EA12-005

CHRYSLER

12/13/2012

Enclosure 6A

Compliance Crash Test

KJ - Liberty- Compliance Test

VEHICLE CRASH TEST LETTER

VC09026 30 MPH REAR MOVING BARRIER, KJJ-74 ITEM KJ9472
2002 MVSS REAR IMPACT COMPLIANCE
TEST DATE 01/29/01

TEST PURPOSE	PRIMARY, 2002 USA 301 COMPLIANCE.	
	SECONDARY, 2002 TRIAS-33 COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	30.0 MPH
	DAMAGE LOCATION;	REAR CENTER
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	3.7 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	4 SPEED AUTO ELECTRONIC 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL48K92W[redacted] MOD.
	VIN AS BUILT;	1J8GL48K92W[redacted] MOD.
TEST SPEED	30.4 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4883 TOTAL, 2600 FRONT, 2283 REAR	
OCCUPANTS	LEFT FRONT, HII BALLAST	AD-70
	RESTRAINT-BELTS ONLY	
	RIGHT FRONT, HII BALLAST	AD-60
	RESTRAINT-BELTS ONLY	
BUILD CONDITION	2002 DESIGN INTENT SWING GATE HANDLE W/146G C/B AND ANTI-ROTATION FINGER	
	ORC CALIBRATION N	
	MODIFY WELDS @ SPLICE JOINT TO PRODUCTION INTENT	
	2002 PRODUCTION INTENT EXHAUST FLANGE	
	2002 DESIGN INTENT FUEL LINES	
TARGET WEIGHT (LBS)	4233 LBS TOTAL, 2235 LBS FRONT, 1998 LBS REAR	
	REPRESENTS MAX OPTION WEIGHT FOR 3.7L 4X4 KJ	
	WITHOUT OCCUPANTS OR LUGGAGE	
	(TARGET TEST WEIGHT 4863 = 4233 + 330 + 300)	

VC09026 30 MPH REAR MOVING BARRIER, KJJ-74 ITEM KJ9472
2002 MVSS REAR IMPACT COMPLIANCE
TEST DATE 01/29/01

FUEL AND BALLAST	17.5 GALLONS OF STODDARD SOLVENT
	300 LBS
	50 LBS LF FLOOR
	100 LBS RF FLOOR
	100 LBS LR SEAT
	100 LBS RR SEAT

REPORT CODES	A = TRANSDUCER DATA	B = ALL FILM DATA
	C = HIGH SPEED FILM	D = ENGINEER'S REPORT
	E = DUMMY KINEMATICS	F = STEERING COLUMN
	G = UNDERBODY	H = A-POST
	I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
	K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
	M = SPECIAL	N = CATALOG EDP DATA
	* = REPORT REQUESTOR	

DISTRIBUTION	A. STEFANGO	514-17-39 (AB)
	M. STEBELTON	422-05-01 (AB)

DATE 01/29/01 TIME 15:35:37.

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 04

ITEM KJ9472 CHARGE NO. 02 ISSUE DATE 01/02/01

VC 9026 30 MPH REAR MOVING BARRIER, KJJ-74
2002 MVSS REAR IMPACT COMPLIANCE

TEST DATE 1/29/01 ENGINEER COLLINGS-BLASKA
SPEED 30.4 MPH SOURCE TRAP

TEST PURPOSE
PRIMARY, 2002 USA 301 COMPLIANCE.
SECONDARY, 2002 TRIAS-33 COMPLIANCE

IMPACT TYPE
TARGET SPEED; 30.0 MPH
DAMAGE LOCATION; REAR CENTER
BARRIER TYPE; REAR TYPE IV
BARRIER SURFACE; PLYWOOD

VEHICLE
BODY CLASS; KJ
CAR LINE; J
BODY; 74
ENGINE; 3.7 LITRE
ENGINE NOTE; ELECTRONIC FUEL INJECTION
TRANSMISSION; 4 SPEED AUTO ELECTRONIC 4x4
TRANS. NOTE;
VIN AS TESTED; 1J8GL48K92W[redacted] MOD.
VIN AS BUILT; 1J8GL48K92W[redacted] MOD.

BUILD CONDITION
2002 DESIGN INTENT SWING GATE HANDLE W/146G C/B AND ANTI-ROTATION FINGER
ORC CALIBRATION N
MODIFY WELDS @ SPLICE JOINT TO PRODUCTION INTENT
2002 PRODUCTION INTENT EXHAUST FLANGE
2002 DESIGN INTENT FUEL LINES

TARGET WEIGHT (LBS) 4233 LBS TOTAL, 2235 LBS FRONT, 1998 LBS REAR
REPRESENTS MAX OPTION WEIGHT FOR 3.7L 4X4 KJ
WITHOUT OCCUPANTS OR LUGGAGE
(TARGET TEST WEIGHT 4863 = 4233 + 330 + 300)

TEST WEIGHT (LBS) 4883 TOTAL, 2600 FRONT, 2283 REAR

FUEL BALLAST 17.5 GALLONS OF STODDARD SOLVENT

LUGGAGE BALLAST 300 LBS

OTHER BALLAST 50# LF FLOOR 100# RF FLOOR
100# LR SEAT 100# RR SEAT

POST TEST REMARKS

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 04

OCCUPANTS

LEFT FRONT, HII BALLAST AD NO 70
RESTRAINT-BELTS ONLY
RIGHT FRONT, HII BALLAST AD NO 60
RESTRAINT-BELTS ONLY

MECHANICAL REQ

TARGET VEHICLE PER 02KJ THIRD SHEETS FOR REAR IMPACTS (UNDERBODY AND LEFT SIDE)
PLACE TARGETS ON TOP, LT AND RT SIDE OF SPARE TIRE THAT WILL BE VISIBLE IN CAMERA VIEWS
PAINT REAR GATE HANDLE TO ENSURE ANY MOVEMENT IS VISIBLE IN FILM
POSITION DRIV AND PASS SEATS IN MID POSITION
ENSURE SPARE TIRE, SWING GATE & FLIPPER GLASS REMAIN IN PLACE FOR TEST
ENSURE PARKING BRAKE IS DISENGAGED AND TRANS IS IN NEUTRAL
MEASURE VEHICLE ATTITUDE AS RECEIVED AND WHEN TESTED
PRESSURE TEST PRE-TEST WITH PUMP RUNNING
FUEL PUMP TO BE RUNNING DURING TEST
STATIC ROLL VEHICLE POST TEST
PAINT RAILS & REAR UNDERBODY COMPONENTS INCLUDING FUEL FILLER LINE, PASS THRU HOLE IN RAIL, FUEL TNAK CANISTER, REAR SUSPENSION, REAR BUMPER, OVOR CANISTER, LINES AND EQUIPMENT, ETC. IN CONTRASTING COLORS FOR UNDERBODY VIEW

INSTRUMENTATION REQ

LEFT & RIGHT RAIL FWD RR CTRL ARM X,Z (4)
LEFT & RIGHT RAIL MID TANK X,Z (4)
FUEL TANK RAIL PASS THRU X,Y,Z (3)
FUEL TANK BOTTOM CTR (GLUE ON) X,Y,Z (3)
SWINGGATE ABOVE DOOR HANDLE X,Z (2)
ORC TOP FRONT LEFT X,Y,Z (3)
DRIVER SQUIB EVENT (1)
LEFT & RIGHT FRONT SILLS X,Z (4)
LEFT & RIGHT REAR SILLS X,Z (4)
ENSURE DRIV & PASS AIRBAGS, SIDE CURTAINS & PRETENSIONERS DO NOT DEPLOY

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 04

PHOTOGRAPHIC REQ

1-VELOCITY CAMERA
1-LEFT OVERALL (DYNAMIC CRUSH)
1-RIGHT OVERALL
2-PIT CAMERAS FOR REAR UNDERBODY ANALYSIS
1-LT SIDE CLOSE UP OF FUEL FILLER AREA FROM PIT
2-LT & RT CLOSE-UP OF REAR QUARTERS OF VEHICLE
ALL CAMERAS TO HAVE DIGITAL TIMING IF POSSIBLE
PRE & POST TEST PHOTOS OF OVERALL & UNDERBODY (REAR), FRAME RAILS, FUEL TANK/REAR AXLE AREA, ETC.
PHOTOS OF ALL INSTRUMENTATION

FILM ANALYSIS

REAR DYNAMIC CRUSH - IF REQUESTED
REAR UNDERBODY ANALYSIS - IF REQUESTED
VEHICLE VELOCITY - IF REQUESTED

REMARKS

TEST REQUESTER: ANNE STEFANGO 733-5368
MAKE 1 COPY OF FILM AND VIDEO
SEND TO ANNE STEFANGO 514-17-39
PLEASE RETURN VEHICLE TO PROC ATTN: PAM MORTON

T. E. REPORT

FUEL SYSTEM REPORT REQUIRED

REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
G = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	N = CATALOG EDP DATA
* = REPORT REQUESTOR	

DISTRIBUTION

A. STEFANGO	514-17-39	(AB)
M. STEBELTON	422-05-01	(AB)

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 04

**********CHANGED 01/10/01 10:08 STEFANGO SUPPLEMENT 01

VEHICLE

MODIFY	VIN AS TESTED;	_____W?00223	MOD.
TO READ	VIN AS TESTED;	1J8GL48K92W[redacted]	MOD.
MODIFY	VIN AS BUILT;	_____W100223	MOD.
TO READ	VIN AS BUILT;	1J8GL48K92W[redacted]	MOD.

**********CHANGED 01/10/01 10:10 STEFANGO SUPPLEMENT 02

INSTRUMENTATION REQ

ADD	LEFT & RIGHT FRONT SILLS X,Z (4)
ADD	LEFT & RIGHT REAR SILLS X,Z (4)

**********CHANGED 01/18/01 15:13 STEFANGO SUPPLEMENT 03

BUILD CONDITION

ADD	2002 PRODUCTION INTENT EXHAUST FLANGE
ADD	2002 DESIGN INTENT FUEL LINES

MECHANICAL REQ

DELETE	PRESSURE CHECK POST TEST

**********CHANGED 01/26/01 10:11 STEFANGO SUPPLEMENT 04

TEST PURPOSE

ADD	SECONDARY, 2002 TRIAS-33 COMPLIANCE

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

ITEM KJ9472 CHARGE NO. 02 ISSUE DATE 01/02/01

VC 9026 30 MPH REAR MOVING BARRIER, KJJ-74
2002 MVSS REAR IMPACT COMPLIANCE

TEST DATE	____/____/____	ENGINEER Collings - Blaska
	SPEED_____ MPH	SOURCE_____
TEST PURPOSE	PRIMARY, 2002 USA 301 COMPLIANCE.	
IMPACT TYPE	TARGET SPEED;	30.0 MPH
	DAMAGE LOCATION;	REAR CENTER
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	3.7 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	4 SPEED AUTO ELECTRONIC 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL48K92W[redacted] MOD.
	VIN AS BUILT;	1J8GL48K92W[redacted] MOD.

BUILD CONDITION
2002 DESIGN INTENT SWING GATE HANDLE W/146G C/B AND ANTI-ROTATION FINGER
ORC CALIBRATION N
MODIFY WELDS @ SPLICE JOINT TO PRODUCTION INTENT
2002 PRODUCTION INTENT EXHAUST FLANGE
2002 DESIGN INTENT FUEL LINES

TARGET WEIGHT (LBS) 4233 LBS TOTAL, 2235 LBS FRONT, 1998 LBS REAR
REPRESENTS MAX OPTION WEIGHT FOR 3.7L 4X4 KJ WITHOUT OCCUPANTS OR LUGGAGE
(TARGET TEST WEIGHT 4863 = 4233 + 330 + 300)

TEST WEIGHT (LBS) 4883 TOTAL, 2600 FRONT, 2283 REAR

FUEL BALLAST 17.5 GALLONS OF STODDARD SOLVENT

LUGGAGE BALLAST 300 LBS

OTHER BALLAST 50# LF FLOOR +100# RF FLOOR
100 # LR + 100 # RR SEAT

POST TEST REMARKS _____

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

OCCUPANTS

LEFT FRONT, HII BALLAST AD NO 70
RESTRAINT-BELTS ONLY
RIGHT FRONT, HII BALLAST AD NO 60
RESTRAINT-BELTS ONLY

MECHANICAL REQ

TARGET VEHICLE PER 02KJ THIRD SHEETS FOR REAR IMPACTS (UNDERBODY AND LEFT SIDE)
PLACE TARGETS ON TOP, LT AND RT SIDE OF SPARE TIRE THAT WILL BE VISIBLE IN CAMERA VIEWS
PAINT REAR GATE HANDLE TO ENSURE ANY MOVEMENT IS VISIBLE IN FILM
POSITION DRIV AND PASS SEATS IN MID POSITION
ENSURE SPARE TIRE, SWING GATE & FLIPPER GLASS REMAIN IN PLACE FOR TEST
ENSURE PARKING BRAKE IS DISENGAGED AND TRANS IS IN NEUTRAL
MEASURE VEHICLE ATTITUDE AS RECEIVED AND WHEN TESTED
PRESSURE TEST PRE-TEST WITH PUMP RUNNING
FUEL PUMP TO BE RUNNING DURING TEST
STATIC ROLL VEHICLE POST TEST
PAINT RAILS & REAR UNDERBODY COMPONENTS INCLUDING FUEL FILLER LINE, PASS THRU HOLE IN RAIL, FUEL TNAK CANISTER, REAR SUSPENSION, REAR BUMPER, OVOR CANISTER, LINES AND EQUIPMENT, ETC. IN CONTRASTING COLORS FOR UNDERBODY VIEW

INSTRUMENTATION REQ

LEFT & RIGHT RAIL FWD RR CTRL ARM X,Z (4)
LEFT & RIGHT RAIL MID TANK X,Z (4)
FUEL TANK RAIL PASS THRU X,Y,Z (3)
FUEL TANK BOTTOM CTR (GLUE ON) X,Y,Z (3)
SWINGGATE ABOVE DOOR HANDLE X,Z (2)
ORC TOP FRONT LEFT X,Y,Z (3)
DRIVER SQUIB EVENT (1)
LEFT & RIGHT FRONT SILLS X,Z (4)
LEFT & RIGHT REAR SILLS X,Z (4)
ENSURE DRIV & PASS AIRBAGS, SIDE CURTAINS & PRETENSIONERS DO NOT DEPLOY

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

PHOTOGRAPHIC REQ

1-VELOCITY CAMERA
1-LEFT OVERALL (DYNAMIC CRUSH)
1-RIGHT OVERALL
2-PIT CAMERAS FOR REAR UNDERBODY ANALYSIS
1-LT SIDE CLOSE UP OF FUEL FILLER AREA FROM PIT
2-LT & RT CLOSE-UP OF REAR QUARTERS OF VEHICLE
ALL CAMERAS TO HAVE DIGITAL TIMING IF POSSIBLE
PRE & POST TEST PHOTOS OF OVERALL & UNDERBODY (REAR), FRAME RAILS, FUEL TANK/REAR AXLE AREA, ETC.
PHOTOS OF ALL INSTRUMENTATION

FILM ANALYSIS

REAR DYNAMIC CRUSH - IF REQUESTED
REAR UNDERBODY ANALYSIS - IF REQUESTED
VEHICLE VELOCITY - IF REQUESTED

REMARKS

TEST REQUESTER: ANNE STEFANGO 733-5368
MAKE 1 COPY OF FILM AND VIDEO
SEND TO ANNE STEFANGO 514-17-39
PLEASE RETURN VEHICLE TO PROC ATTN: PAM MORTON

T. E. REPORT

FUEL SYSTEM REPORT REQUIRED

REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
G = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	N = CATALOG EDP DATA
* = REPORT REQUESTOR	

DISTRIBUTION

A. STEFANGO	514-17-39	(AB)
M. STEBELTON	422-05-01	(AB)

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

**********CHANGED 01/10/01 10:08 STEFANGO SUPPLEMENT 01

VEHICLE

MODIFY	VIN AS TESTED;	_____W?00223	MOD.
TO READ	VIN AS TESTED;	1J8GL48K92W[redacted]	MOD.
MODIFY	VIN AS BUILT;	_____W[redacted]	MOD.
TO READ	VIN AS BUILT;	1J8GL48K92W[redacted]	MOD.

