



U.S. Department of Transportation

National Highway Traffic Safety Administration

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Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

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

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

*** *** ***



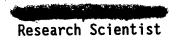
TRANSPORTATION RESEARCH CENTER

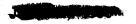
Indiana University
Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

CASE NO. - 93-05
FLEET - PRIVATE VEHICLE
LOCATION - NEW E, ILLINOIS
ACCIDENT DATE - , 1992

Submitted By:





Revised Submission:



Contract Number: DTNH22-93-Q-07224

Prepared for:

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

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

TRC/IU Case No. 93-05 Title and Subtitle Remote Air Bag Report Fleet - Private Vehicle Location - Illinois Authors Indiana University Transportation Research Center U.S. Department of Transportation (NRD-32) National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590	3. Recipient's Caralog No. 5. Report Date 6. Performing Organization Coase 8. Performing Organization Report No. TRC/IU 93-05, Task 0005 10. Work Unit No. (TRAIS) 11. Contract or Grant No. DTNH22-93-Q-07224 13. Type of Report and Period Covered 1992
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i. Supplementary Notes	
Remote air bag deployment report involving a 1990 F	ord Taurus GL station wagon
Vellare all had debioliment tobots through the	
have defibrillated the driver who was undergoing tion at the time of the crash. The Taurus was tlane of a two-lane, undivided city street when the departed the south road edge at a shallow angle. and sheared off a fire hydrant. The Taurus rotated traveled between a utility pole and a large tree lanes, struck the north curb, and came to rest finalf the vehicle over the curb and half in the west of the case vehicle impacted the fire hydrant at the driver side supplemental restraint system (air bag Taurus impacted the north curb. The driver of the able three-point lap and shoulder belt. He sustain per lip.	e driver lost consciousness are the Taurus eventually impacted counterclockwise after impacted, crossed both original traves acing north, with approximated stbound travel lane. The from the front left bumper causing the to deploy. Subsequently, the Taurus was wearing the available.
17. Key Words Air Bag Motor Vehicle Traffic Accident Deployment	
Injury Severity	
19. Security Classif. (of this report) 20. Security Classif. (of this page)	21. No. of Pages 22. Price

Unclassified
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Unclassified

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TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 93-05

FLEET - PRIVATE VEHICLE LOCATION - ILLINOIS

Summary

This report concerns a motor vehicle accident involving an air bag equipped 1990 Ford Taurus GL occurring on p.m., in North Market, Illinois on a city street. This crash was selected for investigation because the attending cardiologist indicated that the deploying air bag may have defibrillated the driver who was undergoing a cardiac ventricular fibrillation at the time of the crash.

The Taurus was traveling east in the eastbound lane of a two-lane, undivided city street when the driver lost consciousness and departed the south road edge at a shallow angle. The Taurus eventually impacted and sheared off a fire hydrant. The Taurus rotated counterclockwise after impact, traveled between a utility pole and a large tree, crossed both original travel lanes, struck the north curb, and came to rest facing north, with approximately half the vehicle over the curb and half in the westbound travel lane.

The front left bumper of the Taurus impacted the fire hydrant. Subsequently, the Taurus impacted the north curb. With no available vehicle photographs, the CDCs cannot be estimated. No reconstruction program was used on this collision.

The 1990 Ford Taurus GL was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the frontal impact. The driver of the vehicle (69 year-old male) was also restrained by the active, three-point lap and shoulder belt. He sustained a slight abrasion to the upper lip (AIS-1). The driver of the Taurus was listed on the Police Accident Report as sustaining a "C" (possible) injury as a result of this crash.

TRC/IU REMOTE AIR BAG REPORT

FLEET - PRIVATE VEHICLE , ILLINOIS LOCATION -CASE NO. - 93-05

ACCIDENT DATA

Location/Street:

City/Township:

Area/Type:

Accident Date/Time:

Investigating Police Agency:

Accident Type:

Occupant Injury Severity (air bag vehicle):

City Street

County, Illinois

Residential

Police Department

1992 **(1992)** p.m.

Car - ran-off-road

Abrasion upper lip (AIS-1)

AMBIENT CONDITIONS

Light conditions:

Daylight (dusk conditions due to

weather)

Weather Condition:

Precipitation:

Road Surface:

Overcast

Rain

Wet

ROADWAY

Case Vehicle

Location:

City street

Number of Travel Lanes:

2 lanes, undivided

Surface Type:

Asphalt

Vertical alignment:

Level

Horizontal alignment:

Straight

Traffic Density:

Moderate

Speed Limit:

48 k.p.h. (30 m.p.h.)

Traffic Controls:

None

VEHICLES

Case Vehicle

Year: 1990

Make: Ford

Model: Taurus GL

Body Type: Station wagon, 4-door

V.I.N.: 1FACP57U2LG-----

Mileage: Approximately 72,420 km (45,000 mi)

Securiflex windshield: Unknown

Windshield damage/source: None/driver

Fleet: Private vehicle

Tow status: Towed due to damage

Reported Defects: None

VEHICLE DAMAGE

Case Vehicle

Deployment Impact

Object Struck: Fire hydrant

Event number: 1

Damage location: Front left bumper

CDC: Unknown

Estimated Maximum Crush: Unknown

Damage components: Front bumper, engine cradle and mounts, left

front tire and wheel assembly

Repair Estimate: \$4,670.00

Interior damage: None

Nondeployment Impact

Event number: 2

Object Struck: Curb

VEHICLE DAMAGE (CONT'D.)

Case Vehicle

Nondeployment Impact

Damage location:

Front

CDC:

Unknown

Estimated Maximum Crush:

Unknown

Damage components:

Unknown

Interior damage:

None

COLLISION SEQUENCE

According to the driver and the police accident report, the case vehicle was traveling east in the eastbound lane of a two-lane, undivided city street at a driver estimated speed of 40-48 k.p.h. (25-30 m.p.h.). The case vehicle was attempting to continue in its direction of travel when the driver lost consciousness and departed the south road edge (no curb) at a shallow angle. The police accident report indicated that the driver had experienced loss of consciousness prior to the date of this crash, but not while driving.

According to the driver and the police accident report, the front left of the case vehicle impacted and sheared off a fire hydrant. Subsequently, the case vehicle rotated counterclockwise, traveled between a utility pole and a large tree, crossed both original travel lanes, struck the north curb, and came to rest facing north, with approximately half the vehicle over the curb and half in the westbound travel lane.

According to the police accident report and the driver of the vehicle, the case vehicle was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the frontal impact with the fire hydrant. The driver indicated that when he regained consciousness, his face was in the air bag. The police accident report and the driver both indicated that the driver was also restrained by the active, three-point lap and shoulder belt. The driver indicated that he sustained a slight abrasion to the upper lip.

SUPPLEMENTAL INFORMATION

The U.S. Department of Transportation, National Highway Traffic Safety Administration, supplied this contractor with the following supplemental information.

