



# **Fatalities in Frontal Crashes without Air Bag Deployment**

*Review of FARS and CDS Data*

- 1. Replicate and critique KC Star list of 1,446 FARS nondeployments in a focused set of head-on crashes**
- 2. Review 21 KC Star cases that are also on CDS**
- 3. Review additional CDS fatalities without deployment that are “frontal” but do not meet the more stringent KC Star criteria**
- 4. Put the numbers in perspective**

## *What KC Star Says they Did*

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- **“At least 1,400 cases” in 2001-2006**
- **Included “head-on” crashes into**
  - ◆ **The front ends of other vehicles**
  - ◆ **Objects such as trees or embankments**
- **Excluded**
  - ◆ **Principal impacts to left or right fenders**
  - ◆ **Ejected occupants**
  - ◆ **Rollovers, fires, immersions**

- **Impact2 (principal) = 12; not 11 or 1**
    - ◆ **Man\_coll = 2 (head-on) if ve\_forms  $\geq$  2 – or**
    - ◆ **M\_harm = 17-43 (various fixed objects) if ve\_forms = 1**
  - **Ejection = 0, rollover = 0, fire\_exp = 0**
  - **Exclude m\_harm = 3 (immersions) & other non-collisions**
  - **VIN analysis: equipped with air bag**
  - **FARS explicitly says “air bag did not deploy”**
    - ◆ **Exclude “not equipped with air bag”**
    - ◆ **Exclude on-off switches; children with advanced air bags**
  - **1,446 cases in 2001-2006 FARS**
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## *General Comments*

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- **FARS is a good initial screening tool for listing frontal crashes with possible nondeployment**
- **FARS is not detailed enough to identify crashes where air bags typically would have deployed and would have benefited occupants**

## *Problems with Using FARS Data*

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- **Impact2 based on damage location, not direction of force**
    - ◆ **Many impacts called “frontal” by FARS have little frontal force**
  - **Little information on crash severity**
    - ◆ **But 219 of the 1,446 cases are questionable because of less-than-disabling or non-towaway damage**
  - **FARS overreports nondeployments**
    - ◆ **Reliance on police accident report**
    - ◆ **Little information about previous crashes**
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# **Review KC Star Cases that Are Also on CDS**

*21 Cases*

- **Were they really nondeployments?**
- **What actually happened in the crash?**
  - ◆ **Was it really frontal?**
  - ◆ **Would a deployment be typically expected?**
  - ◆ **How was the occupant fatally injured?**
  - ◆ **Would a deployment have benefited the occupant?**



## *Would Deployment be Typically Expected? – 4 Categories*

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- **Asymmetric deployment (in vehicle not certified to be advanced 208-compliant)**
  - ◆ Both air bags can't be right
- **Air bag deployment typically expected**
- **Possible/unknown deployment scenario**
  - ◆ Cannot definitely say “expected” or “not expected”
- **Air bag deployment NOT typically expected**

## *Meaning of “Deployment Typically Expected”*

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- **NHTSA analysts’ judgment based on review of entire CDS case, including:**
  - ◆ **Crash configuration, direction of force**
  - ◆ **Location and extent of damage**
  - ◆ **Calculated longitudinal Delta V**
- **Substantial frontal impact**
- **Other vehicles usually deploy in similar impacts**
- **Does NOT imply a defect or failure in this vehicle**

## *Would a Deployment Have Benefited the Occupant? – 4 Categories*

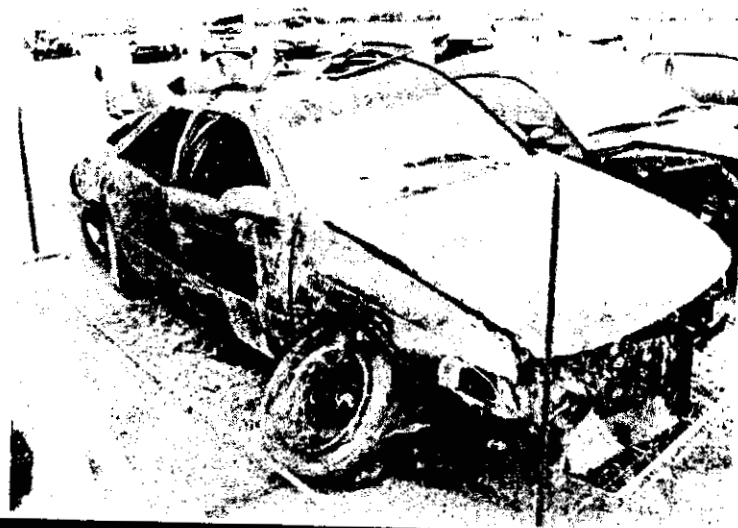
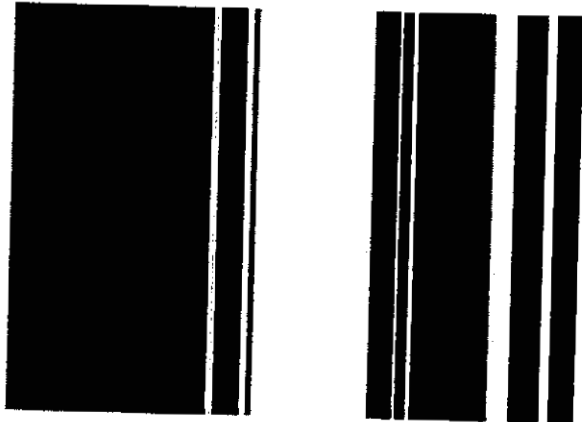
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- **Deployment could have benefited occupant**
  - ◆ **Based on injuries, contacts, compartment performance, intrusion**
- **Questionable – near-un survivable crash**
- **Unknown if deployment could have benefited**
  - ◆ **Cannot definitely say “benefited” or “not benefited”**
- **Deployment unlikely to have benefited**

- 17 of the 1,446 FARS cases are also on CDS
    - ◆ Coded as “nondeployments” on FARS
    - ◆ 10 are actual nondeployments
    - ◆ 4 in fact deployed
    - ◆ 3 air bags not replaced after previous crash
  - 4 additional actual nondeployments on CDS that met KC Star criteria
    - ◆ 3 coded “unknown if deployed” on FARS
    - ◆ 1 coded “deployed” on FARS
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# Review of the 14 Actual Nondeployments

## 1. 2002-43-59 1993 Ford Taurus *Struck guard rail, then rolled*



- **Air bag deployment NOT typically expected**
  - ◆ Undercarriage damage
  - ◆ Rolled (not reported in FARS)
  - ◆ CDC = 12FDEW1
  - ◆ CDC = 00TDD05
  
- **Deployment unlikely to have benefited driver**
  - ◆ Belted
  - ◆ Male, age 45, 6'2", 248 lbs
  - ◆ Lay Coroner, Lacerations and abrasions to the head only, attributed to roof contact

## 2. 2003-11-18 2001 Subaru Forrester *Struck by snowmobile in greenhouse*

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- Air bag deployment NOT typically expected
  - ◆ Non-horizontal
  - ◆ Greenhouse only
  - ◆ CDC = 00FDAW9
- Deployment unlikely to have benefited driver
  - ◆ Belted
  - ◆ Male, age 49, 5'8", 130 lbs
  - ◆ Critical (AIS-5) brain injuries from snowmobile

### 3. 2003-72-38 1997 Mercedes Benz E *Side slapped concrete barrier*



- Air bag deployment NOT typically expected
  - ◆ Impacts concrete barriers with side of vehicle
  - ◆ Minimal front bumper damage
  - ◆ CDC = 11LDEW2/12FRES6/12FZES1
- Deployment unlikely to have benefited driver
  - ◆ Unbelted
  - ◆ Partial ejection (not reported in FARS)
  - ◆ Male, age 32, 5'9", 150 lbs.
  - ◆ Injury source head to "Concrete barrier"

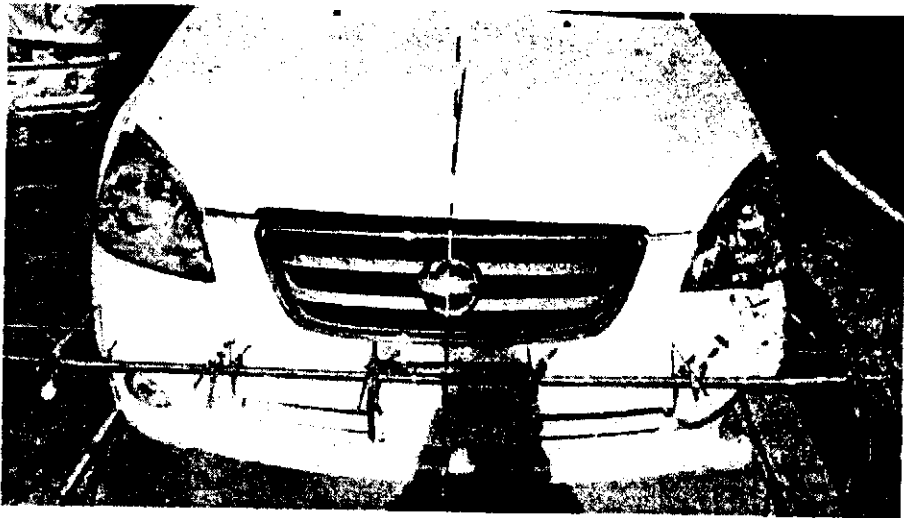


## 4. 2004-3-96 1998 Honda Civic Angle impact with Honda Prelude



- Possible deployment scenario
  - ◆ CDC = 81FDEW2
  - ◆ Longitudinal Delta V = 19 mph
  - ◆ Per owner no previous crashes
  
- Deployment unlikely to have benefited passenger
  - ◆ Fatal RF passenger
  - ◆ Belted
  - ◆ Female, age 84, 5'11", 183 lbs
  - ◆ Unknown injuries (no autopsy)
  - ◆ Minimal contact to instrument panel