**********CHANGED 01/10/01 10:10 STEFANGO SUPPLEMENT 02

INSTRUMENTATION REQ

ADD	LEFT & RIGHT FRONT SILLS X,Z (4)
ADD	LEFT & RIGHT REAR SILLS X,Z (4)

**********CHANGED 01/18/01 15:13 STEFANGO SUPPLEMENT 03

BUILD CONDITION

ADD	2002 PRODUCTION INTENT EXHAUST FLANGE
ADD	2002 DESIGN INTENT FUEL LINES

MECHANICAL REQ

DELETE	PRESSURE CHECK POST TEST

VEHICLE ATTITUDE

TEST NUMBER VC9026 TEST ENGINEER COLLINGS

ITEM NUMBER KJ9472 TEST DATE __/__/__

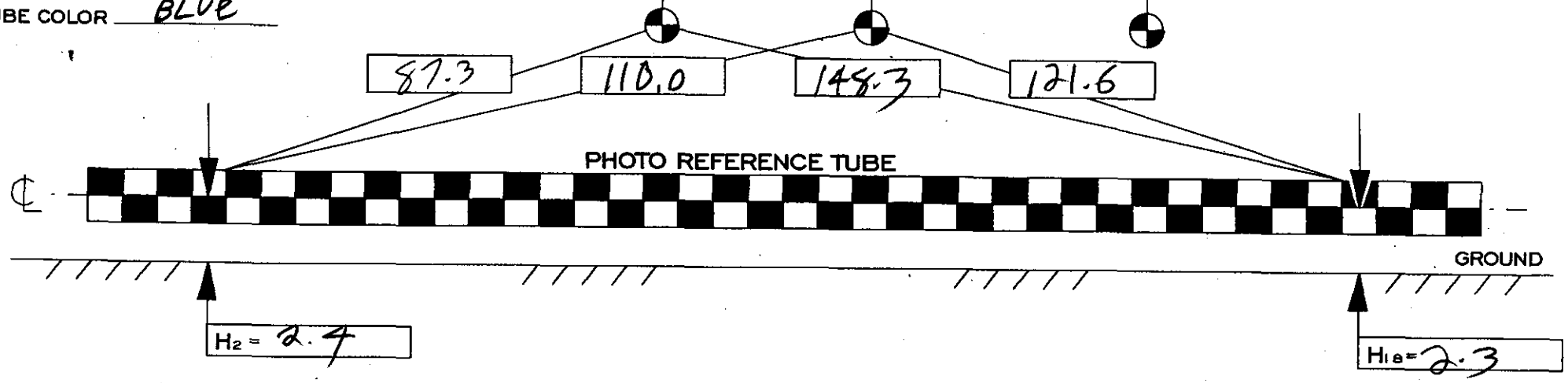
_____ FENDER/WHEELWELL HEIGHTS _____ SILL HEIGHTS

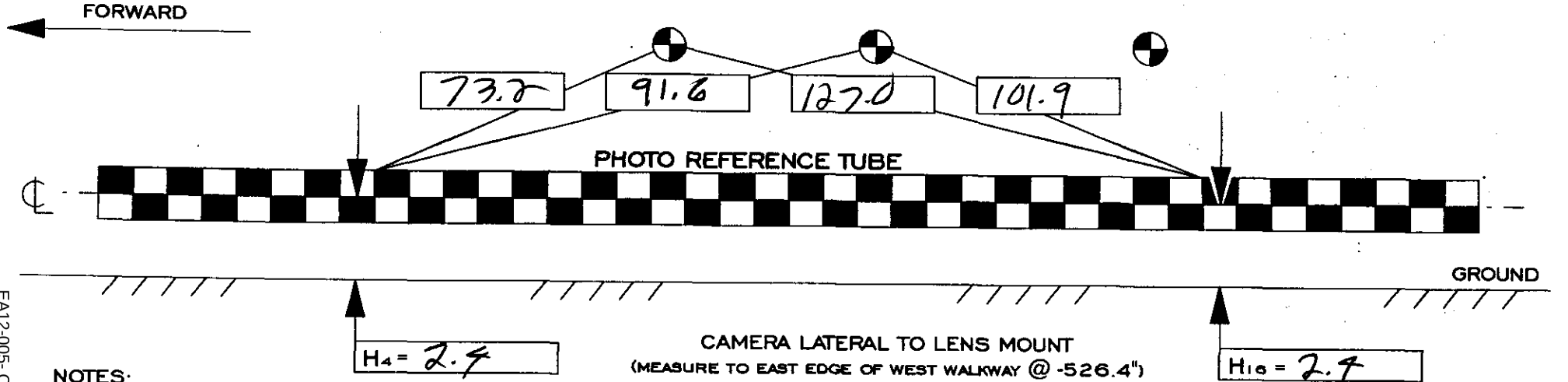
	LF	LR	RF	RR
AS RECEIVED	32.8	33.5	32.6	33.3
AS BUILT-UP				
AS TESTED	31.6	32.1	31.4	31.9

LEFT SIDE REAR DYNAMIC CRUSH

TUBE COLOR BLUE

FRONT SILL	REAR SILL	REAR AXLE
X=	X=	X=
Y=	Y=	Y=
Z= 13.5	Z= 13.5	Z= 13.8





CAMERA LATERAL TO LENS MOUNT
(MEASURE TO EAST EDGE OF WEST WALKWAY @ -526.4")

-524.4 INCHES

NOTES:

1. THE Z DIMENSION FOR THE SILL TARGETS AND REAR AXLE MUST BE RETAKEN AT THE TEST SITE
2. IF OTHER TUBE POINTS ARE USED, SO INDICATE

FOR REAR IMPACT TESTS - DIMENSIONING BETWEEN SILL TARGETS AND PHOTO REFERENCE TUBE

TEST ENGR COLLINGS

VC 9026

TUBE.PRE FA DIAGRAMS 01/28/97 EA12-005-Chrysler-002887

X, Y, Z DIMENSIONS

TEST NUMBER VC9026 TEST ENGINEER COLLINGS
ITEM NUMBER KJ9472 V.I.N. 1J8GL48K92W[redacted] TEST DATE __/__/__
TEST TYPE: 30 MPH REAR TYPE IV MOVING BARRIER IMPACT

100" LINE

LOCATION	X	Y	Z	LOCATION	X	Y	Z
BC1	———	0.0	XXXX	BC2	173.2	0.0	XXXX
B1	165.4	- 19.5	XXXX	B2	165.3	19.6	XXXX
U1	14.5	-16.6	11.4	U2	14.8	18.3	11.2
U3	123.8	-7.8	19.6	U4	124.0	7.3	18.6
U5	131.5	- 0.2	9.0	U6	145.2	18.9	22.9
U7	138.2	- 19.6	23.0	U8	114.7	4.4	12.1
U9	145.0	- 3.5	12.2	U10	151.4	4.5	12.2
U11	151.3	- 3.4	12.2	U12	155.4	18.9	22.9
U13	155.6	- 16.6	22.8				
UC1	163.3	- 0.3	17.8				
LFS	59.9	- 32.1	13.6				
LMS	90.3	- 33.2	13.7				
LAP	57.3	50- | - 33.9	47.1				
LRA	32.8	50- | - 34.5	13.7				

TEST HGT

TRAMMEL DIMENSIONS

LFS-LMS PRE 30.41
POST N/A

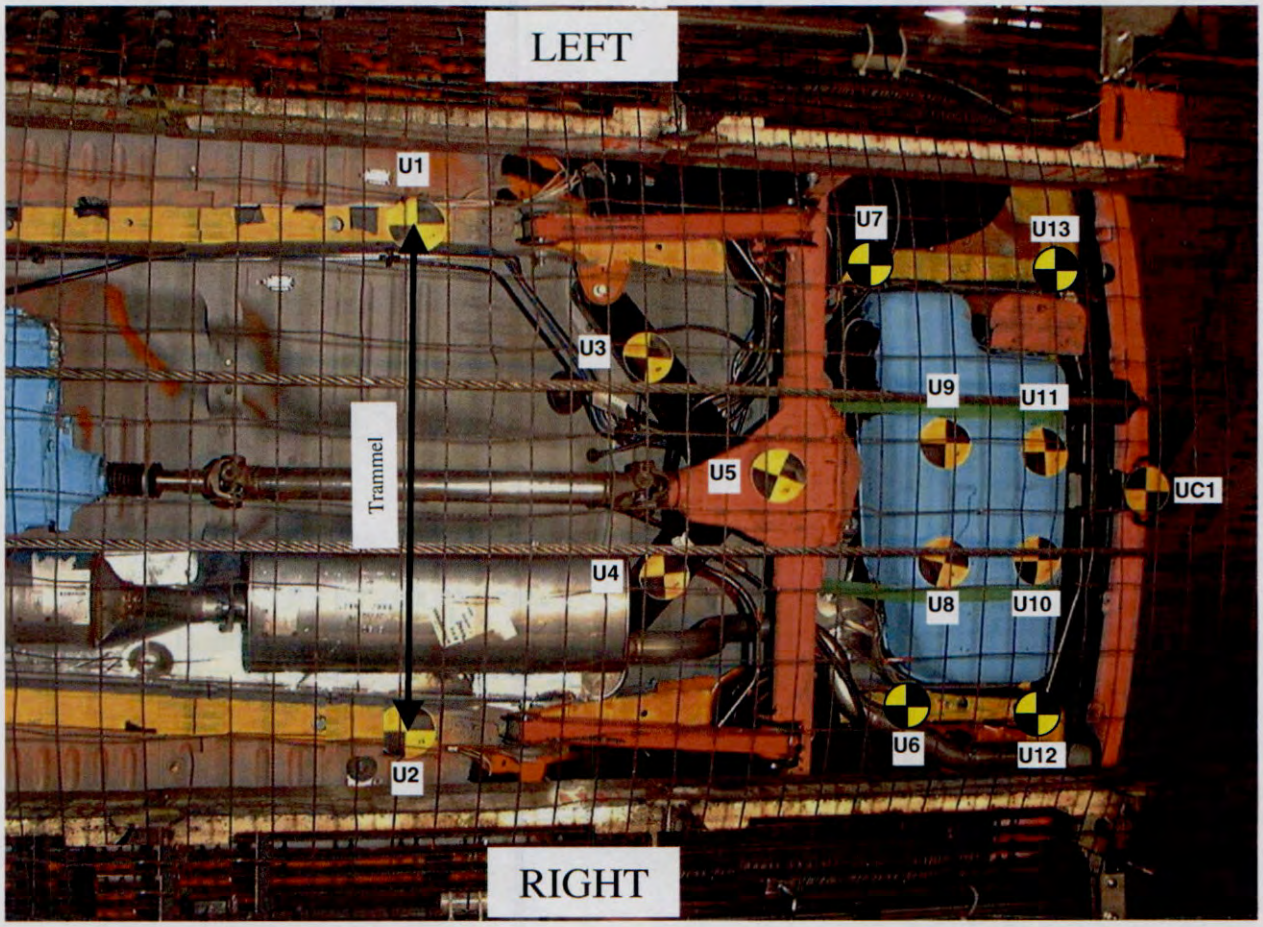
LF	31.6
LR	32.1
RF	31.4
RR	31.9

Program: 02KJ

VC9026 ; Item No. KJ9472

REAR UNDERBODY FOR ALL REAR IMPACTS

Visibility Approved: DGL / 05/03/1999
Approved for CPG Use: GAB / 05/03/1999
Impact Analysis Engineer: DCC / 01/21/2000
DCC T/L: 722-1918; PAGER: 313-709-9150



Guidelines to Placement of Critical Targets:

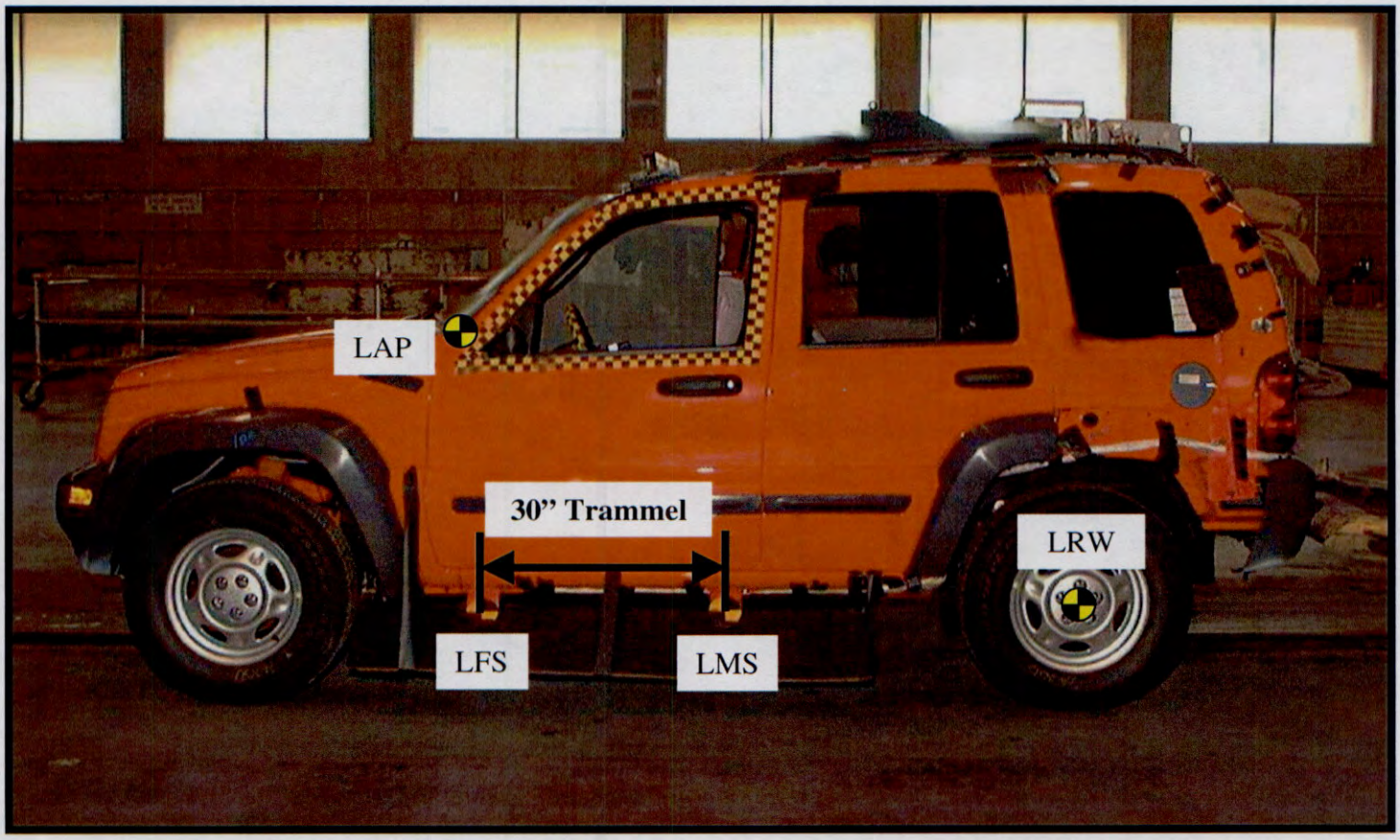
ITEM	COMMENTS
U1 & U2	5.5" IN FRONT OF FORWARD EDGE OF CONTROL ARM MOUNTING BRACKET.
U3 & U4	CENTER OF UPPER SWING ARMS.
U5	ON CENTER OF REAR DIFFERENTIAL
U12 & U13	END OF RAILS AT REAR BUMPER CROSSMEMBER
U6	14" FORE OF U12
U7	ON LEFT RAIL 16" FORWARD OF U13
U8,U9,U10 & U11	IN SQUARE PATTERN, INSIDE STRAPS ON BOTTOM SURFACE OF THE FUEL TANK
UC1	CENTERED ON REAR BUMPER CROSSMEMBER

