusions within the pleural sac, and extensive soft tissue contusions of the chest in relation to the rib fractures, and a contusion of the right breast.

As the air bag expanded across the driver, the bag contacted and contused the anterior aspect of the driver's right upper arm. Her face also contacted the bag, depositing makeup and lipstick transfers at the lower left quadrant of the bag. As a result, she sustained abrasions of the cheek. She subsequently initiated a forward trajectory in response to the 12 o'clock impact force and loaded the manual belt system. Her loading force against the belt webbing produced a faint D-ring transfer on the belt webbing and band-like contusions that descended diagonally from the left neck across the chest to the right side and across the abdomen above the umbilicus. Her loading force was transmitted into the air bag which was compressed against the steering assembly, resulting in 3 cm (1.2") of upper rim deformation and compression of the energy absorbing column. The left shear capsule yielded 2 cm (0.8") of compression while the right side compressed 5 cm (2") and completely disengaged from the block.

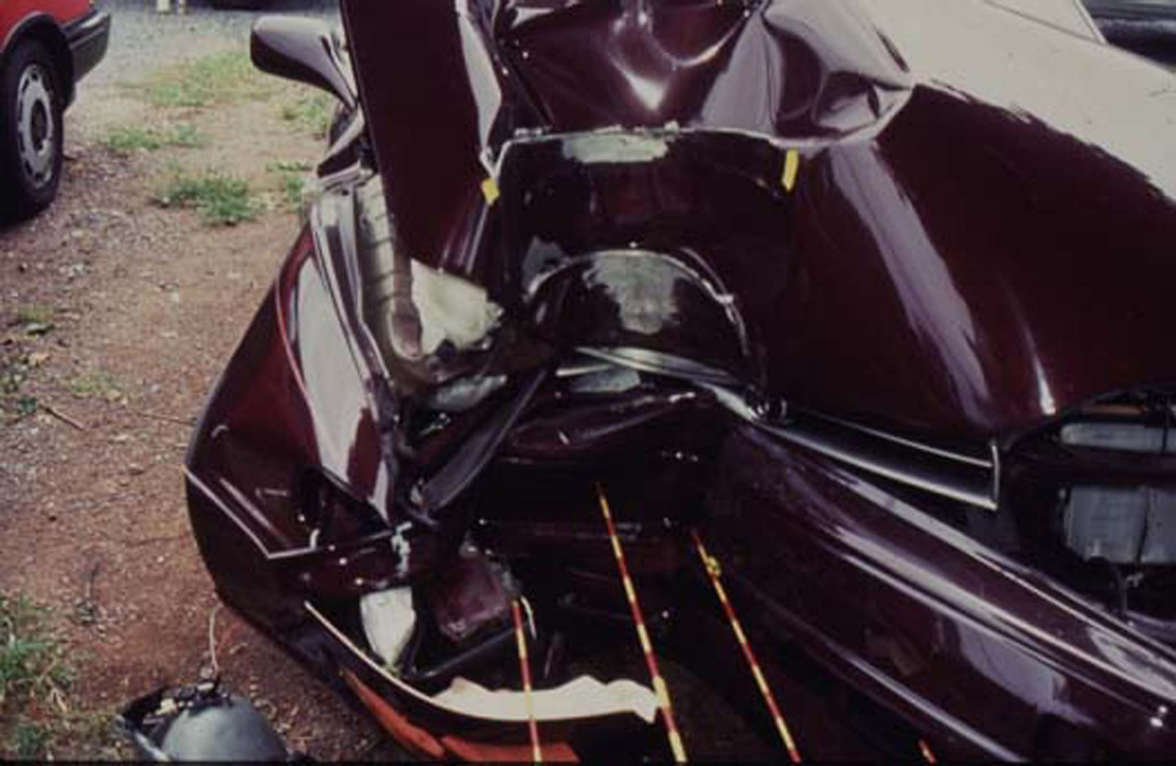
DRIVER KINEMATICS (CONT'D)

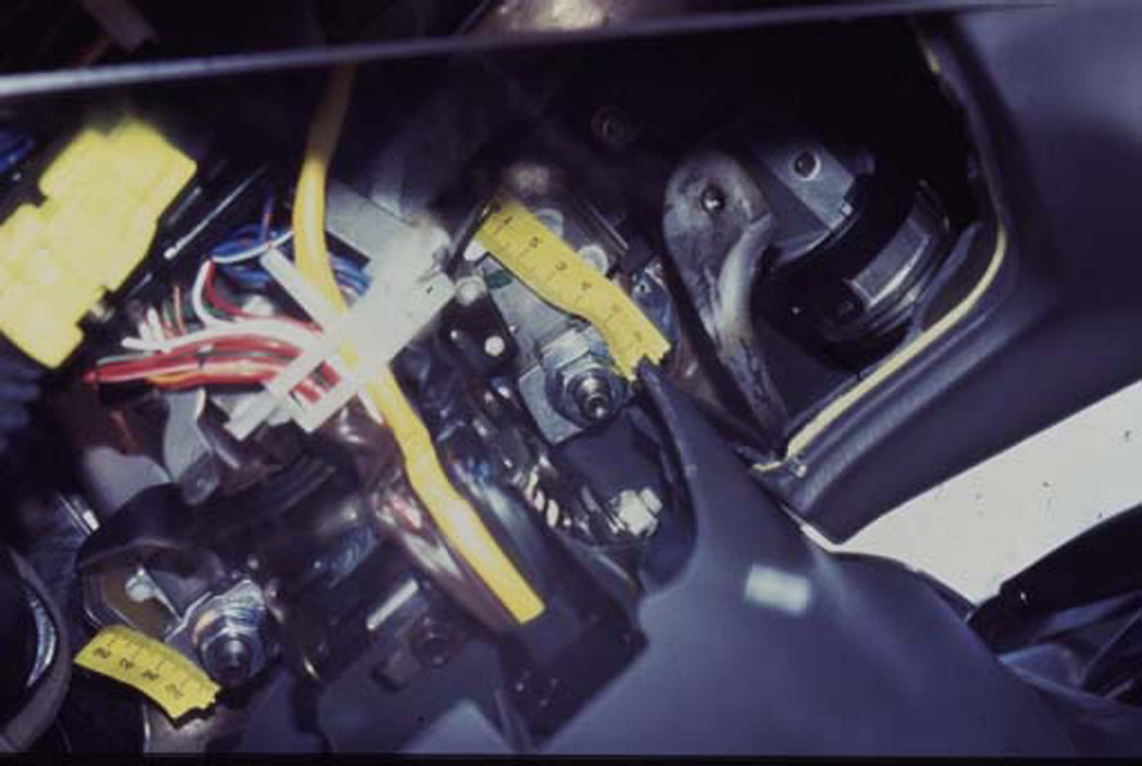
The driver's left hand probably separated from the steering wheel rim and struck the turn signal lever. The contact fractured the lever at the column and contused the dorsal aspect of the left hand. Her left knee area impacted the left side of the knee bolster adjacent to the fuse box cover. The contact deformed the bolster and abraded the anterior left thigh directly above the knee. The driver's right knee area contacted the right side of the bolster and mid panel area which resulted in a 4 x 3 cm contusion of the anterior right thigh, directly above the knee.

The driver rebounded into the left front seat back where she came to rest. She remained conscious and verbally communicated with emergency medical personnel as they arrived on-scene. She was transported by helicopter to a local trauma center where she expired approximately 2.5 hours following the crash.

SLIDE INDEX

Slide No(s).	Description
1	Pre-crash trajectory of the Toyota Camry
2	Vehicle drifts off right road edge
3	Struck utility pole
4	Frontal views of the Toyota Camry
5	Close-up view of the impact damage
6	Lateral displacement at the left front corner
7	Rearward displacement of hood, right front fender, and right front wheel
8	Right front three-quarter view
9	Overall view of the interior
10	Left knee contact to the knee bolster and left hand contact to the turn signal lever
11,12	Facial contact (makeup transfers) to the deployed air bag
13	Upper air bag module cover flap and air bag vent ports
14	Identification numbers on air bag
15	Identification numbers on inside surface of upper module cover flap
16	Steering and air bag module assembly
17	Driver's shoulder belt webbing
18	Driver's seat position
19	Steering column shear capsule compression
20	Overall view of the interior from the right door area





APPENDIX A

Police Accident Report

BEST AVAILABLE COPY

FAT

COMMONWEALTH OF PENNSYLVANIA
POLICE ACCIDENT REPORT

(XX) REFER TO OVERLAY SHEETS

REPORTABLE [X] NON-REPORTABLE [ ]

PENNDOT USE ONLY

POLICE INFORMATION

1. INCIDENT NUMBER
2. AGENCY NAME: State Police
3. STATION/ PRECINCT
4. PATROL ZONE
5. INVESTIGATOR: Tpr.
BADGE NUMBER
6. APPROVED BY
BADGE NUMBER
7. INVESTIGATION DATE: /93
8. ARRIVAL TIME: 1343

ACCIDENT INFORMATION

9. ACCIDENT DATE: /93
10. DAY OF WEEK: Tue.
11. TIME OF DAY
12. NUMBER OF UNITS: 1
13. # KILLED: 1
14. # INJURED: 0
15. PRIV. PROP. ACCIDENT Y [ ] N [X]
16. DID VEHICLE HAVE TO BE REMOVED FROM THE SCENE? UNIT 1 Y [X] N [ ] UNIT 2 Y [ ] N [ ]
17. VEHICLE DAMAGE 0 - NONE 1 - LIGHT 2 - MODERATE 3 - SEVERE UNIT 1: 3 UNIT 2:
18. HAZARDOUS MATERIALS Y [ ] N [X]
19. PENNDOT PROPERTY Y [ ] N [X]

ACCIDENT LOCATION

20. COUNTY CODE
21. MUNICIPALITY CODE

PRINCIPAL ROADWAY INFORMATION

22. ROUTE NO. OR STREET NAME
23. SPEED LIMIT: 40
24. TYPE HIGHWAY: 0
25. ACCESS CONTROL: 1

INTERSECTING ROAD:

26. ROUTE NO. OR STREET NAME
27. SPEED LIMIT
28. TYPE HIGHWAY
29. ACCESS CONTROL

IF NOT AT INTERSECTION:

30. CROSS STREET OR SEGMENT MARKER
31. DIRECTION FROM SITE N S E (W)
32. DISTANCE FROM SITE: 120 FT. MI
33. DISTANCE WAS MEASURED [X] ESTIMATED [ ]
34. CONSTRUCTION ZONE: 0
35. TRAFFIC CONTROL DEVICE PRINCIPAL: 0 INTERSECTING:

UNIT # 1

36. LEGALLY PARKED? Y [ ] N [ ]
37. REG. PLATE
38. STATE: PA
39. PA TITLE OR ~~OUT-OF-STATE~~ VIN
40. OWNER
41. OWNER ADDRESS: same as driver
42. CITY, STATE & ZIPCODE
43. YEAR: 92
44. MAKE: Toyota
45. MODEL - (NOT BODY TYPE): Camry
46. INS. Y [X] N [ ] UNK [ ]
47. BODY TYPE: 04
48. SPECIAL USAGE: 0
49. VEHICLE OWNERSHIP: 2
50. INITIAL IMPACT POINT: 12
51. VEHICLE STATUS: 0
52. TRAVEL SPEED: 99
53. VEHICLE GRADIENT: 3
54. DRIVER PRESENCE: 1
55. DRIVER CONDITION: 1
56. DRIVER NUMBER
57. STATE: PA
58. DRIVER NAME
59. DRIVER ADDRESS
60. CITY, STATE & ZIPCODE
61. SEX: F
62. DATE OF BIRTH
63. PHONE
64. COMM. VEH. Y [ ] N [ ]
65. DRIVER CLASS: C
66. DRIVER SS#
67. CARRIER
68. CARRIER ADDRESS
69. CITY, STATE & ZIPCODE
70. USDOT #
ICC #
PUC #
72. VEH. CONFIG.
73. CARGO BODY TYPE
74. GVWR
75. NO. OF AXLES
76. HAZARDOUS MATERIALS
77. RELEASE OF HAZ MAT Y [ ] N [ ] UNK [ ]

UNIT # 2

36. LEGALLY PARKED? Y [ ] N [ ]
37. REG. PLATE
38. STATE
39. PA TITLE OR OUT-OF-STATE VIN
40. OWNER
41. OWNER ADDRESS
42. CITY, STATE & ZIPCODE
43. YEAR
44. MAKE
45. MODEL - (NOT BODY TYPE)
46. INS. Y [ ] N [ ] UNK [ ]
47. BODY TYPE
48. SPECIAL USAGE
49. VEHICLE OWNERSHIP
50. INITIAL IMPACT POINT
51. VEHICLE STATUS
52. TRAVEL SPEED
53. VEHICLE GRADIENT
54. DRIVER PRESENCE
55. DRIVER CONDITION
56. DRIVER NUMBER
57. STATE
58. DRIVER NAME
59. DRIVER ADDRESS
60. CITY, STATE & ZIPCODE
61. SEX
62. DATE OF BIRTH
63. PHONE
64. COMM. VEH. Y [ ] N [ ]
65. DRIVER CLASS
66. DRIVER SS#
67. CARRIER
68. CARRIER ADDRESS
69. CITY, STATE & ZIPCODE
70. USDOT #
ICC #
PUC #
72. VEH. CONFIG.
73. CARGO BODY TYPE
74. GVWR
75. NO. OF AXLES
76. HAZARDOUS MATERIALS
77. RELEASE OF HAZ MA Y [ ] N [ ] UNK [ ]

RESPONDING EMS AGENCY: [redacted] Fire and Ambulance | INCIDENT #: [redacted]

MEDICAL FACILITY: [redacted] | ACCIDENT DATE: [redacted]03

80. PEOPLE INFORMATION

A	B	C	D	E	F	G	NAME	ADDRESS	H	I	J	K	L	M
1	1	F	62	3	1	1	Operator #1		1	2	8	C	6	2

81. ILLUMINATION: 2 | 82. WEATHER: 0 | 83. ROAD SURFACE: 1

84. PENNSYLVANIA SCHOOL DISTRICT (IF APPLICABLE): N/A

85. DESCRIPTION OF DAMAGED PROPERTY: Cracked sidewalk

OWNER: [redacted]

ADDRESS: [redacted]

PHONE: [redacted]

86. DIAGRAM

"SEE ATTACHED DIAGRAM"

87. NARRATIVE - IDENTIFY PRECIPITATING EVENTS, CAUSATION FACTORS, SEQUENCE OF EVENTS, WITNESS STATEMENTS, AND PROVIDE ADDITIONAL DETAILS. LIKE INSURANCE INFORMATION AND LOCATION OF TOWED VEHILCES, IF KNOWN.

This is a one vehicle vs. a utility pole accident resulting in the death of operator # 1. Unit # 1 was proceeding west bound on [redacted] St. from the [redacted] area. Operator # 1 apparently fell asleep while driving causing Unit #1 to go out of control. Unit #1 left it's lane of travel and began to partially travel on the north sidewalk for a short time. Unit #1 then came to impact a utility pole which was 120 feet east of [redacted] Ave, on the sidewalk at the curbline. After impact Unit #1 rotated clockwise approximately 3 feet, and then came to rest in the westbound lane facing north.

Upon the my arrival at the scene I observed that Operator #1 was being treated for injuries by rescue personnel. At this time

MORE

INSURANCE INFORMATION	COMPANY: [redacted]		INSURANCE INFORMATION	COMPANY
UNIT 1	POLICY NO: [redacted]		UNIT 2	POLICY NO

88. WITNESSES

NAME	ADDRESS	PHONE
None Known		

	89. VIOLATIONS INDICATED	90. SECTION NUMBERS (ONLY IF CHARGED)	TC NTC
UNIT 1	Careless Driving		
UNIT 2			

	91. PROBABLE USE	92. TYPE TEST	93. RESULTS		91. PROBABLE USE	92. TYPE TEST	93. RESULTS		94. INVESTIGATION COMPLETE ?
UNIT 1	0	0	0.__%	☒ NO TEST ☐ REFUSE ☐ UNK	UNIT 2		0.__%	☐ NO TEST ☐ REFUSE ☐ UNK	YES ☒ NO ☐

AA-45 (1/92)

[redacted]

INVESTIGATING AGENCY

FAT

COMMONWEALTH OF PENNSYLVANIA
PAR CONTINUATION SHEET

BEST AVAILABLE COPY

(X) REFER TO OVERLAY SHEETS

REPORTABLE [XX] NON-REPORTABLE [ ]

PENNDOT USE ONLY

INCIDENT NUMBER	ACCIDENT DATE	COUNTY CODE	MUNICIPAL CODE
[redacted]	[redacted]/93	[redacted]	[redacted]

(82) PERSON INFORMATION - USE OVERLAY # 2 SHEET FOR CODES

A	B	C	D	E	F	G	NAME	ADDRESS	H	I	J	K	L	M

87. NARRATIVE:

I observed that there were no skid marks that were left by Unit #1 on the roadway or on the sidewalk. I spoke with people who were standing at the scene all of which stated that they did not see the accident occur but they heard a loud crash. I was informed by the Ambulance/Rescue personnel that Operator #1 was going to be flown to [redacted] Hospital via [redacted] Helicopter.

Due to the injuries that were sustained and that operator #1 was being treated for the injuries, she was not interviewed at the scene. At [redacted] hrs. this date I received information from Tpr. [redacted] PSP [redacted] that Operator #1 had died.

On [redacted]/93 at [redacted] hrs. I interviewed [redacted] a paramedic with the [redacted] Ambulance. [redacted] stated that he was the primary care giver to operator #1. He said that operator #1 keep saying that she could not believe that she had fell asleep.

On [redacted]/93 at [redacted] hrs. I interviewed [redacted] an EMT with the [redacted] Ambulance. He stated that he was one of the first rescue personnel at the scene and spoke with Operator #1. He said that operator #1 said that she could'nt believe she did this and that she had fell asleep.

On [redacted]/93 at [redacted] hrs. I attended the autopsy for Operator #1 at [redacted] Hospital. I photographed the autopsy with [redacted] Gold 400, two rolls of 24 exposure. The film was subsequently sent to the PA State Police Department Headquarters to be processed with prints and negatives ordered. The prints will be kept with the

MORE

	89. DESCRIBE VIOLATIONS	90. SECTION NUMBERS (ONLY IF CHARGED)	TC	NTC
UNIT 1			[ ]	[ ]
UNIT 2			[ ]	[ ]

	91. PROBABLE USE	92. TYPE TEST	93. RESULTS		91. PROBABLE USE	92. TYPE TEST	93. RESULTS		94. INVESTIGATION COMPLETE ?
UNIT 1			0.___%	[ ] NO TEST [ ] REFUSE [ ] UNK			0.___%	[ ] NO TEST [ ] REFUSE [ ] UNK	YES [X] NO [ ]
UNIT 2									

AA-45C (1/92)

PAGE: 3

INVESTIGATING AGENCY

FAT

COMMONWEALTH OF PENNSYLVANIA
PAR CONTINUATION SHEET

REFER TO OVERLAY SHEETS

REPORTABLE [X] NON-REPORTABLE [ ]

PENNDOT USE ONLY

IDENT NUMBER	ACCIDENT DATE	COUNTY CODE	MUNICIPAL CODE
[redacted]	[redacted]/93	[redacted]	[redacted]

(82) PERSON INFORMATION - USE OVERLAY # 2 SHEET FOR CODES

A	B	C	D	E	F	G	NAME	ADDRESS	H	I	J	K	L	M

87. NARRATIVE:

[illegible]ation copy of this report and the negatives will be filed in the [illegible]vidence locker at [redacted].

Unit #1 was towed to and by [redacted].

I requested that Tpr. [redacted] PSP [redacted] Identification Unit, to respond to the scene to photograph the scene of the accident on [redacted]/93.

As required by FR-6.4 the notification was sent to the Director, Bureau Of Patrol as to the occurrence of a traffic fatality. File #3 , on [redacted]/93.

[redacted] given to both operator# 1's next of kin and property owner reference blk. 85

License of Deceased, [redacted], Driver number [redacted] is attached.

	89. DESCRIBE VIOLATIONS	90. SECTION NUMBERS (ONLY IF CHARGED)	TC	NTC
UNIT 1			[ ]	[ ]
UNIT 2			[ ]	[ ]

	91. PROBABLE USE	92. TYPE TEST	93. RESULTS		91. PROBABLE USE	92. TYPE TEST	93. RESULTS		94. INVESTIGATION COMPLETE ?
UNIT 1			0.___%	[ ] NO TEST [ ] REFUSE [ ] UNK	UNIT 2		0.___%	[ ] NO TEST [ ] REFUSE [ ] UNK	YES [X] NO [ ]

FAT

BEST AVAILABLE COPY

COMMONWEALTH OF PENNSYLVANIA
POLICE ACCIDENT SUPPLEMENTAL

(XX) REFER TO OVERLAY SHEETS

REPORTABLE ☒ NON-REPORTABLE ☐

PENNDOT USE ONLY

POLICE INFORMATION

1. ACCIDENT NUMBER [redacted]			
2. AGENCY NAME [redacted] State Police			
3. STATION/ PRECINCT [redacted]	4. PATROL ZONE		
5. INVESTIGATOR Tpr. [redacted]	BADGE NUMBER [redacted]		
6. APPROVED BY	BADGE NUMBER		

ACCIDENT TIME & LOCATION

9. ACCIDENT DATE		10. DAY OF WEEK
11. TIME OF DAY		12. NUMBER OF UNITS 1
13. # KILLED 1	14. # INJURED	15. PRIV. PROP. ACCIDENT Y ☐ N ☐
20. COUNTY Montgomery		CODE 46
21. MUNICIPALITY [redacted]		CODE

UNIT #: _____ - COMPLETE ONLY THE INFORMATION THAT HAS CHANGED SINCE ORIGINAL REPORT

36. LEGALLY PARKED Y ☐ N ☐	37. REG. PLATE	38. STATE	58. DRIVER NAME		
39. PA TITLE OR OUT-OF-STATE VIN			59. DRIVER ADDRESS		
40. OWNER			60. CITY, STATE & ZIPCODE		
41. OWNER ADDRESS			61. SEX	62. DATE OF BIRTH	63. PHONE
42. CITY, STATE ZIPCODE			64. COMM VEH Y ☐ N ☐	65. DRIVER CLASS	66. DRIVER S. S. #
43. YEAR	44. MAKE		67. CARRIER		
45. MODEL (NOT BODY TYPE)		46. INSURANCE Y ☐ N ☐ UNK ☐	68. CARRIER ADDRESS		
47. BODY TYPE	48. SPECIAL USAGE	49. VEHICLE OWNERSHIP	69. CITY, STATE & ZIPCODE		
50. INITIAL IMPACT POINT	51. VEHICLE STATUS	52. TRAVEL SPEED	70. USDOT #	ICC #	PUC #
53. VEHICLE RADIENT	54. DRIVER PRESENCE	55. DRIVER CONDITION	72. VEHICLE CONFIG.	73. CARGO BODY TYPE	74. GVWR
56. DRIVER NUMBER		57. STATE	75. NO. OF AXLES	76. HAZARDOUS MATERIALS	77. RELEASE OF HAZ MAT Y ☐ N ☐ UNK ☐

87. NARRATIVE - IDENTIFY PRECIPITATING EVENTS, CAUSATION FACTORS, SEQUENCE OF EVENTS, WITNESS STATEMENTS, AND PROVIDE ADDITIONAL DETAILS

On [redacted]93 [redacted] hrs., I received a request from PSP [redacted] station (Tpr. [redacted] the investigating officer) to photograph the scene and the vehicle relative to this accident investigation.