## 5. 2004-4-128 2003 Nissan Altima Struck embankment, signpost, mailbox, pole



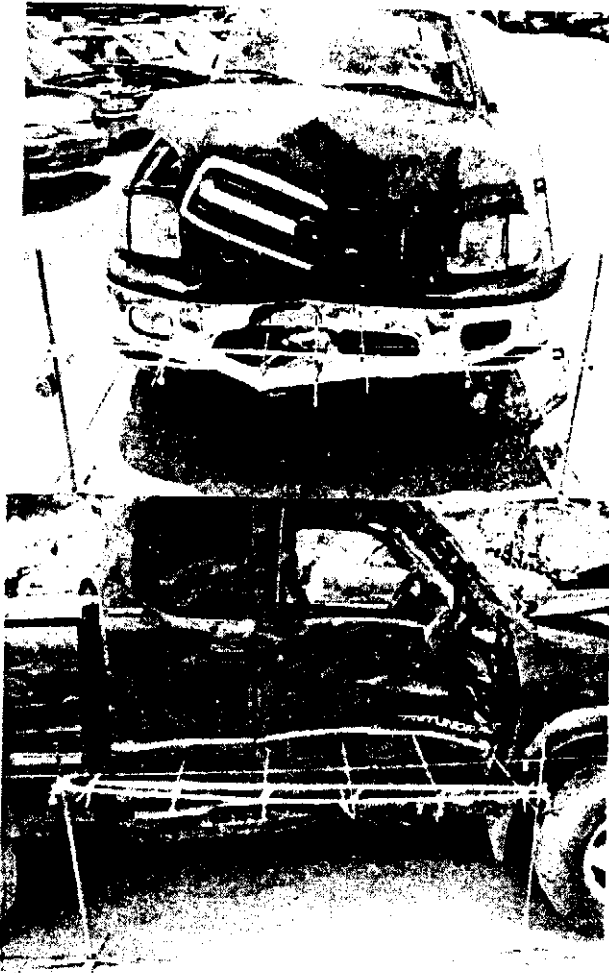
- Air bag deployment NOT typically expected
  - ◆ Frontal damage assigned to wheels and tires only
  - ◆ Minimal front bumper damage
  - ◆ CDC =  
12FRWN3/11FLEN1/12FLEN1
- Deployment unlikely to have benefited driver
  - ◆ Male, age 30, 6'0", 242 lbs
  - ◆ Head injury assigned to pole

## 6. 2004-43-323: 1998 Toyota Tacoma *Hit a pole and a tree*



- **Air bag deployment typically expected**
  - ◆ Extensive frontal damage
  - ◆ Events:
    - Impact with left pole of roadway sign (12FCEN9)
    - Impact with tree (12FCEN4, most severe)
  
- **Deployment could have benefited driver**
  - ◆ 30yo Male, 5'4", 209 lbs.
  - ◆ Driver was belted
  - ◆ Fell asleep → likely out of position
  - ◆ Floor and toe pan intrusion on driver's side
  - ◆ Seat adjusters failed, seat back moved to forward midrange position
  - ◆ Contact points: windshield/head, steering wheel hub/face, steering wheel rim/chest
  - ◆ No autopsy

## 7. 2004-48-111 2000 Toyota Tundra Impacted a fence, then a parked vehicle



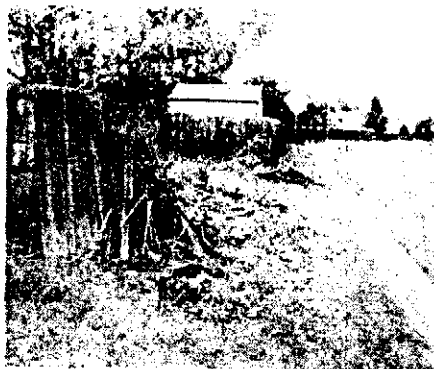
- Air bag deployment NOT typically expected
  - ◆ CDC = 00FDEW2/00RYAW3
  - ◆ Non-horizontal impacts
  - ◆ Intrusions from Right/Lateral
  - ◆ Primarily farside impact
- Deployment unlikely to have benefited driver
  - ◆ Unbelted
  - ◆ Male, age 59, 6'0", 180 lbs
  - ◆ Unknown injuries/no autopsy

## 8. 2005-50-18 1998 Chevrolet Cavalier *Offset frontal impact with pole*



- Air bag deployment typically expected
  - ◆ Severe frontal damage, single impact
  - Longitudinal Delta V = 29mph
  - ◆ Impact speed = 35mph
  - ◆ CDC = 12FYEW4
  - Check Engine light On for approx 1 week prior to crash
    - EDR software reports “Data collection successful - no stored events”
  
- Deployment could have benefited driver
  - ◆ Improperly belted
  - ◆ Female, age 36, 5'5", 235 lbs
  - ◆ Critical (AIS-5) abdominal injuries from steering wheel

## 9. 2005-75-56 1998 Chevrolet Cavalier *Wood fence through windshield*



- Air bag deployment NOT typically expected
  - ◆ Minimal frontal damage
  - ◆ EDR data indicates max longitudinal  $\Delta V = 12\text{mph}$  at 300ms (long  $\Delta T$ )
- Deployment unlikely to have benefited driver
  - ◆ Not belted
  - ◆ Female, age 17, 5'4", 119 lbs
  - ◆ Severe (AIS-4) thoracic artery/vein laceration from fence coming through windshield

## 10. 2006-3-121 2003 Honda Accord *Head-on into guardrail*

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- **Unknown deployment scenario**
  - PAR indicated also struck parked vehicle two blocks prior
  - ◆ CDC = 12 FDEW2
  - ◆ Unknown delta V (researcher not allowed to obtain crush profile)
  
- **Unknown if deployment could have benefited driver**
  - ◆ Belted, minimal interior contact
  - ◆ Female, age 76, 5'3", 112 lbs
  - ◆ Possible medical condition prior
  - ◆ Cause of death unknown
  - ◆ Moderate (AIS-2) arm fracture from contacting steering wheel during crash

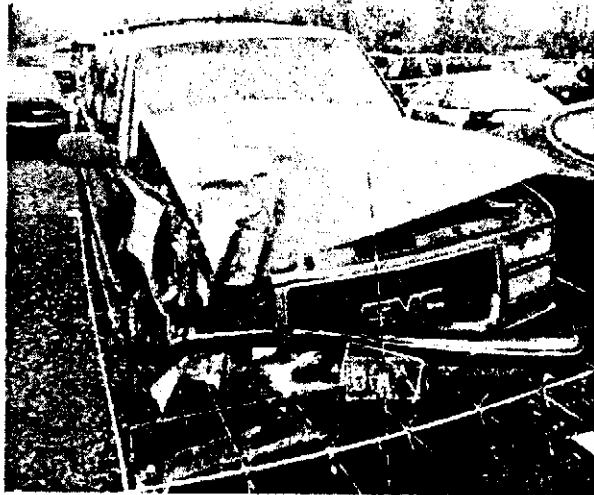
## 11. 2006-43-149 1995 Mazda Protege Head-On with Chevrolet Malibu



- Air bag deployment typically expected – asymmetric deployment (in vehicle not certified to be advanced 208-compliant)
  - ◆ Passenger frontal air bag deployed
  - ◆ Driver frontal air bag did not deploy
  - ◆ Severe frontal damage, single impact
  - ◆ CDC = 92FDEW6
- Questionable if deployment would have benefited driver – near unsurvivable crash
  - ◆ Belted
  - ◆ Male, age 20, 5'11", 169 lbs
  - ◆ Blunt force trauma to head -no autopsy

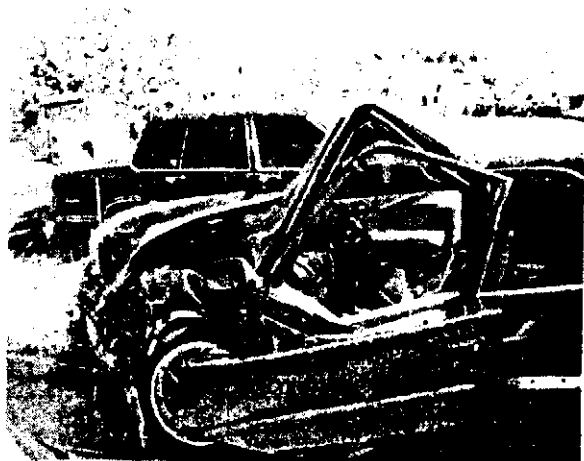


## 12. 2006-43-198 1996 GMC Suburban *Offset frontal impact with tree*



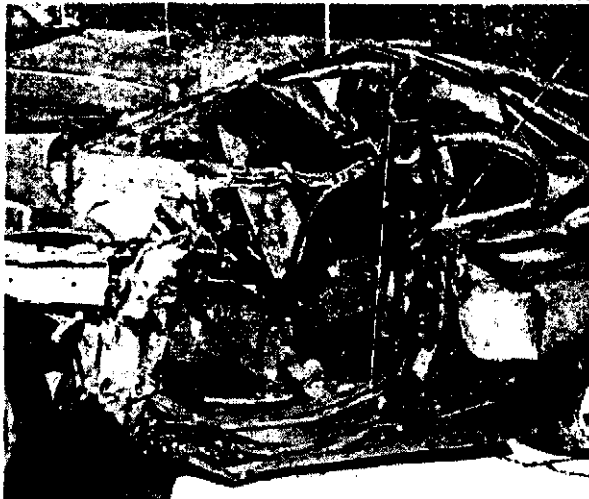
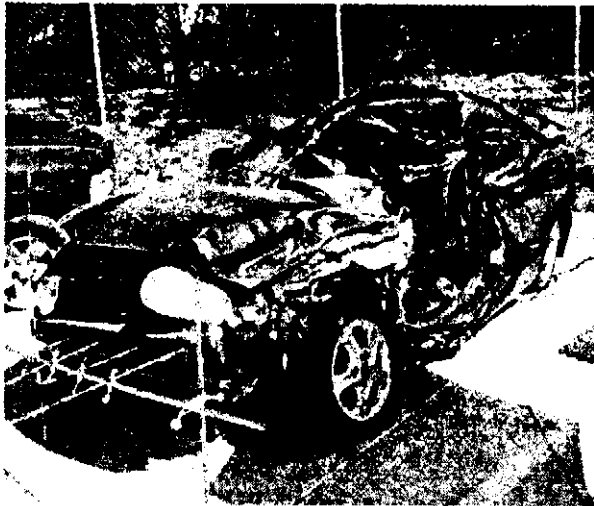
- Air bag deployment NOT typically expected
  - ◆ Crossed small ditch just prior to impact with tree which gave impact some non-horizontal force
  - ◆ CDC = 12FZEW3
- Deployment unlikely to have benefited driver
  - ◆ Not belted
  - ◆ Male, age 56, 5'11", 220 lbs
  - ◆ Moderate (AIS-2) injuries, Fx neck from roof maplight

## 13. 2006-50-54 1992 Honda Accord Offset frontal with Toyota Camry



- **Air bag deployment typically expected**
  - ◆ Severe frontal damage, single impact
  - ◆ CDC = 12FYEW4
  - ◆ Longitudinal Delta V = 35 mph
- **Deployment could have benefited driver**
  - ◆ Belted
  - ◆ Male, age 36, 5'6", 165 lbs
  - ◆ Maximum (AIS-6) brain stem transection and neck dislocation from steering wheel

## 14. 2006-50-83 2000 Hyundai Tiburon *Corner impact with Jeep Cherokee*



- Air bag deployment NOT typically expected
  - Corner/swiping type impact with minimal frontal engagement with other vehicle
  - ◆ Underrode SUV
  - ◆ CDC = 12FLAE9
- Deployment unlikely to have benefited driver
  - ◆ Belted
  - ◆ Male, age 28, 5'2", 110 lbs.
  - ◆ Severe (AIS-4) brain injuries from roof

