



U.S. Department of Transportation

National Highway Traffic Safety Administration

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

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

*** *** ***



TRANSPORTATION RESEARCH CENTER

Indiana University
Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

CASE NO. - 93-09
FLEET - PRIVATE VEHICLE
LOCATION - PENNSYLVANIA
ACCIDENT DATE - PENNSYLVANIA
1993

Submitted By:

Senior Staff Associate

1993

Revised Submission:

1994

Contract Number: DTNH22-93-A-07485

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.

			INNICEI KEPON DE	
1. Report No.	2. Government Access	en No. 3. Re	cipient's Catalog No	•
TRC/IU Case No. 93-09				·
4. Title and Subtitle		5. Re	port Date	
Remote Air Bag Report		1		993; 5/24/94
Fleet - Private Vehicle	• • -	6. Pe	rforming Organization	n Code
Location - Pe	ennsylvania	8. Pe	rforming Organization	n Report No.
7. Author(s)				
			RC/IU 93-09,	
 Performing Organization Name and Address Indiana University 	15		ore only No. (1 KAIS	•
Transportation Research (Center		entract or Grant No.	
			TNH22-93-A-0	
and the second s		13. 1	ype of Report and Pa	oried Covered
12. Sponsoring Agency Name and Address U.S. Department of Trans	portation (NRD-3	32)	1993	
National Highway Traffic	Safety Administ	tration		
National Center for State Washington, D.C. 20590	istics and Analy	/515	pensering Agency Co	de
15. Supplementary Notes				
Remote alleged air bag in station wagon	nadvertent depl	oyment report invo	lving a 1991	Volvo 940
16. Abanect				·
This report covers a remote investigation of an alleged ai ployment incident that involved a 1991 Volvo 940 station is starting from a parked position in a parking lot of a countileged that the Volvo's driver side—air bag inadvertently ditent deployment was alleged to have occurred just after the the transmission selector lever from "park" to "drive". The was not wearing the available, three-point lap and shoulder not adjusted for his size. The driver, who was a valet, was where it was parked to where its owner was located. The was adjusted for the owner which was closer to the steering been normal for the driver. The driver sustained abrasions forehead, neck, chest, and shoulders (all AIS-1) as a result			n wagon. The stry club who deployed. the Volvo's of the driver of the driver of the driver's so so was moving the driver's so so wheel that ons/friction	ee Volvo was en it is al- The inadver- driver moved of the Volvo the seat was e Volvo from eat position n would have burns to his
17. Key Words		18. Distribution Statement		
Air Bag Motor Vehicle Traffic Ac Deployment, alleged inad Injury Severity		18. Distribution Statement General Public		
Air Bag Motor Vehicle Traffic Ac Deployment, alleged inad		General Public	21. No. of Poges	22. Price

Form DOT F 1700.7 (8-72)

Reproduction of completed page authorized

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TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 93-09

FLEET - PRIVATE VEHICLE LOCATION - PENNSYLVANIA

Summary

This report concerns a motor vehicle crash involving an air bag equipped 1991 Volvo 940 station wagon occurring on 1993 at p.m., in Pennsylvania in the parking lot of a

The Volvo was starting in an unknown direction from a parked position in a parking lot when allegedly the Volvo's air bag inadvertently deployed; subsequently, it is alleged, the Volvo rolled forward bumping into two parked vehicles (of unknown make, model, and body types) which were also parked in an unknown direction in the same parking lot. The Volvo came to rest against one of the parked vehicles.

The front of the Volvo impacted an unknown location of an unknown parked vehicle. With no available vehicle photographs, the CDC is not estimable for the Volvo. No reconstruction program was used on this crash.

The 1991 Volvo 940 was equipped with a driver supplemental restraint system (air bag) which allegedly deployed inadvertently as the driver was shifting the transmission selector lever from the "park" position to the "drive" position. The driver of the vehicle (23 year-old male) was not wearing the available active three-point lap and shoulder belt. He sustained abrasions/friction burns to his face, neck, chest, and shoulders. The driver of the Volvo was listed on the Police Incident Report as not sustaining any injury as a result of this incident.

TRC/IU REMOTE AIR BAG REPORT

FLEET - PRIVATE VEHICLE LOCATION -PENNSYLVANIA CASE NO. - 93-09

100	TR	PART	20.47	PA
ALL	. I U	ENT	UAI	IΑ

Location/Street:

City/Township:

Area/Type:

Accident Date/Time:

Investigating Police Agency:

Accident Type:

Occupant Injury Severity (air bag vehicle):

Parking lot of a

nia

Pennsylva-

Recreational

Police Department

1993 @p.m.

Station wagon - alleged noncollision

inadvertent deployment

Multiple abrasions/friction burns

(AIS-1)

AMBIENT CONDITIONS

Light conditions:

Unknown

Weather Condition:

Unknown

Precipitation:

Unknown

Road Surface:

Unknown

ROADWAY

Case Vehicle

Location:

Parking lot

Number of Travel Lanes:

Not applicable

Surface Type:

Unknown

Vertical alignment:

Not applicable

Horizontal alignment:

Not applicable

Traffic Density:

Minor

ROADWAY (CONT'D.)

Case Vehicle

Speed Limit:

Unknown

Traffic Controls:

None

VEHICLES

Case Vehicle

Year:

1991

Make:

Volvo

Model:

940

Body Type:

Station wagon

V.I.N.:

YV1JA8752M3-----

Mileage:

Unknown

Securiflex windshield:

None

Windshield damage/source:

Unknown

Fleet:

Private vehicle

Tow status:

Towed

Reported Defects:

Alleged inadvertent air bag deployment

VEHICLE DAMAGE

Case Vehicle

Deployment Impact

Object Struck:

Noncollision

Event number:

1

Damage location:

Not applicable

CDC:

Not applicable

Estimated Maximum Crush:

Not applicable

Damage components:

None

VEHICLE DAMAGE (CONT'D.)

Case Vehicle

Deployment Impact

Repair Estimate: Unknown--According to one of the Volvo's owners,

Volvo offered to replace this vehicle with another Volvo. The owners refused to accept another Volvo. Volvo then bought this vehicle

from them.