On [redacted]93 approx. [redacted] hrs., I photographed an area around and about [redacted] st. 120 feet east of [redacted] ave. in [redacted] boro. [redacted] co.One (1) roll of photographs (24 exposures) were taken at the scene.

On [redacted]93 approx. [redacted] hrs., I photographed Unit #1 (1992, Toyota, Pa. reg# [redacted], VIN-JT2SK12EXN0[redacted]) which was located at [redacted] gas station on SR# [redacted] twp. Montgomery co. One (1) roll of photographs (24 exposures) were taken of the vehicle.

The 35MM negatives in this incident will be developed at PSP HQ. Photographic Section and upon their return they will be filed at PSP [redacted] Identification Unit office [redacted]

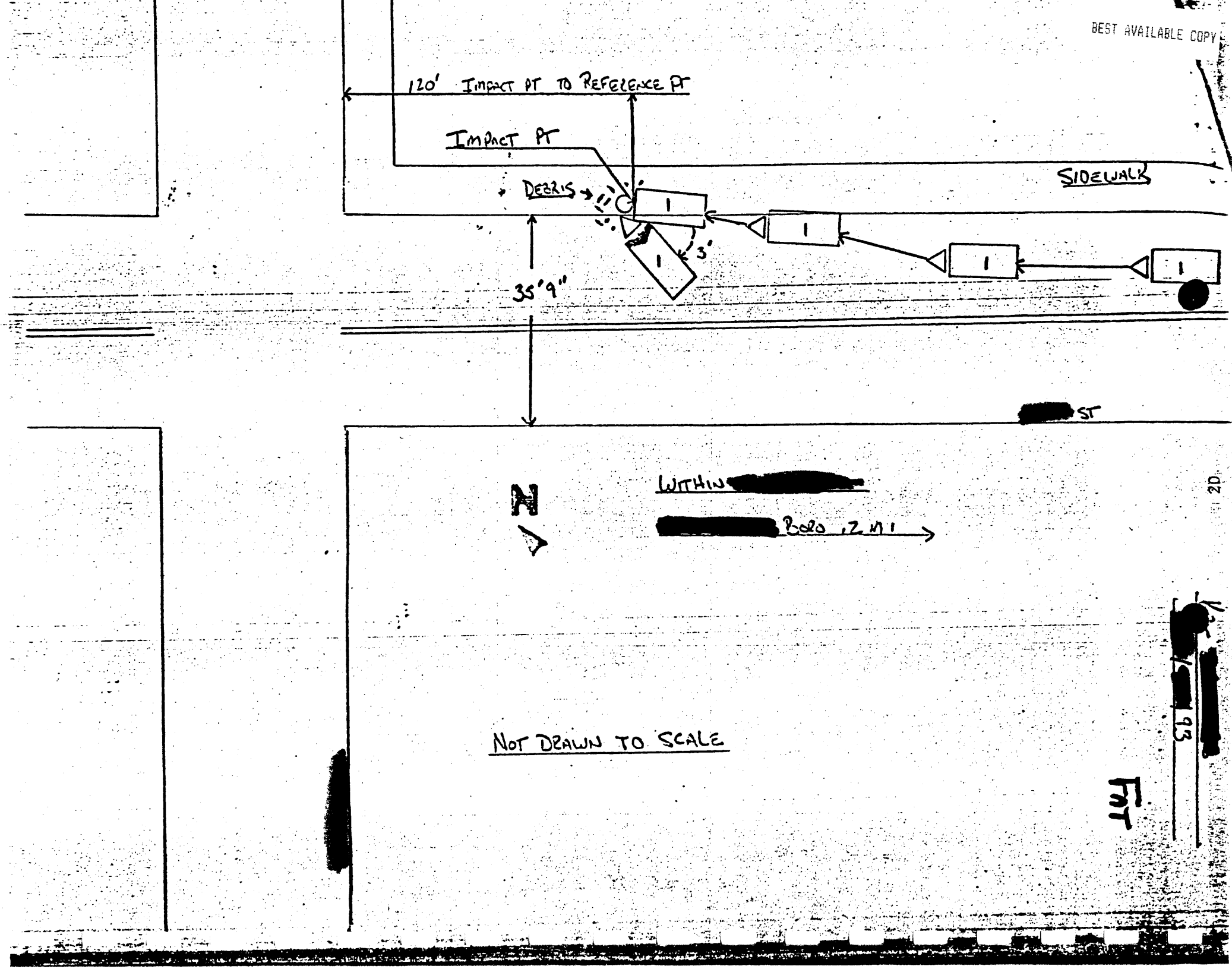
Photographs taken by Tpr. [redacted] ID Unit.

INSURANCE INFORMATION	COMPANY		94. INVESTIGATION COMPLETE? YES ☒ NO ☐
UNIT NO	POLICY NO		

AA-45 S (1/92)

PAGE: 5

INVESTIGATING AGENCY



POLICE ACCIDENT REPORT - Overlay Sheet - 2

72 VEHICLE CONFIGURATION
1 - BUS
2 - SINGLE UNIT- (2 AXLES, 6 TIRES)
3 - SINGLE UNIT (3 + AXLES)
4 - TRUCK TRACTOR (BOBTAIL)
5 - TRUCK TRAILER
6 - TRACTOR/SEMI-TRAILER
7 - TRACTOR/DOUBLES
8 - TRACTOR/TRIPLES
9 - UNKNOWN HEAVY TRUCK

73. CARGO BODY TYPE
1 - BUS
2 - VAN / ENCLOSED BOX
3 - CARGO TANK
4 - FLATBED
5 - DUMP
6 - CONCRETE MIXER
7 - AUTO TRANSPORT
8 - GARBAGE / REFUSE
9 - OTHER / UNKNOWN

76. HAZARDOUS MATERIALS

CODE THE 4 DIGIT HAZARDOUS MATERIAL CODE ON THE PLACARD
OR

SELECT ONE OF THE FOLLOWING CODES TO REPRESENT THE PLACARD.
00 - NOT APPLICABLE
01 - NON-FLAMMABLE GAS
02 - COMBUSTIBLE
03 - ORGANIC PEROXIDE
04 - CORROSIVE
05 - EXPLOSIVES "A"
06 - OXYGEN
07 - POISON
08 - EXPLOSIVES "B"
09 - CHLORINE
10 - OXIDIZER
11 - POISONOUS GAS
12 - FUEL OIL
13 - DANGEROUS
14 - RADIOACTIVE
15 - FLAMMABLE SOLID "W"
16 - FLAMMABLE
17 - FLAMMABLE GAS
18 - FLAMMABLE SOLID
19 - GASOLINE
20 - BLASTING AGENT
98 - OTHER/NOT SIGNED
99 - UNKNOWN

OR

CODE THE 1 DIGIT HAZARDOUS MATERIAL CODE ON THE PLACARD

80. UNIT NUMBERS - BLOCK A
CODE UNIT NUMBERS AS RECORDED ON PAGE 1.

80. SEAT POSITION - BLOCK B
1 - DRIVER
2 - MIDDLE FRONT
3 - RIGHT FRONT
4 - LEFT REAR
5 - MIDDLE REAR
6 - RIGHT REAR
7 - PEDESTRIAN
8 - OTHER SEAT POSITION
9 - UNKNOWN

80. SEX - BLOCK C
M - MALE F - FEMALE
U - UNKNOWN

80. AGE - BLOCK D
CODE ACTUAL AGE, EXCEPT FOR
1 - FOR INFANTS UP TO AGE 2
98 - AGE 98 OR GREATER
99 - UNKNOWN

80. ACTIVE RESTRAINT TYPE - BLOCK E
0 - NONE OR PEDESTRIAN
1 - SHOULDER HARNESS ONLY
2 - SEAT BELT ONLY
3 - COMBINATION (HARNESS & BELT)
4 - CHILD RESTRAINT DEVICE
7 - HELMET
8 - OTHER
9 - UNKNOWN

80. ACTIVE RESTRAINT USAGE - BLOCK F
0 - NOT APPLICABLE
1 - IN USE
2 - NOT IN USE
9 - UNKNOWN

80. PASSIVE RESTRAINT TYPE - BLOCK G
0 - NONE OR PEDESTRIAN
1 - AIRBAG (DEPLOYED)
2 - AIR BAG (NOT DEPLOYED)
3 - AUTOMATIC SEAT BELT
8 - OTHER
9 - UNKNOWN

80. INJURY SEVERITY - BLOCK H
0 - NO INJURY
1 - DEATH
2 - MAJOR INJURY
3 - MODERATE INJURY
4 - MINOR INJURY 9 - UNKNOWN

80. TYPE OF INJURY - BLOCK I
0 - NO INJURY
1 - AMPUTATION
2 - BLEEDING WOUND
3 - BROKEN BONES
4 - DISTORTED MEMBER
5 - BRUISES/ABRASIONS
6 - BURNS
7 - SWELLING
8 - LIMPING
9 - COMPLAINT OF PAIN
97- OTHER INCAPACITATING INJURY
98 - OTHER NON-INCAPACITATING
99 - UNKNOWN

80. AREA OF APPARENT INJURY - BLOCK J
0 - NO INJURY
1 - FACE
2 - HEAD
3 - NECK
4 - BACK
5 - ARM(S)
6 - LEG(S)
7 - CHEST/STOMACH
8 - INTERNAL
9 - ENTIRE BODY
98 - OTHER AREAS
99 - UNKNOWN

80. INJURY INFORMATION SOURCE - BLOCK K
N - NOT APPLICABLE
A - OBSERVATION OF OFFICER
B - STATEMENT FROM INDIVIDUAL
C - MEDICAL/PARAMEDICAL PERSONNEL

80. EJECTION/EXTRICATION - BLOCK L
0 - NOT APPLICABLE
1 - TOTALLY EJECTED
2 - PARTIALLY EJECTED
3 - PARTIALLY EJECTED REQUIRING EXTRICATION
4 - EXTRICATION BY PERSONS UNKNOWN
5 - EXTRICATION - TWO OR MORE TYPES
6 - EXTRICATION BY AMBULANCE OR RESCUE PERSONNEL
7 - EXTRICATION BY POLICE
8 - EXTRICATION BY SELF
9 - UNKNOWN EJECTION OR EXTRICATION

