

Memorandum

Traffic Safety Administration

U.S. Department 45095
of Transportation

National Highway NHTSA - 98-44/05 -/H

Traffic Safety

Subject: Videos, Test Reports, and Electronic Data for

SEP 3 0 1998 Date:

Crash Tests Conducted under a Cooperative Research

Program with Transport Canada

From: Raymond P. Owings, Ph.D.

Reply

to Attn. of:

Associate Administrator for Research and Development

To: The Docket

THRU: Frank Seales, Jr. Chief Counsel

NHTSA conducted a cooperative research program with Transport Canada to assess air bag performance on the 5th percentile female Hybrid III crash test dummy, to evaluate depowered air \$\rightarrow\$ bag performance, and to develop new frontal impact crash test procedures. High and low speed crash tests were conducted with belted 5th percentile female Hybrid III driver and passenger dummies. The four types of test series in the cooperative research program included:

- 1. Modified Vehicle (Depowered Air Bag Series)
- 2. 40 kmph 40 Percent Offset Frontal Deformable Barrier Test Series
- 3. 48 kmph Full Frontal Rigid Barrier Test Series
- 4. Special Test Series

Research and Development requests that the attached list, which describes the specific vehicles and test conditions, be placed in NHTSA Docket No. NHTSA-1998-4405. We also have submitted videotapes of the high-speed films and test reports to NHTSA's public film library at the National Crash Analysis Center (703-729-8236). We also have made the signal traces available to the public through our Internet vehicle crash test database. The Internet address is http://www-nrd.nhtsa.dot.gov/nrd10/nrd1/databases.html.

Attachment (2 copies)

cc: Director, Office of Public and Consumer Affairs



Attachment

	FY97-98 Air Bag Aggressivity Study: Modified Vehicle (Depowered Air Bag) Series										
NHTSA Test Number	Transport Canada Test Number	Test Vehicle	Test Config.	Impact Speed (kmph)	Offset (%)	Driver ATD Type	Driver Seat Position	Right Front Passenger ATD Type	Right Front Passenger Seat Position	Notes	
2852	TC97-207	1997 Mercury Mystique	Rigid Frontal Barrier	48	0	50th Male Hybrid III	Normal	50 th Male Hybrid III	Normal	2,3	
2853	TC97-201	1997 Mercury Mystique	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3	
2872	TC97-200	1997 Mercury Mystique	EEVC Offset Barrier	40	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3	
2850	TC97-202	1997 Chevrolet Cavalier	Rigid Frontal Barrier	48	0	50th Male Hybrid III	Normal	50 th Male Hybrid III	Normal	2,3	
2851	TC97-203	1997 Chevrolet Cavalier	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3	
2873	TC97-204	1997 Chevrolet Cavalier	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3	

Notes:

- (1) 'Near" denotes seat placed **fully** forward(2) "Normal" denotes seat placed in mid position(3) Depowered air bag test

FY97-98 Air Bag Aggressivity St	tudy: 40 kmph 40%	Offset Frontal Deformable	Barrier Test Series
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NHTSA Test Number	Transport Canada Test Number	Test Vehicle	Test Config.	Impact Speed (kmph)	Offset (%)	Driver ATD Type	Driver Seat Position	Right Front Passenger ATD Type	Right Front Passenger Seat Position	Notes
2877	TC97-205	1997 Pontiac Grand Prix SE	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	l
2876	TC97-206	1997 Toyota Camry CE	EEVC Offset Barrier	40	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	I
2878	TC97-208	1997 Volkswagen Jetta GL	EEVC Offset Barrier	40	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1
2875	TC97-209	1997 Ford Escort LX	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1
2882	TC98-101	1998 Toyota Corolla	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2881	TC98-109	1998 Toyota Tacoma PU	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2879	TC98-202	1998 Nissan Altima	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2883	TC98-203	1998 Ford Escort	EEVC Offset Barrier	40	40	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2880	TC98-204	1998 Ford F150 PU	EEVC Offset Barrier	40	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3

1,3	1,3	٤'۱	1,3	1,3	1,3
Near	Near	Near	Near	Near	Near
5 th Female Hybrid III					
Near	Near	Near	Near	Near	Near
5 th Female Hybrid III					
40	40	40	40	40	40
40	40	40	40	40	40
EEVC Offset Barrier	EEVC Offset Barrier	EEVC Offset Barrier	EEVC Offset Barrier	EEVC Offset Barrier	EEVC Offset Barrier
1998 Ford Explorer	1998 Dodge Caravan	1998 Dodge Neon	1998 Honda Accord	1998 Nissan Sentra	1998 Grand Prix SE
TC98-206	TC98-207	TC98-208	TC98-209	TC98-210	TC98-211
2885	2889	2884	2886	2887	2888

Notes:

"Near" denotes seat placed fully forward
 "Normal" denotes seat placed in mid position
 Depowered air bag test

NHTSA Test Number	Transport Canada Test Number	Test Vehicle	Test . Config.	Impact Speed (kmph)	Offset (%)	Driver ATD Type	Driver Seat Position	Right Front Passenger ATD Type	Right Front Passenger Seat Position	Notes
2855	TC97-161	1997 Pontiac Grand Prix SE	Rigid Frontal Barrier	48	0	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1
2857	TC97-162	1997 Toyota Camry CE	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1
2856	TC97-164	1997 Volkswagen Jetta GL	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1
2854	TC97-165	1997 Ford Escort LX	Rigid Frontal Barrier	48	0	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1
2858	TC98-102	1998 Nissan Altima	Rigid Frontal Barrier	48	0 [5th Female Hybrid III	Near .	5 th Female Hybrid III	Near	1,3
2862	TC98-103	1998 Honda Accord	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2865	TC98-105	1998 Dodge Caravan	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2864	TC98-106	1998 Ford Explorer	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2863	TC98-107	1998 Nissan Sentra	Rigid Frontal Barrier	48	0	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3

2861	TC98-108	1998 Dodge Neon	Rigid Frontal Barrier	48	0	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2866	TC98-111	1998 Mazda 626	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2867	TC98-112	1998 Nissan Frontier	Rigid Frontal Barrier	48	0	5th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2859	TC98-201	1998 Toyota Corolla	. Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3
2860	TC98-205	1998 Toyota Tacoma PU	Rigid Frontal Barrier	48	0	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,3

Notes:

- (1) "Near" denotes seat placed fully forward(2) "Normal" denotes seat placed in mid position(3) Depowered air bag test

	FY97-98 Air Bag Aggressivity Study: Special Test Series										
NHTSA Test Number	Transport Canada Test Number	Test Vehicle	Test Config.	Impact Speed (kmph)	Offset (%)	Driver ATD Type	Driver Seat Position	Right Front Passenger ATD Type	Right Front Passenger Seat Position	Notes	
2870	TC95-002	1995 Mercury Mystique	EEVC Offset Barrier	48	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,4	
2871	TC97-163	1997 Mercury Mystique	EEVC Offset Barrier	56	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,4	
2890	. TC96-212	1996 Dodge Avenger	EEVC Offset Barrier	40	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	1,5	
2874	TC94-022	1994 Dodge Caravan	EEVC Offset Barrier	40	40	5 th Female Hybrid III	Near	5 th Female Hybrid III	Near	l	

Notes:

- "Near" denotes seat placed fully forward
 "Normal" denotes seat placed in mid position
 Depowered air bag test
 Air bag(s) deactivated
 Occupant bracing simulated