Interior damage: Air bag module

Nondeployment Impact

Event number: 2

Object Struck: Parked cars (Unknown make, model, or body type)

Damage location: Front

CDC: Unknown

Estimated Maximum Crush: Unknown--According to one of the owners and the

driver, the damage was very minimal

Damage components: Unknown

Interior damage: Unknown

COLLISION SEQUENCE

According to the driver (a valet at the leave and asked for her vehicle. The valet located the case vehicle, got in, started it, powered the driver's side window down to let excess heat out, moved the transmission selector from "park" to "drive", and went about one-half foot when the driver side air bag inadvertently deployed. The driver indicated that he was sitting straight forward with his left arm on the armrest when he engaged the transmission in "drive". The driver also indicated that the driver's seat was "close" to the steering wheel since it was adjusted to the owner. The driver further indicated that the deploying air bag pinned his head back against the headrest.

According to the driver, the deployment "stunned" him, and he indicated that the vehicle moved forward and bumped into two other parked cars and came to rest.

A police accident report was not made since there was no visible damage to any of the vehicles involved; however, an incident report was filed.

COLLISION SEQUENCE (CONT'D.)

According to the driver, he sustained a combination of scrapes and friction burns to his neck, forehead, chest and shoulders. The neck injury was the most severe. In addition, the driver stated that he had a "ringing" sensation in his ears for 3-4 weeks after the deployment.

DRIVER DATA

Case Vehicle

Age:

23

Sex:

Male

Height:

183 centimeters (72 inches)

Weight:

77 kilograms (170 pounds)

Occupation:

Valet

Active Restraint

System/Usage:

3-point lap and shoulder belt/not used

Usage Source:

Driver

Eye glasses/contacts:

Unknown

Vehicle Familiarity:

Unknown

Route Familiarity:

Daily

Trip Plan:

Move vehicle from its parked position to its

owner

Manner of Leaving Scene:

Driven by friend

Type of Medical Treatment:

Treatment later at a

DRIVER INJURIES

Injury	Severity (AIS)	<u>Source</u>
Abrasions forehead	290202.1,7	Air bag
Abrasions neck	390202.1,9	Air bag
Abrasions chest	490202.1,9	Air bag
Abrasions shoulders	790202.1,3	Air bag

ALTERNATIVE SCENARIO

In our opinion there exists another scenario which could explain this incident. The basic facts are as follows:

o The driver was not seated in a position that was comfortable for his height (i.e., closer to steering wheel than his arm and leg lengths would require)

o The air bag deployed

- o The Volvo struck at least one parked car
- o The Volvo sustained very little, if any, residual damage

In our opinion it is entirely possible that the driver accidently lost control of the case vehicle and struck a parked car with an impact speed of between 6-8 k.p.h. (4-5 m.p.h.) causing the driver side supplemental restraint system (air bag) to deploy. There are published reports of air bag deployments in late model Volvo vehicles involving minor severity crashes [e.g., no residual bumper crush, Longitudinal Delta V estimates of 8-11 k.p.h. (5-7 m.p.h.)]. According to a local Volvo dealership, this Volvo (1991 model year) uses an 8 k.p.h. (5 m.p.h.) front bumper. The combination of: (1) a driver loss-of-control, (2) a low deployment threshold, and (3) a "5-mph" bumper, could have produced results identical to those that are alleged to have occurred.

Appendix A:

Auto Safety Hotline Notification

93 14:3	38 - CONTINUE POR		HTSA/NCSA			2 001
		TRANSMITTAL	# of pages		Ammet CMR N	0007 0078
	To A	Fem	70,000		RECKLY	2227-00.5
USCEPARIMENT of Transportation						
O membrane	Dept./Aguncy .	Aug.			DATE RECEIVED	n et
Marine History	VEHI F					04_n
Tintle Soldy Administration	NSN 7540-01-	617-7268 S098-101 CE	MERAL SERVICES	ADMINISTRATION		enb_jrg
		OWNER INFORMATION (TYPE	OR PRINT)			
NAME and ADDRESS				TELEPH	ME NO. (AREA CO	XE)
		report to the manufacturer of UT provide your teams or ad-			<u>.</u>	
SIGNATURE OF OWNER				DATE		
	. 1	FEHICLE INFORMATION				
VEHICLE IDENTIFICATION N	ia.•	VERCLE MAKE	T	PERIOLE MODEL		IODEL YEAR
		VOLVO		910	1	1991
*LOCKTEDATECTION OF WHILE	DEHELD ON DRIVERS SIDE					
CUPPENTODOMETER PEACING		CEALERS NAME, CITY, & STATE		BIGNE		TLFB0
	PURCHEED			MD CATA	•	GAR GAR REFERENCE ON
TRANSMISSIONTYPE AN	INLOCKBRINGS RESTRICTS	ETSV	CRUME	DENETRAN BO	DYSINE	
T MANUAL		NOTORBELL				WITCH SK
		GÉRISTE AFBAG	☐ AES		JR \	AN KUP TRK
AUTOMATIC	3-PORE	THEEL 2-POINTEES	□ ™	4WEB.		THER
FAILED COMPON	IENTS(S)/PART(S) INFORM	ATION (REPORT TWE INFORM	ATION ON BAC	19		
COMPONENT	PART NAME(S)	LOCATION			FALED PARTIS	
12110000		l –	ueri □	RIGHT	ORIGINAL	
			FROM	REAR L		
NO, OF FAILURES	DATE(S) OF FAILURE(S)	Mariellanes		TUFACTURER TACTED	MHTSA 1 CONTAC	PREVIOUSLY TED
	MILEAGE AT FAILURE(S)	21000		YES 🔲	No 🔲	res 🔲 wo
	VEHICLE SPEED AT FAILURE	(9)				
	APPLICABL	ACCIDENT INFORMATION				
ACCIDENT NO_	FRE NO	NUMBER PERSONS INJURED	LIMEEROFFADALIT	PROPERTY DAMAGE A	POLICEREFOR	TAILED
□ _{Y=} □ _{M0}	WES NO	1	0		☐ AE®	
	NARRATIVE	DESCRIPTION OF FAILURE(S),	CCIDENT(9).II	NJURY(IES)		
l		EN STARTING VEHI	CLE (NO I	MPACT IN	VOLVED) B	UKNS,
CUTS ON FACE	AND NECK. 11		•			
			-			
]						
The Privacy Ac					ONINLECHBACKFI	ED (B)
Public Las This information is sequented puss Timilio Saloty Act and subsequent	w 93-679 marat to esithosity vested in the Masior Lamandarants, You steendar neets!	ignifon Mignifor	يخوف معدد والوشوي	ANT. VOLUMENTAL CI	appropriate action to c desire enforcement o r a statistical surrency	coract T
to respond to this question side. Y	Kour sesponsermay be used to social	the NETTEA thinst,	umin processi ju milit	cotof the agency's ac	illon.	1