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- **Vehicles may have been in earlier crashes and air bags not replaced**
  - **CDS makes every effort to ascertain this**
    - ◆ **Inspection of the air bag modules**
    - ◆ **Interviews**
  - **Efforts are not always successful**
    - ◆ **Unable to inspect modules**
    - ◆ **Owners unaware of vehicle's history**
    - ◆ **Nobody to interview**
  - **We followed up with CARFAX inquiries and obtained no new information about previous crashes**



# Quick Review of the Other 7 Cases

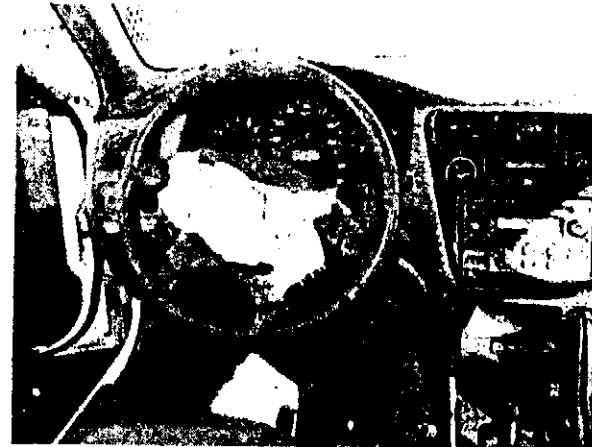
*FARS Alleges “Nondeployment”  
CDS Proves Otherwise*

# *Four Actually Deployed*

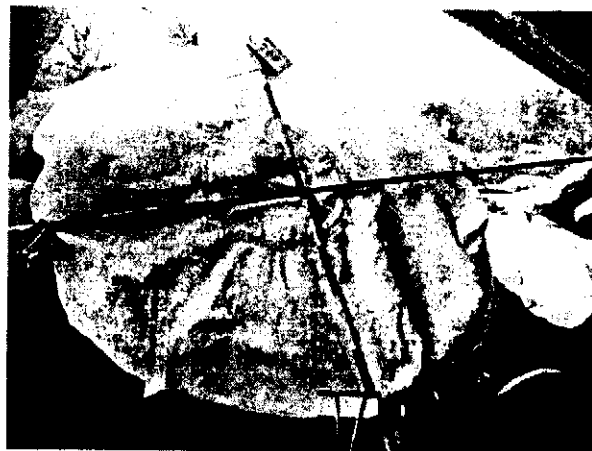
2001-  
41-125



2002  
-3-9



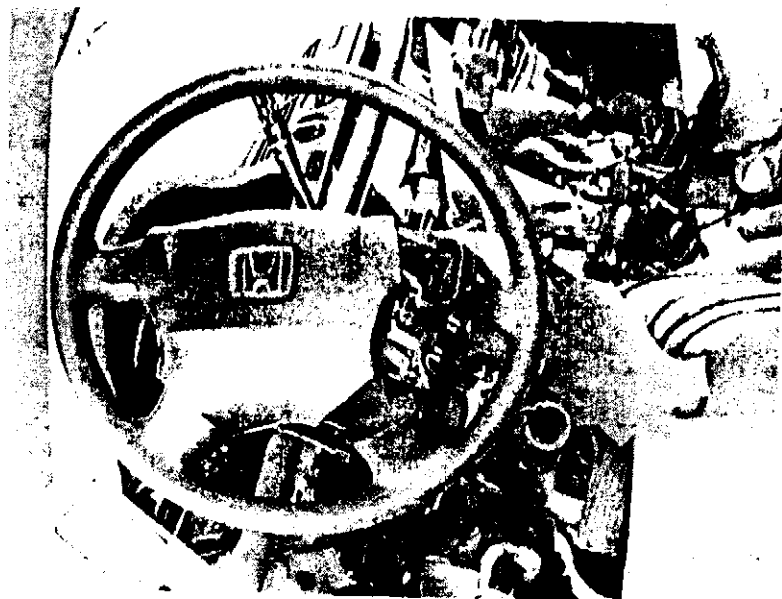
2002-  
47-39



2005-  
48-122

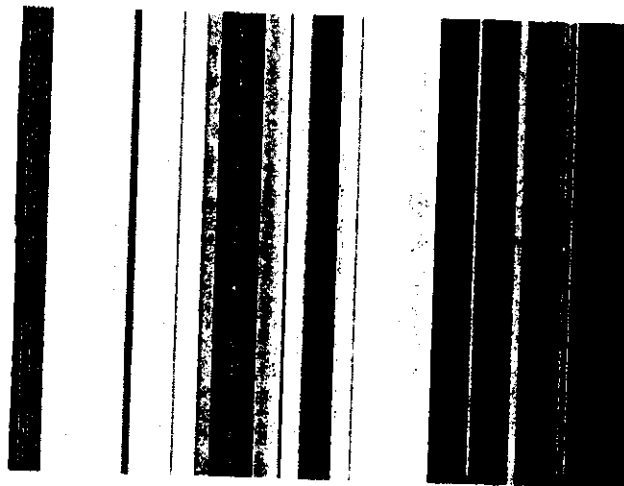


# *In Three, Air Bags Had Not Been Replaced after a Previous Crash*



2001-75-113

2006-  
50-64



2006-  
79-103

## *How 21 KC Star Cases Boiled Down*

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- (3) Air bag deployment typically expected and deployment could have benefited occupant
  - (1) Asymmetric deployment (in vehicle not certified to be advanced 208-compliant) – questionable if beneficial – near-un survivable
  - (2) Possible/unknown deployment scenario
    - ◆ (1) Unknown if deployment could have benefited
    - ◆ (1) Deployment unlikely to have benefited
  - (8) Air bag deployment NOT typically expected and deployment unlikely to have benefited
  - (7) Actually deployed or air bag not replaced
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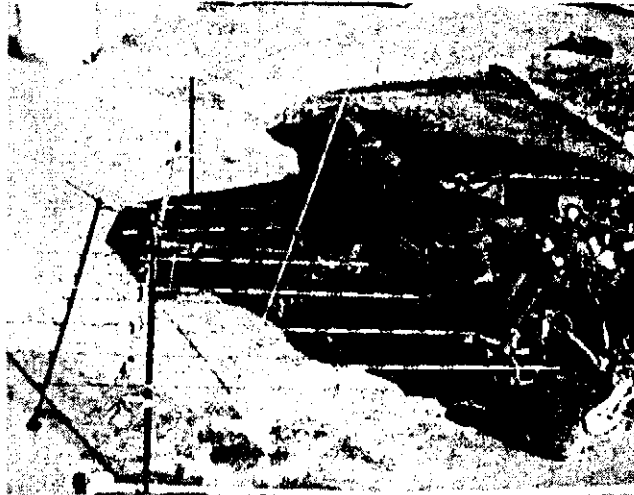


**Review 82 additional CDS  
nondeployment fatalities in  
crashes that are at least partially  
frontal but do not meet KC Star's  
criteria, 2001-2006**

- Find all CDS cases where deployment typically expected and/or could have benefited occupant
- KC Star “screening tool” may have excluded some of these cases

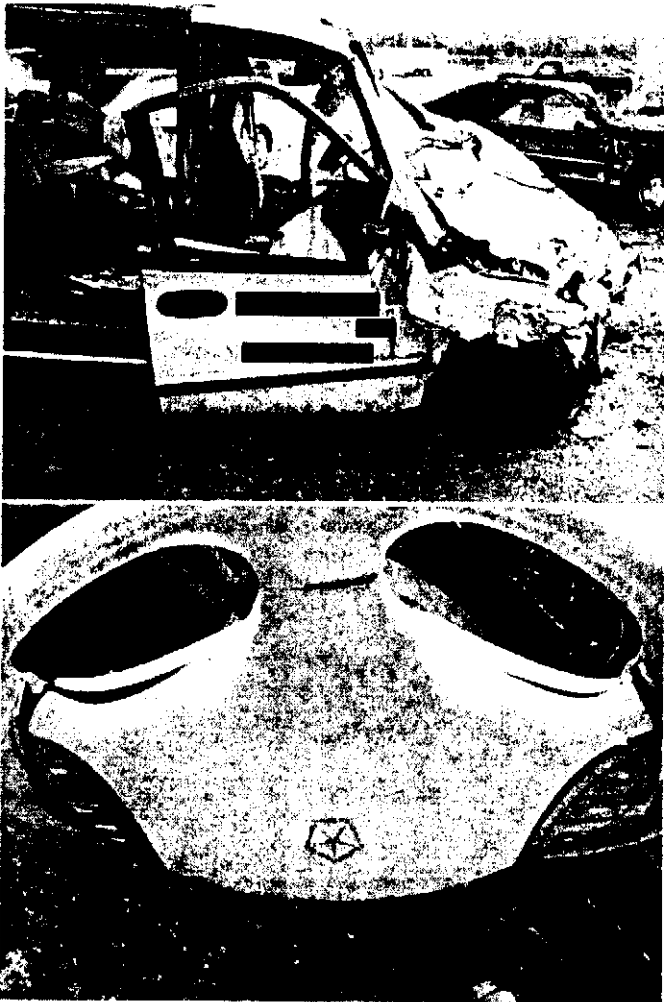
**Found 2 additional cases where  
deployment typically expected and  
could have benefited occupant**

## 2001-12-116: 2000 GMC Sonoma Hit 1995 Lincoln Mark & 1989 Oldsmobile Delta



- **Air bag deployment typically expected**
  - ◆ Extensive frontal damage
  - ◆ Events:
    - Rear ended 1995 Lincoln Mark (12FREE3) with RF corner
    - Hit 1989 Oldsmobile Delta head-on (12FYEW5, most severe)
  - ◆ SCI investigated and retrieved EDR data
    - EDR data inconclusive
  
- **Deployment could have benefited driver**
  - ◆ 41yo Male
  - ◆ He was properly restrained, but died before he was removed from the vehicle
  - ◆ Significant driver's side intrusion
  - ◆ Certain Contact points: steering wheel/chest, IP/shoulder, IP/lower arm, floor/foot
  - ◆ Steering wheel was deformed

# 2006-74-195: 2000 Dodge Caravan *Struck by three vehicles*



- **Air bag deployment typically expected – asymmetric deployment (in vehicle not certified to be advanced 208-compliant)**
  - ◆ **Passenger air bag deployed**
  - ◆ **The frontal impact was unique**
  - ◆ **Events**
    - **While rolling over from a previous impact, the right side of a 2000 Ford Expedition impacted the front of the Caravan (00FDAW6, most severe)**
    - **Right side of 1998 Chevrolet Lumina impacted the left rear side of the Caravan (09LBEW2)**
    - **Front of 2004 Dodge Neon impacted rear of the Caravan (06BREW9)**
- **Deployment could have benefited driver**
  - ◆ **35yo Female, 5'6", 170 lbs.**
  - ◆ **Driver was unrestrained and dead at the scene**
  - ◆ **AIS 4+ injuries: aorta thoracic laceration and rib cage fractures attributed to steering wheel, cerebrum laceration attributed to front header**