Program: 02KJ

VC9026 ; Item No. KJ9472

LEFT SIDE
FOR ALL REAR IMPACTS

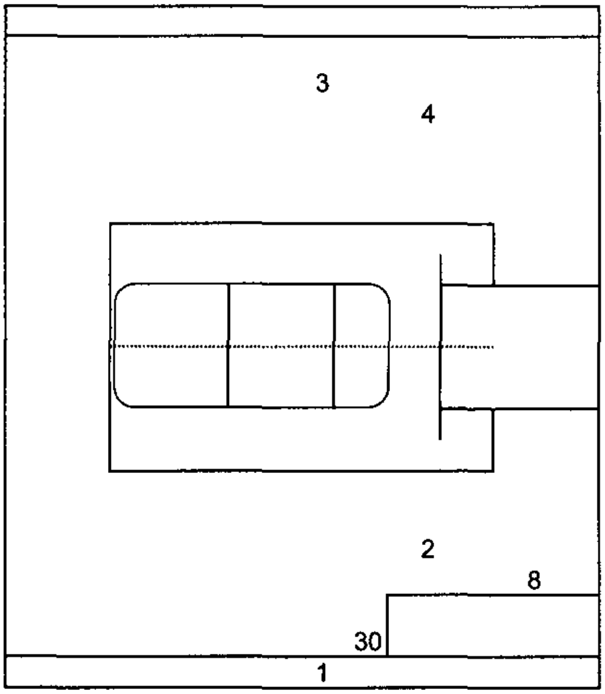
Visibility Approved: DGL / 05/03/1999
Approved for CPG Use: GAB / 05/03/1999
Impact Analysis Engineer: DCC / 01/21/2000
DCC T/L: 722-1918; PAGER: 313-709-9150



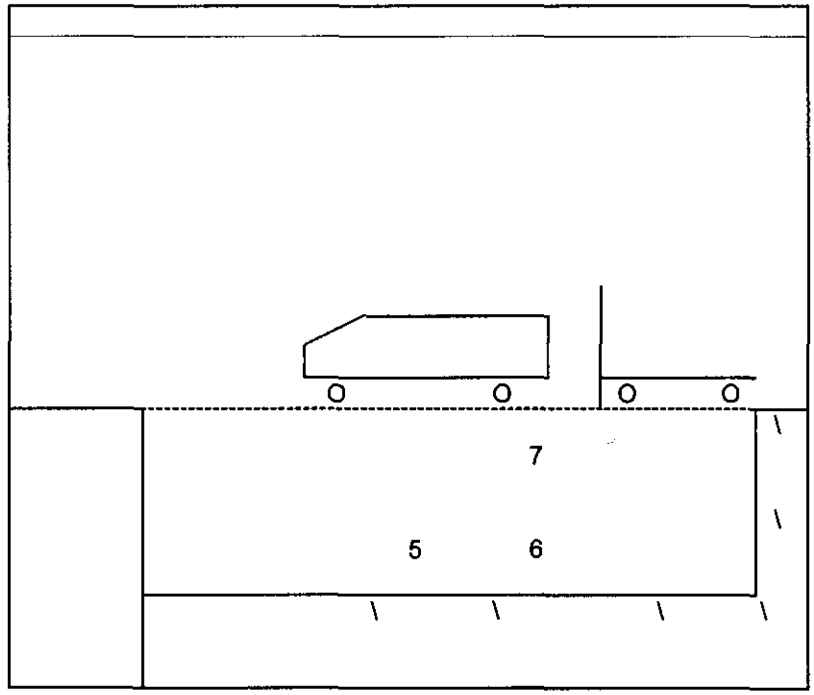
Guidelines to Placement of Critical Targets:

ITEM	COMMENTS
LMS	BOTTOM OF B-POST ON SILL
LRS	30" FORE OF LMS
LRW	CENTER OF REAR WHEEL

PLAN VIEW



SIDE VIEW



TEST NUMBER:	VC9026	**VEHICLE TYPE:**	KJ
TEST TYPE:	30 MPH REAR TYPE IV IMPACT		
REQUEST DATE:	01/10/01	**TEST ENGINEER:**	COLLINGS

#	VIEW DESCRIPTION A=ANALYSIS		CAM S/N	LENS FL	LENS S/N	LENS MFG.	F - STP	PNL	SKT	CBL	MISC
1	A	LT - DYNAMIC CRUSH	**428**	**18MM**	**116693**	**KIN**					
2	T	LT - SWING GATE & SPARE (HDRS)	**1873**	**35MM**	**111305**	**KIN**					
3		RIGHT OVERALL	**1874**	**13MM**	**105426**	**KIN**					
4	T	RT - SWING GATE HANDLE (HDRS)	**283**	**ZOOM**	**#3**	**CAN**					
5	A	PIT - SOUTH	**432**	**13MM**	**13-7**	**COS**	**4 1/4**				
6	A	PIT - NORTH	**431**	**13MM**	**13-4**	**COS**	**4 1/4**				
*7	T	PIT - FUEL TANK & FILL TUBE (HDRS)	**284**	**ZOOM**	**#5**	**CAN**					
8	A	VELOCITY	**286**	**100MM**	**B2088**	**LGT**	**8**				
30	V	EKTAPRO - LEFT OVERALL	**EKTA**	**ZOOM**	**#1**	**CAN**	**8**				
		W/O: (1) PRINT, (1) VHS									
		TO: A. STEFANGO									

1/29/01

Did Not Run

MONDAY #2

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC9026, ITEM NUMBER KJ9472, TEST ENGINEER COLLINGS

V.I.N. 1J8GL48K92W[redacted], TEST DATE 1/29/01, ROLL DATE 1/30/01

TEST TYPE; 30 MPH TYPE IV REAR MOVING BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 17.5 GALLONS

TEST SPEED 30.4 MPH, TEST WEIGHT 4883 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

|___| NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE LEFT SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:55	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:57	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:58	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
2:00	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS _____

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

DATE 01/30/01 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 10:26:43. EDP TEST LETTER DEPT 5320

VC09026 ITEM KJ9472
VC09026 30 MPH REAR MOVING BARRIER, KJJ-74 ITEM KJ9472
2002 MVSS REAR IMPACT COMPLIANCE
TEST DATE 01/29/01

TEST PURPOSE	PRIMARY, 2002 USA 301 COMPLIANCE.	
	SECONDARY, 2002 TRIAS-33 COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	30.0 MPH
	DAMAGE LOCATION;	REAR CENTER
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	3.7 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	4 SPEED AUTO ELECTRONIC 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL48K92W[redacted] MOD.
	VIN AS BUILT;	1J8GL48K92W[redacted] MOD.
TEST SPEED	30.4 MPH BY ELECTRONIC TRAP TIMER.	
TEST WEIGHT (LBS)	4883 TOTAL, 2600 FRONT, 2283 REAR	
OCCUPANTS	LEFT FRONT, HII BALLAST	AD-70
	RESTRAINT-BELTS ONLY	
	RIGHT FRONT, HII BALLAST	AD-60
	RESTRAINT-BELTS ONLY	
BUILD CONDITION	2002 DESIGN INTENT SWING GATE HANDLE W/146G C/B AND ANTI-ROTATION FINGER	
	ORC CALIBRATION N	
	MODIFY WELDS @ SPLICE JOINT TO PRODUCTION INTENT	
	2002 PRODUCTION INTENT EXHAUST FLANGE	
	2002 DESIGN INTENT FUEL LINES	
TARGET WEIGHT (LBS)	4233 LBS TOTAL, 2235 LBS FRONT, 1998 LBS REAR	
	REPRESENTS MAX OPTION WEIGHT FOR 3.7L 4X4 KJ	
	WITHOUT OCCUPANTS OR LUGGAGE	
	(TARGET TEST WEIGHT 4863 = 4233 + 330 + 300)	
FUEL AND BALLAST	17.5 GALLONS OF STODDARD SOLVENT	
	300 LBS	
	50 LBS LF FLOOR	
	100 LBS RF FLOOR	
	100 LBS LR SEAT	
	100 LBS RR SEAT	

DATE 01/30/01 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 10:26:43. EDP TEST LETTER DEPT 5320

VC09026 ITEM KJ9472
VC09026 30 MPH REAR MOVING BARRIER, KJJ-74 ITEM KJ9472
2002 MVSS REAR IMPACT COMPLIANCE
TEST DATE 01/29/01

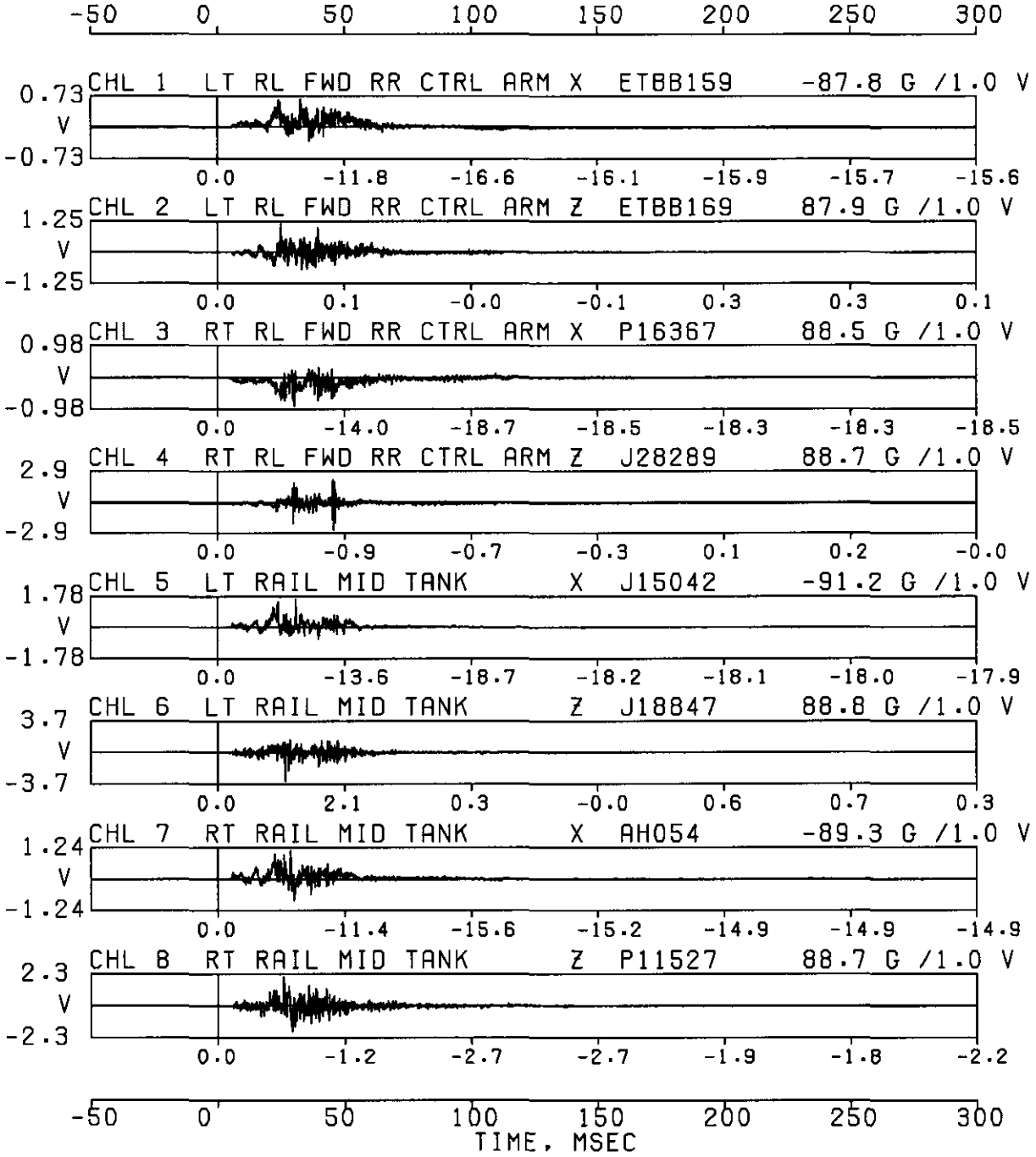
EDP TECHNICIAN S. MARCHENIA

No. of Pages 50
CC

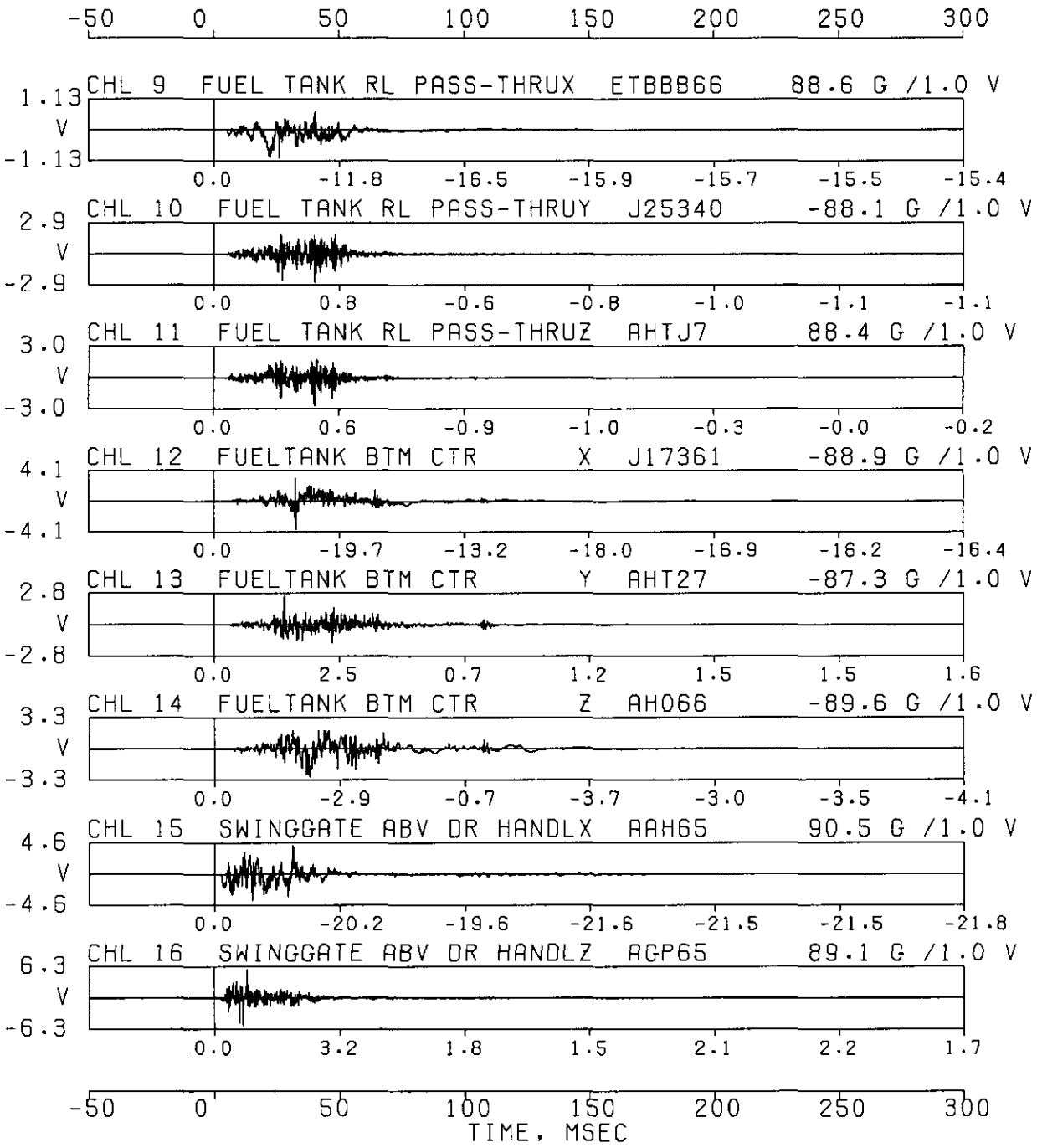
M. STEBELTON 422-05-01
A. STEFANGO 514-17-39