Appendix B:

Police Incident Report

CHANGE

POLICE INFORMATION Maintain Incident Information



Incident ID: Type: Name:	Segment: AC		
	Activity Informa	tion	
Location:	COUNTRY CLUB	EX Zone/Sector:	
Activity ACCN ACC NO RPT	Priority:	Disposition: NO	AC NO ACTION
		Cleared	
Date93	93 93	3	
Time			
Complainant:		Call Received: PH	ON PHONE
Comp Loc:		MU Phon:	RodBy:
Weather:			_
Off Assn:		Primary Unit.: 📹	
Off Assn:		Backup Units.:	
Remarks: See: PP			
Description: was par	king cars at	Country Club	. He got into
a Volvo station wagon, star			
sort of report made. This to	ook place about 15	45 hours in the park	ing lot.

Active Keys - HELP CMD3 CMD5 CMD7 CMD8 CMD10

Appendix C:

NASS CDS Accident Form

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

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1.	Primary	Sampling	Unit Numb	per
----	---------	----------	------------------	-----

10

2. Case Number - Stratum

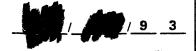
9309

IDENTIFICATION

3. Number of General Vehicle Forms Submitted

02

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

7. SS15 Administrative Use

8. ___SS16 _____

9. ___SS17 _____

10. SS18

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 Vęhicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>0 1</u>	13. 🔼	14. <u>0 3</u>	15. <u>N</u>	16. <u>3</u> 8	17. <u>0</u> 0	18
19. 0 2	20. 0 /	21. <u>0 3</u>	22. <u>F</u>	23. 0 2	24. 09	25. 9
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 D:

NASS CDS General Vehicle Form:

Case Vehicle

National Highway Traffic Safety

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 2. Case Number - Stratum 3. Vehicle Number VEHICLE IDENTIFICATION 4. Vehicle Model Year Code the last two digits of the model year (99) Unknown 5. Vehicle Make, (specify): VOIVO Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (99) Unknown	11. Police Reported Alcohol Presence (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 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:
6. Vehicle Model (specify): Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (999) Unknown	ACCIDENT RELATED 13. Speed Limit (000) No statutory limit Code posted or statutory speed limit in kph (999) Unknown
7. Body Type Note: Applicable codes may be found on the back of this page.	mph X 1.6093 =kph 14. Attempted Avoidance Maneuver (00) No impact (01) No avoidance actions
8. Vehicle Identification Number \[\sum \forall \cdot \cdo	(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
9. Police Reported Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown	(10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify): (99) Unknown
10. Police Reported Travel Speed 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	15. Accident Type 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 G	SV07 DOES NOT EQUAL 01-49 ****

	OCCUPANT RELATED	24 Belleves
16.	Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown	24. Rollover (0) No rollover (no overturning) Rollover (primarily about the longitudinal axis) (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns
17.	Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more (99) Unknown	(3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify): (5) Rolloverend-over-end (i.e., primarily about the lateral axis)
18.	Number of Occupant Forms Submitted	(9) Rollover (overturn), details unknown
	VEHICLE WEIGHT ITEMS	OVERRIDE/UNDERRIDE (THIS VEHICLE)
19.	Vehicle Curb Weight Code weight to nearest 10 kilograms.	25. Front Override/Underride (this Vehicle) 26. Rear Override/Underride (this Vehicle)
	(045) Less than 450 kilograms (610) 6,100 kilograms or more (999) Unknown	(0) No override/underride, or not an end-to-end impact
	3,136 lbs X .4536 = 1,4 2 2 kgs Source:	Override (see specific CDC) (1) 1st CDC (2) 2nd CDC
20.	Vehicle Cargo Weight Code weight to nearest 10 kilograms.	(3) Other not automated CDC (specify):
	(000) Less than 5 kilograms (450) 4,500 kilograms or more (999) Unknown	Underride (see specific CDC) (4) 1st CDC (5) 2nd CDC
	lbs X .4536 = kgs	(6) Other not automated CDC (specify):
21.	RECONSTRUCTION DATA Towed Trailing Unit	(7) Medium/heavy truck or bus override (9) Unknown
	(0) No towed unit (1) Yes—towed trailing unit (9) Unknown	HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V
	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.	Post Collision Condition of Tree or Pole (For Highest Delta V) (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	27. Heading Angle For This Vehicle $\frac{9}{9}$ $\frac{9}{9}$ 28. Heading Angle For Other Vehicle $\frac{9}{9}$ $\frac{9}{9}$
	 (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify): (9) Unknown 	
	,_,	

29. Basis for Total Delta V (highest)	Secondary Highest 32. Lateral Component of Delta V
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	Nearest kph (NOTE:000 means greater than
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	34. Confidence in Reconstruction Program Results (For Highest Delta V) (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
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):
31. Longitudinal Component of +	36. Is this an AOPS Vehicle? (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 THE SECOND	