The case vehicle driver had suffered a heart attack in 1977. Since that time, the driver has been taking heart medication.

Although virtually uninjured from the vehicular crash, paramedics onscene transported the driver to a hospital "just in case". Hospital personnel offered the driver an option of remaining at the hospital overnight or going home. The driver decided to remain at the hospital. That night the driver's

SUPPLEMENTAL INFORMATION (CONT'D.)

heart had a ventricular fibrillation, and he was resuscitated through electric shock. Within the next two days his heart again sustained ventricular fibrillation and required another electric shock. The driver eventually underwent quintuple bypass surgery and had a defibrillator (AICV) implanted.

The driver's cardiologist indicated that the driver was not ill at the time of the crash, and the doctor's only explanation for the driver's loss of consciousness was cardiac ventricular fibrillation (or arythemia). The doctor also indicated that ventricular fibrillation, once begun, will continue to death, unless stopped by, for example, a precordial impact (e.g., CPR). The cardiologist believes that the deploying air bag defibrillated the driver's heart.

DRIVER DATA

Case Vehicle

Age: 69

Sex: Male

Height: 180 centimeters (71 inches)

Weight: 92 kilograms (202 pounds)

Occupation: Retired electrician (still does odd jobs)

Glasses

Active Restraint
System/Usage: 3-point lap and shoulder belt/used

Usage Source: Driver and PAR

•

Vehicle Familiarity: 24 months

Route Familiarity: Daily (4-5 times/week)

Trip Plan: Home to store (7-8 block trip)

Manner of Leaving Scene: Ambulance

Type of Medical Treatment: Treated and Released (for crash purposes);

Hospitalized (precautionary) for heart condition

DRIVER INJURIES

Eye glasses/contacts:

<u>Injury</u> <u>Severity (AIS)</u> <u>Source</u>

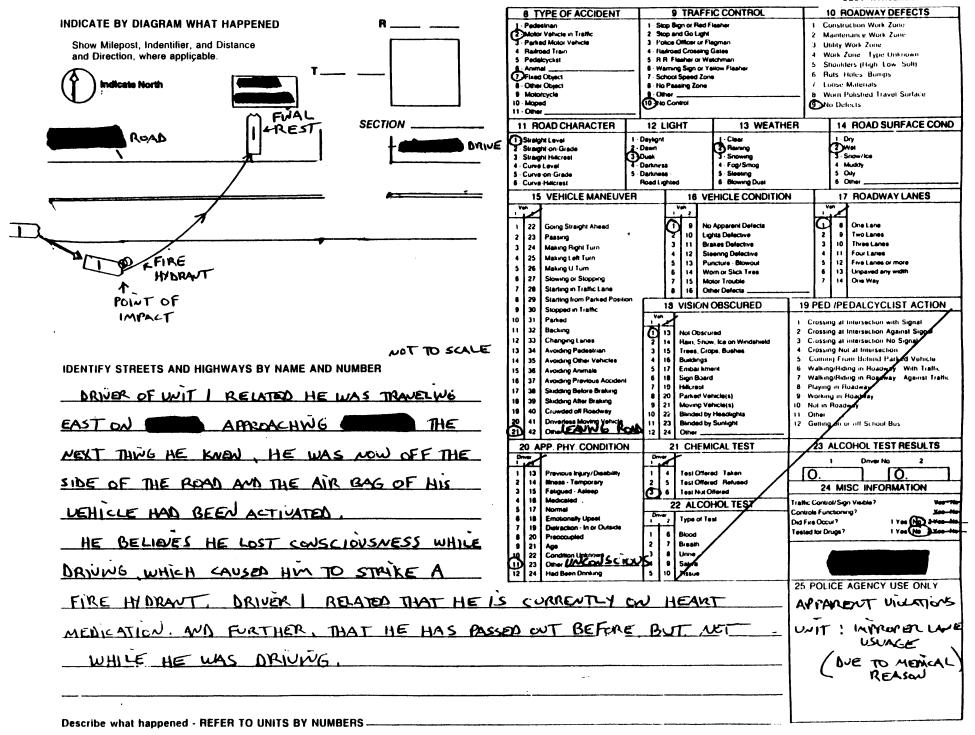
Abrasion upper lip 290202.1,8 Air bag

Appendix A:

Police Accident Report

trinted by authority of the State of Illinois

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	• TV	PE OF ACCIDENT		9 TRAFF	IC CONTROL	10 R	OADWAY DEFECTS
R	1 Pedes	man	1.5	top Bign or Red I	lasher		uction Work Zoné rrance Work Zone
INDICATE BY DIAGRAM WHAT HAPPENED		Vehicle in Traffic	1 2 3	top and Go Light olice Officer or F	leomen		Work Zone
Show Milepost, Indentifier, and Distance	3 Parket	d Motor Vehicle ad Train	4 · P	adroad Crossing	Gales	4 Work	Cone Type Unkgelin
and Direction, where applicable.	5 - Pedak	cycket		R. Flesher or W Yerning Sign or Y		5 Should	lers (High Low Solt)
1	6 - Anima 7 Fixed		- ;;	chool Speed Zor	10	6 Huls I 7 Loose	Holes, Burnos
A. Marke Mark	8 - Other	Object		lo Passing Zone		/ Loose	Pulshed Travel Surface
() Indicate North	9 Motor 10 Mope			to Control		9 No De	
	11 Other		_ "				
SECTION	11 BC	AD CHARACTER	12	LIGHT	13 WEATHE	R 14	ROAD SURFACE COND.
SECTION	1 · Straig		1 Daylig	Nf	1 - Clear		Dry
	2 Straigt	nt-on-Grade	2 - Dewn		2 Reining 3 Snowing		Wet Snow/Ice
	3 Straig		3 Duek 4 Derkn	P85	4 Fog/Smog		Muddy
SEE PAGE ONE	5 · Curve	on-Grade	5 Derlin	194	5 Steeting Dust	12.	Oily
SEE PAGE OVE	6 - Curve			Lighted			7 ROADWAY LANES
	15	VEHICLE MANEUV	ER		EHICLE CONDITION	Van	1 HOADWAY DAVES
	Veh			17.			7
		Going Straight Ahead			to Apparent Defects		One Lane Two Lanes
	2 23	Passing			ights Defective Irakee Defective		Three Lanes
		Making Right Turn	. /	1 4 1 12 1 5	Reening Defective	1411	
		Making Left Turn Making U Turn			Puncture - Blowaul Norn or Sick Tires	3 13	Five Lanes or more Unpaved any width
		Slowing or Stopping			Nom ar Siich Tires Vatar Trauble]	
	7 20	Starting in Traffic Land			Other Defects		<u> </u>
	0 29	Starting from Parked Post	hon [18 VISIO	OBSCURED	19 PED /P	EDALCYCLIST ACTION
		Stopped in Treffic	_ F	· .		1 Crossing 4	it Intersection with Signal
		Parker Backing	H	1 13 Not Obs	cured	2 Crossing #	it Intersection Against Signal
		Changing Lanes	2		row, ice on Windshield	3 Crossing a	il Intersection No Signal
	13/34	Avoiding Pedestrian	1 3	15 Trees, C	Crops, Bushes	4 Crossing I	Not at Intersection rom Behind Parked Vehicle
	35	Avoiding Other Vehicles	1			6 Walking/R	iding in Roadway With Traffic
IDENTIFY STREETS AND HIGHWAYS BY NAME AND NUMBER	15 36 16 37	Avoiding Animals Avoiding Previous Accides		18 Sign Bo	erd	7 Walking/R 8 Playing in	iding in Roadway Against Traffic.
		Studding Before Braking				9 Working in	
	18 39	Shidding After Braking	1 1	21 Moving	Vehicle(s)	10 Not in Ro	
	19 40		10	22 Blinded	by Headights	11 Other	or off School Bus
	20 41	Driverless Moving Vehicle Other	• _[::	23 Blinded 24 Other	by Suregra	12 Gening or	, g. (iii genoor oor
					MICAL TEST	23 AL	COHOL TEST RESULTS
		APP. PHY. CONDITIO		Dover			Driver No 2
	1		<u> </u>	44	lared Taken	10.	<u> </u>
	1 13 2 14		′ i		Hered Refused		MISC INFORMATION
	3 15	Fatigued - Asleep	1		pt Offered		
		Medicated Normal		22 ALC	COHOL TEST	Treffic Control/	J. J
	5 17	Emotionally Upon		Drew , Type o	f Test	Did Fire Occur	1 Yes No 2 Yes N
	7 19	Distraction - In or Outside		6 Blood		Tested for Drug	1 Yes No 2 Yes N
	9 21	Preocoupled Age		7 Breath			
	10 22	Condition Unknown	13			1 4	
	11 23			9 Saliva		1	
	12 24	THE DOCK OF MANY		1.1		25 POLIC	E AGENCY USE ONLY
						1	
						1	
						1	
						1	
						1	
						· 1	
4						1	
						1	
Describe what happened - REFER TO UNITS BY NUMBERS							