80. INJURY TRANSPORTATION - BLOCK M
0 - NOT APPLICABLE
1 - AMBULANCE (CONT'D ABOVE)

(CONTINUED FROM BELOW) - BLOCK M
2 - HELICOPTER
3 - FIRE RESCUE VEHICLE
4 - PRIVATE VEHICLE
5 - POLICE VEHICLE
8 - OTHER
9 - UNKNOWN

81. ILLUMINATION
1 - DAWN
2 - DAYLIGHT
3 - DARK - STREET LIGHTS
4 - DARK - NO STREET LIGHTS
5 - DUSK

82. WEATHER
0 - NO ADVERSE CONDITIONS
1 - RAINING
2 - SLEET, HAIL, FREEZING RAIN
3 - SNOWING
4 - FOG, SMOKE
5 - RAIN AND FOG

83. ROAD SURFACE CONDITIONS
1 - DRY
2 - WET
3 - MUDDY
4 - SNOW COVERED
5 - ICE COVERED
6 - PLOWED SNOW
7 - SALTED & CINDERED
8 - ICE PATCHES

91. PROBABLE USE (ALCOHOL OR DRUGS)
0 - NONE
1 - ALCOHOL
2 - CONTROLLED SUBSTANCES
3 - OTHER DRUGS
4 - BOTH ALCOHOL AND DRUGS
9 - UNKNOWN

92. TYPE TEST
0 - NOT APPLICABLE /NO TEST GIVEN
1 - BLOOD
2 - BREATH
3 - URINE
4 - TEST REFUSED
8 - OTHER
9 - UNKNOWN

93 RESULTS (ALCOHOL TEST)

CODE ACTUAL TEST RESULT
E.G 197 GRAMS = 0.20% (MOVE 3 DECIMAL PLACES AND ROUND)

POLICE ACCIDENT REPORT - Overlay Sheet - 1

ACCIDENT LOCATION FIELDS

24. & 28. TYPE HIGHWAY
- 0 - NOT PHYSICALLY DIVIDED
- 1 - DIVIDED HIGHWAY - MEDIAN STRIP WITHOUT TRAFFIC BARRIER
- 2 - DIVIDED HIGHWAY - MEDIAN STRIP WITH TRAFFIC BARRIER
- N - ONE WAY TRAFFIC NORTH
- S - ONE WAY TRAFFIC SOUTH
- E - ONE WAY TRAFFIC EAST
- W - ONE WAY TRAFFIC WEST

25. & 29. ACCESS CONTROL
- 1 - NO CONTROLS (UNLIMITED ACCESS)
- 2 - FULL CONTROL (ONLY RAMP ENTRY AND EXIT)
- 8 - OTHER
- 9 - UNKNOWN

34. CONSTRUCTION ZONE
- 0 - NOT APPLICABLE
- 1 - CONSTRUCTION ZONE
- 2 - MAINTENANCE ZONE
- 3 - UTILITY COMPANY WORK
- 9 - UNKNOWN

35. TRAFFIC CONTROL DEVICE
- 0 - NO CONTROLS
- 1 - FLASHING SIGNALS
- 2 - TRAFFIC SIGNAL
- 3 - STOP SIGN
- 4 - YIELD SIGN
- 5 - RR CROSSING
- 6 - POLICE OFFICER OR FLAGMAN
- 7 - FLASHING SCHOOL ZONE
- 8 - OTHER
- 9 - UNKNOWN

UNIT INFORMATION FIELDS

47. BODY TYPE

AUTOMOBILES
- 01 - CONVERTIBLE
- 02 - 2 DOOR
- 03 - 3 DOOR (HATCH BACK, 2 DR)
- 04 - 4 DOOR
- 05 - 5 DOOR (HATCH BACK, 4 DR)
- 06 - STATION WAGON
- 07 - HATCH BACK NUMBER DOORS UNKNOWN

47. BODY TYPE (CONTINUED)

AUTOMOBILES CONTINUED
- 08 - OTHER AUTOMOBILE
- 09 - UNKNOWN AUTOMOBILE
- 10 - AUTOMOBILE BASED PICK-UP
- 11 - AUTOMOBILE BASED PANEL
- 12 - SHORT UTILITY
- 13 - LARGE LIMOUSINE
- 14 - THREE WHEEL AUTO OR DERIVATIVE

MOTORCYCLES
- 20 - MOTORCYCLE
- 21 - MOPED
- 27 - THREE WHEEL MOTORCYCLE OR MOPED
- 28 - MINIBIKE, MOTORSCOOTER
- 29 - UNKNOWN MOTORCYCLE

BUSES
- 30 - SCHOOL BUS
- 31 - CROSS COUNTRY/INTERCITY
- 32 - TRANSIT BUS
- 38 - OTHER BUS
- 39 - UNKNOWN BUS TYPE

VANS
- 40 - VAN
- 41 - VAN COMMERCIAL CUTAWAY
- 42 - VAN BASED MOTORHOME
- 48 - OTHER VAN TYPE
- 49 - UNKNOWN VAN TYPE

LIGHT TRUCKS (GVWR < 10,000#)
- 50 - PICK - UP
- 51 - PICKUP WITH SLIDE IN CAMPER
- 52 - PICKUP BASED MOTORHOME
- 53 - CAB CHASSIS BASED
- 54 - TRUCK BASED PANEL
- 55 - TRUCK BASED STATION WAGON
- 56 - TRUCK BASED UTILITY
- 58 - OTHER LIGHT TRUCK
- 59 - UNKNOWN LIGHT TRUCK TYPE
- 67 - STATIONWAGON - BASE BODY TYPE UNKNOWN
- 68 - UTILITY - BASE BODY TYPE UNKNOWN
- 69 - UNKNOWN LIGHT TRUCK

MEDIUM/HEAVY TRUCKS
- 70 - SINGLE UNIT STRAIGHT TRUCK
- 73 - MEDIUM/HEAVY TRUCK BASED MOTORHOME
- 74 - TRUCK TRACTOR (CAB)
- 75 - UNKNOWN IF SINGLE UNIT OR COMBINATION TRUCK
- 77 - CAMPER OR MOTORHOME UNKNOWN TRUCK TYPE
- 79 - UNKNOWN TRUCK TYPE

47. BODYTYPE (CONTINUED)

OTHER MOTORIZED VEHICLE
- 80 - SNOWMOBILE
- 81 - FARM EQUIPMENT
- 82 - ATV
- 83 - CONSTRUCTION EQUIPMENT
- 88 - OTHER UNSPECIFIED VEHICLE
- 89 - UNKNOWN OTHER MOTORIZED VEHICLES

NON-MOTORIZED UNITS
- 90 - UNICYCLE, BICYCLE, TRICYCLE
- 91 - OTHER PEDALCYCLE (BIG WHEEL)
- 92 - UNKNOWN PEDALCYCLE
- 93 - HORSE AND BUGGY
- 94 - HORSE AND RIDER

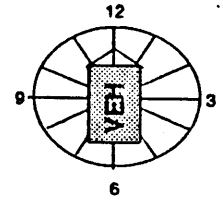
TRACK VEHICLES
- 95 - TRAIN
- 96 - TROLLEY

IF NOTHING ELSE
- 98 - OTHER BODY TYPE
- 99 - UNKNOWN BODY TYPE

48. SPECIAL USAGE
- 0 - NOT APPLICABLE
- 1 - PUPIL TRANSPORT
- 2 - FIRE VEHICLE
- 3 - AMBULANCE
- 4 - OTHER EMERGENCY VEHICLE
- 5 - POLICE VEHICLE
- 6 - TRACTOR TRAILER
- 7 - TWIN TRAILER
- 11 - COMMERCIAL PASSENGER
- 12 - TOWING PASSENGER VEHICLE
- 13 - TOW TRUCK
- 14 - TOWING UTILITY TRAILER
- 15 - TOWING MOBILE OR MODULAR HOME
- 16 - TOWING CAMPER
- 20 - MODIFIED VEHICLE

49. VEHICLE OWNERSHIP
- 1 - PRIVATE VEHICLE OWNED BY DRIVER
- 2 - PRIVATE VEHICLE OWNED BY ANOTHER
- 3 - RENTED VEHICLE
- 4 - STATE POLICE VEHICLE
- 5 - PENNDOT VEHICLE
- 6 - OTHER COMMONWEALTH VEH.
- 7 - MUNICIPAL POLICE VEHICLE
- 8 - OTHER MUNICIPAL GOVT VEH
- 9 - FEDERAL GOVERNMENT VEH.
- 10 - COMMERCIAL VEHICLE
- 11 - PUPIL TRANSPORT CARRIER
- 98 - OTHER
- 99 - UNKNOWN

50. INITIAL IMPACT POINT
- 0 - NO IMPACT OR CONTACT
- 1 - 12 CLOCK POINTS
- 13 - TOP
- 14 - UNDERCARRIAGE
- 15 - TOWED UNIT
- 99 - UNKNOWN



51. VEHICLE STATUS
- 0 - NOT APPLICABLE
- 1 - LEGALLY PARKED
- 2 - ILLEGALLY PARKED - ON ROAD
- 3 - ILLEGALLY PARKED - OFF ROAD
- 4 - HIT AND RUN
- 5 - DISABLED FROM PREVIOUS ACCIDENT

52. TRAVEL SPEED
- 00 - STOPPED OR PARKED
- 01 - 97 ACTUAL OR ESTIMATED SPEED
- 98 - 98 MPH OR GREATER
- 99 - UNKNOWN

53. VEHICLE GRADIENT
- 1 - LEVEL ROADWAY
- 2 - UP HILL
- 3 - DOWN HILL
- 4 - SAG (BOTTOM OF HILL)
- 5 - CREST (TOP OF hILL)

IF DRIVER PRESENCE = 2, THEN DO NOT ENTER DATA FOR THE OPERATOR

54. DRIVER PRESENCE
- 1 - DRIVER OPERATED VEHICLE
- 2 - DRIVERLESS VEHICLE
- 3 - DRIVER LEFT SCENE (AFTER ACCIDENT)

55. DRIVER CONDITION
- 1 - APPEARED NORMAL
- 2 - HAD BEEN DRINKING
- 3 - ILLEGAL DRUG USE
- 4 - SICK
- 5 - FATIGUE
- 6 - ASLEEP
- 7 - MEDICATION
- 9 - UNKNOWN

APPENDIX B

CRASHPC Output
(Damage and Trajectory Algorithm)

SUMMARY OF CRASHPC RESULTS USING DAMAGE

93-11

	SPEED CHANGE (DAMAGE)	IMPACT SPEED (DAMAGE AND SPINOUT)
VEHICLE #1		
TOTAL	46 KPH (29 MPH)	53 KPH (33 MPH)
LONGITUDINAL	-46 KPH (-29 MPH)	53 KPH (33 MPH)
LATITUDINAL	0 KPH (0 MPH)	0 KPH (0 MPH)
PDOF ANGLE	0 DEGREES	
ENERGY DISSIPATED = 134907 JOULES (99489 FT-LB)		
VEHICLE #2		
TOTAL	0 KPH (0 MPH)	0 KPH (0 MPH)
LONGITUDINAL	0 KPH (0 MPH)	0 KPH (0 MPH)
LATITUDINAL	0 KPH (0 MPH)	0 KPH (0 MPH)
PDOF ANGLE	0 DEGREES	
ENERGY DISSIPATED =	0 JOULES (0 FT-LB)	