TRANSDUCER SUMMARY REPORT

VC09026 30 MPH REAR MOVING BARRIER, KJJ-74 ITEM KJ9472 PAGE 001
2002 MVSS REAR IMPACT COMPLIANCE 0F 050
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



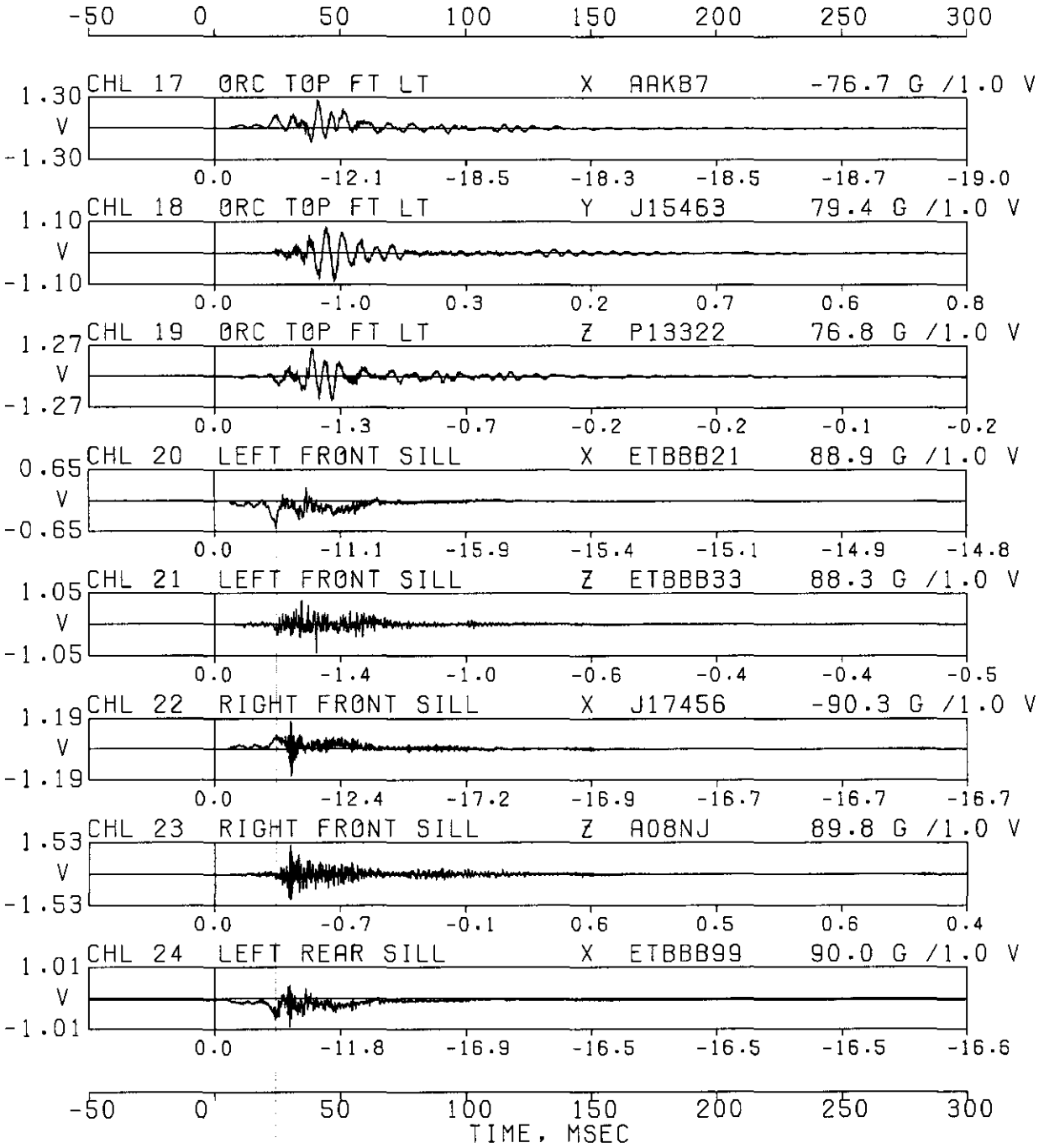
NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW
EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.



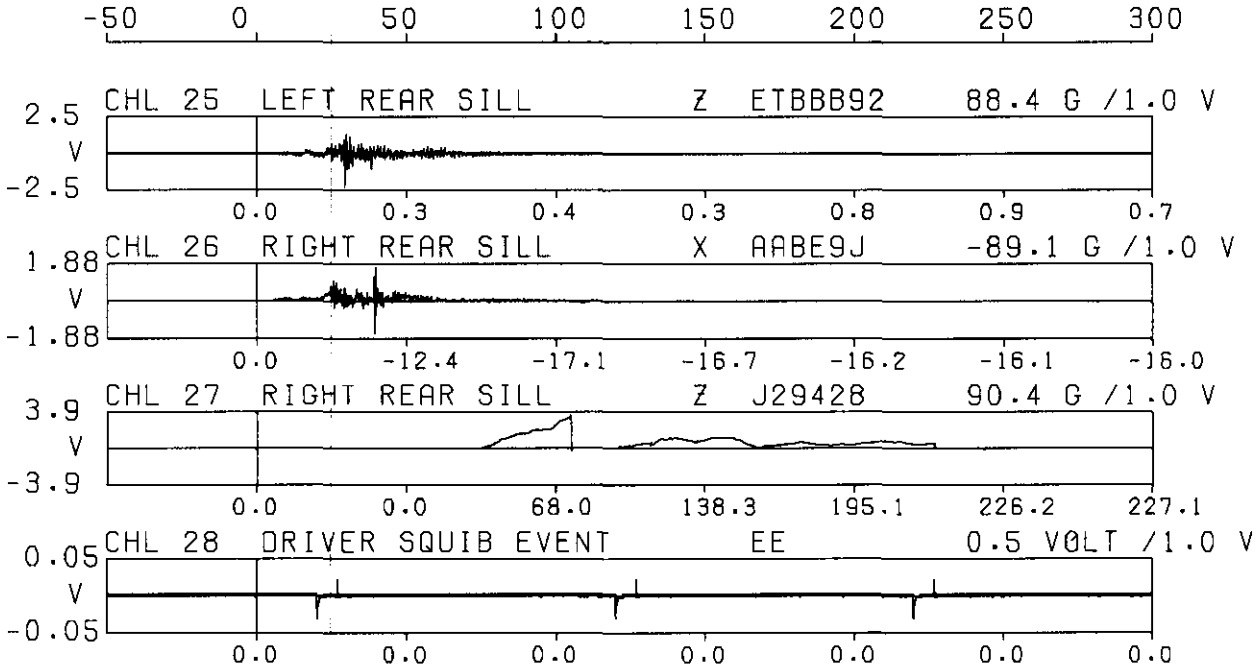
NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW
EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

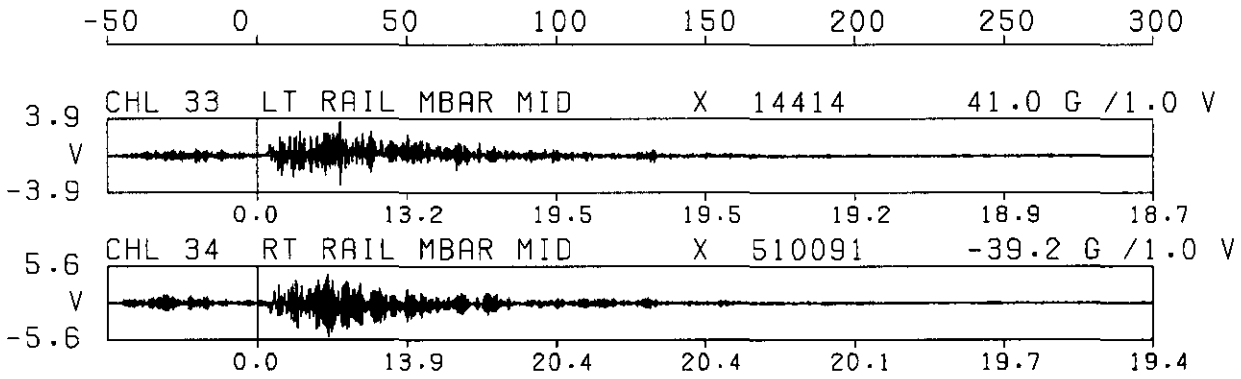
VC09026 30 MPH REAR MOVING BARRIER. KJJ-74 ITEM KJ9472 PAGE 003
2002 MVSS REAR IMPACT COMPLIANCE 0F 050
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1

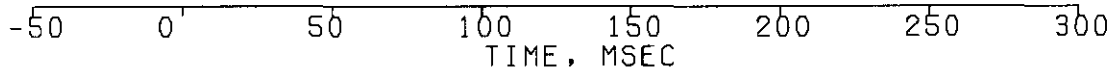


N0TE C0MPUTED FIRST INTEGRAL VALUES ARE INDICATED BEL0W
EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.



NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW
EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.



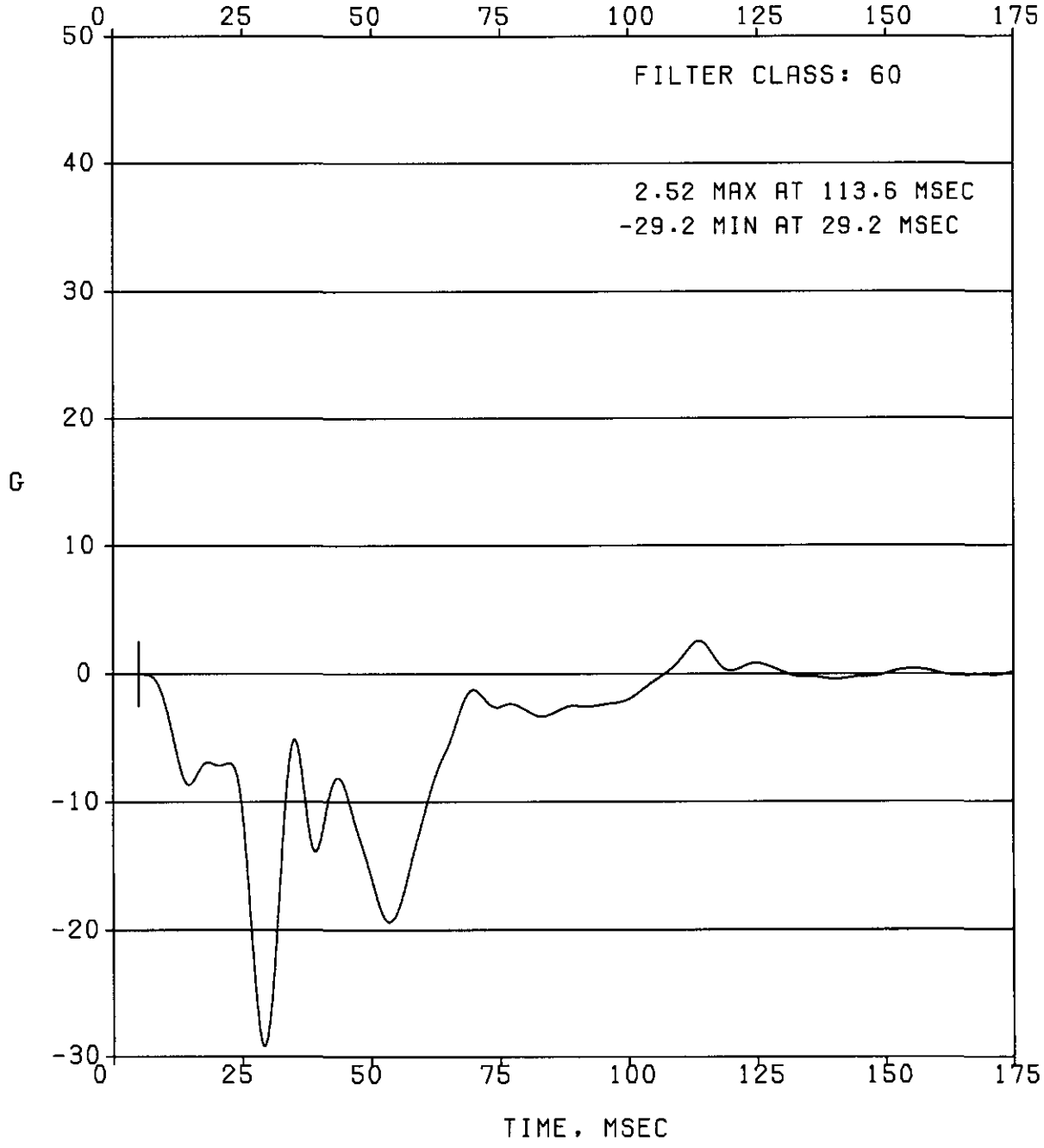


NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW
EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

AVERAGE 0F

CHANNEL 020	LEFT FRONT SILL	X	ETBBB21
CHANNEL 022	RIGHT FRONT SILL	X	J17456
CHANNEL 024	LEFT REAR SILL	X	ETBBB99
CHANNEL 026	RIGHT REAR SILL	X	AABE9J