37. Police Reported Other Drug Presence (0) No other drugs present (1) Yes (other drug present) (7) Not reported (8) No driver present (9) Unknown	DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER DEC Specimen Test Test Results Results Narcotic Drug 40. 41. 2 Depressant Drug 42. 43. 0
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	Stimulant Drug 44. 45. 6 Hallucinogen Drug 46. 47. 6 Cannabinoid Drug 48. 49. 6 Phencyclidine (PCP) 50. 51. 6 Inhalant Drug 52. 53. 6 Other Drug (Excluding 54. 65. 65. 66 Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash) 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

OTHER DATA	
	61. Rollover Initiation Object Contacted
66. Driver's Zip Code (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 (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	62. Location on Vehicle Where Initial Principal Tripping Force Is Applied (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
(8) Other (specify): (9) Unknown	63. Direction of Initial Roll (0) No rollover
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	(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
(6) Ambulance	PRECRASH DATA
(7) Fire truck or car (8) Other (specify): (9) Unknown	64. Pre-Event Movement (Prior to Recognition of Critical Event)
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) 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):	(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
(9) Unknown rollover initiation type	critical event (97) Other (specify):
60. Location of Rollover Initiation (0) No rollover (1) On roadway (2) On shoulder—paved (3) On shoulder—unpaved (4) On roadside or divided trafficway median (9) Unknown	(98) No driver present (99) Unknown

PRECRASH DATA (Continued)

65.	Critical Precrash Event	Pedestrian or Pedalcyclist, or Other Nonmotorist
	· · · · · · · · · · · · · · · · · · ·	(80) Pedestrian in roadway
	Vehicle Loss of Control Due To:	(81) Pedestrian approaching roadway
	Blow out or flat tire	(82) Pedestrian - unknown location
	Stalled engine	(83) Pedalcyclist or other nonmotorist in roadway
(03)	Disabling vehicle failure (e.g., wheel fell off)	(specify):
	(specify):	(84) Pedalcyclist or other nonmotorist approaching
(04)	Non-disabling vehicle problem (e.g., hood flew	roadway (specify):
	up) (specify): AIR bag deployment	(85) Pedalcyclist or other nonmotorist—unknown
(05)	Poor road conditions (puddle, pot hole, ice, etc.)	location (specify):
	(specify):	
	Traveling too fast for conditions	Object or Animal
(08)	Other cause of control loss (specify):	(87) Animal in roadway
(00)		(88) Animal approaching roadway
(09)	Unknown cause of control loss	(89) Animal—unknown location
T L 1-	Makinia Postalia	(90) Object in roadway
	Vehicle Traveling	(91) Object approaching roadway
	Over the lane line on left side of travel lane	(92) Object—unknown location
: . <u>-</u> :	Over the lane line on right side of travel lane	100) Out a subtract annually count (on a first
	Off the edge of the road on the left side	(98) Other critical precrash event (specify):
	Off the edge of the road on the right side	(00) II-l
	End departure	(99) Unknown
	Turning left at intersection	
	Turning right at intersection	For Control Andrew Assessment of the CMA
	Crossing over (passing through) intersection	For Corrective Actions Attempted see variable GV14
(19)	Unknown travel direction	(Attemped Avoidance Manuever)
Othe	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)	
(52)	Traveling in same direction with higher speed	(1) Tracking
	Traveling in opposite direction	(2) Skidding longitudinally—rotation less than 30
(54)	in crossover	degrees
(55)	Backing	(3) Skidding laterally—clockwise rotation
(59)	Unknown travel direction of other motor vehicle	(4) Skidding laterally—counterclockwise rotation
	in lane	(7) Other vehicle loss-of-control (specify):
Othe	er Motor Vehicle Encroaching Into Lane	(8) No driver present
	From adjacent lane (same direction)—over left	(9) Precrash stability unknown
(00)	lane line	10) Treclasti Stability Unicitotti
(61)	From adjacent lane (same direction)—over right	
,,,,	lane line	67 Program Dispersional Consequences of
(62)	From opposite direction—over left lane line	67. Precrash Directional Consequences of
	From opposite direction—over right lane line	Avoidance Maneuver (Corrective Action)
	From parking lane	(0) No avoidance maneuver
	From crossing street, turning into same	(1) Vehicle stayed in travel lane where avoidance
••	direction	maneuver was initiated
(66)	From crossing street, across path	(2) Vehicle stayed on roadway but left travel lane
	From crossing street, turning into opposite	where avoidance maneuver was initiated
	direction	(3) Vehicle stayed on roadway, not known if left
(68)	From crossing street, intended path not known	travel lane where avoidance maneuver was
	From driveway, turning into same direction	initiated
	From driveway, across path	(4) Vehicle departed roadway
	From driveway, turning into opposite direction	(5) Avoidance maneuver initiated off roadway
	From driveway, intended path not known	(8) No driver present
	From entrance to limited access highway	(9) Directional consequences unknown
	Encroachment by other vehicle—details	10, Directional consequences uniciowit
,. 5,	unknown	
	*** IF THE CDS APPLICABLE VEHICLE W	AS NOT INSPECTED (I.E., GV35=0), ***

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

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

Appendix E:

NASS CDS Interview Form:

Case Vehicle Driver

BEST AVAILABLE COPY

INTERVIEW FORM (A)

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number / D Interviewee(s) Role or Name(s): DWNENS DT
2. Case Number - Stratum 9309 vehicle and driver
3. Vehicle Number
Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.
If the driver was not the person interviewed, was an appointment made for a follow-up interview?
DRIVER'S DESCRIPTION OF ACCIDENT EVENTS
9/VO/VO WAGON.
At my called valet to get cak
someone came Running the Valet
started CAR put in drive bay deployed
went and hit acouple CARS very MINOR DAMAGE
VOLVO Tech Stid that impact did not
cause deployment. Took can said they would
tix and RESELL GAVE them Q NEW VOLVO but they
later returned and got a Cheurolet Suburban
AFRAID of AIRbag equip VEhs
unknown , t photos
Insurance co never looked, car was leased. Thru
MOR O+
OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS
✓
- VALET
Hearing problems-Ringing
NECK, face cuts
wanted my NAME + TX# Duffy shaker up wants call back on what Burns on ARMS
wants call back on what Burns on ARMS
happens or comes of this case

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

INTERVIEW FORM (B)