SCENE INFORMATION

	VEHICLE #1	VEHICLE #2
IMPACT X-POSITION	-2.1 M. (-7.0 FT.)	1.3 M. (4.2 FT.)
IMPACT Y-POSITION	-.3 M. (-1.1 FT.)	.0 M. (.0 FT.)
IMPACT HEADING ANGLE	0 DEGREES	180 DEGREES
REST X-POSITION	-1.3 M. (-4.3 FT.)	1.3 M. (4.2 FT.)
REST Y-POSITION	-1.8 M. (-5.8 FT.)	.0 M. (.0 FT.)
REST HEADING ANGLE	40 DEGREES	180 DEGREES
SIDE-SLIP ANGLE	0 DEGREES	0 DEGREES
DIRECTION OF ROTATION	CW	NONE
AMOUNT OF ROTATION	<360	<360

COLLISION AND SEPARATION

	VEHICLE #1	VEHICLE #2
COLLISION		
IMPACT X-POSITION	-2.1 M. (-7.0 FT.)	1.3 M. (4.2 FT.)
IMPACT Y-POSITION	-.3 M. (-1.1 FT.)	.0 M. (.0 FT.)
IMPACT HEADING ANGLE	0 DEGREES	180 DEGREES
SEPARATION (USING SPINOUT)		
US	6 KPH (4 MPH)	0 KPH (0 MPH)
VS	-11 KPH (-7 MPH)	0 KPH (0 MPH)
PSISD	84 DEG/SEC	0 DEG/SEC

DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	3	11
STIFFNESS CATEGORY	3	0
VEHICLE WEIGHT	1437 KGS (3167 LBS)	453600 KGS (1000000 LBS) *
CDC	12FREN3	BARRIER
PDOF ANGLE	0 DEGREES	0 DEGREES *
CRUSH LENGTH	153 CM. (60 IN.)	0 CM. (0 IN.) *
C1	0 CM. (0 IN.)	0 CM. (0 IN.) *
C2	8 CM. (3 IN.)	0 CM. (0 IN.) *
C3	32 CM. (13 IN.)	0 CM. (0 IN.) *
C4	83 CM. (33 IN.)	0 CM. (0 IN.) *
C5	83 CM. (33 IN.)	0 CM. (0 IN.) *
C6	47 CM. (19 IN.)	0 CM. (0 IN.) *
)	27 CM. (11 IN.)	0 CM. (0 IN.) *
D'	52 CM. (20 IN.)	0 CM. (0 IN.) *

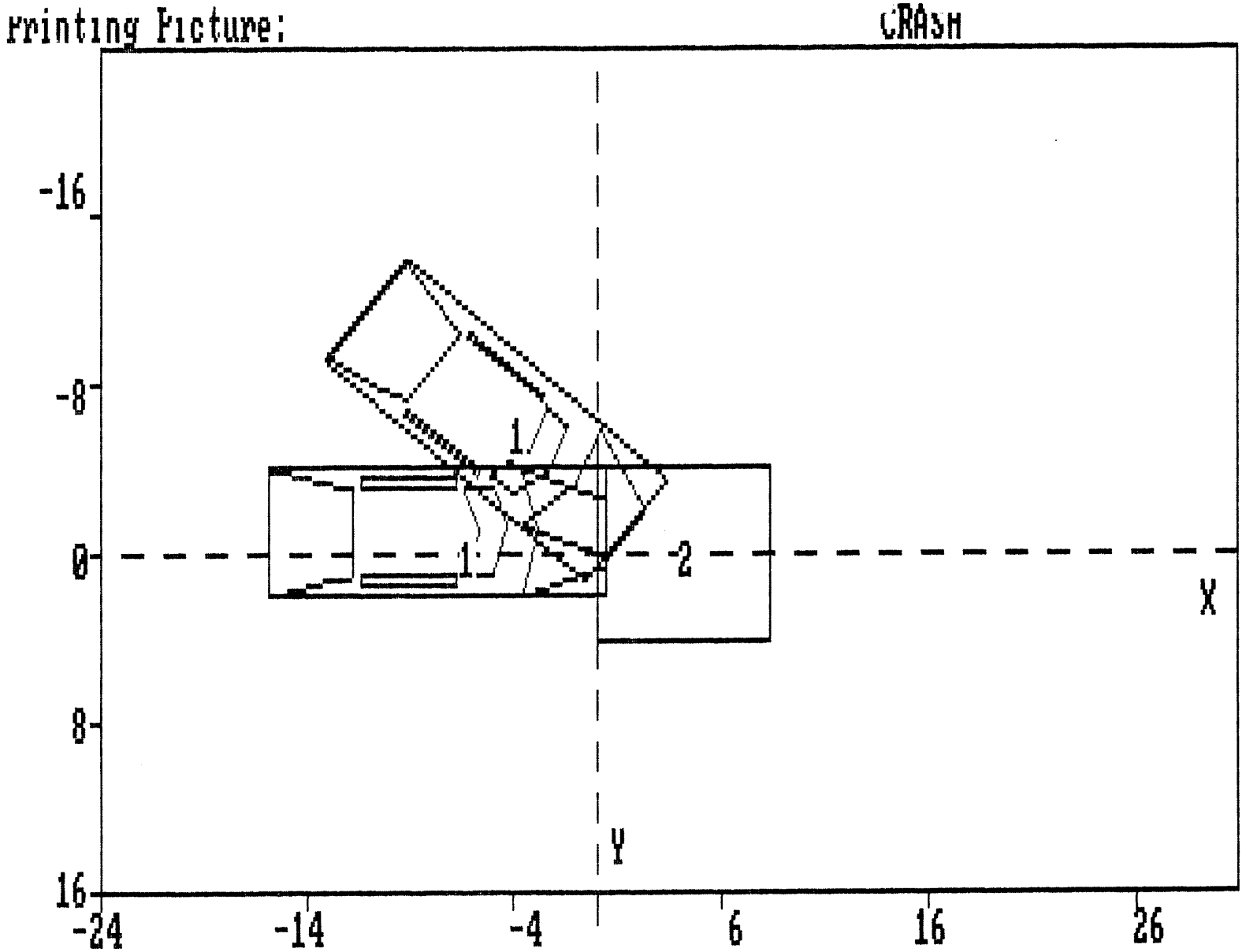
(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

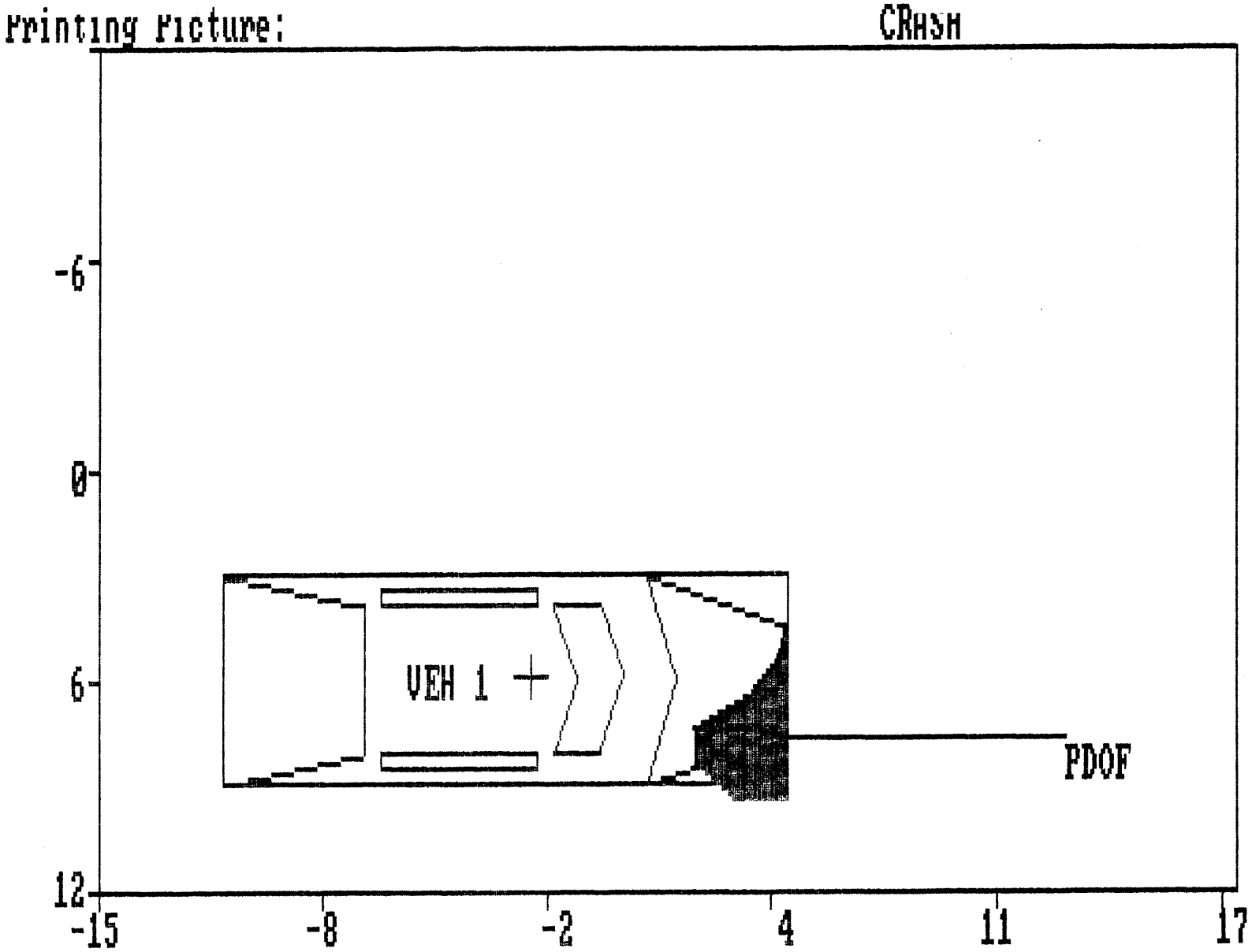
	VEHICLE #1	VEHICLE #2
_G TO FRONT AXLE	130 CM. (51 IN.)	127 CM. (50 IN.)
CG TO REAR AXLE	141 CM. (56 IN.)	127 CM. (50 IN.)
RACK	150 CM. (59 IN.)	127 CM. (50 IN.)
:G TO FRONT OF VEH	228 CM. (90 IN.)	127 CM. (50 IN.)
CG TO REAR OF VEH	-270 CM. (-106 IN.)	-127 CM. (-50 IN.)
CG TO SIDE OF VEH	92 CM. (36 IN.)	127 CM. (50 IN.)
IOMENT OF INERTIA	12416 KGS (27372 LBS)	****** KGS (******* LBS)
VEHICLE MASS	4 KGS (8 LBS)	1179 KGS (2600 LBS)

:OLLING RESISTANCE		
LEFT FRONT WHEEL	.50	.00
RIGHT FRONT WHEEL	1.00	.00
LEFT REAR WHEEL	.03	.00
RIGHT REAR WHEEL	.03	.00