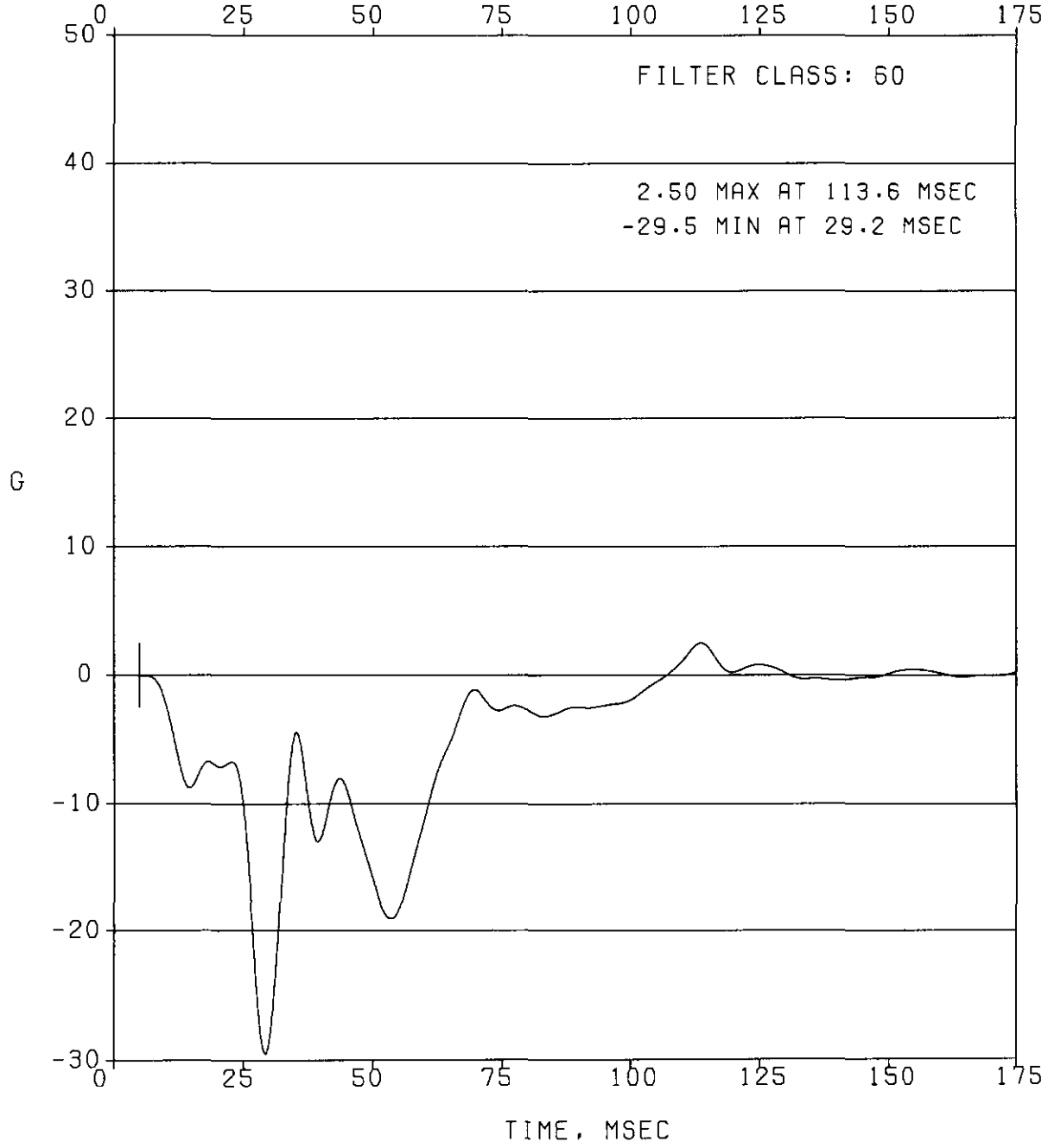
FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



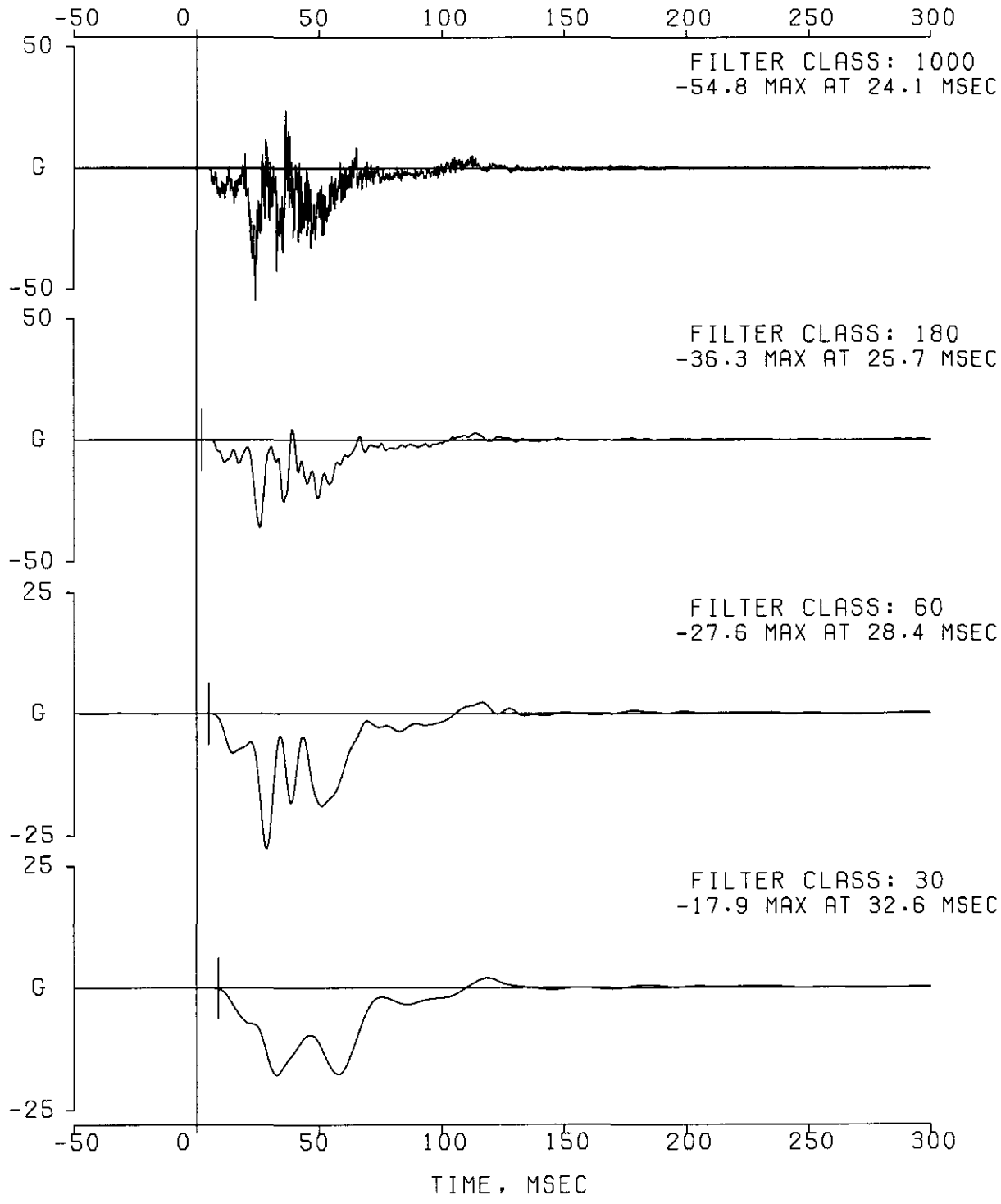
AVERAGE OF

CHANNEL 020 LEFT FRONT SILL X ETBBB21
CHANNEL 022 RIGHT FRONT SILL X J17456

FILTER TYPE: SAE J211B/80 DC C60(TPF-R) EFF 3/24/86
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



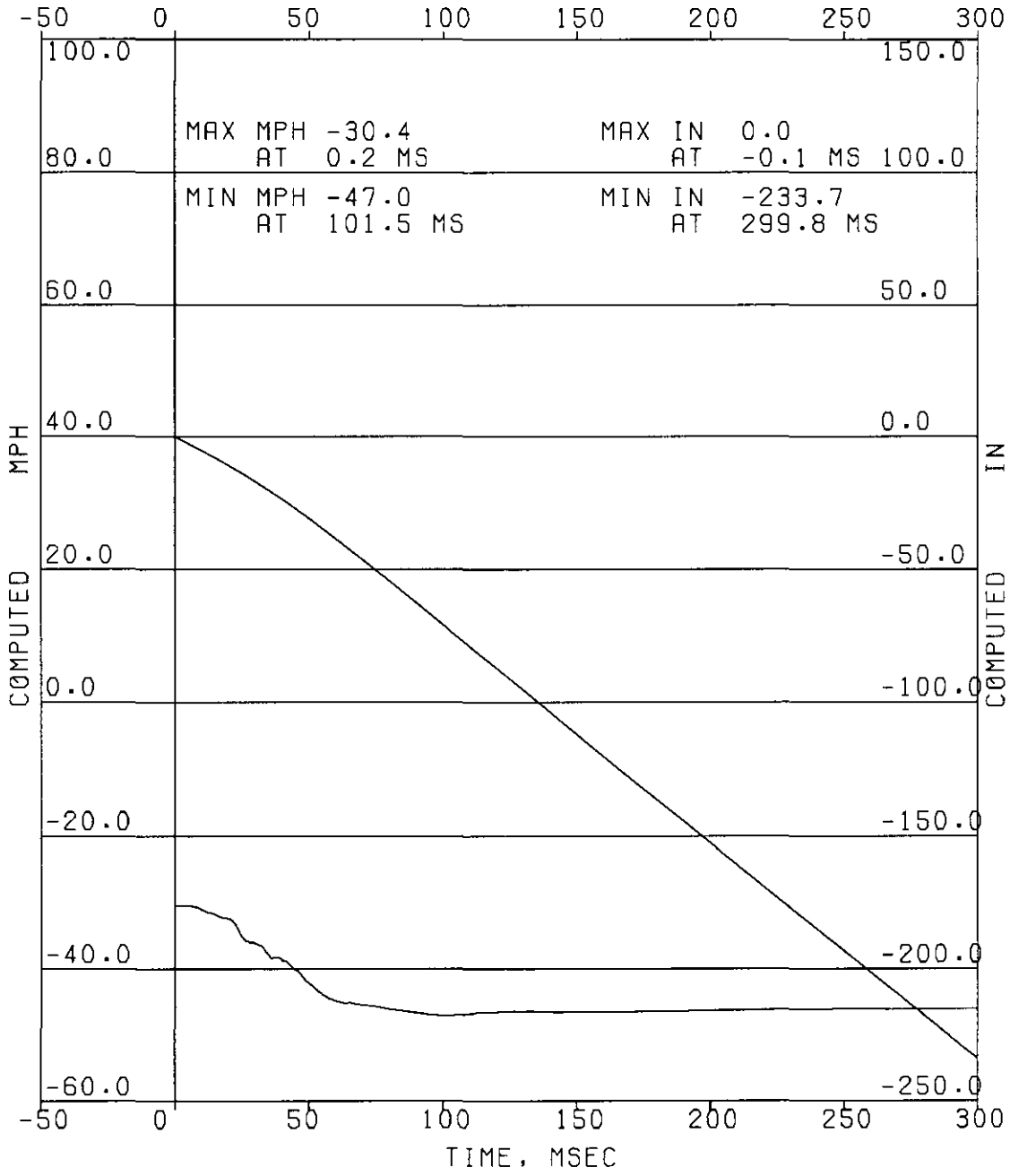
CHANNEL 001 LT RL FWD RR CTRL ARM X ETBB159
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 001 LT RL FWD RR CTRL ARM X ETBB159

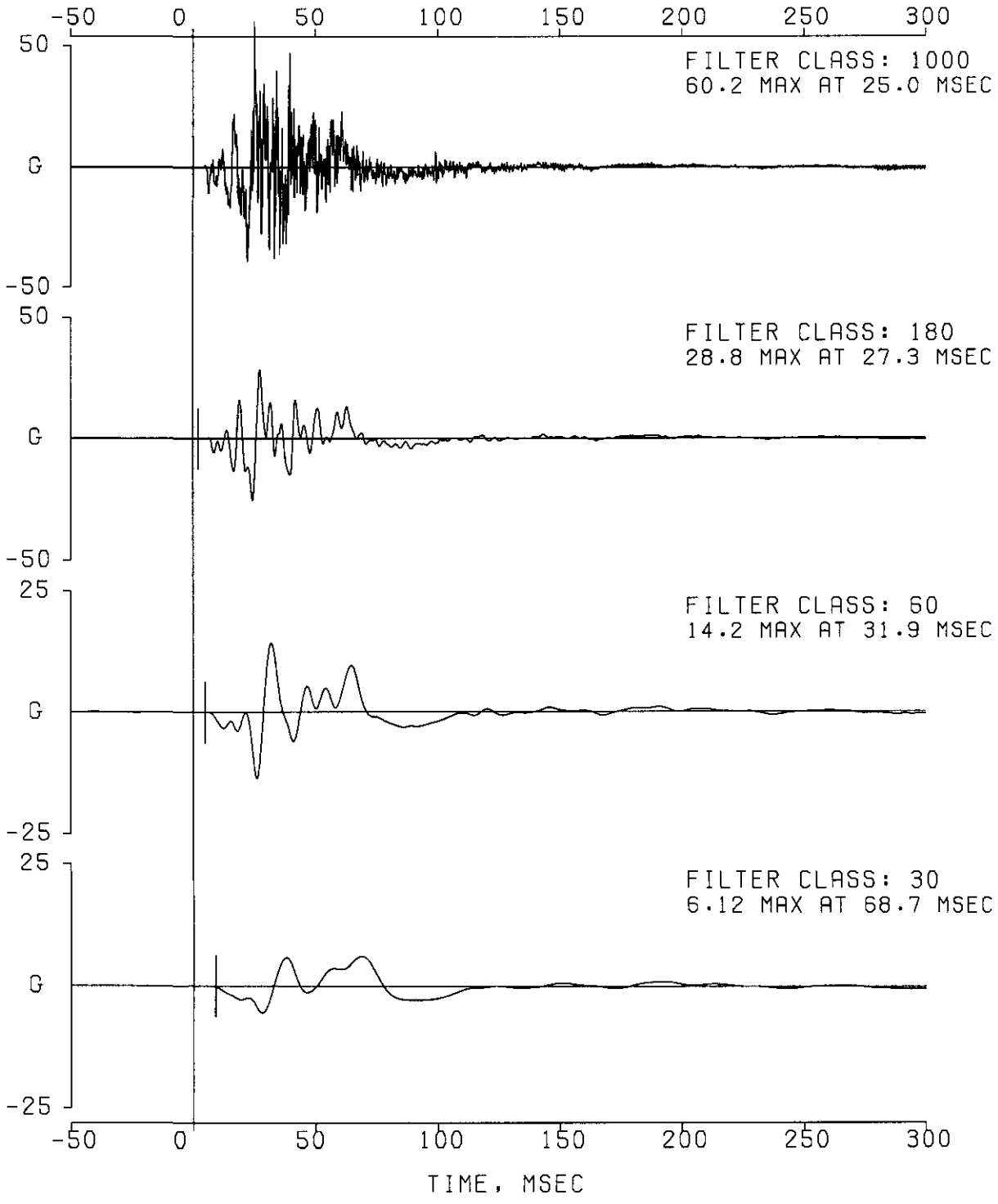
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