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number / 0 2. Case Number - Stratum 9 3 0 9 3. Vehicle Number	Interviewee(s) Role or Name(s): <u>owners</u> of vehicle and driver at time of deployment
ACCIDEN'	T DATA QUESTIONS
1. Can you tell me in which direction you were traverage North South East West	Braking with lock-up Braking with lock-up Braking without lock-up Braking without lock-up Releasing brakes Accelerating Steering left Steering left Steering right Other (specify):

lational Accident Sampling System-Crashworthiness Data	a System: Interview Form Page 2
1. Primary Sampling Unit Number / 0	3. Vehicle Number
2. Case Number - Stratum 9309	4. Occupant Number
VEHICLE/DRIVER I	DATA QUESTIONS
1. Can you tell me the year, make, model of your vehicle? 1 9 91, Volvo, 740 wager Year Make Model 2. Can you describe the damage to your vehicle? 1 1 2 1 2 1 2 1 2 1 2 2 2 2 2 2 2 2 2	7b. Were any of the belts removed or not functional prior to the accident? No
5. Did any of the windows break during the accident? [*] No [] Yes (If "Yes", describe below) 6. Does your vehicle have a glove compartment? [] No [*] Yes	8b. Were the belts connected to the track prior to the accident? [] No [] Yes [] Unknown 9. Do any of the front "seat" belts attach to the door such that when the door is opened the belt travels with the door? No (go to question 10)
6a. Did the glove compartment door come open during the accident?	[] Yes 9a. Does this belt come across the
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) [X] Yes (go to question 10a) [] Unknown (go to question 11) 10a. Did the air bag inflate during the accident? [X] No (go to questions 10b and 10c) [] Yes (go to question 10e)

. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum 9 309	4. Occupant Number O
VEHICLE/DRIVER DATA O	UESTIONS (CONTINUED)
Ob. Was the air bag wiring disconnected prior to the accident?	CHILD SAFETY SEAT
KI No	12. Was there a person in a child safety seat in yo
[] Yes (If "Yes", describe previous condition)	vehicle? 54 No (If "No", go to question 13)
[] Unknown	[] Yes
Oc. Was your vehicle involved in any accidents prior to this	12a. Can you tell me the manufacturer and model of the
accident which inflated the air bag?	child safety seat?
[≺ No (go to question 11) [] Yes (go to question 10d)	J
[] Unknown	
Od. Was the air bag re-installed after the accident?	12b. Can you describe the type of child safety seat?
[] No (go to question 11)	[] Infant [] Toddler
[] Yes [▲] Unknown	[] Convertible
[1] Olikilowii	[] Booster
Oe. Did the air bag inflate as you expected?	[] Other (specify):
No (If "No" describe below)	[] Unknown
went att prevaturely	12c. Where was the child safety seat(s) located?
I Unknown	[12] [13]
() Olikilowii	[21] [22] [23]
11. Is your vehicle equipped with a passenger side air bag?	[31] [32] [33]
No (If "No", go to question 12)	[Other] (specify):
[] Yes (If "Yes", go to question 11a)	12d. Can you tell me which direction the child safety se
[] Unknown (If "Unknown", go to question 12)	was facing prior to the accident?
1a. Did the passenger air bag inflate during the accident?	[] Rear facing
No (go to question 11b)	[] Forward facing,
Yes (go to question 12)	[] Other (specify):
	[] Unknown
1b. Was the passenger air bag wiring disconnected prior to	12e. Was a seat belt used to hold the child seat in place
the accident?	[] No (If "No", go to fquestion 12g)
[] No [] Yes (If "Yes", describe below)	[] Yes (If "Yes", go to question 12f)
	[] Unknown
[] Unknown	12f. Can you describe how the seat belt was secured to t
1c. Was the passenger air bag inflated in a previous	child seat? [] Looped through designated rear framing struts?
accident?	[] Looped through arm rest slots?
No (go to question 12)	[] Belt across safety shield? [] Looped through rear frame outside the designat
[] Yes (go to question 11d)	framing struts?
[] Unknown	[] Other (specify):
1d. Was the passenger air bag re-installed after the	[] Unknown
accident? [] No (go to question 12)	12g. What was the child safety seat equipped with at t
Yes	time of purchase? (check all that apply)
[] Unknown	[] Harness
	[] Shield
1e. Did the passenger air bag inflate as you expected? [] No (If "No" describe below)	[] Tether strap
	If any box is checked, ask questions 12h - 12i.
[] Yes	

National Accident Sampling System-Crashworthiness Data	System: Interview Form Page 4
1. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum 9309	4. Occupant Number
VEHICLE/DRIVER DATA O	UESTIONS (CONTINUED)
12h. Were any of these items added after you owned the child safety seat? [] Yes	If you do not know where the vehicle is or if the owner's permission is needed for inspection. 15. Do you know where the vehicle is currently located? 16. May I take a look at your vehicle to assess the damage?
() Shield () Tether strap) [] No [] Unknown	[] No [] Yes DRIVER ONLY
CARGO WEIGHT AND MILEAGE 13. Was there any cargo in your vehicle? [] No (If "No", go to question 14) [] Yes (If "Yes", go to question 13a) [] Unknown 13a. Can you estimate the weight of the cargo?	17. What race do you consider yourself? 17. White [] Black [] American Indian, Eskimo or Aleut, Asian or Pacific Islander [] Other (specify:) [] Unknown. 18. Are you of hispanic origin?

nicle Number
supant Number <u>6 /</u>
ESTIONS
e you (Was he/she) Sitting upright or Leaning to left side, or Leaning to right side? OCCUPANT EJECTION
e you (Was he/she) or any part of your (his/her) body wn from the vehicle during the accident? No (If "No", go to question 7) Yes (If "Yes", go to question 6a) Unknown you remember what part of the vehicle you were she was) thrown out? No Yes (Describe:)
Tes (Describer)
OCCUPANT RESTRAINT re you (Was he/she) wearing a seat belt just before accident? No (If "No", go to question 8) Yes
Unknown
re you (Was he/she) wearing the Lap belt? Lap and Shoulder belt? Shoulder belt?
n you describe how you were (he/she was) wearing lap belt? Across the stomach Low on lap Other (specify:) Unknown
n you describe how you were (he/she was) wearing shoulder belt? Over the shoulder Under the arm Behind the back Behind the seat Other (specify:)
No Yes (If "Yes", describe) Unknown
OCCUPANT ENTRAPMENT
ere you (Was he/she) trapped in the vehicle? No Yes (If "Yes" describe) Nomenfaci between AIRBAG - HEAP Rest Unknown