COEFFICIENT OF FRICTION = .75



SCENE DESCRIPTION



DAMAGE DESCRIPTION

APPENDIX C

NASS Vehicle Forms

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: 05
2. Case Number - Stratum: 125A
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 92
   Code the last two digits of the model year
   (99) Unknown

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

6. Vehicle Model (specify): 040
   Camry
   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
   JT2SK12EXN0[redacted]
   Left justify; Slash zeros and letter Z (0 and Z)
   No VIN—Code all zeros
   Unknown—Code all nine's

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: SgT [redacted]

ACCIDENT RELATED

13. Speed Limit: 064
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown

    ___ mph X 1.6093 = ___ kph

14. Attempted Avoidance Maneuver: 01
    (00) No impact
    (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: 01
    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 ****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

(01) Convertible (excludes sun-roof, t-bar)
(02) 2-door sedan, hardtop, coupe
(03) 3-door/2-door hatchback
(04) 4-door sedan, hardtop
(05) 5-door/4-door hatchback
(06) Station wagon (excluding van and truck based)
(07) Hatchback, number of doors unknown
(08) Other automobile type (specify):

_____

(09) Unknown automobile type

Automobile Derivatives

(10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
(11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
(12) Large limousine - more than four side doors or stretched chassis
(13) Three-wheel automobile or automobile derivative

Utility Vehicles (≤ 4,500 kgs GVWR)

(14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
(15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
(16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
(19) Utility, unknown body type

Van Based Light Trucks (≤ 4,500 kgs GVWR)

(20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Vanagon/Camper.)
(21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
(22) Step van or walk-in van (≤ 4,500 kgs GVWR)
(23) Van based motorhome (≤ 4,500 kgs GVWR)
(24) Van based school bus (≤ 4,500 kgs GVWR)
(25) Van based other bus (≤ 4,500 kgs GVWR)
(28) Other van type (Hi-Cube Van, Kary) (specify):

_____

(29) Unknown van type

Light Conventional Trucks (Pickup style cab, ≤ 4,500 kgs GVWR)

(30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10 , T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
(31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500,)
(32) Pickup with slide-in camper
(33) Convertible pickup
(39) Unknown pickup style light conventional truck type

Other Light Trucks (≤ 4,500 kgs GVWR)

(40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
(41) Truck based panel
(42) Light truck based motorhome (chassis mounted)
(45) Other light conventional truck type
(48) Unknown light truck type
(49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

(50) School bus (designed to carry students, not cross country or transit)
(58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify):

_____

(59) Unknown bus type

Medium/Heavy Trucks (> 4,500 kgs GVWR)

(60) Step van (> 4,500 kgs GVWR)
(61) Single unit straight truck (4,500 kgs < GVWR ≤ 8,850 kgs)
(62) Single unit straight truck (8,850 kgs < GVWR ≤ 12,000 kgs)
(63) Single unit straight truck (> 12,000 kgs GVWR)
(64) Single unit straight truck, GVWR unknown
(65) Medium/heavy truck based motorhome
(67) Truck-tractor with no cargo trailer
(68) Truck-tractor pulling one trailer
(69) Truck-tractor pulling two or more trailers
(70) Truck-tractor (unknown if pulling trailer)
(78) Unknown medium/heavy truck type
(79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

(80) Motorcycle
(81) Moped (motorized bicycle)
(82) Three-wheel motorcycle or moped
(88) Other motored cycle (minibike, motorscooter) (specify):_____
(89) Unknown motored cycle type

Other Vehicles

(90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
(91) Snowmobile
(92) Farm equipment other than trucks
(93) Construction equipment other than trucks
(97) Other vehicle type
(99) Unknown body type

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: 1360
1335 Code weight to nearest 10 kilograms.
(045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown
Toyota manual
2,987 lbs X .4536 = 1,355 kgs
Source: [redacted]

20. Vehicle Cargo Weight: 0,000
____ 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: 1
PAR
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V): 1
(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: 998

28. Heading Angle For Other Vehicle: 998

29. Basis for Total Delta V (highest) 2

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

	Secondary	Highest
30. Total Delta V	0	46
____ Nearest kph		

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

	Secondary	Highest
31. Longitudinal Component of Delta V	± 0	46
____ Nearest kph		

(NOTE: __000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(__999) Unknown

	Secondary	Highest
32. Lateral Component of Delta V	± 0	04
~~40~~ Nearest kph		0

(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 134,900
~~11938~~ 134907 Nearest 100 joules

(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) 1
(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 1
(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 [0]
(0) No other drugs present
(1) Yes (other drug 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] PAR 68

(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) 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

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

(00) No rollover
(01-30) — Vehicle Number

Noncollision
(31) Turn-over — fall-over
(33) Jackknife

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
(76) Animal
(77) Train
(78) Trailer, disconnected in transport
(88) Other nonfixed object (specify):

_____
(89) Unknown nonfixed object

(98) Other event (specify):

_____
(99) Unknown event or object

PRECRASH DATA (Continued)

65. Critical Precrash Event 13

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.

BEST AVAILABLE COPY

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

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 05
2. Case Number - Stratum: 125A
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

VIN: JT2SK12EXN0[redacted] Model Year: 92

Vehicle Make (specify): Toyota Vehicle Model (specify): Camry

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	30" From (R) Front Bumper Corner.	Entire Front

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage Width (CDC)	Direct Damage Max Crush	Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
1	[illegible]	40		73	7	12	[illegible]	[illegible]	[illegible]	[illegible]	+26.5
	Free-space				-12	-4	-1	-1	-4	-12	
	* Resultant	40		73	0	8	32	83	83	47	+26.5

HS Form 435A (Rev. 1/93)

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	___ ___ ___.___	inches	x 2.54	=	262 cm
Overall Length	___ ___ ___.___	inches	x 2.54	=	477 cm
Maximum Width	___ ___ ___.___	inches	x 2.54	=	177 cm
Curb Weight	___ ___,___ ___ ___	pounds	x .4536	=	1,354 kg
Average Track	___ ___ ___.___	inches	x 2.54	=	152 cm
Front Overhang	___ ___ ___.___	inches	x 2.54	=	101 cm
Rear Overhang	___ ___ ___.___	inches	x 2.54	=	114 cm
Undeformed End Width	___ ___ ___.___	inches	x 2.54	=	153 cm
Engine Size: cyl./displ.	___ ___ ___ ___	cc	x .001	=	___.___ L
	___ ___ ___	CID	x .0164	=	___.___ L

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

	a. Rotation physically restricted	b. Tire deflated
RF	1	2
LF	2	2
RR	2	2
LR	2	2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☑ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase	262	cm
Overall Length	477	cm
Maximum Width	177	cm
Curb Weight	1335	kg
Average Track	152	cm
Front Overhang	101	cm
Rear Overhang	114	cm
Undeformed End Width	153	cm
Engine Size: cyl./displ.	4/1.6	L

WHEEL STEER ANGLES

(For locked front wheels or displaced rear axles only)

RF	05	°
LF ±	NA	°
RR ±	0	°
LR ±	0	°

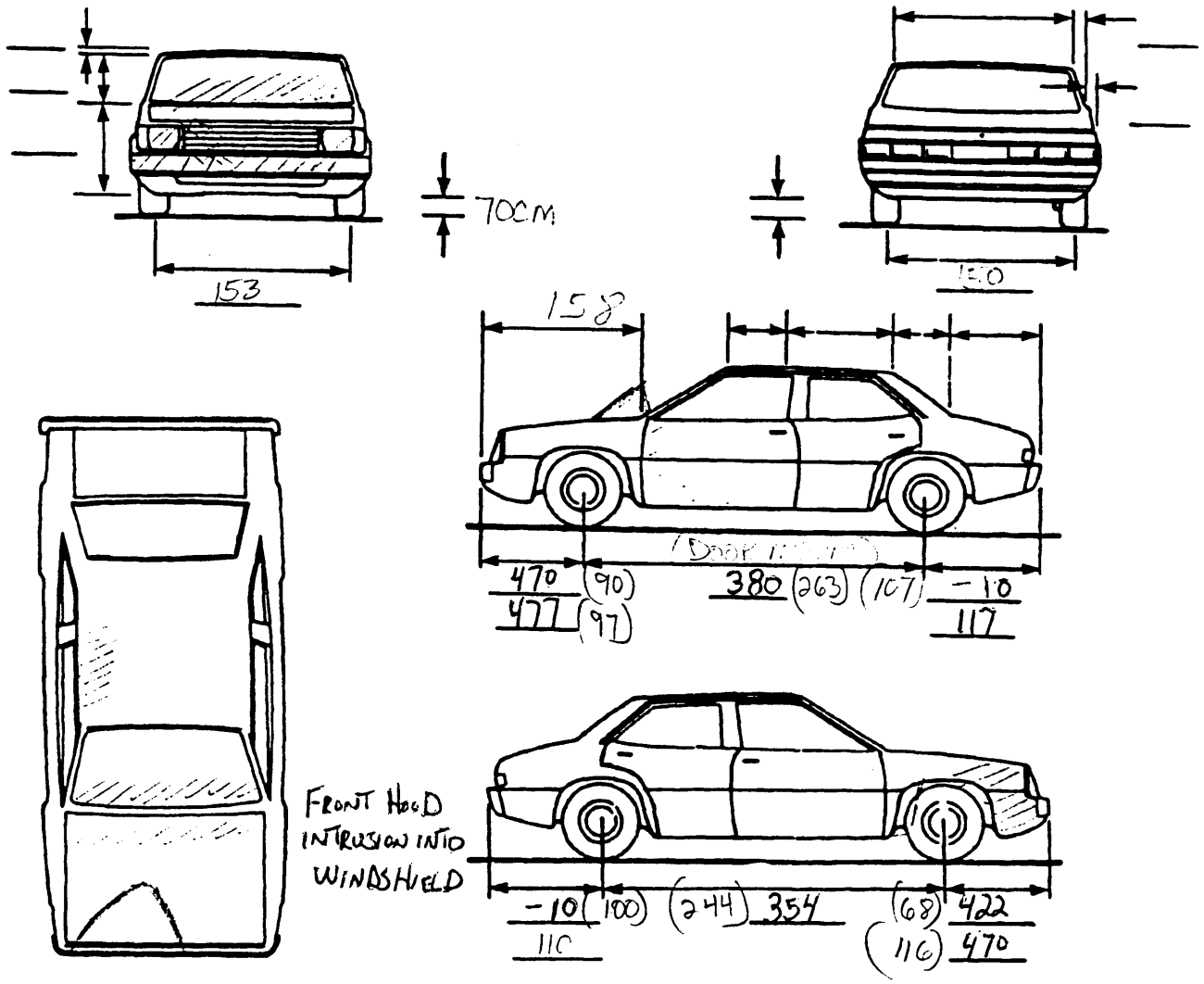
Within ± 5 degrees

DRIVE WHEELS

☑ FWD ☐ RWD ☐ 4WD

Approximate Cargo Weight 000 kg

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR 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
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object
- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	52	+080	--	F	2	E	ON	03

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 52	6. 12	7. F	8. 2	9. E	10. NW	11. 03

Second Highest Delta "V"

12.	13.	14.	15.	16.	17.	18.	19.