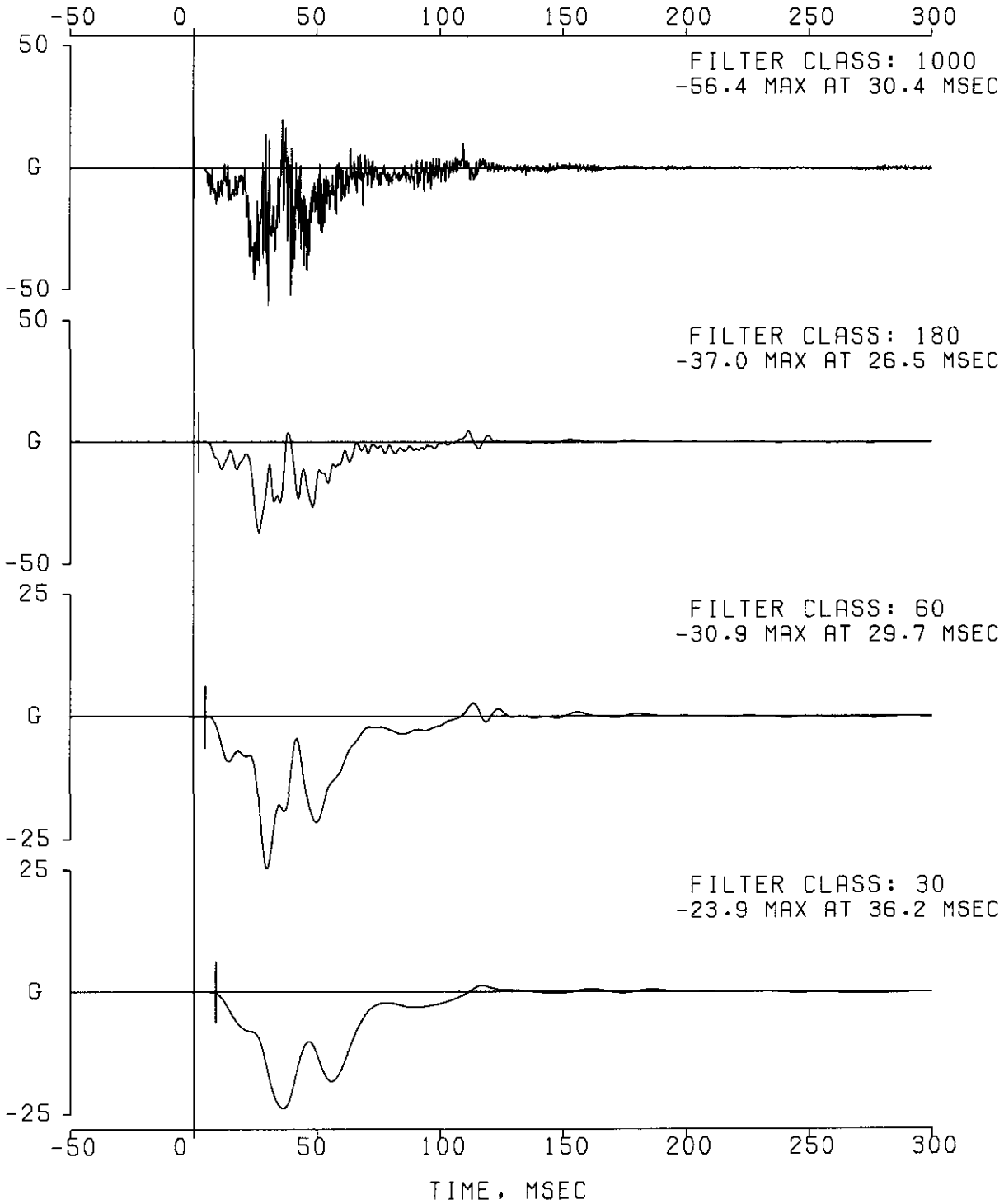


COMPUTED MPH
COMPUTED IN

CHANNEL 002 LT RL FWD RR CTRL ARM Z ETBB169
FILTER TYPE: SAE J211-1 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



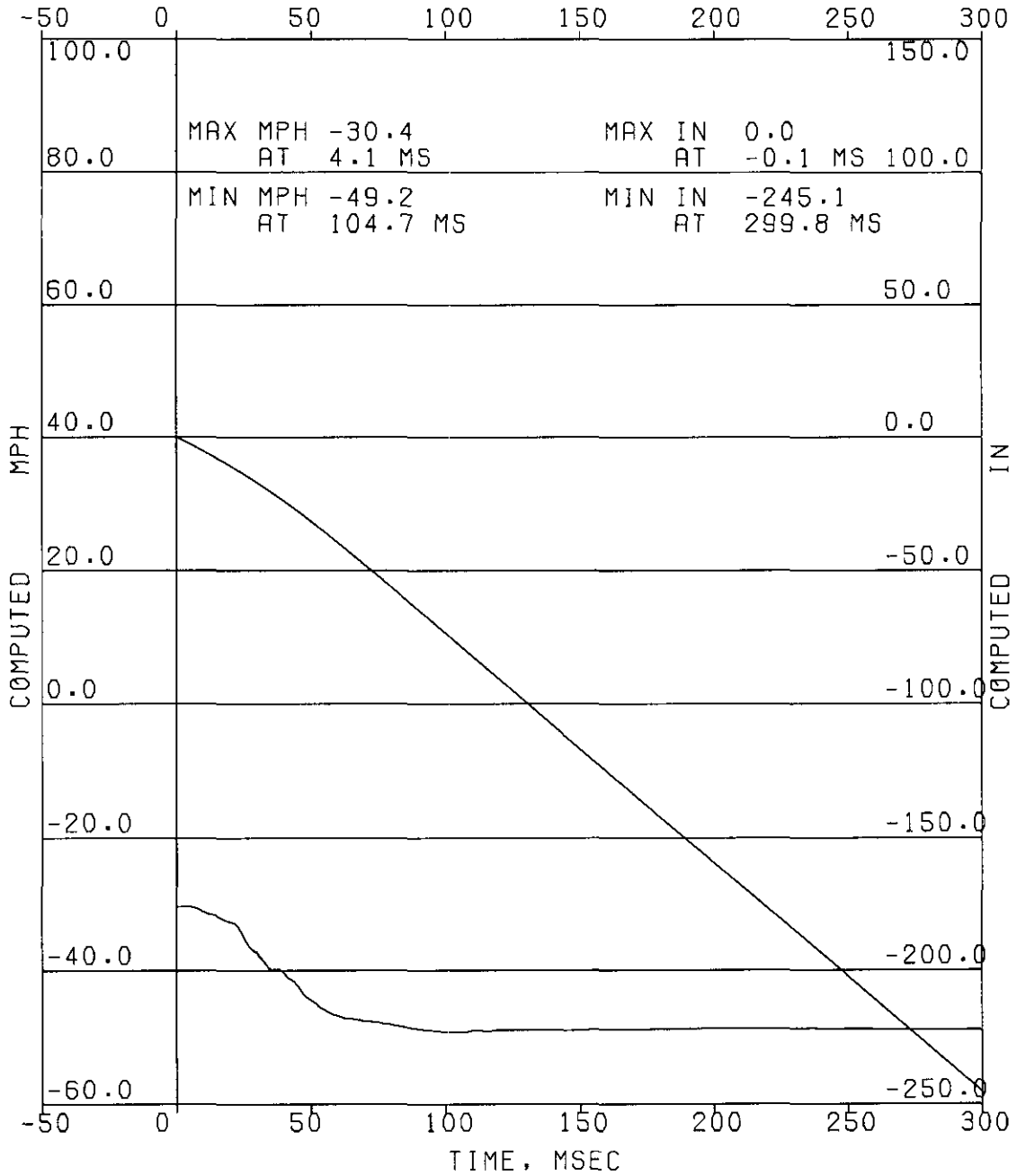
CHANNEL 003 RT RL FWD RR CTRL ARM X P16367
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 003 RT RL FWD RR CTRL ARM X P16367

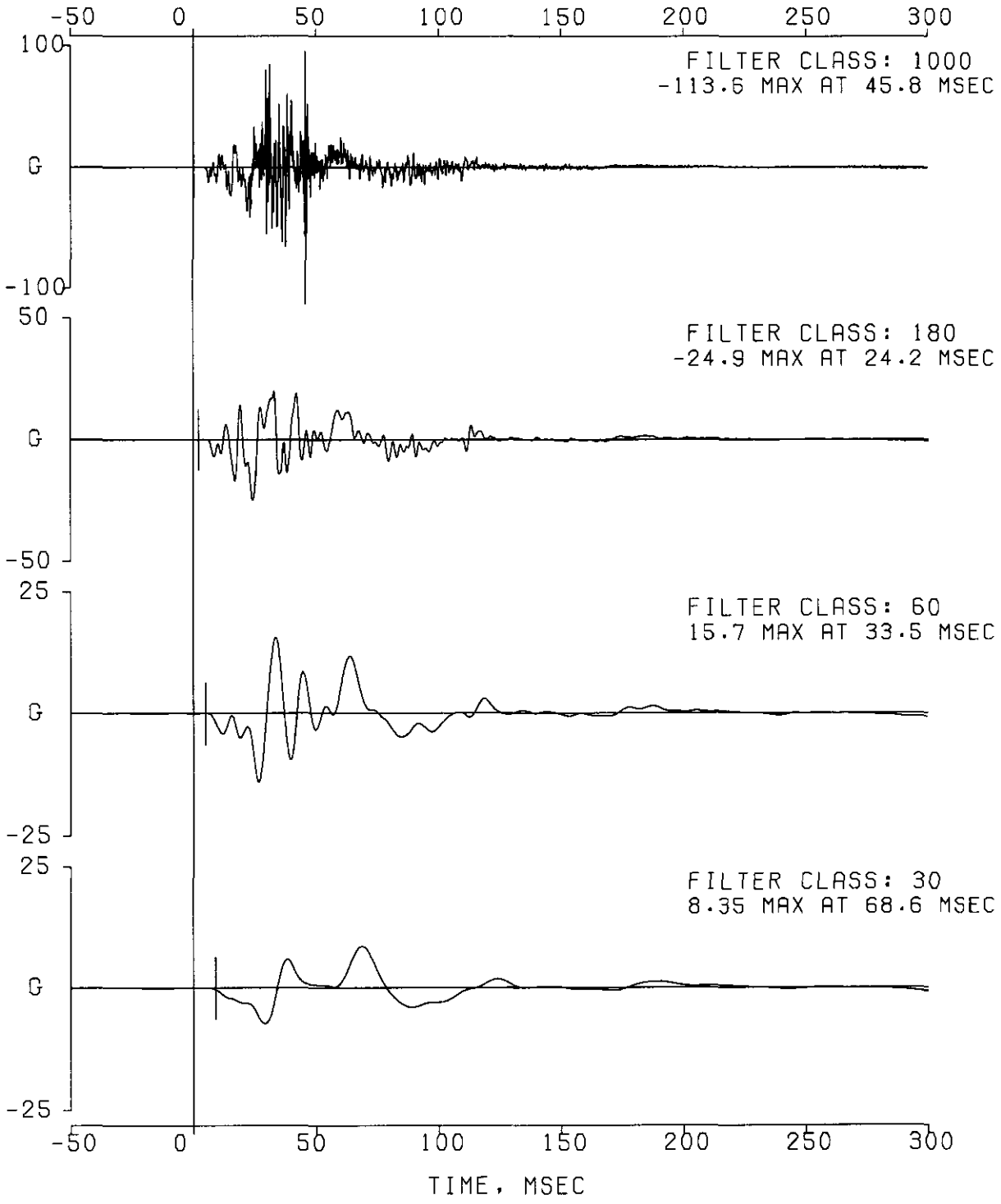
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

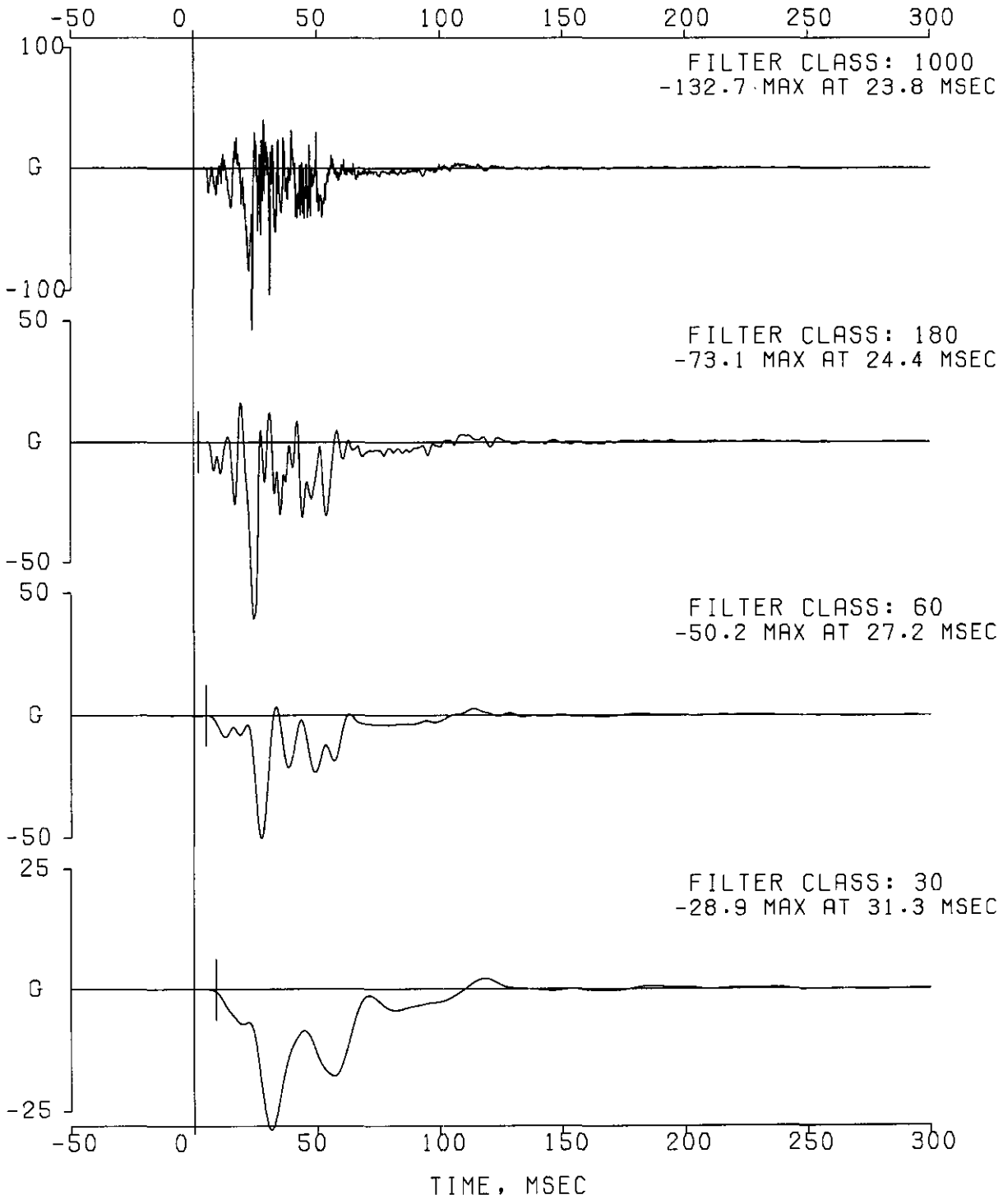


COMPUTED MPH
COMPUTED IN

CHANNEL 004 RT RL FWD RR CTRL ARM Z J28289
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