Streeted CAR MS DE live dour windows to foot

BEST AVAILABLE COPY National Accident Sampling System-Crashworthiness Data System: Interview Form Page 6 Case Number-Stratum 9 3 0 9 Occupant Number 0 / Vehicle Number _O_/ PSU Number / 0 INJURY DATA FROM INTERVIEWEE(S) Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s):_ SOFT TISSUE/INTERNAL INJURIES shoulders, and chest (unknown le cation) · No burns per se but think combination of scrape + burn * worst scrape SKELETAL INJURIES

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

. Primary Sampling Unit Number	3. Vehicle Number
. Case Number - Stratum 9301	4. Occupant Number
OCCUPANT INJURY	DATA QUESTIONS
1. Were you (Was he/she) injured? [] No (If "No", go to next occupant. Stop if no other occupant.) Yes (If "Yes", complete Occupant Injury Questions) [] Unknown 2. Did you (he/she) receive any cuts, abrasions, or bruises? [] No (go to question 3)	 5a. Do you know what caused this injury? No Yes (If "Yes", specify the component(s) on the manikin(s).) Unknown 6. Did you (he/she) suffer any joint sprains or muscle
	strains? (A) No (If "No", go to question 7) [] Yes (If "Yes", specify on the manikin(s), and then go to question 6a.) [] Unknown
2a. Do you know what caused your (his/her) injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown	6a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown
3. Did you (he/she) experience any broken bones? No (If "No", go to question 4) Yes (If "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.) Unknown	7. Did you (he/she) receive treatment for your (his/her injury(s)? [] No (If "No", go to question 8) [] Yes (If "Yes", go to question 7a)
3a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown	7a. Were you (Was he/she) treated by: [] Hospital/trauma center? (specify hospital name): Medical clinic [] Out patient surgery? (specify medical facility:) [] Paramedics or first aid at the scene?
 4. Did you (he/she) injure your (his/her) head? No (If "No", go to question 5) Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.) Unknown 	 [] A doctor in his/her office? [] Treated at home? [] None of the above, go to question 8. 7b. Were you (Was he/she) treated and released from the emergency room? [] No (If "No", go to question 7c.)
4a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown	7c. Were you (Was he/she) hospitalized? [≼] No (If "No", give an explanation) [] Yes (If "Yes", go to question 7d.)
5. Were any of your (his/her) internal organs injured? [] No (If "No", go to question 6) [X] Yes (If "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.)	7d. How many days were you (was he/she) in the hospital

tional Accident Sampling System-Crashworthiness Data	~ /
1. Primary Sampling Unit Number	3. Vehicle Number
2. Case Number - Stratum 9309	4. Occupant Number
OCCUPANT INJURY DATA	QUESTIONS (CONTINUED)
7e. Have you (Has he/she) received any follow-up treatment? [] No [] Yes (If "Yes", describe:) [] Unknown	8. Have you (he/she) lost any days from work or school (college)? [] No [] Yes (If "Yes", determine the number of days lost) (Specify:) [] Not working prior to the accident [] Unknown
7f. In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a copy of your (his/her) medical reports. Would you (he/she) sign a medical release form? [] No [] Yes (If "Yes", mail or present the form for signature.)	
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Appendix F:

NASS CDS Occupant Assessment Form:

Case Vehicle Driver



U.S. Department of Transportation

OCCUPANT ASSESSMENT FORM

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

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

National Highway Traffic Safety Administration OCCUPANT'S SEATING 1. Primary Sampling Unit Number 10. Occupant's Seat Position 2. Case Number - Stratum Front Seat (11) Left side 3. Vehicle Number (12) Middle (13) Right side 4. Occupant Number (14) Other (specify):__ (15) On or in the lap of another occupant OCCUPANT'S CHARACTERISTICS Second Seat 5. Occupant's Age (21) Left side Code actual age at time of accident. (22) Middle (00) Less than one year old (specify by month): (23) Right side (24) Other (specify): (97) 97 years and older (25) On or in the lap of another occupant (99) Unknown Third Seat (31) Left side (32) Middle 6. Occupant's Sex (33) Right side (1) Male (34) Other (specify): (2) Female (35) On or in the lap of another occupant (9) Unknown Fourth Seat (41) Left side (42) Middle 7. Occupant's Height (43) Right side Code actual height to the nearest (44) Other (specify): centimeter. (45) On or in the lap of another occupant (999) Unknown (97) In or on unenclosed area 7 2 inches X 2.54 = ____ centimeters (98) Other seat (specify): (99) Unknown 8. Occupant's Weight Code actual weight to the nearest 11. Occupant's Posture kilogram. (0) Normal posture (999)Unknown Abnormal posture 170 pounds X .4536 = ____ 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 occupant or to look out a rear window 9. Occupant's Role (5) Sitting on a console (1) Driver (6) Lying back in a reclined seat position(7) Bracing with feet or hands on a surface in front (2) Passenger (9) Unknown of seat (8) Other abnormal posture (specify): (9) Unknown

	EJECTION/ENTRAPMENT		
12.	Ejection (0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown	Θ	15. Medium Status (Immediately Prior To Impact) (O) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown
13.	Ejection Area (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	Q	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
14.	Ejection Medium (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):	<u> </u>	