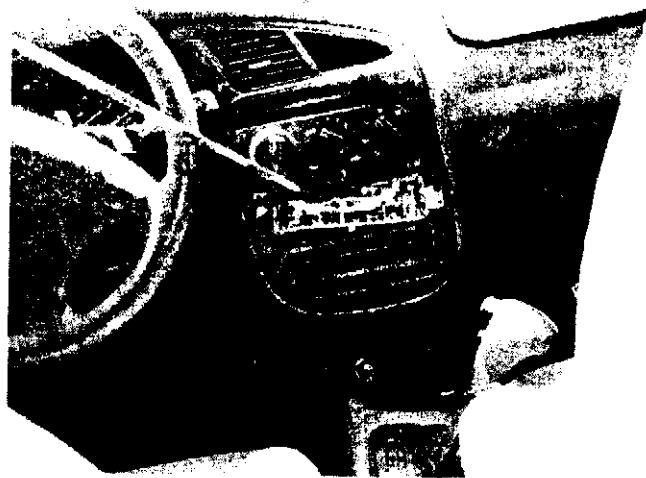
**Found 2 additional cases where  
deployment typically expected but  
unlikely to have benefited  
occupant**

## 2006-9-169: 2004 Chevrolet Aveo *hit two trees and rolled over*



- Air bag deployment typically expected
  - ◆ Events
    - Struck tree head-on (81F9999, most severe)
    - Struck tree with right side (04RBAW2)
    - Rolled over completely on its longitudinal axis
  - ◆ Major frontal damage
  
- Deployment unlikely to have benefited driver
  - ◆ 22yo Female
  - ◆ 5'6", 150 lbs.
  - ◆ Driver was unrestrained
  - ◆ Driver was completely ejected from right front door
  - ◆ AIS 4+ injuries attributed to unknown exterior objects

## 2006-78-47: 2000 Daewoo Lanos hit 2004 Chevrolet Silverado & 2004 GMC Safari



- **Air bag deployment typically expected**
  - ◆ **Events**
    - Front impact with rear of Silverado (12FRE99)
    - Front-to-front impact with Safari (12FDEW3, most severe)
  - ◆ **Underride and frontal damage**
  
- **Deployment unlikely to have benefited driver**
  - ◆ 26yo Female, 5'3", 185 lbs.
  - ◆ Driver was unrestrained
  - ◆ Blunt head trauma/traumatic brain injury attributed to right a-pillar
  - ◆ Driver impacted center and right IP, shifter, glove compartment, right window frame, and right a-pillar





# Putting the Numbers in Perspective

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NHTSA's National Center for Statistics & Analysis

## *A Rough National Estimate*

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- **Main CDS result: 5 frontal fatalities in 2001-2006 without deployment, but deployment typically expected, and could have benefited the occupant**
    - ◆ **Caveat: possible that some of these vehicles had air bags not replaced after previous crash**
    - ◆ **Caveat: National estimate is based on 5 CDS cases – a small number**
    - ◆ **CDS has a total of 2,806 occupant fatality cases in 2001-2006**
  - **CDS is approximately a 1.39 percent sample of the nation's fatalities (1 out of 72)**
  - **Suggests there may have been 360 such cases in the entire United States in 2001-2006**
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## *Putting it in Perspective*

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- **Estimated 360 frontal fatalities in 2001-2006 without deployment, but deployment typically expected, and could have benefited the occupant**
  - ◆ **576 frontal fatalities in 2001-2006 without deployment, but deployment typically expected (whether it benefited the occupant or not)**
- **15,029 lives saved by frontal air bags in 2001-2006**

## *Divvying Up the 1,446 KC Star “Nondeployments” per the CDS Cases*

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- (340) In fact, deployed
  - (255) Air bag not replaced after previous crash
  - (486) Deployment not expected and unlikely to benefit
  - ( 61) Possible deployment – unlikely to benefit
  - ( 61) Unknown deployment – unknown if beneficial
  - ( 61) Asymmetric deployment in near-un survivable crash
  - (182) Deployment expected and could have benefited
  
  - (178) Deployment expected and could have benefited – in crashes not meeting KC Star criteria
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- 2001-2006 CDS has 5 cases of frontal fatalities without deployment, where deployment would typically be expected and could have benefited the occupant
- The KC Star estimate (1,446) exaggerates the numbers of nondeployments in 2001-2006:
  - ◆ Where deployment would be typically expected and could have benefited the occupant: by a factor of approximately 4
  - ◆ Where deployment would typically be expected: by a factor of approximately 2.5
- The numbers are small relative to the overall benefits of frontal air bags

OBS	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
1	2001	10026	1	11	66	2001	240598	1	11
2	2001	10474	2	11	67	2001	240600	1	11
3	2001	10479	2	13	68	2001	250363	2	11
4	2001	10554	1	13	69	2001	250363	2	13
5	2001	10604	1	11	70	2001	250427	1	11
6	2001	10634	2	11	71	2001	260260	1	11
7	2001	10650	1	11	72	2001	260820	1	11
8	2001	10710	1	11	73	2001	260820	1	13
9	2001	10740	1	13	74	2001	260825	1	11
10	2001	20070	1	11	75	2001	261031	1	11
11	2001	50378	2	11	76	2001	261061	1	11
12	2001	60702	1	11	77	2001	280661	1	13
13	2001	60977	1	13	78	2001	290095	1	11
14	2001	61907	1	11	79	2001	290238	1	11
15	2001	62404	1	11	80	2001	290283	1	11
16	2001	80471	1	11	81	2001	290321	1	11
17	2001	80504	2	11	82	2001	290423	2	11
18	2001	80617	1	11	83	2001	290508	2	11
19	2001	120172	1	11	84	2001	290662	1	11
20	2001	120307	1	11	85	2001	290972	1	11
21	2001	120307	1	13	86	2001	300085	1	11
22	2001	120307	2	11	87	2001	310054	1	11
23	2001	120307	2	13	88	2001	310155	1	11
24	2001	120326	2	11	89	2001	310158	1	11
25	2001	120396	1	11	90	2001	330100	1	11
26	2001	120588	1	11	91	2001	340036	1	11
27	2001	121173	1	11	92	2001	340070	1	11
28	2001	121178	1	11	93	2001	340079	1	13
29	2001	121612	1	11	94	2001	340169	1	11
30	2001	121721	1	11	95	2001	340237	1	11
31	2001	121746	1	11	96	2001	340251	1	11
32	2001	121752	1	11	97	2001	340347	1	11
33	2001	121782	1	11	98	2001	340635	1	11
34	2001	122014	1	11	99	2001	360176	1	13
35	2001	122310	1	13	100	2001	360621	1	11
36	2001	122360	1	11	101	2001	360735	1	11
37	2001	122646	1	11	102	2001	360800	1	11
38	2001	130452	1	11	103	2001	361115	1	11
39	2001	130608	1	13	104	2001	361146	2	11
40	2001	130881	1	11	105	2001	361244	1	11
41	2001	180606	1	11	106	2001	361260	1	11
42	2001	180666	2	11	107	2001	361356	1	11
43	2001	190174	1	11	108	2001	361434	1	11
44	2001	190174	1	13	109	2001	370456	1	11
45	2001	190237	2	11	110	2001	370565	1	11
46	2001	190266	2	11	111	2001	370996	1	11
47	2001	210104	1	11	112	2001	371102	1	11
48	2001	220810	1	11	113	2001	371270	2	11
49	2001	240023	1	11	114	2001	380029	1	11
50	2001	240071	1	11	115	2001	390127	1	11
51	2001	240144	2	11	116	2001	390298	1	11
52	2001	240270	1	11	117	2001	390364	1	11
53	2001	240307	1	11	118	2001	390409	1	11
54	2001	240337	1	11	119	2001	390410	1	13
55	2001	240339	1	11	120	2001	390435	1	11
56	2001	240355	1	11	121	2001	390483	1	11
57	2001	240431	1	11	122	2001	390636	2	11
58	2001	240434	2	11	123	2001	391181	1	11
59	2001	240452	3	11	124	2001	400420	1	11
60	2001	240474	1	11	125	2001	400472	1	11
61	2001	240481	2	11	126	2001	400538	1	11
62	2001	240482	1	11	127	2001	420201	1	11
63	2001	240516	1	11	128	2001	420765	1	11
64	2001	240557	1	11	129	2001	420814	1	11
65	2001	240559	2	13	130	2001	421078	1	13
					131	2001	421356	1	13
					132	2001	421372	1	11
					133	2001	460072	1	11
					134	2001	470465	2	11