Appendix B:

NASS CDS Accident Form

U.S. Department of Transportation

National Highway Traffic Safety Administration

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1.	Primary	Sampling	Unit Number
		Camping	~·····

 $\frac{1}{2}\frac{0}{2}$

2. Case Number - Stratum

IDENTIFICATION

3. Number of General Vehicle Forms Submitted

01

4. Date of Accident (Month, Day, Year)



5. Time of Accident



Code reported military time of accident.

NOTE: Midnight = 2400 Unknown = 9999

SPECIAL STUDIES - INDICATORS

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

6. ___SS14 Fatal AOPS

0

7. ___SS15 Administrative Use

0

8. ___SS16 _____

0

9. ____SS17 _____

0

10. ___SS18 _

0

NUMBER OF EVENTS

11. Number of Recorded Events in This Accident

02

Code the number of events which occurred in this accident.

ACCIDENT EVENTS

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

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>0 1</u>	13. 0 1	14. <u>0</u> <u>3</u>	15. <u>F</u>	16. <u>6 2</u>	17. 00	18. <u>O</u>
19. <u>0 2</u>	20. 0 /	21. <u>0 3</u>	22. <u>F</u>	23. <u>6 3</u>	24. 00	25.
26. <u>0</u> <u>3</u>	27	28	29	30	31	32
33. <u>0 4</u>	34	35	36	37	38	39
40. <u>0</u> <u>5</u>	41	42	43	44	45	46

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

Appendix C:

NASS CDS General Vehicle Form

U.S. Department of Transportation National Highway Traffic Safety Administration	GENERAL VE	HICLE FORM NATIONAL ACCIDENT SAMPLING CRASHWORTHINESS DATA	SYSTEM SYSTEM
Primary Sampling Unit Number Case Number - Stratum Vehicle Number	9305	11. Police Reported Alcohol Presence (0) No alcohol present (1) Yes (alcohol present) (7) Not reported (8) No driver present (9) Unknown	0
4. Vehicle Model Year Code the last two digits of the (99) Unknown 5. Vehicle Make (specify): For D Applicable codes are found in NASS Data Collection, Coding Editing Manual. (99) Unknown 6. Vehicle Model (specify): Thurus GL	9 0 model year / 2 your	Note: See variables 37 through 55 (Page 4) for information on Other Drug 12. Alcohol Test Result For Driver Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown Source: ACCIDENT RELATED	6
Applicable codes are found in NASS Data Collection, Coding Editing Manual. (999) Unknown 7. Body Type Note: Applicable codes may to the back of this page.	_ <u>0 6</u>	(000) No statutory limit Code posted or statutory speed limit in kph (999) Unknownmph X 1.6093 =kph	21
8. Vehicle Identification Number FACP 57 U 2 L Left justify; Slash zeros and I No VIN—Code all zeros Unknown—Code all nine's OFFICIAL REC 9. Police Reported Vehicle Disp	etter Z (0 and Z) ORDS	(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):	
(0) Not towed due to vehicle (1) Towed due to vehicle (2) Unknown 10. Police Reported Travel Speed Code to the nearest kph (NC less than 0.5 kph) (160) 159.5 kph and above (999) Unknown	damage mage	(99) Unknown	<u> </u>

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

Natio	nal Accident Sampling System-Crashwordshess Data	
	OCCUPANT DELATED	24. Rollover
16.	Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown	(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
17.	Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more (99) Unknown	(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
18.	Number of Occupant Forms Submitted	
	VEHICLE WEIGHT ITEMS	OVERRIDE/UNDERRIDE (THIS VEHICLE)
19	Vehicle Curb Weight	
	10 kilograms. (045) Less than 450 kilograms	26. Rear Override/Underride (this Vehicle)
	(610) 6,100 kilograms or more (999) Unknown 3,2,4,4,60e × .4536 =1,4,7,1 kge	(0) No override/underride, or not an end-to-end impact
	Source:	Override (see specific CDC) (1) 1st CDC
20	. Vehicle Cargo Weight	(2) 2nd CDC (3) Other not automated CDC (specify):
	10 kilograms. (000) Less than 5 kilograms (450) 4,500 kilograms or more (999) Unknown	Underride (see specific CDC) (4) 1st CDC (5) 2nd CDC
		(6) Other not automated CDC (specify):
0.1	RECONSTRUCTION DATA Towed Trailing Unit	(7) Medium/heavy truck or bus override(9) Unknown
21	. Towed Trailing Unit (0) No towed unit	
	(1) Yes—towed trailing unit (9) Unknown	HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V
22	2. Documentation of Trajectory Data for This Vehicle (0) No (1) Yes	Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object (999) Unknown
23	3. Post Collision Condition of Tree or Pole	27. Heading Angle For This Vehicle $\frac{9}{9} \frac{9}{8} \frac{8}{8}$
	(For Highest Delta V) (O) 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):	28. Heading Angle For Other Vehicle 998
	(9) Unknown	