	RESTRAINT SYST	EM EVALUATION
	Manual (Active) Belt System Availability (0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt	21. Air Bag System Availability/Function (0) Not equipped/not available (1) Air bag Non-functional
	(4) Lap and shoulder belt (5) Belt available—type unknown	(2) Air bag disconnected (specify):
	Integral Belt Partially Destroyed (6) Shoulder belt (lap belt destroyed/removed) (7) Lap belt (shoulder belt destroyed/removed)	(3) Air bag not reinstalled (9) Unknown
	(8) Other belt (specify):	22. Air Bag System Deployment (0) Not equipped/not available
	(9) Unknown	(1) Air bag deployed during accident (as a result of impact)
18.	Manual (Active) Belt System Use (00) None used, not available, or belt	(2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence
	removed/destroyed (O1) Inoperative (specify):	undetermined (4) Nondeployed
	(02) Shoulder belt (03) Lap belt	(5) Unknown if deployed (6) Air bag deployed as a result of a noncollision
	(04) Lap and shoulder belt (05) Belt used—type unknown (08) Other belt used (specify):	event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown
	(12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat	23. Are There Indications of Air Bag
	(14) Lap and shoulder belt used with child safety seat	System Failure? (0) Not equipped/not available
	(15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify):	(1) No (2) Yes (specify):
	(99) Unknown if belt used	(9) Unknown
19.	Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat	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	24. Police Reported Restraint Use (0) None used (1) Police did not indicate restraint use
	(6) Lap belt wom on abdomen(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):	(2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt
	(8) Other improper use of manual belt system (specify):	(5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify):
	(9) Unknown	(8) Restrained, type unknown (9) Police indicated "unknown"
20.	Manual (Active) Belt Failure Modes During Accident (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	

	HEAD RESTR	AINT AN	D SEAT EVALUATION
25.	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):		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):
26.	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 cushi (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	qq ions	(9) Unknown

CHILD SAFETY SEAT								
28. Child Safety Seat Make/Model (000) No child safety seat	31. Child Safety Seat Harness Usage							
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat	32. Child Safety Seat Shield Usage							
(997) Other make/model (specify): (998) Unknown make/model	33. Child Safety Seat Tether Usage							
(999) Unknown if child safety seat used	Note: Options below applicable to Variables OA31-OA33. (00) No child safety seat							
29. 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):	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							
(8) Unknown child safety seat type (9) Unknown if child safety seat used	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							
30. Child Safety Seat Orientation (00) No child safety seat	Unknown If Designed With Hamess/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used							
Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify):	(29) Unknown if harness/shield/tether used (99) Unknown if child safety seat used							
(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 (23) Other orientation (specify): (29) Unknown orientation (99) Unknown if child safety seat used								

	INJURY CONSEQUENCES	38. Working Days Lost 99
	0 1	Code the number of days
34.	Injury Severity (Police Rating)	(up through 60) that the occupant
	(0) O - No injury	lost from work due to the accident
	(1) C - Possible injury	(00) No working days lost
	(2) B - Nonincapacitating injury	(61) 61 days or more (62) Fatally injured
	(3) A - Incapacitating injury	(97) Not working prior to accident
	(4) K - Killed	(99) Unknown
	(5) U - Injury, severity unknown	
	(6) Died prior to accident (9) Unknown	STOP - GO TO VARIABLE #4 ON PAGE?
	(9) Olikilowii	SID! - BUILD PARISABLE THORITAGES
	,	WARIABLES 39 THROUGH 43 ARE
35.	Treatment - Mortality	COMPLETED BY THE ZONE CENTER ISSUED
	(0) No treatment	
	(1) Fatal	39 Time to Death
	(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 .	hours. If time of death is greater than 24
	(3) Hospitalization	hours, code number of days. (Note: 1 day =
	(4) Transported and released	$31, 2 \text{ days} = 32, \dots \text{ n days} = 30 + \text{n up}$
	(5) Treatment at scene - nontransported	through 30 days = 60)
	(6) Treatment later	(00) Not fatal
	(8) Treatment - other (specify):	(96) Fatal - ruled disease (99) Unknown
	(9) Unknown	(39) Chichowh
		40. 1st Medically Reported Cause of Death
36.	Type Of Medical Facility (for Initial Treatment) 3 (0) Not treated at a medical facility	as a last II II Burned Cours of Door () Q
	(1) Trauma center	41. 2nd Medically Reported Cause of Death <u>O</u>
	(2) Hospital	42. 3rd Medically Reported Cause of Death
l	(3) Medical clinic	Code the Occupant Injury from line
l	(4) Physician's office	number(s) for the medically reported
	(5) Treatment later at medical facility	injury(s) which reportedly contributed to
1	(8) Other (specify):	this occupant's death
	(9) Unknown	(00) Not fatal or no additional causes (97) Other result (includes fatal ruled
	(a) Olikilowii	disease) (specify):
1		discuss, (speelity).
37.	Hospital Stay <u>O</u>	(99) Unknown
1	(00) Not Hospitalized	
1	Code the number of days (up through 60)	
1	that the occupant stayed in hospital. (61) 61 days or more	43. Number of Recorded Injuries for
1	(99) Unknown	This Occupant Code the actual number of
İ	(bb) Cinaicon	injuries recorded for this occupant.
		(00) No recorded injuries
1		(97) Injured, details unknown
		(99) Unknown if injured
 		