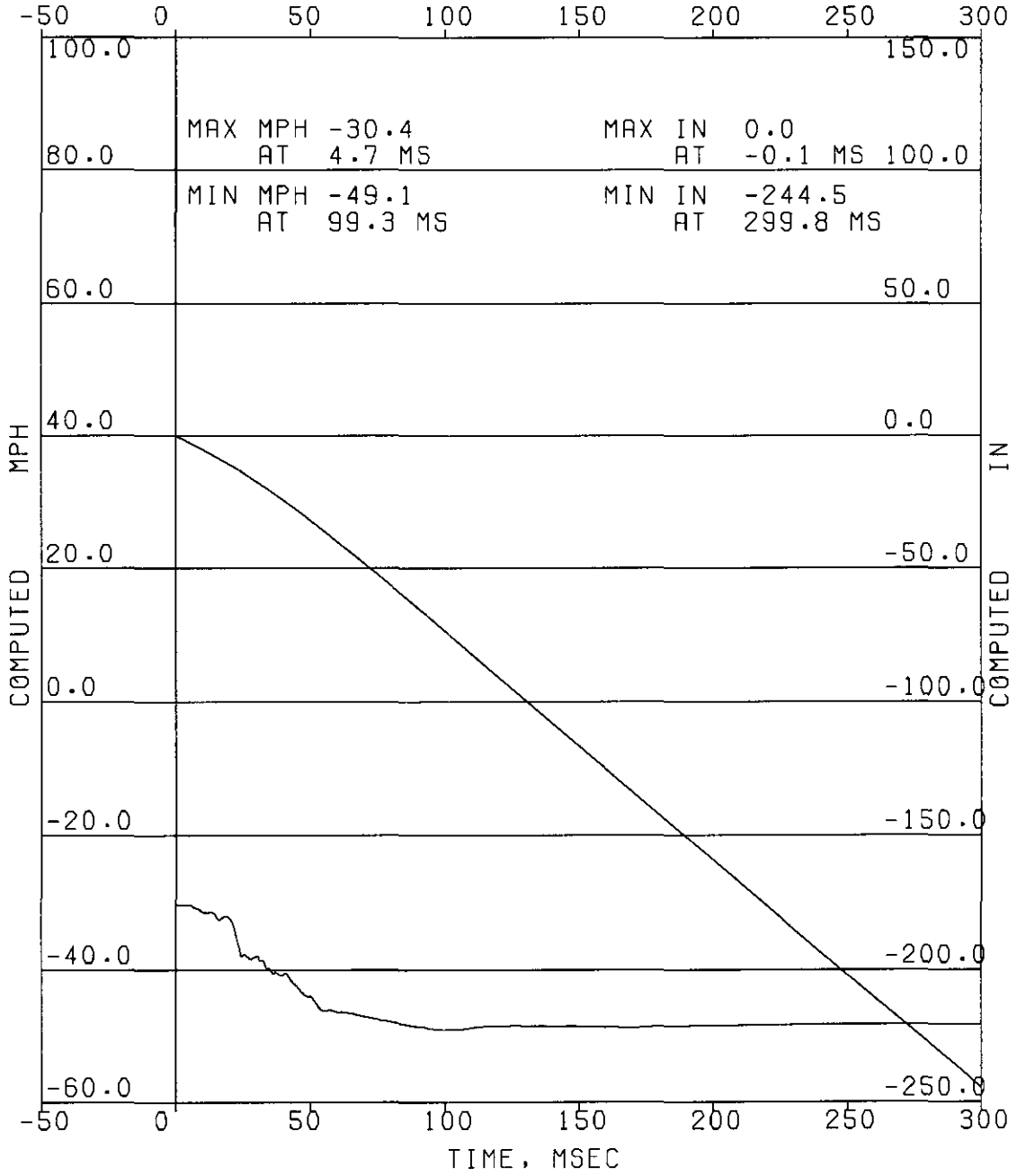
CHANNEL 005 LT RAIL MID TANK X J15042
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 005 LT RAIL MID TANK X J15042

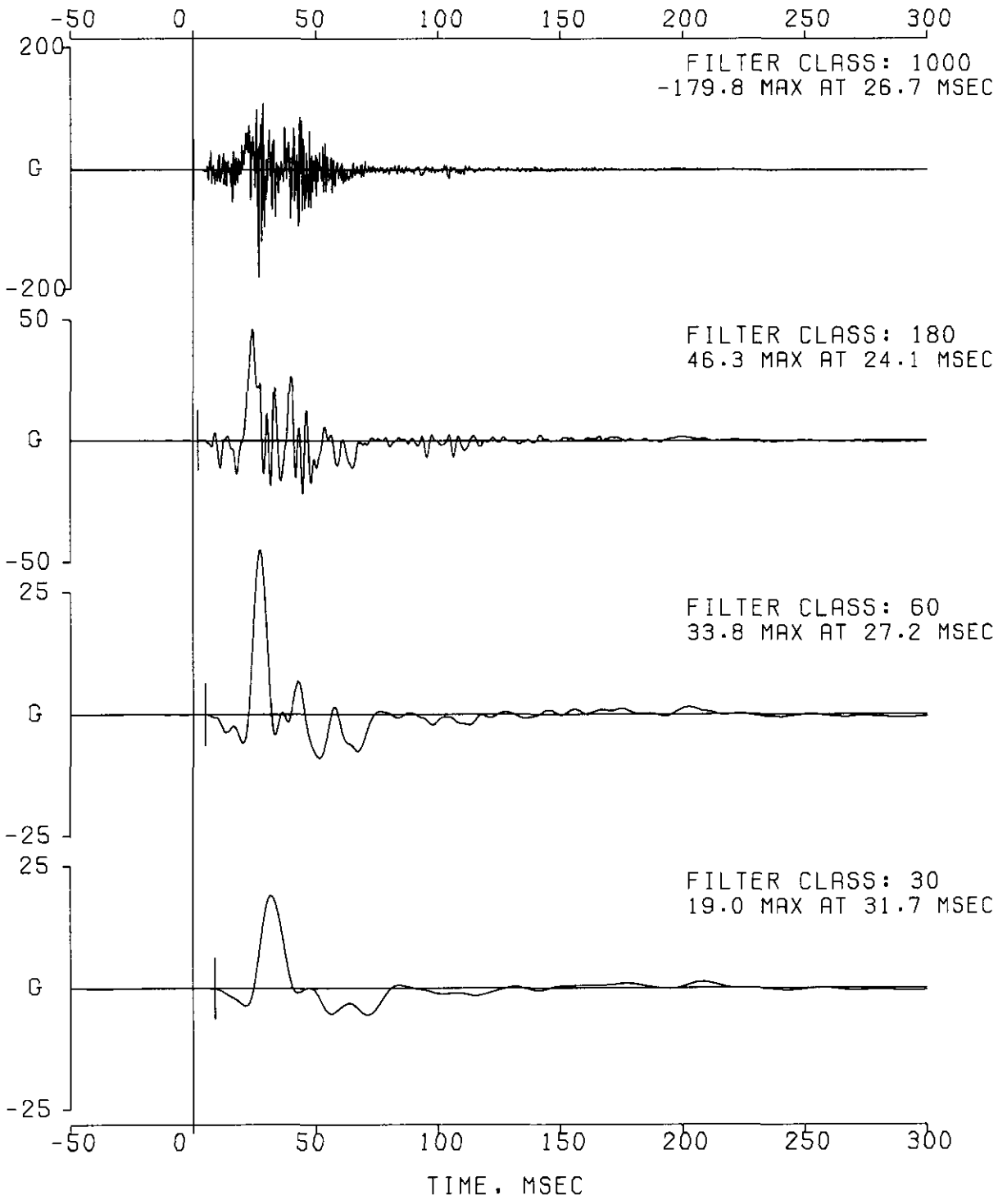
FILTER TYPE: 08DAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

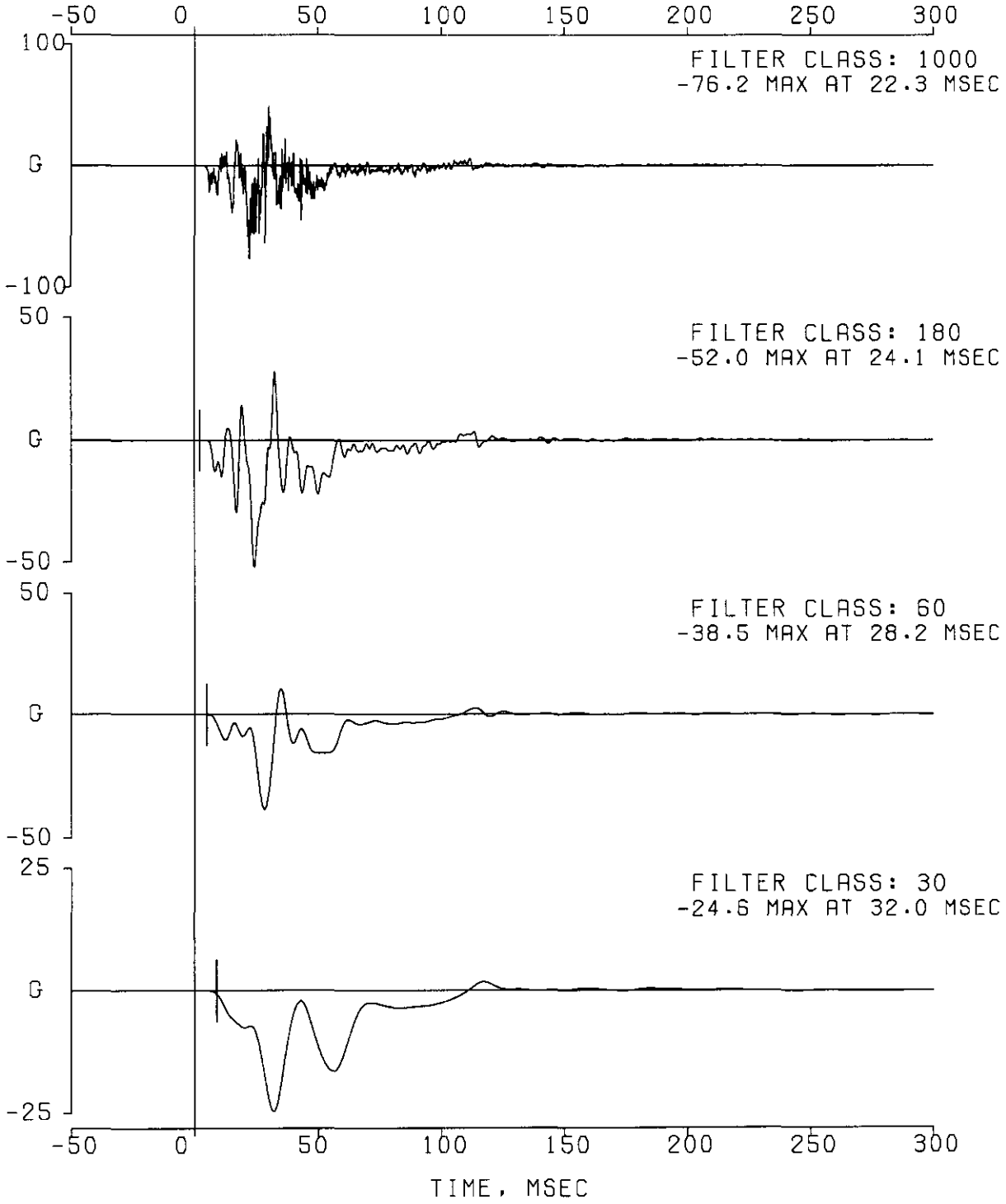


COMPUTED MPH
COMPUTED IN

CHANNEL 006 LT RAIL MID TANK Z J18847
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



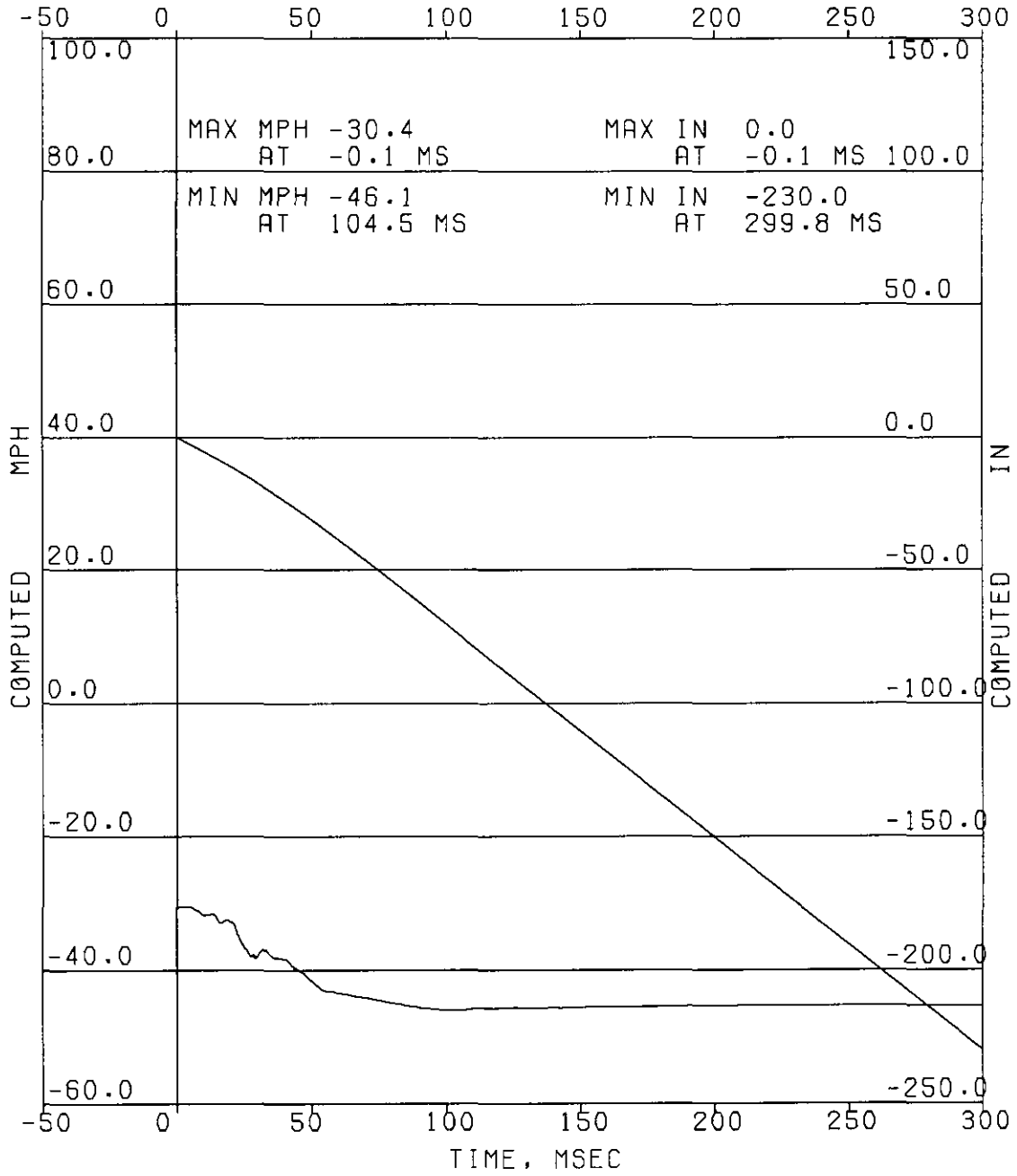
CHANNEL 007 RT RAIL MID TANK X AH054
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 007 RT RAIL MID TANK X AH054