	Secondary Highest
29. Basis for Total Delta V (highest)	32. Lateral Component of Delta V 9 9 9
(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	Nearest kph (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
30. Total Delta V <u>9 9 9</u>	(4) Borderline reconstruction — results appear reasonable
Nearest kph (NOTE: 000 means less than 0.5 kph) (160) 159.5 kph and above (999) Unknown	35. Type of Vehicle Inspection (0) No inspection (1) Complete inspection (2) Partial inspection (specify): 36. Is this an AOPS Vehicle?
31. Longitudinal Component of + 9 9 9 — Nearest kph (NOTE: _ 000 means greater than -0.5 kph and less than +0.5 kph) (±160) ±159.5 kph and above (_999) Unknown	(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 PROGR	AM SUMMARY INCLUDED? [] YES [] NO

National Accident Sampling System-Crashworthiness Data	7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -
37. Police Reported Other Drug Presence (0) No other drugs present	DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER
(1) Yes (other drug present) (7) Not reported (8) No driver present	DEC Specimen Test Test Results Results
(9) Unknown 38. Police Reported Drug Evaluation Classification (DEC) Test For Driver (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	Narcotic Drug Depressant Drug Stimulant Drug Hallucinogen Drug Cannabinoid Drug Phencyclidine (PCP) Inhalant Drug Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash) A 1. 0 41. 0 43. 0 45. 0 47. 0 47. 0 50. 0 51. 0 51. 0 52. 0 53. 0 55. 0 Codes For DEC Test Results
39. Other Drug Specimen Test Type For Driver (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	(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

		4
58.	Vehicle Special Use (This Trip)	
	(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	
	(O) No rollover	
	11) Trin over	

(8) Other (specify):

(9) Unknown

- (2) Flip-over
- (3) Tum-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
 - (O) No rollover
 - (1) On roadway
 - (2) On shoulder-paved
 - (3) On shoulder-unpaved
 - (4) On roadside or divided trafficway median
 - (9) Unknown

PRECRASH DAT	ŀ	٥
--------------	---	---

(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

Pre-Event Movement (Prior to
Recognition of Critical Event)

(9) Unknown roll direction

01

Page 5

0

0

00

(01) Going straight

63. Direction of Initial Roll

(O) No rollover

axis)

- (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

O

0

- (11) Making a U-turn
- (12) Backing up (other than for parking position)
- (13) Negotiating a curve
- (14) Changing lanes
- (15) Merging
- (16) Successful avoidance maneuver to a previous critical event
- (97) Other (specify):
- (98) No driver present
- (99) Unknown

	PRECRASH DAT	A (Continued)
	Critical Precrash Event 98	Pedestrian or Pedalcyclist, or Other Nonmotorist
65 .	Critical Precrash Event 70	(80) Pedestrian in roadway
	Matinta Lang of Control Due To:	(81) Pedestrian approaching roadway
This	Vehicle Loss of Control Due To:	(82) Pedestrian - unknown location
	Blow out or flat tire	(83) Pedalcyclist or other nonmotorist in roadway
(02)	Stalled engine Disabling vehicle failure (e.g., wheel fell off)	(specify):
(03)	(specify):	(84) Pedalcyclist or other nonmotorist approaching
1041	Non-disabling vehicle problem (e.g., hood flew	roadway (specify):
	un) (enecify):	(85) Pedalcyclist or other nonmotorist—unknown
(05)	Poor road conditions (puddle, pot hole, ice, etc.)	location (specify):
(00)	(specify):	
(06)	Traveling too fast for conditions	Object or Animal
(08)	Other cause of control loss (specify):	(87) Animal in roadway
		(88) Animal approaching roadway
(09)	Unknown cause of control loss	(89) Animal—unknown location
		(90) Object in roadway
This	Vehicle Traveling	(91) Object approaching roadway
(10)	Over the lane line on left side of travel lane	(92) Object—unknown location
(11)	Over the lane line on right side of travel lane	(98) Other critical precrash event (specify):
(12)	Off the edge of the road on the left side	(98) Other critical preciash event (specify): <u>Unconsciouseess heart</u> problem (99) Unknown
	Off the edge of the road on the right side	(99) Linknown
	End departure	100, 0111010111
(15)	Turning left at intersection	
(16)	Turning right at intersection Crossing over (passing through) intersection	For Corrective Actions Attempted see variable GV14
(17)	Unknown travel direction	(Attemped Avoidance Manuever)
(19)	OUKDOWN (1966) girection	(/100011pob /1101011pob /11010
Oth	er Motor Vehicle In Lane	
(50)	Stopped	66. Precrash Stability After Avoidance Maneuver
(51)	Traveling in same direction with lower speed	(0) No avoidance maneuver
	(i.e., lower steady speed or decelerating)	(1) Tracking
(52)	Traveling in same direction with higher speed	(2) Skidding longitudinally—rotation less than 30
	Traveling in opposite direction	degrees
(54)	in crossover	(3) Skidding laterally—clockwise rotation
(55)	Backing	(4) Skidding laterally—counterclockwise rotation
(59)	Unknown travel direction of other motor vehicle	(7) Other vehicle loss-of-control (specify):
	in lane	(,, Calc. College of Calc.
045	er Motor Vehicle Encroaching Into Lane	(8) No driver present
Utn	From adjacent lane (same direction)—over left	(9) Precrash stability unknown
(60)	lane line	,_,
IR1	From adjacent lane (same direction)—over right	
101	lane line	67. Precrash Directional Consequences of
162	From opposite direction—over left lane line	Avoidance Maneuver (Corrective Action)
(63	From opposite direction—over right lane line	(0) No avoidance maneuver
(64	From parking lane	(1) Vehicle stayed in travel lane where avoidance
	From crossing street, turning into same	maneuver was initiated
,	direction	(2) Vehicle stayed on roadway but left travel lane
(66) From crossing street, across path	where avoidance maneuver was initiated
(67) From crossing street, turning into opposite	(3) Vehicle stayed on roadway, not known if left
	direction	travel lane where avoidance maneuver was
(68) From crossing street, intended path not known	
(70) From driveway, turning into same direction	initiated
(71) From driveway, across path	(4) Vehicle departed roadway
(72) From driveway, turning into opposite direction	(5) Avoidance maneuver initiated off roadway
(73) From driveway, intended path not known	(8) No driver present
(74) From entrance to limited access highway	(9) Directional consequences unknown
(78	Encroachment by other vehicle—details	
	unknown	
*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), ***		