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Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
135	2001	470601	1	11	204	2002	122052	1	11
136	2001	470708	1	11	205	2002	122059	1	11
137	2001	470855	1	11	206	2002	122063	1	11
138	2001	470961	1	11	207	2002	122097	1	11
139	2001	480055	1	11	208	2002	122147	1	11
140	2001	480104	2	11	209	2002	122186	1	11
141	2001	480131	1	13	210	2002	122407	1	11
142	2001	480605	1	11	211	2002	122444	1	11
143	2001	480769	2	13	212	2002	122465	1	11
144	2001	480786	2	11	213	2002	122465	1	13
145	2001	480901	1	11	214	2002	122629	1	11
146	2001	480901	2	11	215	2002	122767	1	11
147	2001	480925	2	11	216	2002	122768	1	11
148	2001	481043	2	11	217	2002	122780	1	11
149	2001	481509	2	11	218	2002	130144	1	11
150	2001	481546	1	11	219	2002	130178	1	11
151	2001	481625	1	13	220	2002	130219	1	11
152	2001	481887	2	11	221	2002	130265	2	13
153	2001	482462	2	13	222	2002	130516	1	11
154	2001	482581	1	11	223	2002	130604	1	11
155	2001	482596	3	11	224	2002	130771	1	11
156	2001	482621	1	11	225	2002	130976	1	11
157	2001	482632	1	11	226	2002	131083	2	11
158	2001	482632	1	13	227	2002	131106	1	11
159	2001	482762	2	11	228	2002	131355	1	11
160	2001	482770	1	11	229	2002	200141	1	11
161	2001	482825	1	11	230	2002	210008	1	11
162	2001	482867	1	11	231	2002	210103	1	11
163	2001	483246	1	13	232	2002	210196	1	11
164	2001	483257	1	11	233	2002	210343	2	13
165	2001	500077	1	11	234	2002	210369	1	11
166	2001	530479	1	11	235	2002	210387	1	13
167	2001	540072	1	11	236	2002	210634	1	11
168	2001	550091	1	11	237	2002	210723	1	11
169	2002	100007	1	11	238	2002	220076	1	13
170	2002	10173	2	11	239	2002	220639	2	11
171	2002	10432	1	11	240	2002	220779	1	11
172	2002	10495	1	11	241	2002	240028	1	11
173	2002	10695	1	11	242	2002	240119	2	13
174	2002	10785	1	11	243	2002	240180	1	11
175	2002	10818	1	11	244	2002	240249	1	11
176	2002	10900	1	11	245	2002	240252	1	11
177	2002	20068	2	11	246	2002	240258	1	11
178	2002	50060	1	11	247	2002	240275	1	11
179	2002	50542	2	11	248	2002	240319	1	11
180	2002	61363	1	11	249	2002	240368	1	11
181	2002	61441	1	11	250	2002	250113	1	11
182	2002	62952	1	11	251	2002	250253	1	11
183	2002	80141	1	11	252	2002	250351	1	13
184	2002	80210	2	11	253	2002	260135	1	11
185	2002	80476	1	11	254	2002	260466	1	11
186	2002	80614	1	11	255	2002	260546	1	11
187	2002	80645	1	11	256	2002	260922	1	11
188	2002	90100	2	11	257	2002	280093	1	13
189	2002	120051	1	11	258	2002	280093	2	13
190	2002	120073	1	11	259	2002	290006	1	11
191	2002	120348	1	13	260	2002	290154	1	11
192	2002	120522	1	11	261	2002	290351	1	11
193	2002	120547	1	11	262	2002	290522	1	11
194	2002	120724	1	11	263	2002	290542	1	11
195	2002	120854	1	11	264	2002	290645	2	11
196	2002	120959	1	11	265	2002	290677	1	11
197	2002	121139	1	13	266	2002	290927	1	11
198	2002	121145	2	11	267	2002	300094	1	11
199	2002	121200	1	13	268	2002	310125	1	11
200	2002	121502	1	11	269	2002	310267	1	11
201	2002	121647	1	13	270	2002	320273	1	13
202	2002	121829	2	11	271	2002	340157	1	11
203	2002	121920	1	11	272	2002	340187	1	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
273	2002	340324	1	11	342	2002	482039	1	11					
274	2002	340378	1	11	343	2002	482444	1	11					
275	2002	340532	1	11	344	2002	482557	1	11					
276	2002	340551	1	11	345	2002	482661	1	11					
277	2002	340615	1	11	346	2002	482687	2	11					
278	2002	340624	2	11	347	2002	482850	1	11					
279	2002	340658	1	11	348	2002	482864	1	11					
280	2002	360072	1	11	349	2002	483050	1	11					
281	2002	360081	1	11	350	2002	483221	1	11					
282	2002	360544	1	11	351	2002	483256	2	11					
283	2002	360554	2	11	352	2002	483262	1	11					
284	2002	360561	2	11	353	2002	483309	1	11					
285	2002	360575	1	11	354	2002	483355	1	11					
286	2002	360925	1	11	355	2002	510665	2	13					
287	2002	361014	1	11	356	2002	530052	1	11					
288	2002	361247	1	11	357	2002	530155	2	11					
289	2002	361287	1	11	358	2002	530160	2	11					
290	2002	361353	2	11	359	2002	530518	1	11					
291	2002	370026	1	11	360	2002	540259	1	11					
292	2002	370080	1	11	361	2002	540279	1	11					
293	2002	370236	1	11	362	2002	540288	1	11					
294	2002	370277	1	11	363	2002	540291	2	11					
295	2002	370363	1	11	364	2002	540291	2	13					
296	2002	370417	1	11	365	2002	550011	1	13					
297	2002	370648	1	11	366	2002	550069	1	13					
298	2002	371070	1	11	367	2002	550159	1	11					
299	2002	371153	1	11	368	2002	550206	1	11					
300	2002	371224	1	11	369	2002	550636	2	11					
301	2002	371294	1	11	370	2003	10058	1	13					
302	2002	371296	1	11	371	2003	10105	1	11					
303	2002	371343	1	11	372	2003	10164	1	11					
304	2002	371446	2	11	373	2003	10214	1	11					
305	2002	390042	2	11	374	2003	10225	1	11					
306	2002	390091	1	11	375	2003	10292	1	11					
307	2002	390388	1	11	376	2003	10344	1	11					
308	2002	390389	1	11	377	2003	10530	1	11					
309	2002	390824	2	11	378	2003	10574	2	11					
310	2002	400119	1	11	379	2003	10652	1	11					
311	2002	400461	1	11	380	2003	10860	1	11					
312	2002	410201	2	11	381	2003	10871	1	11					
313	2002	410259	1	11	382	2003	20036	1	13					
314	2002	420547	2	11	383	2003	40201	2	13					
315	2002	421201	1	11	384	2003	40361	1	11					
316	2002	450443	1	11	385	2003	50042	1	11					
317	2002	450826	1	11	386	2003	50437	1	11					
318	2002	450897	1	11	387	2003	60989	1	11					
319	2002	450950	1	11	388	2003	61308	1	11					
320	2002	470265	1	11	389	2003	61308	1	13					
321	2002	470753	2	13	390	2003	61904	1	11					
322	2002	470882	1	11	391	2003	62014	1	11					
323	2002	470882	1	13	392	2003	62203	1	13					
324	2002	470883	1	13	393	2003	62320	1	11					
325	2002	470920	1	11	394	2003	62574	1	11					
326	2002	480012	1	11	395	2003	62711	1	11					
327	2002	480235	1	11	396	2003	62972	1	13					
328	2002	480261	1	13	397	2003	62986	2	11					
329	2002	480338	2	13	398	2003	63079	1	11					
330	2002	480338	2	13	399	2003	63317	1	11					
331	2002	480443	1	11	400	2003	63508	2	11					
332	2002	480483	1	13	401	2003	80130	1	13					
333	2002	480506	1	11	402	2003	80408	1	11					
334	2002	480516	1	13	403	2003	90046	1	11					
335	2002	481095	1	11	404	2003	100130	1	11					
336	2002	481216	1	11	405	2003	120001	2	11					
337	2002	481216	2	11	406	2003	120006	1	11					
338	2002	481216	2	13	407	2003	120098	1	11					
339	2002	481504	2	11	408	2003	120236	1	11					
340	2002	481583	1	11	409	2003	120427	1	11					
341	2002	481651	2	11	410	2003	120539	1	11					



Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
411	2003	120635	1	11	480	2003	240472	2	11					
412	2003	120686	2	11	481	2003	250080	1	11					
413	2003	120811	1	11	482	2003	250238	1	11					
414	2003	120837	1	11	483	2003	260034	1	11					
415	2003	120961	2	11	484	2003	260080	2	11					
416	2003	121051	1	11	485	2003	260098	1	11					
417	2003	121062	1	11	486	2003	260173	1	11					
418	2003	121223	1	11	487	2003	260224	1	11					
419	2003	121335	1	11	488	2003	260575	1	11					
420	2003	121483	1	13	489	2003	260977	1	11					
421	2003	121674	1	11	490	2003	280266	1	13					
422	2003	121711	2	11	491	2003	280480	1	13					
423	2003	121752	1	11	492	2003	290150	2	11					
424	2003	121815	2	11	493	2003	290233	2	11					
425	2003	121815	2	13	494	2003	290268	2	13					
426	2003	121816	1	13	495	2003	290839	1	11					
427	2003	121899	1	11	496	2003	310049	1	11					
428	2003	121910	1	11	497	2003	310253	1	11					
429	2003	121946	1	11	498	2003	340013	1	11					
430	2003	122155	1	11	499	2003	340020	1	13					
431	2003	122155	2	11	500	2003	340074	1	11					
432	2003	122218	1	11	501	2003	340151	1	11					
433	2003	122253	1	13	502	2003	340199	2	11					
434	2003	122265	1	11	503	2003	340218	1	11					
435	2003	122318	1	11	504	2003	340253	1	11					
436	2003	122346	2	11	505	2003	340275	1	11					
437	2003	122350	1	11	506	2003	340344	1	11					
438	2003	122372	1	11	507	2003	340345	1	11					
439	2003	122433	1	11	508	2003	340399	1	11					
440	2003	122447	1	13	509	2003	340542	1	11					
441	2003	122486	2	11	510	2003	340655	2	11					
442	2003	122512	1	11	511	2003	340659	1	11					
443	2003	122607	1	11	512	2003	340689	1	11					
444	2003	122663	1	13	513	2003	360279	1	11					
445	2003	122682	2	13	514	2003	360377	1	11					
446	2003	122683	1	11	515	2003	360400	1	11					
447	2003	122692	1	11	516	2003	360669	1	11					
448	2003	122704	2	11	517	2003	360727	1	13					
449	2003	122723	1	11	518	2003	360759	1	11					
450	2003	122723	2	11	519	2003	360801	1	11					
451	2003	122755	1	11	520	2003	360810	1	11					
452	2003	122837	2	11	521	2003	360932	1	11					
453	2003	122839	1	11	522	2003	361126	2	11					
454	2003	130014	1	11	523	2003	361178	2	11					
455	2003	130077	1	11	524	2003	361352	1	11					
456	2003	130098	1	11	525	2003	361372	1	11					
457	2003	130416	1	11	526	2003	370197	2	11					
458	2003	130479	1	11	527	2003	370520	2	11					
459	2003	130697	1	11	528	2003	370716	1	11					
460	2003	130780	1	11	529	2003	371046	1	11					
461	2003	131390	2	13	530	2003	371197	2	11					
462	2003	131435	1	11	531	2003	371379	1	11					
463	2003	160206	1	13	532	2003	390676	1	11					
464	2003	190274	1	11	533	2003	390830	1	11					
465	2003	200047	2	11	534	2003	391059	2	11					
466	2003	200076	1	11	535	2003	400178	1	11					
467	2003	200243	1	13	536	2003	400370	1	11					
468	2003	200304	2	11	537	2003	400501	1	11					
469	2003	200373	1	13	538	2003	410318	1	13					
470	2003	210104	1	11	539	2003	420140	1	11					
471	2003	210445	1	11	540	2003	420328	1	11					
472	2003	210569	2	11	541	2003	420478	1	11					
473	2003	210787	1	11	542	2003	420559	1	11					
474	2003	210843	1	11	543	2003	420584	1	11					
475	2003	220078	1	11	544	2003	421068	1	11					
476	2003	220394	1	11	545	2003	440075	1	13					
477	2003	220792	1	11	546	2003	450110	1	11					
478	2003	220807	1	11	547	2003	450238	1	13					
479	2003	240108	1	11	548	2003	450496	2	11					