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C_1	C_2	C_3	C_4	C_5	C_6	22. ±D
153	000	008	032	083	083	047	+027

Second Highest Delta "V"

23. L	24. C_1	C_2	C_3	C_4	C_5	C_6	25. ±D
							+ −

26. Are CDCs Documented but Not Coded on The Automated File? 0
(0) No
(1) Yes

27. Researcher's Assessment of Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

28. Original Wheelbase 262
Code to the nearest centimeter
(999) Unknown

___.___ inches X 2.54 = ___ centimeters

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? 0
(0) No post manufacturer modifications
(1) Yes - post manufacturer modifications (specify): _____
_____
_____
(Include photograph of CERTIFICATION PLACARD in case report)
(9) Unknown if vehicle is modified

30. Fire Occurrence 6
(0) No fire

Yes, fire occurred
(1) Minor
(2) Major
(9) Unknown

31. Origin of Fire 0
(0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify): _____
(9) Unknown

32. Type of Fuel Tank 1
(0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS *** (I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

BEST AVAILABLE COPY

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

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 05
2. Case Number - Stratum: 125A
3. Vehicle Number: 01

INTEGRITY

4. Passenger Compartment Integrity: 00
(00) No integrity loss

Yes, Integrity Was Lost Through
(01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify): _____
(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 9 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify): _____
(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code Ø

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision
(1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify): _____
(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 9 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 0

(0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 9 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As Ø

Type of Window/Windshield Glazing

31. WS 1 32. LF 9 33. RF 0 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing
(1) AS-1 — Laminated
(2) AS-2 — Tempered
(3) AS-3 — Tempered-tinted
(4) AS-14 — Glass/Plastic
(8) Other (specify): _____
(9) Unknown

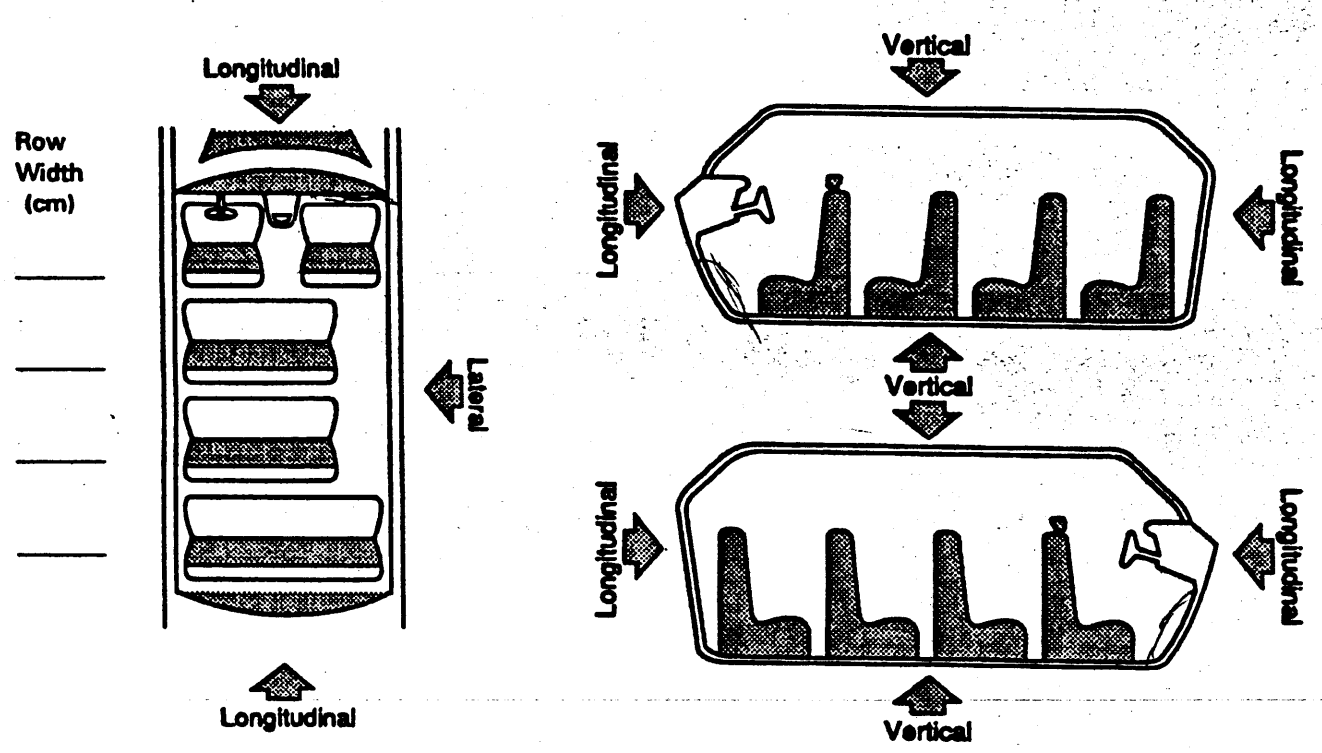
Window Precrash Glazing Status

39. WS 1 40. LF 9 41. RF 0 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters) COMPARISON VALUE	–	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
11	TOE PAN	146	–	132	=	13cm	Long
13	TOE PAN	146	–	117	=	29cm	Long
13	DASH	93	–	71	=	22cm	Long
13	RIGHT A-PILLAR		–		=	~22 cm	Long.
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. 13	48. 05	49. 3	50. 2
2nd	51. 13	52. 04	53. 3	54. 2
3rd	55. 11	56. 05	57. 2	58. 2
4th	59. 13	60. 06	61. 3	62. 2
5th	63. ___	64. ___	65. ___	66. ___
6th	67. ___	68. ___	69. ___	70. ___
7th	71. ___	72. ___	73. ___	74. ___
8th	75. ___	76. ___	77. ___	78. ___
9th	79. ___	80. ___	81. ___	82. ___
10th	83. ___	84. ___	85. ___	86. ___

LOCATION OF INTRUSION

Front Seat
- (11) Left
- (12) Middle
- (13) Right

Second Seat
- (21) Left
- (22) Middle
- (23) Right

Third Seat
- (31) Left
- (32) Middle
- (33) Right

Fourth Seat
- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify) _____
- (99) Unknown

INTRUDING COMPONENT

Interior Components
- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify): _____
- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

Exterior Components
- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION
- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION
- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are In Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
—	—	03	=	03
	—		=	
	—		=	
	—		=	

STEERING COLUMN

87. Steering Column Type — 2
(1) Fixed column
(2) Tilt column
(3) Telescoping column
(4) Tilt and telescoping column
(8) Other column type (specify): _____
(9) Unknown

88. Blank — X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

89. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

90. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

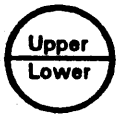
91. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.

92. Steering Rim/Spoke Deformation — 03
_____Code actual measured deformation to the nearest centimeter
(00) No steering rim deformation
(01-14) Actual measured value in centimeters
(15) 15 centimeters or more
(98) Observed deformation cannot be measured
(99) Unknown

93. Location of Steering Rim/Spoke Deformation — 05
(00) No steering rim deformation

Quarter Sections
(01) Section A
(02) Section B
(03) Section C
(04) Section D

Half Sections
(05) Upper half of rim/spoke
(06) Lower half of rim/spoke
(07) Left half of rim/spoke
(08) Right half of rim/spoke



(09) Complete steering wheel collapse
(10) Undetermined location
(99) Unknown

INSTRUMENT PANEL

94. Odometer Reading — 040,000
39751 kilometers—Code to the nearest 1,000 kilometers
(000) No odometer
(001) Less than 1,500 kilometers
(500) 499,500 kilometers or more
(999) Unknown

24,701 miles X 1.6093 = _____,_____ kilometers

Source: Inspection

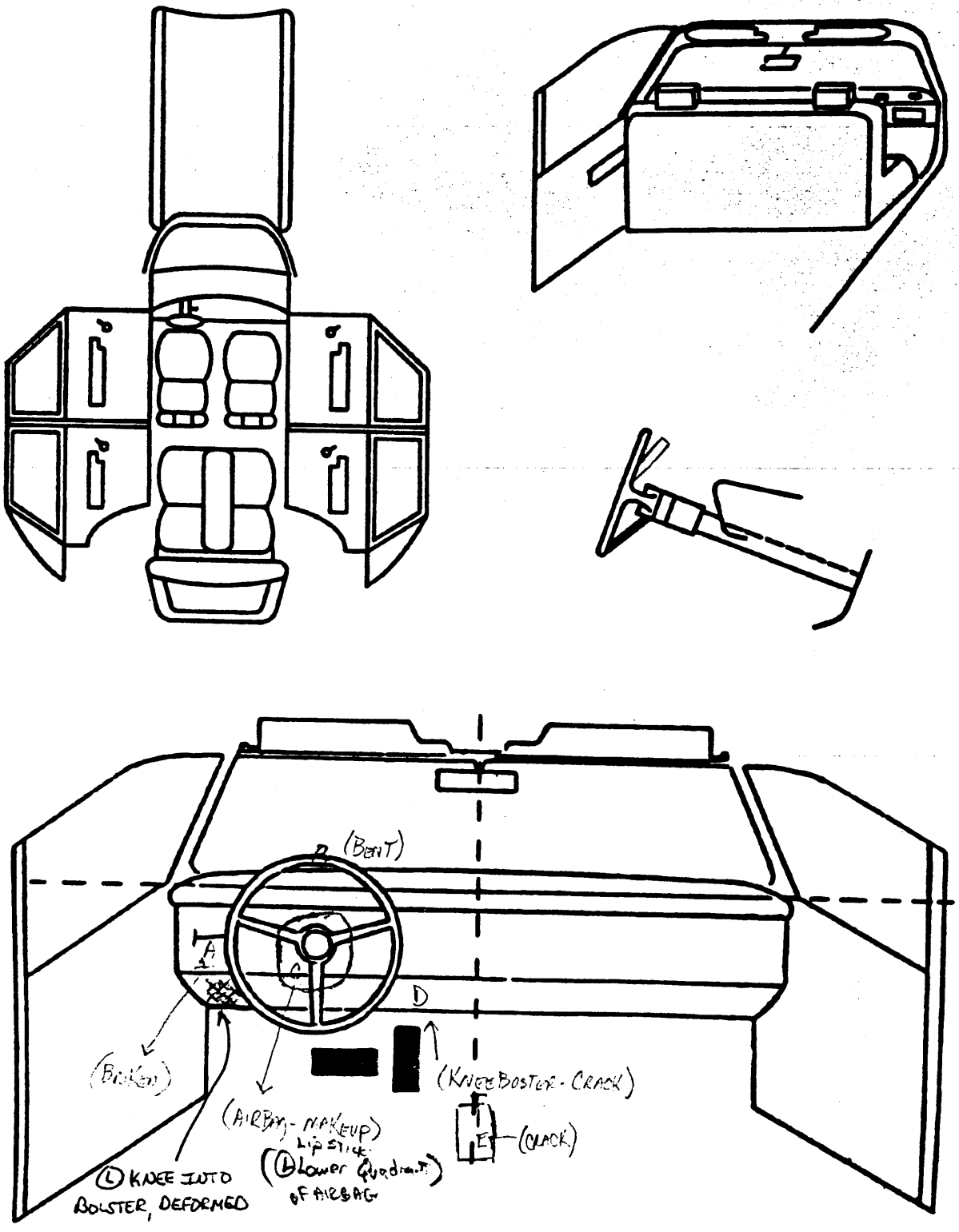
95. Instrument Panel Damage from Occupant Contact? — 1
(0) No
(1) Yes
(9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? — 1
(0) No
(1) Yes
(8) Not present
(9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? — 1
(0) No
(1) Yes
(8) Not present
(9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure.
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	07	1	(2) ARM/HAND	Broken Lever	1
B	04	1	FACE	Bent Rim	1
C	45	1	FACE	Lipstick & Makeup Transfers on BAG	1
D	13	1	(R) Knee/Leg	CRACKED knee Bolster	1
E	57	1	(R) Thigh	CRACKED.	1
F	13	1	(L) KNEE	DEFORMED	1
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