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

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

Appendix D:

NASS CDS Interview Form



U.S. Department of Transportation

National Highway Traffic Safety Administration	INIEH	(VIEW FORM (A)	CRASHWORTHINESS DATA SYSTEM
Primary Sampling Unit Number	10	Interviewee(s) Role or Name(s)	: DICIVEC
2. Case Number - Stratum $\frac{9}{2}$ 3	05		
3. Vehicle Number	01		
Review all available information and acquisition of all pertinent data.	interview o	questions prior to conducting inte	erview(s) to ensure the
If the driver was not the person int	erviewed, w	ras an appointment made for a fo	ollow-up interview?
DRIVER	'S DESCR	IPTION OF ACCIDENT EVE	NTS
/T WAS NOT AN ABNORMA	LLAY A	HE WAS TIKED !	GOOM WORKLASS THE PREVIOUS
THISEEOR FEXAL DAYS - ALTHO	•		, 1
EUROUTE TO A STORE FROM	HOWE, A	TUP OF FOR & BLOCKS. I	HE WAS WITHW TWO OK.
THREE BLOCKS OF THE STORE			
NOT MOVING AND HIS FACE U			
HAPPIEUEL?" AFTER DELIG			
DETURNED TO THE CHASH SC	FUE TO	SEE WHAT HAPAEUED.	415 VISHCLE'S OFF-10046
TICAUGE PATHWAS STILL VISI	BLE. HIS	VEHICLE EXITED THE SO	WIH ROAD FLOSE AT A
SHALLOW ANYTHE, EVENTU	ALLY STR	WUNG AND SHEATURE OF	A FIRE HYDRANT. THAT
IMPACT CAUSES THE VEHICLE ?			1
RETWEED A UTILITY POLE A	NY A LAK	GE THERE, CROSSIED BOT	H TRAVEL LANGE, STICUE
THE NORTH CUER AND CANK	E TO RES	T- FACING NORTH, WITH	HALF THE WEHCLE OVER
THE CUER AND HALF IN THE	WESTER	SUN LAWE. THE NOVEC'S	GLASGES HAD FALLED OF
SOMETIME NOTICE THE CO	454 SEQ	XFLUE AND FELL TO THE	E GAROUND AS HE FENTED
THE VIEHICLE. A WITNESS	CAMEUA	AND ASKED THE NOWA	CIFHEWAS OK. THE
DENUEL SAID YES AND THE C			
	VI S DESC	CRIPTION OF ACCIDENT E	VENTS
AGKENCIKES.			
		•	o culto on south sibe, culto
WWORTH SINE, LF BUMPE		, _	1
EXCUSE CHARLE AND MOUNTS			1
TOWARD RUTAR OF RAILS - 51			
BUNNER - MINE IN VEH	1111-1	NT SULTON CHECK FORM	UK CO - UZHCUZ RIFALKI

HS Form 433D (1/93)

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

LO PHOTOS OF VIEHICUE - HAN TWO MORE FIBRULLATIONS IN HOSP - HIT WITH ELETYPOR

OF BLACKOUTS - RELIGIOS HICEAE STATUTED HEALT AGAIN AND SAVED HIS LIFE.

SHOYLTWICE - 5 BYPASS SURGERLY PLUS IMPLANT DEFIBILILATOR - NO RETURNERS



U.S. Department of Transportation

INTERVIEW FORM (R)

NATIONAL ACCIDENT SAMPLING SYSTEM

letional Highway Tramo Serety	EUAIEAA	CRASHWORTHINESS DATA SYSTEM
1. Primary Sampling Unit Number / C 2. Case Number - Stratum 9 3 0 5	-	ewee(s) Role or Name(s): \(\int\tau\) \(\tau\) \(\tau\)
3. Vehicle Number	-	
ACCIE	ENT DAT	A QUESTIONS
1. Can you tell me in which direction you were	traveling?	6a. What actions did you take?
[] North [] South [East [] West		[] Braking with lock-up [] Braking without lock-up
Optional - Where were you coming from or Prom. Howe to A Stole. 2. In which lane were you traveling?		[] Releasing brakes [] Accelerating [] Steering left [] Steering right [] Other (specify):
(Note: Lane 1 is designated as the right cur	b lane.)	7. Where was your vehicle at the time of the collision?
3. Can you remember your <u>estimated travel sperare</u> per hour) before the accident? [] Stopped [] 1-10 [] 10-2 [✓ 20-30 [] 30-40 [] 40-5 [] 50-60 [] 60-70 [] 70+	20 60	[] Original travel lane [] In intersection [] Off roadway to right [] Off roadway to left [] Other (specify): ***\text{\text{\text{CNSCIOUS AT TIMES IMPACTS}}} 8. Was your travel speed at the time of the collision different from your previous travel speed?
4. Just before the accident, can you tell me whe intending to do or were doing? [Going straight [] Stopped [] Slowing [] Accelerating [] Turning right [] Turning right [] Changing lanes to left [] Changing lanes to left [] Changing lanes [] Other (specify):	ng ght	[] No [] Lower [] higher [] Unknown 8a. Can you estimate your speed at the time of the collision? [] Stopped [] 1-10 [] 10-20 [] 20-30 [] 30-40 [] 40-50 [] 50-60 [] 60-70 [] 70+
5. Did you experience any loss of control due conditions or mechanical problems? [1] No [1] Yes (If yes, describe below)	to weather	9. Immediately following the collision, can you describe how your vehicle moved to its stopped position? NO
6. Did you have to take any <u>avoidance actions</u> <u>accident?</u> [INO - Go to question 7 [INO - Go to question 6a	prior to the	10. Can you tell me how many collisions your vehicle had during the accident and the source of the collisions? 15T = FIRE HYNCAUT, 200 = NCHTH CURD WAS UNCOUNSCIOUS AT TIME OF IMPACTS - LISARUED THIS INFO LATER MPACTS - LISARUED THIS INFO LATER 100 10