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
549	2003	450598	2	11	618	2004	2004	10444	11
550	2003	450655	1	11	619	2004	2004	10472	11
551	2003	470222	1	11	620	2004	2004	10512	11
552	2003	470290	1	11	621	2004	2004	10583	11
553	2003	470529	1	11	622	2004	2004	10676	11
554	2003	470545	1	11	623	2004	2004	10700	13
555	2003	470679	1	11	624	2004	2004	10817	11
556	2003	470836	1	11	625	2004	2004	10958	11
557	2003	471002	1	11	626	2004	2004	10976	11
558	2003	480087	2	11	627	2004	2004	10992	11
559	2003	480200	2	13	628	2004	2004	10992	13
560	2003	480450	1	13	629	2004	2004	50037	11
561	2003	480457	1	11	630	2004	2004	50037	13
562	2003	480457	1	13	631	2004	2004	50179	11
563	2003	480627	1	11	632	2004	2004	60142	11
564	2003	480766	2	11	633	2004	2004	60165	11
565	2003	480792	1	11	634	2004	2004	60407	11
566	2003	480833	2	13	635	2004	2004	60666	11
567	2003	480852	1	11	636	2004	2004	61199	11
568	2003	480900	1	11	637	2004	2004	61244	13
569	2003	481222	1	11	638	2004	2004	61347	11
570	2003	481456	1	11	639	2004	2004	61463	11
571	2003	481651	1	11	640	2004	2004	61627	11
572	2003	481950	1	11	641	2004	2004	61631	11
573	2003	481977	2	11	642	2004	2004	61947	13
574	2003	481981	1	11	643	2004	2004	62306	11
575	2003	482059	1	11	644	2004	2004	62953	11
576	2003	482460	1	11	645	2004	2004	63422	11
577	2003	482479	1	11	646	2004	2004	63461	11
578	2003	482691	1	11	647	2004	2004	63584	11
579	2003	482709	1	11	648	2004	2004	63709	11
580	2003	482732	1	13	649	2004	2004	90208	11
581	2003	482840	1	11	650	2004	2004	100088	11
582	2003	482869	2	11	651	2004	2004	120038	11
583	2003	482952	1	11	652	2004	2004	120064	11
584	2003	482994	1	11	653	2004	2004	120100	11
585	2003	483002	1	11	654	2004	2004	120157	11
586	2003	483029	1	11	655	2004	2004	120210	11
587	2003	483063	1	11	656	2004	2004	120480	11
588	2003	483071	1	11	657	2004	2004	120497	11
589	2003	483083	1	11	658	2004	2004	120497	13
590	2003	483083	1	13	659	2004	2004	120526	11
591	2003	483218	1	11	660	2004	2004	120626	11
592	2003	483225	1	11	661	2004	2004	120628	11
593	2003	483228	1	11	662	2004	2004	120735	11
594	2003	483282	1	11	663	2004	2004	121135	2
595	2003	483300	1	11	664	2004	2004	121196	13
596	2003	483304	1	11	665	2004	2004	121226	11
597	2003	483363	1	11	666	2004	2004	121291	13
598	2003	530113	1	11	667	2004	2004	121293	11
599	2003	530198	1	11	668	2004	2004	121512	13
600	2003	530269	1	11	669	2004	2004	121654	11
601	2003	530373	1	11	670	2004	2004	121716	11
602	2003	530373	1	13	671	2004	2004	122065	11
603	2003	540031	2	11	672	2004	2004	122065	13
604	2003	540197	2	11	673	2004	2004	122133	11
605	2003	540210	1	13	674	2004	2004	122200	11
606	2003	550415	1	11	675	2004	2004	122252	2
607	2003	550499	1	11	676	2004	2004	122333	11
608	2003	550517	1	11	677	2004	2004	122342	11
609	2003	560055	1	11	678	2004	2004	122359	11
610	2003	560094	2	13	679	2004	2004	122408	2
611	2004	10052	1	11	680	2004	2004	122496	11
612	2004	10068	1	11	681	2004	2004	122540	11
613	2004	10092	1	11	682	2004	2004	122561	11
614	2004	10288	1	11	683	2004	2004	122669	11
615	2004	10393	1	11	684	2004	2004	122684	11
616	2004	10427	1	11	685	2004	2004	122711	11
617	2004	10431	1	11	686	2004	2004	122757	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
687	2004	122855	1	11	756	2004	290677	1	11
688	2004	122907	1	11	757	2004	290677	1	13
689	2004	130041	1	11	758	2004	290684	1	11
690	2004	130386	1	13	759	2004	290755	1	11
691	2004	130502	1	11	760	2004	290933	2	11
692	2004	130620	1	11	761	2004	291005	1	13
693	2004	130928	2	11	762	2004	320186	1	11
694	2004	131006	1	11	763	2004	320344	1	11
695	2004	131134	2	11	764	2004	340004	1	11
696	2004	131135	1	11	765	2004	340032	1	11
697	2004	131168	1	11	766	2004	340044	1	11
698	2004	131213	1	11	767	2004	340071	1	11
699	2004	131287	1	11	768	2004	340113	2	13
700	2004	131297	1	11	769	2004	340144	1	11
701	2004	131301	1	11	770	2004	340152	1	11
702	2004	131353	1	11	771	2004	340186	1	11
703	2004	131359	1	11	772	2004	340208	1	11
704	2004	131455	1	11	773	2004	340274	2	11
705	2004	170950	1	11	774	2004	340299	1	13
706	2004	171189	1	11	775	2004	340327	1	11
707	2004	190095	1	11	776	2004	340340	1	11
708	2004	210061	1	11	777	2004	340357	1	11
709	2004	210076	1	11	778	2004	340362	1	11
710	2004	210172	1	11	779	2004	340362	1	13
711	2004	210245	1	11	780	2004	340497	1	13
712	2004	210520	1	11	781	2004	340502	1	11
713	2004	210633	1	11	782	2004	340527	1	11
714	2004	210671	1	11	783	2004	340552	1	11
715	2004	210854	1	11	784	2004	340604	1	11
716	2004	220024	1	11	785	2004	340605	1	11
717	2004	220142	1	11	786	2004	340633	1	11
718	2004	220256	1	11	787	2004	360029	1	11
719	2004	220334	1	13	788	2004	360132	1	11
720	2004	220438	1	11	789	2004	360132	1	13
721	2004	220729	1	11	790	2004	360284	1	11
722	2004	240359	2	13	791	2004	360686	1	11
723	2004	240454	1	11	792	2004	360708	1	11
724	2004	240486	1	11	793	2004	360711	1	11
725	2004	240508	1	11	794	2004	360965	1	11
726	2004	250033	1	11	795	2004	361024	1	11
727	2004	250103	1	11	796	2004	361284	2	13
728	2004	250221	1	11	797	2004	370060	1	13
729	2004	250248	1	11	798	2004	370212	1	11
730	2004	250313	1	11	799	2004	370278	1	11
731	2004	250313	1	13	800	2004	370510	1	11
732	2004	250320	1	11	801	2004	370851	1	11
733	2004	260046	1	11	802	2004	370996	2	11
734	2004	260147	1	11	803	2004	371104	1	11
735	2004	260227	1	11	804	2004	371279	1	11
736	2004	260269	1	11	805	2004	371322	1	11
737	2004	260407	2	11	806	2004	371334	1	11
738	2004	260722	1	13	807	2004	390870	1	11
739	2004	260838	1	11	808	2004	400079	1	11
740	2004	260939	1	11	809	2004	400202	2	11
741	2004	260982	1	11	810	2004	400247	1	11
742	2004	260998	1	13	811	2004	400472	1	11
743	2004	270019	1	13	812	2004	400491	1	11
744	2004	270478	1	11	813	2004	400509	1	11
745	2004	280521	1	13	814	2004	400632	1	11
746	2004	280666	1	13	815	2004	410020	1	11
747	2004	290075	2	11	816	2004	420430	1	13
748	2004	290271	2	11	817	2004	420653	1	13
749	2004	290271	2	13	818	2004	420879	1	11
750	2004	290287	1	11	819	2004	420879	3	11
751	2004	290313	2	11	820	2004	420938	1	13
752	2004	290389	1	11	821	2004	421114	1	11
753	2004	290408	1	11	822	2004	450065	1	11
754	2004	290467	1	13	823	2004	450117	1	11
755	2004	290477	1	11	824	2004	450149	1	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
825	2004	450270	1	11	894	2004	550138	1	11
826	2004	450354	1	11	895	2004	550632	2	11
827	2004	450410	2	11	896	2004	550668	1	11
828	2004	450529	1	11	897	2005	10109	2	11
829	2004	450709	1	11	898	2005	10153	1	11
830	2004	450714	1	11	899	2005	10499	1	11
831	2004	450820	1	11	900	2005	10506	1	11
832	2004	450823	1	11	901	2005	10515	1	11
833	2004	460164	1	11	902	2005	10599	1	11
834	2004	460164	1	13	903	2005	10621	1	11
835	2004	470068	1	11	904	2005	10676	1	11
836	2004	470096	1	11	905	2005	10964	1	11
837	2004	470280	1	11	906	2005	40030	1	11
838	2004	470397	1	11	907	2005	40715	1	11
839	2004	470722	1	11	908	2005	50523	1	11
840	2004	470742	1	11	909	2005	60002	1	11
841	2004	470784	1	11	910	2005	60217	1	11
842	2004	470895	1	11	911	2005	60361	1	11
843	2004	470899	1	11	912	2005	60563	2	11
844	2004	471047	1	11	913	2005	60902	1	11
845	2004	471105	1	11	914	2005	61065	1	11
846	2004	471224	1	13	915	2005	61757	1	11
847	2004	480082	2	11	916	2005	62070	1	11
848	2004	480258	1	11	917	2005	62113	1	11
849	2004	480390	1	11	918	2005	62276	1	11
850	2004	480452	1	13	919	2005	62666	1	11
851	2004	480554	1	11	920	2005	62683	1	11
852	2004	480610	2	11	921	2005	62778	2	11
853	2004	480648	1	11	922	2005	63277	1	13
854	2004	480698	1	11	923	2005	63688	1	13
855	2004	480705	1	11	924	2005	63693	1	13
856	2004	480707	1	11	925	2005	63697	1	11
857	2004	480725	1	11	926	2005	63717	1	11
858	2004	480837	1	11	927	2005	63790	1	11
859	2004	480914	1	11	928	2005	80015	1	11
860	2004	481139	1	13	929	2005	80143	1	13
861	2004	481160	1	11	930	2005	80542	1	11
862	2004	481166	1	11	931	2005	90042	1	11
863	2004	481319	1	11	932	2005	100062	1	11
864	2004	481361	1	11	933	2005	120013	1	11
865	2004	481432	1	11	934	2005	120210	1	11
866	2004	481542	1	11	935	2005	120566	1	11
867	2004	481718	1	11	936	2005	120566	1	13
868	2004	481748	2	13	937	2005	120613	1	11
869	2004	481949	1	11	938	2005	120854	1	11
870	2004	482002	1	11	939	2005	122494	1	11
871	2004	482044	1	11	940	2005	122556	1	11
872	2004	482434	1	11	941	2005	122846	2	11
873	2004	482540	1	11	942	2005	122916	1	13
874	2004	482585	1	11	943	2005	123069	2	11
875	2004	482947	1	11	944	2005	123218	1	13
876	2004	483014	3	13	945	2005	130113	1	11
877	2004	483158	2	11	946	2005	130236	1	11
878	2004	483159	1	11	947	2005	130240	1	11
879	2004	483163	1	11	948	2005	130290	1	11
880	2004	483199	2	11	949	2005	130313	1	11
881	2004	483260	1	11	950	2005	130341	1	11
882	2004	483263	1	11	951	2005	130394	2	11
883	2004	500084	2	11	952	2005	130410	1	11
884	2004	510067	1	11	953	2005	130449	1	11
885	2004	510357	1	11	954	2005	130475	1	11
886	2004	510455	1	11	955	2005	130609	1	11
887	2004	510669	1	11	956	2005	130714	1	11
888	2004	510710	1	11	957	2005	130968	1	11
889	2004	540028	2	11	958	2005	131049	1	11
890	2004	540217	2	11	959	2005	131293	1	11
891	2004	540282	1	11	960	2005	131377	1	11
892	2004	540349	2	11	961	2005	131479	1	11
893	2004	550094	1	11	962	2005	131490	1	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
963	2005	170594	2	11	1032	2005	340315	1	11
964	2005	170953	1	11	1033	2005	340364	1	11
965	2005	171267	1	11	1034	2005	340381	1	11
966	2005	190353	1	11	1035	2005	340482	1	11
967	2005	200391	1	11	1036	2005	340498	1	11
968	2005	210069	1	11	1037	2005	340608	1	13
969	2005	210101	1	11	1038	2005	340648	1	11
970	2005	210206	1	13	1039	2005	340653	1	11
971	2005	210237	1	13	1040	2005	340654	1	13
972	2005	210246	1	11	1041	2005	360005	1	11
973	2005	210315	1	11	1042	2005	360059	1	11
974	2005	210327	1	11	1043	2005	360087	2	11
975	2005	210358	1	11	1044	2005	360152	2	11
976	2005	210361	1	11	1045	2005	360176	2	11
977	2005	210416	1	11	1046	2005	360295	1	11
978	2005	210595	1	11	1047	2005	360430	2	11
979	2005	210769	1	11	1048	2005	360473	2	11
980	2005	210870	1	11	1049	2005	360512	1	11
981	2005	220027	1	11	1050	2005	361020	1	11
982	2005	220031	1	11	1051	2005	361031	1	13
983	2005	220197	1	11	1052	2005	361211	1	11
984	2005	220275	1	13	1053	2005	361228	2	13
985	2005	220448	1	11	1054	2005	361229	1	11
986	2005	220452	2	11	1055	2005	361290	1	11
987	2005	220454	1	11	1056	2005	361326	1	11
988	2005	220533	1	11	1057	2005	361328	1	11
989	2005	220775	1	11	1058	2005	370027	1	11
990	2005	220842	1	11	1059	2005	370033	1	11
991	2005	220873	1	11	1060	2005	370254	1	11
992	2005	240134	1	11	1061	2005	370311	1	11
993	2005	250334	2	11	1062	2005	370530	1	13
994	2005	250383	1	11	1063	2005	370608	1	11
995	2005	260001	1	11	1064	2005	370778	1	11
996	2005	260183	1	11	1065	2005	371138	2	11
997	2005	260367	1	11	1066	2005	371145	1	11
998	2005	260367	1	13	1067	2005	380099	1	11
999	2005	260680	1	11	1068	2005	390325	2	13
1000	2005	260683	1	11	1069	2005	400018	1	11
1001	2005	260796	1	11	1070	2005	400119	1	11
1002	2005	260818	1	11	1071	2005	400300	1	11
1003	2005	260989	1	11	1072	2005	400301	1	11
1004	2005	261018	1	11	1073	2005	400351	1	11
1005	2005	270020	1	11	1074	2005	400382	1	11
1006	2005	270036	1	13	1075	2005	400606	2	11
1007	2005	270277	2	11	1076	2005	400654	1	11
1008	2005	270426	1	11	1077	2005	410111	1	11
1009	2005	270446	1	11	1078	2005	420051	1	11
1010	2005	270487	1	11	1079	2005	421450	1	11
1011	2005	280059	1	11	1080	2005	440025	1	11
1012	2005	280076	1	11	1081	2005	450008	1	11
1013	2005	280756	1	11	1082	2005	450085	2	11
1014	2005	290066	1	11	1083	2005	450085	2	13
1015	2005	290090	1	11	1084	2005	450414	1	11
1016	2005	290181	1	11	1085	2005	450416	1	11
1017	2005	290988	1	11	1086	2005	450533	1	11
1018	2005	320318	1	11	1087	2005	450710	1	11
1019	2005	340025	1	13	1088	2005	450727	1	11
1020	2005	340034	1	11	1089	2005	450788	1	11
1021	2005	340046	1	11	1090	2005	450791	1	11
1022	2005	340058	1	11	1091	2005	450945	1	11
1023	2005	340067	1	11	1092	2005	450959	1	11
1024	2005	340068	1	11	1093	2005	450963	1	11
1025	2005	340076	1	11	1094	2005	460046	2	11
1026	2005	340121	1	11	1095	2005	460116	2	11
1027	2005	340138	1	13	1096	2005	460122	1	11
1028	2005	340155	1	11	1097	2005	470031	1	11
1029	2005	340155	1	13	1098	2005	470060	2	11
1030	2005	340173	1	11	1099	2005	470106	1	11
1031	2005	340237	1	11	1100	2005	470221	1	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
1101	2005	470303	1	11	1170	2006	10998	1	13
1102	2005	470414	1	11	1171	2006	11054	1	11
1103	2005	470419	1	11	1172	2006	40461	1	11
1104	2005	470497	1	11	1173	2006	50076	1	11
1105	2005	471020	1	11	1174	2006	50216	1	11
1106	2005	480025	1	11	1175	2006	50495	1	11
1107	2005	480123	1	13	1176	2006	60116	1	11
1108	2005	480133	1	11	1177	2006	60560	1	11
1109	2005	480160	1	11	1178	2006	60627	1	11
1110	2005	480205	1	11	1179	2006	60847	1	11
1111	2005	480326	1	11	1180	2006	60990	1	11
1112	2005	480547	1	11	1181	2006	61072	1	13
1113	2005	480553	1	11	1182	2006	61290	1	11
1114	2005	480585	1	13	1183	2006	61416	1	11
1115	2005	480591	1	13	1184	2006	61754	1	11
1116	2005	480734	2	11	1185	2006	61941	1	11
1117	2005	480829	1	11	1186	2006	62108	1	11
1118	2005	480914	1	11	1187	2006	62117	1	11
1119	2005	481107	1	11	1188	2006	62143	2	13
1120	2005	481142	2	11	1189	2006	62383	1	11
1121	2005	481185	2	11	1190	2006	62527	1	11
1122	2005	481200	1	11	1191	2006	62764	1	11
1123	2005	481430	1	11	1192	2006	62787	1	11
1124	2005	481430	1	13	1193	2006	62798	1	11
1125	2005	481547	1	11	1194	2006	63127	1	11
1126	2005	481579	2	11	1195	2006	63127	1	13
1127	2005	481580	1	11	1196	2006	63496	1	11
1128	2005	481759	1	11	1197	2006	63632	1	11
1129	2005	481771	2	11	1198	2006	80058	1	11
1130	2005	481948	1	11	1199	2006	90075	1	11
1131	2005	481998	2	11	1200	2006	90116	1	11
1132	2005	482134	1	11	1201	2006	100034	1	11
1133	2005	482320	1	13	1202	2006	120576	1	11
1134	2005	482331	1	11	1203	2006	120771	1	11
1135	2005	482469	1	11	1204	2006	120945	1	11
1136	2005	482678	1	11	1205	2006	121032	1	11
1137	2005	482700	1	11	1206	2006	121370	1	11
1138	2005	482818	1	11	1207	2006	121640	1	11
1139	2005	510092	1	11	1208	2006	121979	1	11
1140	2005	510092	1	13	1209	2006	122200	1	13
1141	2005	510111	1	11	1210	2006	122891	1	11
1142	2005	510141	1	11	1211	2006	122921	1	11
1143	2005	510232	1	11	1212	2006	123004	1	11
1144	2005	510255	1	11	1213	2006	123039	1	11
1145	2005	510520	1	11	1214	2006	130059	1	11
1146	2005	510703	1	11	1215	2006	130108	1	11
1147	2005	510755	1	11	1216	2006	130291	1	13
1148	2005	510814	1	11	1217	2006	130356	2	11
1149	2005	510883	1	11	1218	2006	130361	1	11
1150	2005	530334	1	11	1219	2006	130469	1	11
1151	2005	540205	1	11	1220	2006	130547	1	11
1152	2005	540248	1	11	1221	2006	130733	1	11
1153	2005	550325	2	11	1222	2006	130766	1	11
1154	2005	550539	1	13	1223	2006	131334	1	11
1155	2005	560057	1	11	1224	2006	131339	1	11
1156	2005	560141	1	11	1225	2006	131390	2	11
1157	2006	10058	1	11	1226	2006	131432	1	13
1158	2006	10105	2	11	1227	2006	131439	1	11
1159	2006	10136	1	13	1228	2006	131468	1	11
1160	2006	10212	1	11	1229	2006	131480	1	11
1161	2006	10218	1	13	1230	2006	131511	1	11
1162	2006	10305	1	11	1231	2006	131517	1	11
1163	2006	10356	2	11	1232	2006	180013	1	11
1164	2006	10508	1	11	1233	2006	180476	1	11
1165	2006	10508	2	11	1234	2006	210090	1	11
1166	2006	10512	1	11	1235	2006	210108	1	11
1167	2006	10542	1	11	1236	2006	210347	1	11
1168	2006	10679	1	11	1237	2006	210481	1	11
1169	2006	10998	1	11	1238	2006	210637	1	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
1239	2006	210677	1	11	1308	2006	350361	2	11
1240	2006	210810	1	11	1309	2006	350367	1	11
1241	2006	220067	1	11	1310	2006	350389	1	11
1242	2006	220195	1	11	1311	2006	360006	1	11
1243	2006	220335	1	11	1312	2006	360033	2	11
1244	2006	220433	1	11	1313	2006	360071	1	11
1245	2006	220505	1	11	1314	2006	360113	1	13
1246	2006	220602	1	11	1315	2006	360161	1	11
1247	2006	220931	1	11	1316	2006	360216	1	11
1248	2006	220972	1	11	1317	2006	360218	1	11
1249	2006	250331	1	11	1318	2006	360227	1	11
1250	2006	260039	1	11	1319	2006	360329	1	11
1251	2006	260059	1	11	1320	2006	360371	2	13
1252	2006	260219	1	11	1321	2006	360377	1	11
1253	2006	260294	1	11	1322	2006	360894	1	13
1254	2006	260387	1	11	1323	2006	360970	2	11
1255	2006	260643	1	11	1324	2006	360976	1	11
1256	2006	260783	2	13	1325	2006	361061	1	11
1257	2006	260818	3	11	1326	2006	361093	1	11
1258	2006	260958	1	11	1327	2006	361105	1	11
1259	2006	260987	2	11	1328	2006	361150	1	11
1260	2006	270034	1	11	1329	2006	361219	2	11
1261	2006	270156	2	11	1330	2006	370294	1	11
1262	2006	270181	1	11	1331	2006	370372	1	11
1263	2006	270273	1	13	1332	2006	370756	1	11
1264	2006	270443	1	13	1333	2006	370910	1	11
1265	2006	270448	1	11	1334	2006	370942	1	11
1266	2006	280041	1	11	1335	2006	371099	1	13
1267	2006	290157	1	13	1336	2006	390224	1	11
1268	2006	290254	1	11	1337	2006	390286	1	13
1269	2006	290376	1	11	1338	2006	390291	1	11
1270	2006	290578	1	11	1339	2006	390376	1	11
1271	2006	290686	2	11	1340	2006	390499	1	11
1272	2006	290842	1	13	1341	2006	390730	1	11
1273	2006	290870	1	11	1342	2006	390999	1	11
1274	2006	290913	1	11	1343	2006	400041	1	11
1275	2006	310172	1	11	1344	2006	400049	1	11
1276	2006	320340	1	11	1345	2006	400085	1	11
1277	2006	340104	1	11	1346	2006	400222	1	11
1278	2006	340111	1	11	1347	2006	400383	1	11
1279	2006	340167	1	11	1348	2006	400455	1	13
1280	2006	340187	2	11	1349	2006	400594	1	11
1281	2006	340313	1	11	1350	2006	400625	2	11
1282	2006	340314	1	11	1351	2006	400651	1	11
1283	2006	340432	1	11	1352	2006	400656	1	11
1284	2006	340432	1	13	1353	2006	400671	1	13
1285	2006	340502	1	11	1354	2006	420044	1	11
1286	2006	340667	1	11	1355	2006	420575	1	13
1287	2006	340696	1	13	1356	2006	420697	1	11
1288	2006	350052	1	11	1357	2006	421317	1	11
1289	2006	350066	1	11	1358	2006	450158	1	11
1290	2006	350067	1	11	1359	2006	450258	1	11
1291	2006	350076	2	11	1360	2006	450265	1	11
1292	2006	350080	1	11	1361	2006	450337	1	11
1293	2006	350175	1	11	1362	2006	450439	1	11
1294	2006	350206	1	11	1363	2006	450443	1	11
1295	2006	350222	1	11	1364	2006	450625	1	11
1296	2006	350222	1	11	1365	2006	450721	1	11
1297	2006	350222	2	13	1366	2006	450725	1	11
1298	2006	350233	1	11	1367	2006	450790	2	11
1299	2006	350251	1	13	1368	2006	460113	1	11
1300	2006	350260	1	11	1369	2006	470052	1	11
1301	2006	350267	1	11	1370	2006	470071	1	11
1302	2006	350296	1	11	1371	2006	470151	1	11
1303	2006	350319	1	11	1372	2006	470156	2	11
1304	2006	350338	1	11	1373	2006	470180	2	11
1305	2006	350340	2	11	1374	2006	470322	1	13
1306	2006	350340	2	13	1375	2006	470347	1	11
1307	2006	350349	1	11	1376	2006	470572	1	11