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 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):_____

CONFIDENCE LEVEL OF CONTACT POINT
- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
FIRST	Availability/Function		
	Deployment		
	Failure		

Air Bag System Availability/Function
- (0) Not equipped/not available
- (1) Air bag

Non-functional
- (2) Air bag disconnected (specify): _____
- (3) Air bag not reinstalled
- (9) Unknown

Air Bag System Deployment
- (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

Did Air Bag System Fail?
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown

AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function		
	Use		
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function
- (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

Automatic (Passive) Belt System Use
- (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)
- (3) Automatic belt use unknown
- (9) Unknown

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

Proper Use of Automatic (Passive) Belt System
- (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

Automatic (Passive) Belt Failure Modes During Accident
- (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

MANUAL RESTRAINTS

NOTES: **Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Ocupant Assessment Form.**

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	0	4
	Use	04	0	00
	Failure Modes	1	0	0
SECOND	Availability	4	3	4
	Use	00	00	00
	Failure Modes	0	0	0
THIRD	Availability			
	Use			
	Failure Modes			
OTHER	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

(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

Manual (Active) Belt System Use

(00) None used, not available, or belt removed/destroyed
(01) Inoperable (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

Manual (Active) Belt Failure Modes During Accident

(0) No manual belt used or not available
(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

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Uasge						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat
   - (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

2. Child Safety Seat Orientation
   - (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

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage
   Note: Options Below Are Used for Variables 3-5.
   - (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

6. Child Safety Seat Make/Model
   (Specify make/model and occupant number)

   _____

   _____

   _____

   _____

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for **each seat position** in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	01	0	01
	Seat Performance	1	0	1
	Seat Orientation	1	0	1
SECOND	Head Restraint Type/Damage	1	0	1
	Seat Type	07	07	07
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

(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

Seat Type (this Occupant Position)

(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

Seat Performance (this Occupant Position)

(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 tracks/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

Seat Orientation (this Occupant Position)

(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

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occpant Assessment Form.

EJECTION No [✓] Yes [ ]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection
(1) Complete ejection
(1) Partial ejection
(3) Ejection, Unknown degree
(9) Unknown

Ejection Area
(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

Ejection Medium
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

Medium Status (Immediately Prior to Impact)
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [✓] Yes [ ]

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

APPENDIX D

NASS Occupant Forms

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: 05
2. Case Number - Stratum: 1 2 5 1A
3. Vehicle Number: 01
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 62
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: 158
Code actual height to the nearest centimeter.
(999) Unknown

62 inches X 2.54 = ___ centimeters

8. Occupant's Weight: 081
Code actual weight to the nearest kilogram.
(999)Unknown

180 pounds X .4536 = ___ 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: 01
(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 — 1
(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: 3
    - (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): 01
    - (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): 1
    - (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
    - (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 000
(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 00
(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 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00

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) 4

(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 1
(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 00
(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 62
_____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 02
_____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 01

41. 2nd Medically Reported Cause of Death 02

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
(97) Other result (includes fatal ruled disease) (specify):

_____
(99) Unknown

43. Number of Recorded Injuries for This Occupant 14
_____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) — 1
(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

STOP - VARIABLES 50 THROUGH 52 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

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

UPDATE CANDIDATE? NO [ ] YES [✓]

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	05	3. Vehicle Number	01
2. Case Number - Stratum	125A	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	O.I.C.-A.I.S 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. 1	6. 4	7. 5	8. 02	9. 66	10. 5	11. 3	12. 45	13. 1	14. 1	15. 00
2nd	16. 1	17. 4	18. 4	19. 10	20. 12	21. 5	22. 4	23. 45	24. 1	25. 1	26. 00
3rd	27. 1	28. 4	29. 4	30. 16	31. 02	32. 2	33. 4	34. 45	35. 1	36. 1	37. 00
4th	38. 1	39. 4	40. 4	41. 18	42. 04	43. 2	44. 0	45. 45	46. 1	47. 1	48. 00
5th	49. 1	50. 5	51. 4	52. 18	53. 22	54. 2	55. 1	56. 45	57. 1	58. 1	59. 00
6th	60. 1	61. 4	62. 9	63. 04	64. 02	65. 1	66. 0	67. 45	68. 1	69. 1	70. 00
7th	71. 1	72. 4	73. 9	74. 04	75. 02	76. 1	77. 0	78. 41	79. 1	80. 1	81. 00
8th	82. 1	83. 5	84. 9	85. 04	86. 02	87. 1	88. 7	89. 41	90. 1	91. 1	92. 00
9th	93. 1	94. 4	95. 9	96. 04	97. 02	98. 1	99. 1	100. 45	101. 1	102. 1	103. 00
10th	104. 1	105. 2	106. 9	107. 02	108. 02	109. 1	110. 2	111. 45	112. 1	113. 1	114. 00

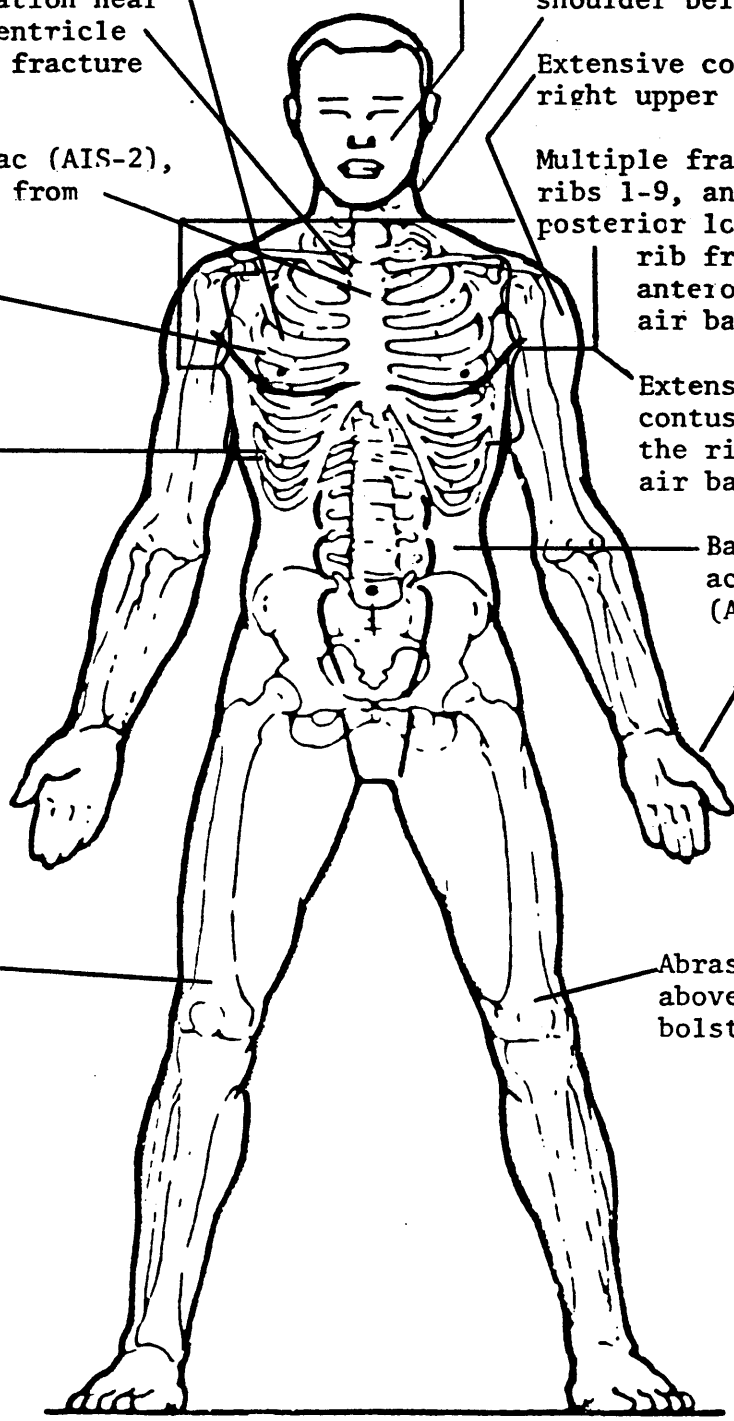
HS Form 433B (1/93)

This report is 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.

OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.-A.I.S Body Region	O.I.C.-A.I.S Type of Anatomic Structure	O.I.C.-A.I.S Specific Anatomic Structure	O.I.C.-A.I.S Level of Injury	O.I.C.-A.I.S A.I.S. Severity	O.I.C.-A.I.S Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th	1	8	9	04	02	1	1	13	1	1	00
12th	1	8	9	02	02	1	2	13	1	1	00
13th	1	7	9	04	02	1	1	45	1	1	00
14th	1	7	9	04	02	1	2	07	1	1	00
15th	—	—	—	— —	— —	—	—	— —	—	—	— —
16th	—	—	—	— —	— —	—	—	— —	—	—	— —
17th	—	—	—	— —	— —	—	—	— —	—	—	— —
18th	—	—	—	— —	— —	—	—	— —	—	—	— —
19th	—	—	—	— —	— —	—	—	— —	—	—	— —
20th	—	—	—	— —	— —	—	—	— —	—	—	— —
21st	—	—	—	— —	— —	—	—	— —	—	—	— —
22nd	—	—	—	— —	— —	—	—	— —	—	—	— —
23rd	—	—	—	— —	— —	—	—	— —	—	—	— —
24th	—	—	—	— —	— —	—	—	— —	—	—	— —
25th	—	—	—	— —	— —	—	—	— —	—	—	— —

AGE 62
SEX Female
WT. 81 kg
HT. 158 cm



Abrasion of the left cheek (AIS-1), air bag

Contused right breast (AIS-1), air bag

1 cm perforating laceration near the tip of the right ventricle (AIS-5). result of rib fracture from air bag

Ruptured pericardial sac (AIS-2), result of rib fracture from air bag

Extensive soft tissue contusions within the pleural sac (AIS-2), air bag

7 x 3 cm superficial lacerations of the lateral right lobe of the liver (AIS-2), result of rib fracture from air bag

Descending band-like contusion from the left neck across the chest to the right (AIS-1), shoulder belt

Extensive contusion anterior right upper arm (AIS-1). air bag

Multiple fractures of the left ribs 1-9, anterior, lateral, and posterior locations, right 1-9 rib fractures, anterior and antero-laterally (AIS-5), air bag

Extensive soft tissue contusions in relation to the rib fractures (AIS-1), air bag

Band-like contusion across the abdomen (AIS-1), lap belt

Contusion dorsal aspect of the left hand (AIS-1), turn signal lever

4 x 3 cm contusion of the anterior right thigh (AIS-1), bolster

Abrasion left thigh above the knee (AIS-1), bolster

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