lational Accident Sampling System-Crashworthiness Data System: Interview Form Page 2			
1. Primary Sampling Unit Number	3. Vehicle Number		
2. Case Number - Stratum 9305	4. Occupant Number		
VEHICLE/DRIVER D	ATA QUESTIONS		
1. Can you tell me the year, make, model of your vehicle? 1. 9. 9. Coth Tautus State (1990) 2. Can you describe the damage to your vehicle? 1. Itel Land When Model 2. Can you describe the damage to your vehicle? 1. Itel Land When Keshill 3. Was there any previous damage to your vehicle that is not related to this accident? [v] No [] Yes (If "yes", describe below) 4. Did any of the doors (hatch, tailgate) open during the accident? [] No [] Yes (If "Yes", describe below) 5. Did any of the windows break during the accident? [] No [] Yes (If "Yes", describe below) 6. Does your vehicle have a glove compartment?	7b. Were any of the belts removed or not functional prior to the accident?		
[] No [] Yes 6a. Did the glove compartment door come open during the accident? [] No	door? [No (go to question 10) [] Yes 9a. Does this belt come across the? [] Chest only		
7. Does your vehicle have "seat belts"? [] No (If "No", go to question 7b) [] Yes (If "Yes", go to question 7a)	[] Lap and chest 9b. Was this belt connected prior to the accident? [] No [] Yes [] Unknown		
7a. Can you describe the type of seat belt for each seat? Driver's seat [] Lap [Lap and shoulder Front seat middle [Lap [] Lap and shoulder Front seat right [] Lap [Lap and shoulder Rear seat left [] Lap [Lap and shoulder Rear seat middle Lap [] Lap and shoulder Rear seat right [] Lap [Lap and shoulder (Identify seat belts for third row and beyond	AIR BAGS 10. Is your vehicle equipped with a driver's side air bag? [] No (go to question 11) [] Yes (go to question 10a) [] Unknown (go to question 11) 10a. Did the air bag inflate during the accident? [] No (go to questions 10b and 10c) [] Yes (go to question 10e)		

tional Accident Sampling System-Crashworthiness Date 1. Primary Sampling Unit Number	
2. Case Number - Stratum 9305	4. Occupant Number
VEHICLE/DRIVER DATA C	
Ob. Was the air bag wiring disconnected prior to the accident? [] No	CHILD SAFETY SEAT
[] Yes (If "Yes", describe previous condition)	12. Was there a person in a child safety seat in your vehicle? [IV] No (If "No", go to question 13)
[] Unknown	[] Yes [] Unknown
Oc. Was your vehicle involved in any accidents prior to this accident which inflated the air bag?	12a. Can you tell me the manufacturer and model of the
[] No (go to question 11) [] Yes (go to question 10d)	child safety seat?
[] Unknown	12b. Can you describe the type of child safety seat?
Od. Was the air bag re-installed after the accident? [] No (go to question 11) [] Yes	[] Infant [] Toddler
[] Unknown	[] Convertible [] Booster [] Other (specify):
Oe. Did the air bag inflate as you expected? [] No (If "No" describe below)	[] Unknown
Yes	12c. Where was the child safety seat(s) located? [12] [13]
11. Is your vehicle equipped with a passenger side air bag?	[21] [22] [23] [31] [32] [33] [Other] (specify):
No (If "No", go to question 12) Yes (If "Yes", go to question 11a)	12d. Can you tell me which direction the child safety sea
[] Unknown (If "Unknown", go to question 12) 11a. Did the passenger air bag inflate during the accident?	was facing prior to the accident? [] Rear facing
[] No (go to question 11b) [] Yes (go to question 12)	[] Forward facing, [] Other (specify):
1b. Was the passenger air bag wiring disconnected prior to the accident?	12e. Was a seat belt used to hold the child seat in place?
[] No [] Yes (If "Yes", describe below)	[] No (If "No", go to fquestion 12g) [] Yes (If "Yes", go to question 12f)
	[] Unknown 12f. Can you describe how the seat belt was secured to the
[] Unknown	child seat?
11c. Was the passenger air bag inflated in a previous accident? [] No (go to question 12)	[] Looped through arm rest slots? [] Belt across safety shield?
[] Yes (go to question 11d) [] Unknown	[] Looped through rear frame outside the designate framing struts? [] Other (specify):
11d. Was the passenger air bag re-installed after the	[] Unknown
accident? [] No (go to question 12) [] Yes	12g. What was the child safety seat equipped with at t time of purchase? (check all that apply)
[] Unknown	[] Harness [] Shield [] Tether strap
11e. Did the passenger air bag inflate as you expected? [] No (If "No" describe below)	Heavy have in checked, set guestions 12h - 12i.

[] Yes [] Unknown If any box is checked, ask questions 12h - 12i.

lational Accident Sampling System-Crashworthiness Data System: Interview Form Page 4				
1. Primary Sampling Unit Number	3. Vehicle Number <u>C 1</u>			
2. Case Number - Stratum 9 3 0 5	4. Occupant Number O 1			
VEHICLE/DRIVER DATA Q	UESTIONS (CONTINUED)			
	OPTIONAL			
12h. Were any of these items added after you owned the child safety seat? [] Yes				

1 Primary Sampling Unit Number C	3. Vehicle Number
1. Filling Samping Sincites.	4. Occupant Number
2. Case Number - Stratum 9305	
OCCUPANT DA	TA QUESTIONS
1. Was there anyone else in your vehicle at the time of the	5d. Were you (Was he/she)
accident?	Sitting upright or
No (If "No", go to question 4)	[] Leaning to left side, or
[] Yes (If "Yes", specify number in question 2 below	[] Leaning to right side?
and then go to question 3) [] Unknown	OCCUPANT EJECTION
() Olikilowii	6. Were you (Was he/she) or any part of your (his/her) body
2. How many?	thrown from the vehicle during the accident?
[1] One other person	No (If "No", go to question 7)
[2] Two other persons	[] Yes (If "Yes", go to question 6a)
[3] Three other persons	[] Unknown
[4] Four other persons	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
[5] Five other persons	6a. Can you remember what part of the vehicle you were
[6] Six other persons	(he/she was) thrown out?
[7] Seven or more other persons	[] No
(specify number:)	[] Yes (Describe:)
3. Where was this person sitting? (Circle seating positions)	
[12] [13]	OCCUPANT RESTRAINT
[21] [22] [23]	
[31] [32] [33]	7. Were you (Was he/she) wearing a seat belt just before
Other (specify:)	the accident?
Other (specify.)	[] No (If "No", go to question 8)
	Yes
OCCUPANT CHARACTERISTICS	[] Unknown
4. Can I have your (his/her) height, weight, age, and sex?	material states and the
4. Call Have your triasment religite, weight, age, and cox.	7a. Were you (Was he/she) wearing the
Height $\leq'/''$ Weight 202 Age 69	[] Lap belt?
rieight vicight rise	Lap and Shoulder belt?
Sex: [/] Male [] Female	[] Shoulder belt?
	7b. Can you describe how you were (he/she was) wearing
OCCUPANT POSTURE	the lap belt?
OCCOPANT TOSTORE	[] Across the stomach
5. Can you tell me how you (he/she was) were sitting in your	1 1 12.
	Other (specify:)
vehicle?	[] Unknown
NORMAL LOSTORE	
NAME OF STATE OF STAT	7c. Can you describe how you were (he/she was) wearing
	the shoulder belt?
	[Over the shoulder
5a. Can you describe the location of your (his/her) feet just	[] Under the arm
prior to the collision?	[] Behind the back
F	[] Behind the seat
ON FLOOR AND ACCEMENTATION PENAL	Other (specify:)
	7d. Did any part of the belt system break or tear?
	I-T No
5b. Can you describe the location of your (his/her) arms?	[] Yes (If "Yes", describe)
NIN NOTASK	[] Unknown
	COCHEANT ENTRARMENT
	OCCUPANT ENTRAPMENT
5c. Was your (his/her) back resting against the seat back rest	8. Were you (Was he/she) trapped in the vehicle?
[] No (If "No", describe the position)	WI No
	[] Yes (If "Yes", describe)
₩ Yes	
[] Unknown	
	[] Unknown