	ALITONA ATIO DEL T. OVOTERA		· .
	AUTOMATIC BELT SYSTEM	48.	Automatic (Passive) Belt Failure Modes During Accident
44.	Automatic (Passive) Belt System Availability/ OF		(0) Not equipped/not available/not in use (1) No automatic belt failure(s)
	(0) Not equipped/not available	1	(2) Torn webbing (stretched webbing not included)
	(1) 2 point automatic belts		(3) Broken buckie or latchplate
	(2) 3 point automatic belts	}	(4) Upper anchorage separated
	(3) Automatic belts - type unknown	Ì	(5) Other anchorage separated (specify):
	Non-functional		(6) Broken retractor
	(4) Automatic belts destroyed or rendered		(7) Combination of above (specify):
	inoperative	1	(8) Other automatic belt failure (specify):
	(9) Unknown		
			(9) Unknown
45.	Automatic (Passive) Belt System Use		
-	(0) Not equipped/not available/destroyed or		
	rendered inoperative	49.	Seat Orientation (this Occupant Position)
	(1) Automatic belt in use (2) Automatic belt not in use (manually		(0) Occupant not seated or no seat
	disconnected, motorized track inoperative)		(1) Forward facing seat
	(specify):	1	(2) Rear facing seat (3) Side facing seat (inward)
		l	(4) Side facing seat (outward)
	(3) Automatic belt use unknown]	(8) Other (specify):
	(9) Unknown	l	
		i	(9) Unknown
46.	Automatic (Passive) Belt System Type		
	(0) Not equipped/not available	8.3	TOP - VARIABLES 50 THROUGH 52 ARE
	(1) Non-motorized system (2) Motorized system		OP - VARIABLES 50 THROUGH 52 ARE OMPLETED BY THE ZONE CENTER
	(9) Unknown		
l	, conditions		
			TRAUMA DATA
47	Proper Use of Automatic (Passive	50	. Glasgow Coma Scale (GCS) Score
~ ′ ·	Belt System	"	(at Medical Facility)
	(0) Not equipped/not available/not used	į	(00) Not injured
	(1) Automatic belt used properly		(01) Injured - not treated at medical facility
ļ	(2) Automatic belt used properly with child safety seat	1	(02) No GCS Score at medical facility (03-15) Code the actual value of the
l	Ciliu Salety Seat	l	initial GCS Score recorded at medical
	Automatic Belt Used Improperly	l	facility.
	(3) Automatic shoulder belt worn under arm	1	(97) Injured, details unknown
	(4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than	1	(99) Unknown if injured
	one person	1	•
	(6) Lap portion of automatic belt worn	51	. Was the Occupant Given Blood?
	on abdomen		(1) No - blood not given
	(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly		(2) Yes - blood given (specify units):
	with child safety seat (specify):		(9) Unknown if blood given
	•		→ - · · · · · · · · · · · · · · · · · ·
	(8) Other improper use of automatic belt system		Americal Placed Garces (ARG) LICOs 6
1	(specify):(9) Unknown	152	. Arterial Blood Gases (ABG) – HCO ₃
	10, 0	1	(01) Injured, ABGs not measured or reported
l			(02-50) Code the actual value of theHCO ₃
		1	(96) ABGs reported , HCO3 unknown
		1	(97) Injured, details unknown (99) Unknown if injured
			100, 0
	ADE ALL APPLICABLE MEDICAL PECOL	BUG	INCLUDED NO [/] YES []
1	ARE ALL APPLICABLE MEDICAL RECOING WITH INITIAL SUBMISSION?	NUS	
			Attorney refusal!
	LIDDATE CANDIDATES		NO I/1 YES []
I	UPDATE CANDIDATE?		

Appendix G:

NASS CDS Occupant Injury Form:

Case Vehicle Driver



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

OCCUPANT INJURY FORM

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

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

- 1. Primary Sampling Unit Number
- 3. Vehicle Number

- 2. Case Number Stratum
- 4. Occupant Number

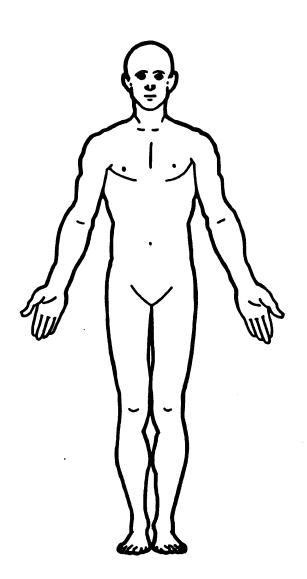
INJURY DATA

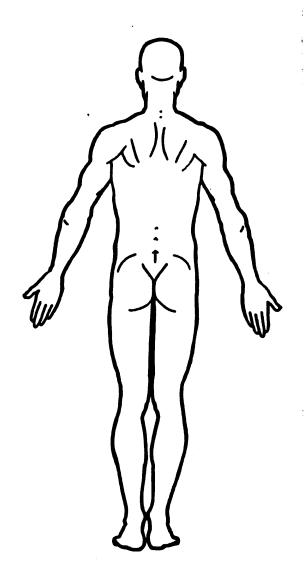
Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the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

	0.I.CA.I.S					_	Injury	D :	Occupant		
	Source of Injury Data	Body Region	Type of Anatomi Structur	c Anatomic	Level of Injury	A.I.S. Severity	/ Aspect	Injury Source	Source Confidence Level	Direct/ Indirect Injury	Area Intrusion Number
1st	5. <u>7</u>	6. <u>2</u>	7. <u>9</u>	8. <u>02</u>	9. <u>0</u> 2	10. 1	11.7	12. <u>45</u>	13	14. 1	15. <u>O</u>
2nd	16. 🏒	17.3	18. <u>9</u>	19. <u>02</u>	20. <u>02</u>	21. 1	22.9	23. <u>45</u>	24. 1	25. /	26. <u>0</u> 0
3rd	27. 7	28. 4	29. 2	30. <u>02</u>	31. <u>02</u>	32/	33. 2	34. <u>45</u>	35	36	37. <u>O O</u>
4th	38. 7	зэ7	40. <u>9</u>	41. <u>02</u>	42. <u>02</u>	43	44. <u>3</u>	45.45	46. <u>1</u>	47. <u>1</u>	48. <u>O O</u>
5th	49	50	51	52	53	54	5 5	56	57.	58	59
6th	60	61	62	63	64	65	66	67	68	69	70
7th	71	72	73	74	75	76	77	78	79	80	81
8th	82	83	84	85	86	87	88	89	°90	91	92
9th	93	94	95	96	97	98	99	100	101	102 1	103
10th	104	105	106	107	108	109	110	111	112	113 1	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.)





Page 3

	OFFICIAL INJURY DATA — SKELETAL INJURIES
Restrained? No Yes	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.)
Blood Alcohol Level (mg/dl) BAL =	boö de la companya de
Glasgow Coma Scale Score GCSS =	
Units of Blood Given Units =	
Arterial Blood Gases pH = PO ₂ =	
PCO ₂	

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.)