Obs	CY	ST_CASE	VEH_NO	SEATPOS	Obs	CY	ST_CASE	VEH_NO	SEATPOS
1377	2006	470621	2	11	1446	2006	560095	1	11
1378	2006	470719	2	11					
1379	2006	470770	1	11					
1380	2006	470826	1	11					
1381	2006	471035	1	11					
1382	2006	471082	1	11					
1383	2006	471110	1	11					
1384	2006	471169	1	11					
1385	2006	480205	1	11					
1386	2006	480267	2	11					
1387	2006	480330	1	11					
1388	2006	480350	1	13					
1389	2006	480486	1	11					
1390	2006	480511	1	11					
1391	2006	480707	1	11					
1392	2006	480714	2	11					
1393	2006	480733	2	11					
1394	2006	480827	1	11					
1395	2006	480869	2	11					
1396	2006	480924	1	11					
1397	2006	481046	2	11					
1398	2006	481046	2	13					
1399	2006	481086	1	11					
1400	2006	481196	2	11					
1401	2006	481333	1	13					
1402	2006	481337	1	11					
1403	2006	481344	1	11					
1404	2006	481385	1	11					
1405	2006	481479	1	11					
1406	2006	481487	1	11					
1407	2006	481605	1	11					
1408	2006	481629	1	11					
1409	2006	481802	1	11					
1410	2006	481841	1	11					
1411	2006	481845	2	11					
1412	2006	481941	1	11					
1413	2006	481967	1	11					
1414	2006	482052	1	11					
1415	2006	482133	1	11					
1416	2006	482409	2	11					
1417	2006	482573	1	11					
1418	2006	482711	1	11					
1419	2006	482910	2	11					
1420	2006	482993	1	11					
1421	2006	483073	2	11					
1422	2006	490036	1	11					
1423	2006	500031	1	11					
1424	2006	510007	1	11					
1425	2006	510066	1	11					
1426	2006	510172	1	11					
1427	2006	510208	1	11					
1428	2006	510281	1	11					
1429	2006	510752	1	11					
1430	2006	510880	1	11					
1431	2006	530120	1	11					
1432	2006	530169	1	11					
1433	2006	530307	1	11					
1434	2006	540087	1	11					
1435	2006	540112	1	11					
1436	2006	550076	2	11					
1437	2006	550107	1	11					
1438	2006	550126	2	11					
1439	2006	550137	1	11					
1440	2006	550496	1	11					
1441	2006	550534	1	13					
1442	2006	550546	1	11					
1443	2006	560009	1	11					
1444	2006	560009	1	13					
1445	2006	560017	1	11					