PSU Number / O

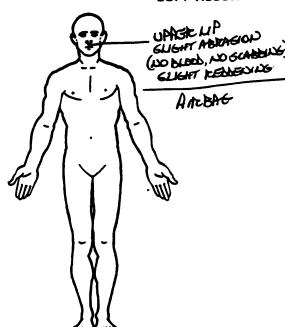
Case Number-Stratum 9 3 0 5

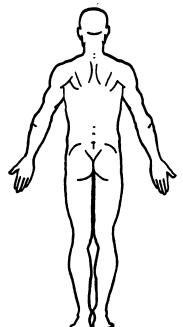
Vehicle Number O

INJURY DATA FROM INTERVIEWEE(S)

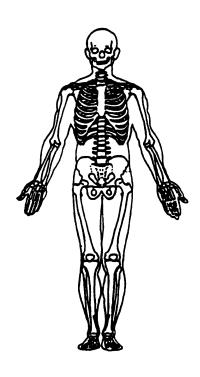
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s):

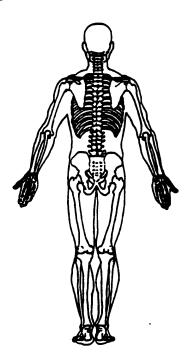
SOFT TISSUE/INTERNAL INJURIES





SKELETAL INJURIES





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

National Accident Sampling System-Crashworthiness Dat	a System: Interview Form Page 8
1. Primary Sampling Unit Number / O	3. Vehicle Number
2. Case Number - Stratum 9305	4. Occupant Number
OCCUPANT INJURY DATA	QUESTIONS (CONTINUED)
7e. Have you (Has he/she) received any follow-up treatment? [] No [] Yes (If "Yes", describe:)	8. Have you (he/she) lost any days from work or school (college)? [] No L/Yes (If "Yes", determine the number of days lost) (Specify:) L Not working prior to the accident [] Unknown **RETIKES OUT LOSS OCCASIONAL ONLYONS

Appendix E:

NASS CDS Occupant Assessment Form



OCCUPANT ASSESSMENT FORM

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

NATIONAL ACCIDENT SAMPLING SYSTEM

U.S. Department of Transportation stand Mahmey Traffic Sciety

stional Highway Treffic Betoty	CRASHWORTHINESS DATA SYSTEM
deministration / C	OCCUPANT'S SEATING
1. Primary Sampling Unit Number	10. Occupant's Seat Position
2. Case Number - Stratum 9 3 0 5	Front Seat
3. Vehicle Number	(11) Left side (12) Middle
•	(13) Right side
4. Occupant Number OCCUPANT'S CHARACTERISTICS	(14) Other (specify):(15) On or in the lap of another occupant
5. Occupant's Age 69	Second Seat (21) Left side
Code actual age at time of accident. (00) Less than one year old (specify by month):	(22) Middle
	(23) Right side (24) Other (specify):
(97) 97 years and older (99) Unknown	(25) On or in the lap of another occupant
1001	Third Seat
	(31) Left side
6. Occupant's Sex	(32) Middle
(1) Male	(33) Right side (34) Other (specify):
(2) Female (9) Unknown	(35) On or in the lap of another occupant
	Fourth Seat
	(41) Left side
7. Occupant's Height	(42) Middle (43) Right side
Code actual height to the nearest	(44) Other (specify):
centimeter. (999) Unknown	(45) On or in the lap of another occupant
$\frac{\mathcal{Z}}{\mathcal{L}}$ inches X 2.54 = \mathcal{L} \mathcal{L} contimeters	(97) in or on unenclosed area
Inches X 2.54 = Ta	(98) Other seat (specify):(99) Unknown
	(95) Olikiowii
8. Occupant's Weight <u>0 9 2</u>	
Code actual weight to the nearest	11. Occupant's Posture
kilogram. (999)Unknown	(0) Normal posture
2 0 2 pounde X .4536 = 0 9 2 kilograms	Abnormal posture
2 O Pounde X .4636 = O T E Kilograms	(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
O Occupantio Bala	occupant or to look out a rear window
9. Occupant's Role (1) Driver	(5) Sitting on a console (6) Lying back in a reclined seat position
(2) Passenger	(7) Bracing with feet or hands on a surface in from
(9) Unknown	of seat (8) Other abnormal posture (specify):
	(9) Unknown
	(a) dimination
	1

(BOOME	EJECTION/ENTRAPMENT			
(1 (2 (3	ection No ejection Complete ejection Partial ejection Ejection, unknown degree Unknown	0	15. Medium Status (Immediately Prior To Impact) (O) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown	
(0 (1 (2 (3 (4 (5 (6 (7)	ection Area No ejection Windshield Left front Right front Right rear Right rear Roof Other area (e.g., back of pickup, etc.) (specify): Unknown	0	16. Entrapment (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	
	ijection Medium O) 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	0		

RESTRAINT SYSTEM EVALUATION			
17.	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)	21. 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	
18.	(8) Other belt (specify): (9) Unknown Manual (Active) Belt System Use (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):	22. Air Bag System Deployment (O) 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	
19	(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 O. Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat	23. Are There Indications of Air Bag System Failure? (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	
	Belt Used Improperty (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 improperty with child safety seat (specify): (8) Other improper use of manual belt system (specify):	24. Police Reported Restraint Use (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"	
2	O. Manual (Active) Belt Failure Modes During Accident (O) 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):		

tional Accident Sampling System-Crashworthines	15 Dec	System: Occupant Assessment of the
5. 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 9	27. 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 (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								
(OOO) No child safety seat	31. Child Safety Seat Harness Usage							
Data Collection, Coding and Editing (950) Built-in child safety seat	32. Child Safety Seat Shield Usage							
	33. Child Safety Seat Tether Usage							
(998) Unknown if child safety seat used	Note: Options below applicable to Variables 0A31-0A33. (00) No 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 O. Child Safety Seat Orientation (00) No child safety seat Designed for Rear Fecing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation	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 (39) Unknown if harness/shield/tether used							
	Child Safety Seat Make/Model (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 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 Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation Designed For Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (13) Other orientation (specify): (19) Unknown orientation Unknown Design or Orientation For This Age/Weight (21) Rear facing (22) Forward facing (23) Other orientation (specify):							

INJURY CONSEQUENCES	38. Working Days Lost 9 7
34. Injury Severity (Police Rating)	Code the number of days (up through 60) that the occupant
(0) O - No injury (1) C - Possible injury (2) B - Nonincapacitating injury (3) A - Incapacitating injury (4) K - Killed	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
(5) U - Injury, severity unknown (6) Died prior to accident (9) Unknown	STOKEROUS MAROTRE AND REGEN.
35. Treatment - Mortality (0) No treatment (1) Fatal	(PS) [1] \$ B x = 2 (2) (2) (2) (2) (4) (4) (4) (4
(2) Fatal - ruled disease (specify):	39. Time to Death Code number of hours from time of accident to time of death up through 24
Nonfatal (3) Hospitalization (4) Transported and released (5) Treatment at scene - nontransported (6) Treatment later (8) Treatment - other (specify):	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
(9) Unknown	40. 1st Medically Reported Cause of Death
36. Type Of Medical Facility (for Initial Treatment) (0) Not treated at a medical facility (1) Trauma center	41. 2nd Medically Reported Cause of Death
(2) Hospital (3) Medical clinic (4) Physician's office (5) Treatment later at medical facility (8) Other (specify):	42. 3rd Medically Reported Cause of Death 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):
37. Hospital Stay (00) Not Hospitalized // *Code the number of days (up through 60)	(99) Unknown
that the occupant stayed in hospital. (61) 61 days or more (99) Unknown ** To heart surgery	43. Number of Recorded Injuries for This Occupant Code the actual number of injuries recorded for this occupant. (00) No recorded injuries (97) Injured, details unknown (99) Unknown if injured

Company Cycles Comments and Com	
44. 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	48. 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):
45. 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) (specify): (3) Automatic belt use unknown (9) Unknown	49. 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
46. Automatic (Passive) Belt System Type (0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown	STOP-VARIABLES SO THROUGH 52 ARE COMPLETED BY THE ZONE CENTER STATES OF TRAUMA DATA
47. 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	50. Glasgow Coma Scale (GCS) Score (at Medical Facility) (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
on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):	(1) No - blood not given (2) Yes - blood given (specify units): (9) Unknown if blood given
(8) Other improper use of automatic belt system (specify):(9) Unknown	52. Arterial Blood Gases (ABG) – HCO ₃ (00) Not injured (01) Injured, ABGs not measured or reported (02-50) Code the actual value of theHCO ₃ (96) ABGs reported, HCO ₃ unknown (97) Injured, details unknown (99) Unknown if injured
ARE ALL APPLICABLE MEDICAL RECO	PRDS INCLUDED NO [V] YES []
UPDATE CANDIDATE?	NO [V] YES []

Appendix F:

NASS CDS Occupant Injury Form



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				
	9	7	10	5

3. Vehicle Number

2. Case Number - Stratum

4. Occupant Number

0/

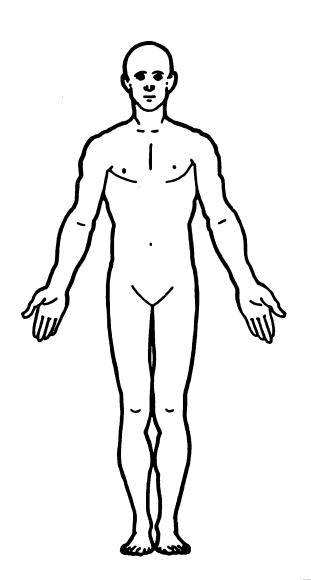
INJURY DATA

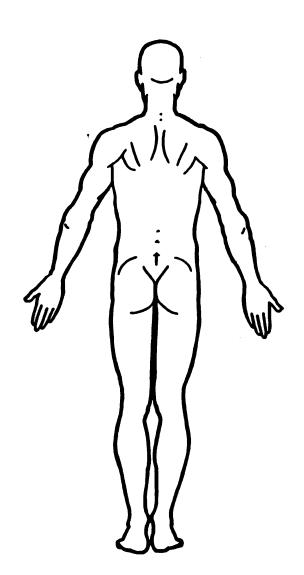
Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the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

	0.1.CA.1.S					•	Injury	Occupant		
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Confidence Inc	rect/ Area direct Intrusion njury Number
1et	5. <u>7</u>	6. <u>2</u>	7. 9	02	. <u>02</u>	10/	11B	12.45	13. 2 14.	1 15. 00
2nd	16	17	18 :19	o	20	21	22	23	24 25.	26
3rd	27	28	.29 :30	0	31	32	33	34	35 36.	37
-4th	38	39	404	1	42	43	*44	45.	46 47.	«48
5t h	49	50	61 6	2	53	64	6 5	56	67 68.	69
6th	60	61	·62 ·6	3	64	65	66	67	68 69.	
7th	71	72	73 7	4	75	76	777	78	7980.	······································
8th	82	83	.′84 ≪8	15	86	87	88	89	8 9 0 891.	092
9th	93	94	95 8)6. <u> </u>	97	98	99	100	101 102.	°103
10th	104	105	106 10	07	108	109	110	:111. <u> </u>	112113.	114

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

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





OFFICIAL INJURY DATA - SKELETAL INJURIES

						_
R	81	•	Яi	n	ad	7

No

Yes

Blood Alcohol Level (mg/dl)

BAL = ____

Glasgow Coma Scale Score

GCSS = ____

Units of Blood Given

Units = ___

Arterial Blood Gases

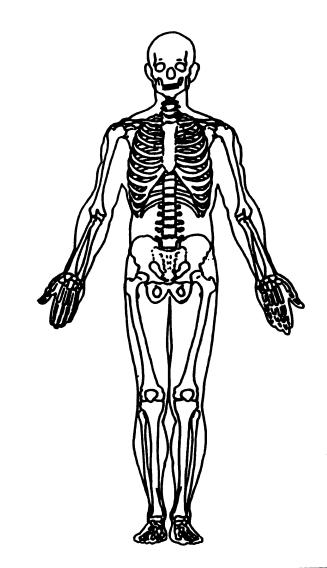
pH = _._

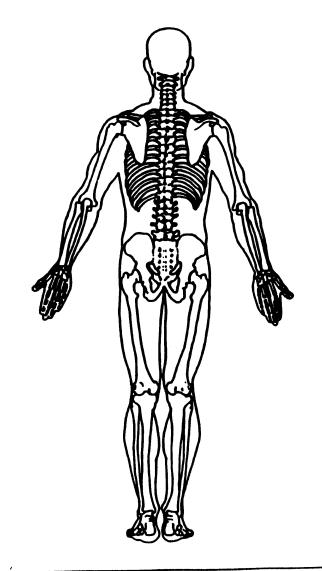
PO₂= ____

PCO, ____

HCO, ___

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





OFFICIAL INJURY DATA -INTERNAL INJURIES

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