List of 21 cases on CDS and FARS

CY	PSU	CASENO	ST_CASE
2001	41	125	122014
2001	75	113	80504
2002	3	9	360081
2002	43	59	370363
2002	47	39	10173
2003	11	18	260080
2003	72	38	170237
2004	3	96	361284
2004	4	128	340527
2004	43	323	371334
2004	48	111	10512
2005	48	142	10515
2005	50	18	480326
2005	75	56	80542
2006	3	121	361373
2006	43	149	371050
2006	43	198	371212
2006	50	54	480924
2006	50	64	481086
2006	50	83	481479
2006	79	103	61290

List of 82 additional CDS nondeployment cases and the matching FARS case numbers (ST\_CASE, VEH\_NO)

Obs	CY	PSU	CASENO	VEHNO	SEATPOS	ST_CASE	VEH_NO
1	2001	11	15	1	11	260034	1
2	2001	11	126	1	11	260787	1
3	2001	12	25	1	11	260139	1
4	2001	12	116	2	11	260696	2
5	2001	12	124	1	11	260501	1
6	2001	12	164	1	11	261130	1
7	2001	49	241	1	11	482628	1
8	2001	73	41	1	11	180092	2
9	2001	75	17	1	11	80109	1
10	2001	75	152	1	11	.	.
11	2002	9	131	1	11	240170	1
12	2002	11	39	1	11	260153	2
13	2002	11	121	2	11	260484	2
14	2002	43	276	1	11	371290	1
15	2002	43	298	1	11	371401	1
16	2002	45	157	1	11	470599	1
17	2002	47	39	3	11	10173	3
18	2002	72	122	1	11	170777	1
19	2002	73	157	2	13	180486	2
20	2002	81	42	1	11	530147	1
21	2003	5	17	1	13	420017	1
22	2003	9	32	1	11	240027	1
23	2003	9	88	1	13	240111	1
24	2003	43	143	1	11	370543	2
25	2003	43	235	1	11	371016	1
26	2003	43	281	1	11	371217	1
27	2003	45	25	1	11	470440	1
28	2003	45	152	1	11	470658	1
29	2003	48	116	1	11	10343	1
30	2003	49	181	1	11	481822	1
31	2003	49	221	1	11	482243	1
32	2003	73	154	1	11	180478	1
33	2004	3	102	1	13	360731	1
34	2004	11	119	1	11	260273	1
35	2004	41	58	1	11	121208	1
36	2004	41	73	1	11	121446	1
37	2004	43	165	1	11	370414	1
38	2004	45	47	1	11	470200	1
39	2004	45	126	1	11	470512	1
40	2004	45	203	1	13	471106	1
41	2004	45	216	1	11	470826	1
42	2004	73	142	1	11	180463	1
43	2004	73	221	3	11	180769	3
44	2004	75	40	1	11	80004	1
45	2005	2	94	1	11	360954	1
46	2005	12	116	1	11	260333	1
47	2005	42	126	1	11	122870	2
48	2005	43	3	1	11	370078	2
49	2005	45	43	1	11	470309	1
50	2005	45	51	1	11	470107	1
51	2005	45	64	1	11	470873	1
52	2005	45	73	1	11	470328	1
53	2005	48	38	1	11	10950	1
Obs	CY	PSU	CASENO	VEHNO	SEATPOS	ST_CASE	VEH_NO
54	2005	48	57	1	11	10221	1
55	2005	49	27	1	11	480533	2
56	2005	49	34	1	11	480712	1
57	2005	72	16	1	11	.	.
58	2005	73	11	1	11	180027	1
59	2005	73	161	1	11	180540	1
60	2005	74	43	1	11	310044	1
61	2005	74	147	1	11	310238	1
62	2005	76	68	1	11	40656	1
63	2006	8	181	1	11	421154	1

64	2006	9	169	1	11	240432	1
65	2006	12	111	1	11	260383	1
66	2006	42	149	1	11	.	.
67	2006	43	63	1	13	370402	1
68	2006	43	117	1	11	370726	1
69	2006	45	43	1	11	470192	1
70	2006	45	117	1	11	470493	1
71	2006	45	203	1	11	471030	1
72	2006	47	45	2	11	10174	2
73	2006	48	294	1	11	10984	1
74	2006	49	4	1	11	480036	1
75	2006	50	9	1	11	480784	1
76	2006	50	12	1	11	480232	1
77	2006	50	112	1	13	482031	1
78	2006	50	169	1	11	482882	1
79	2006	74	195	4	11	310204	4
80	2006	75	143	1	11	80305	1
81	2006	76	63	1	11	40566	1
82	2006	78	47	1	11	40169	1