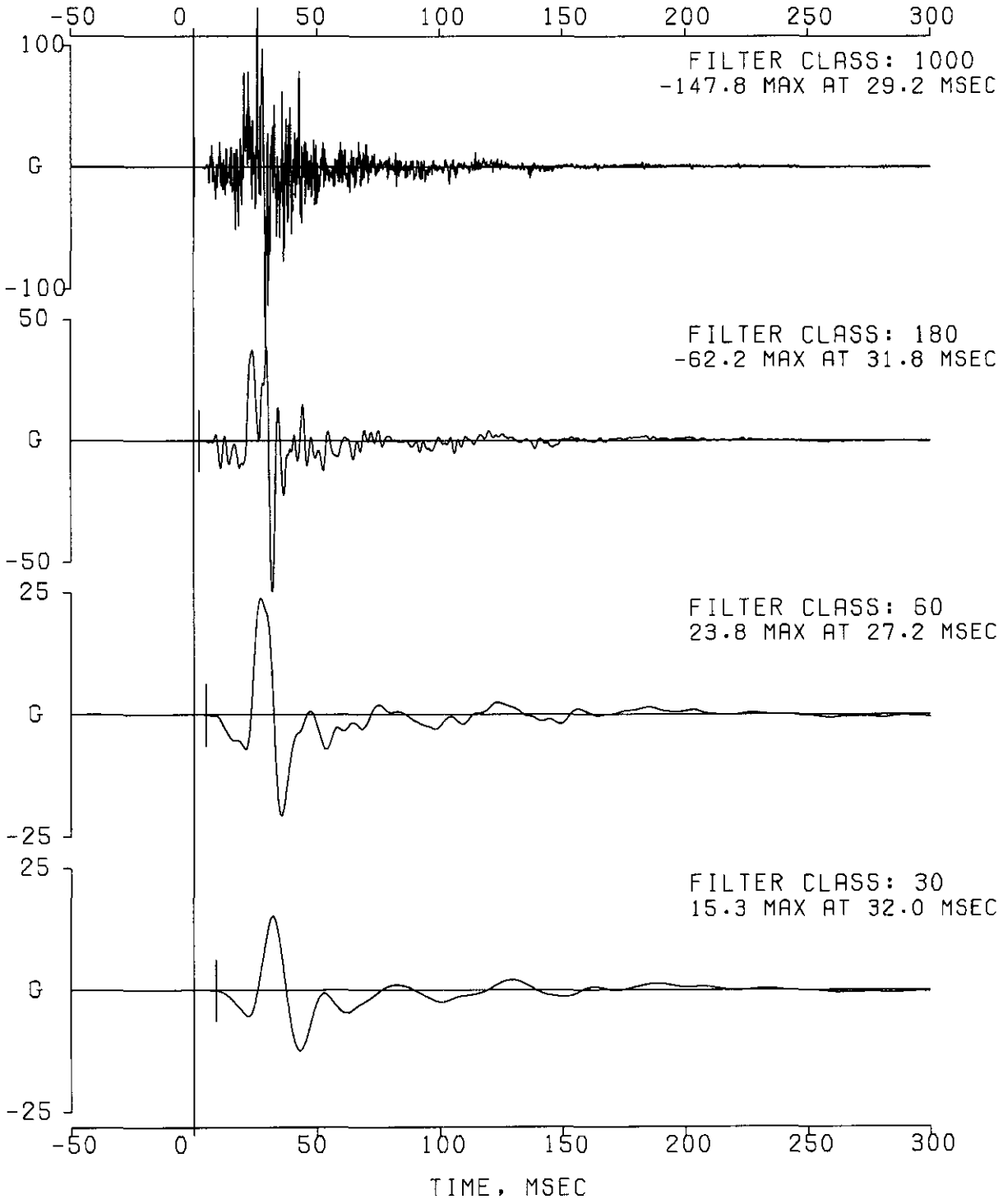
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

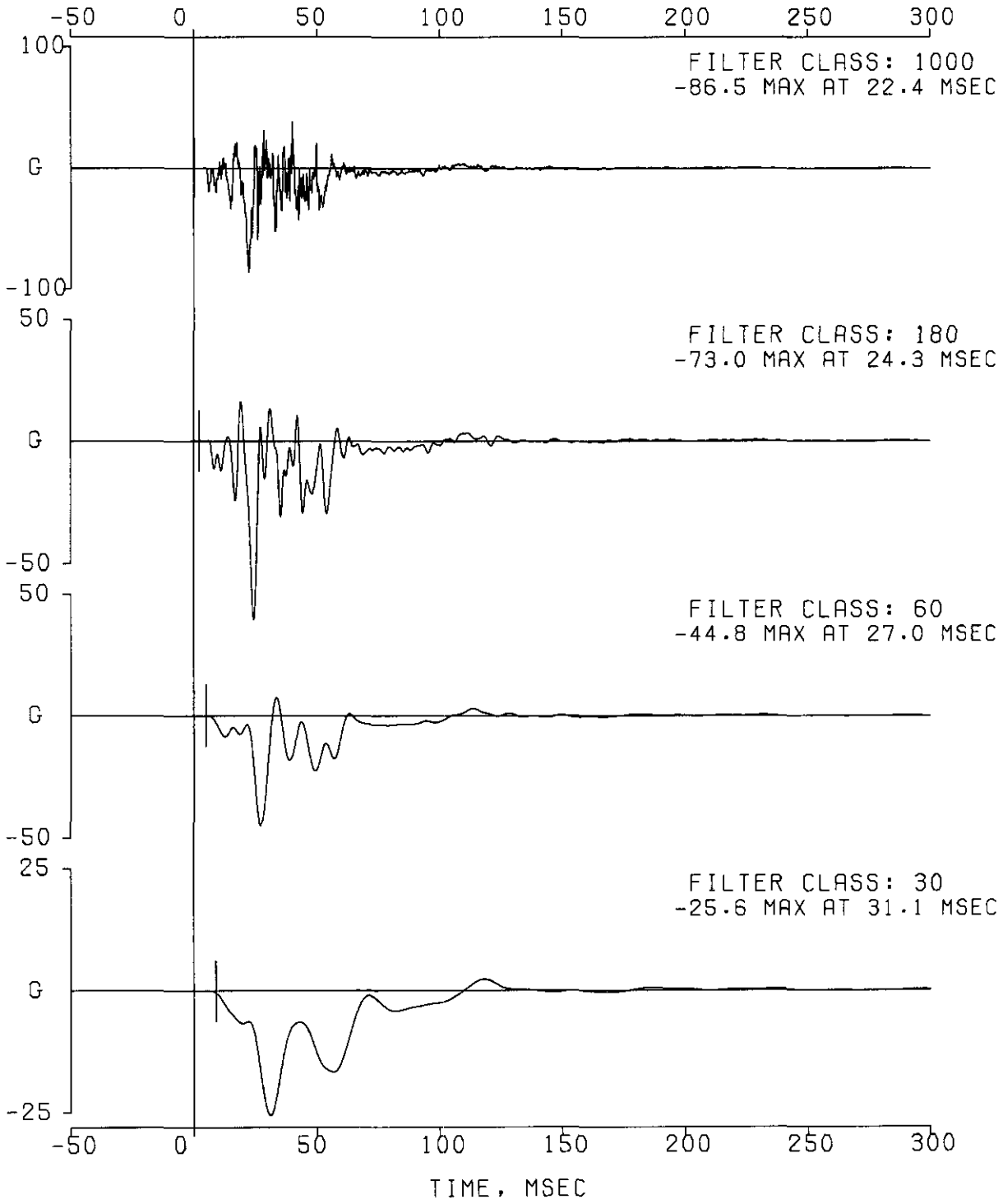


COMPUTED MPH
COMPUTED IN

CHANNEL 008 RT RAIL MID TANK Z P11527
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



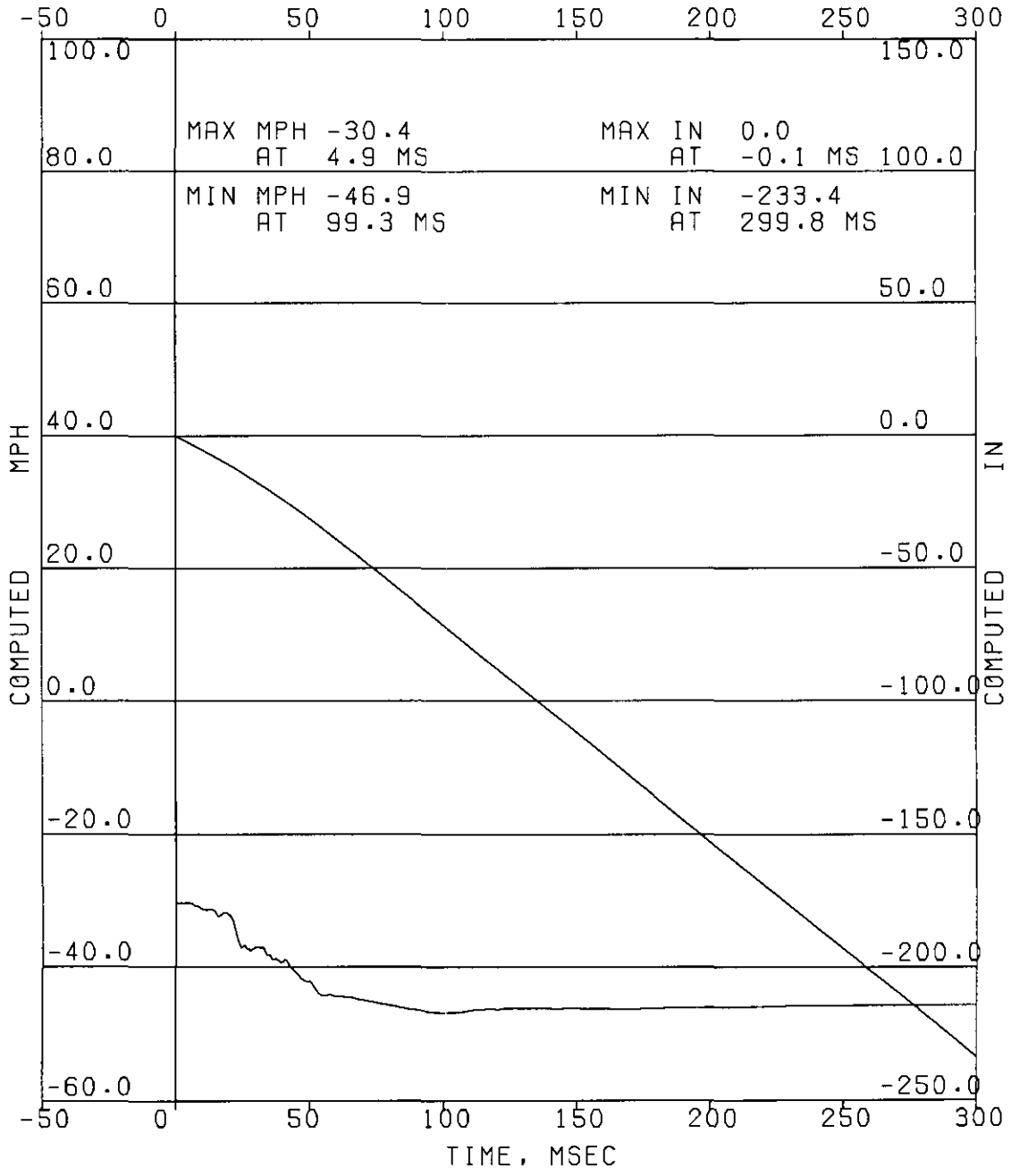
CHANNEL 009 FUEL TANK RL PASS-THRUX ETBBB66
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 009 FUEL TANK RL PASS-THRUX ETBBB66

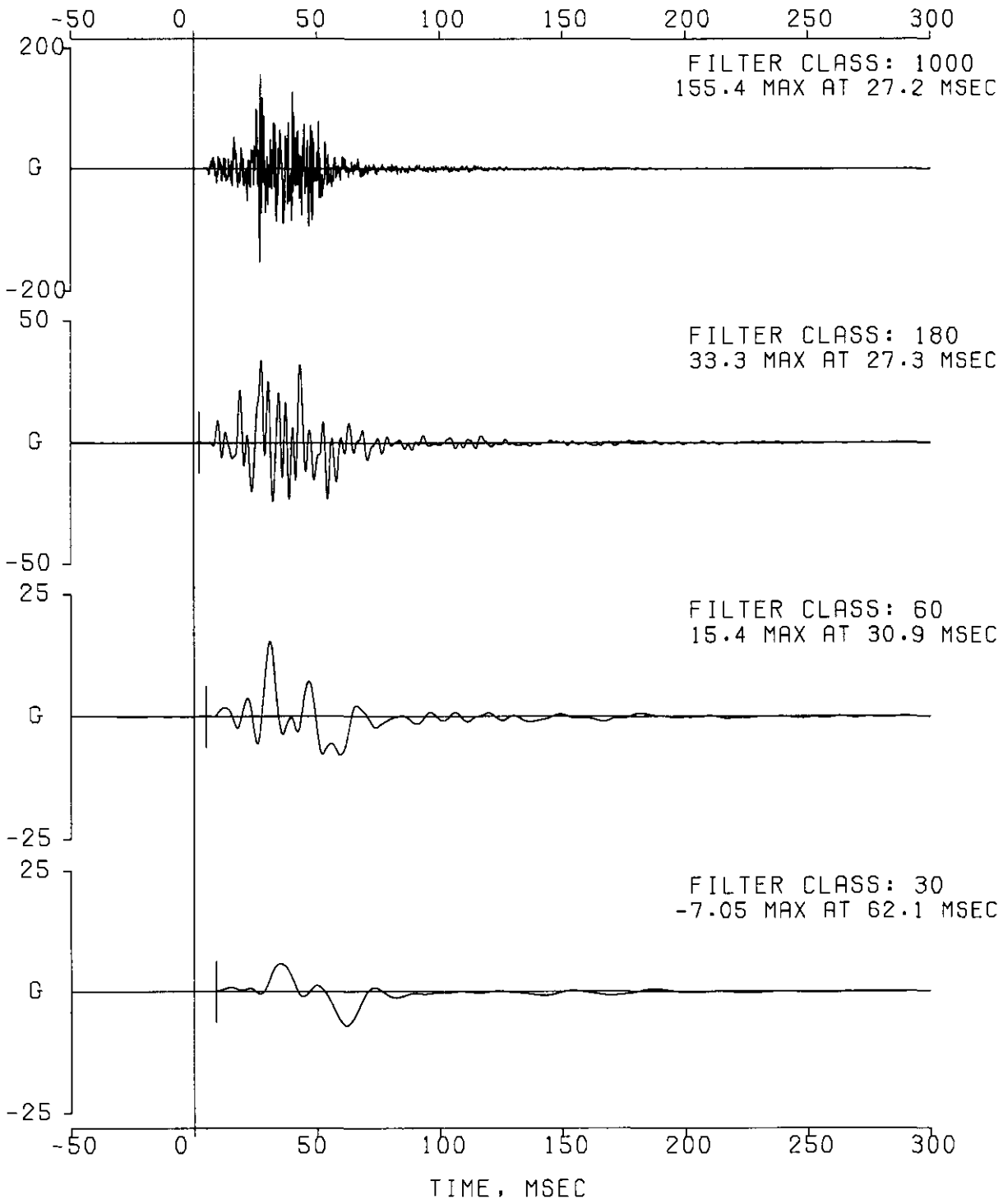
FILTER TYPE: 0BDAS-III RESP0NSE C0RRECTI0N, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

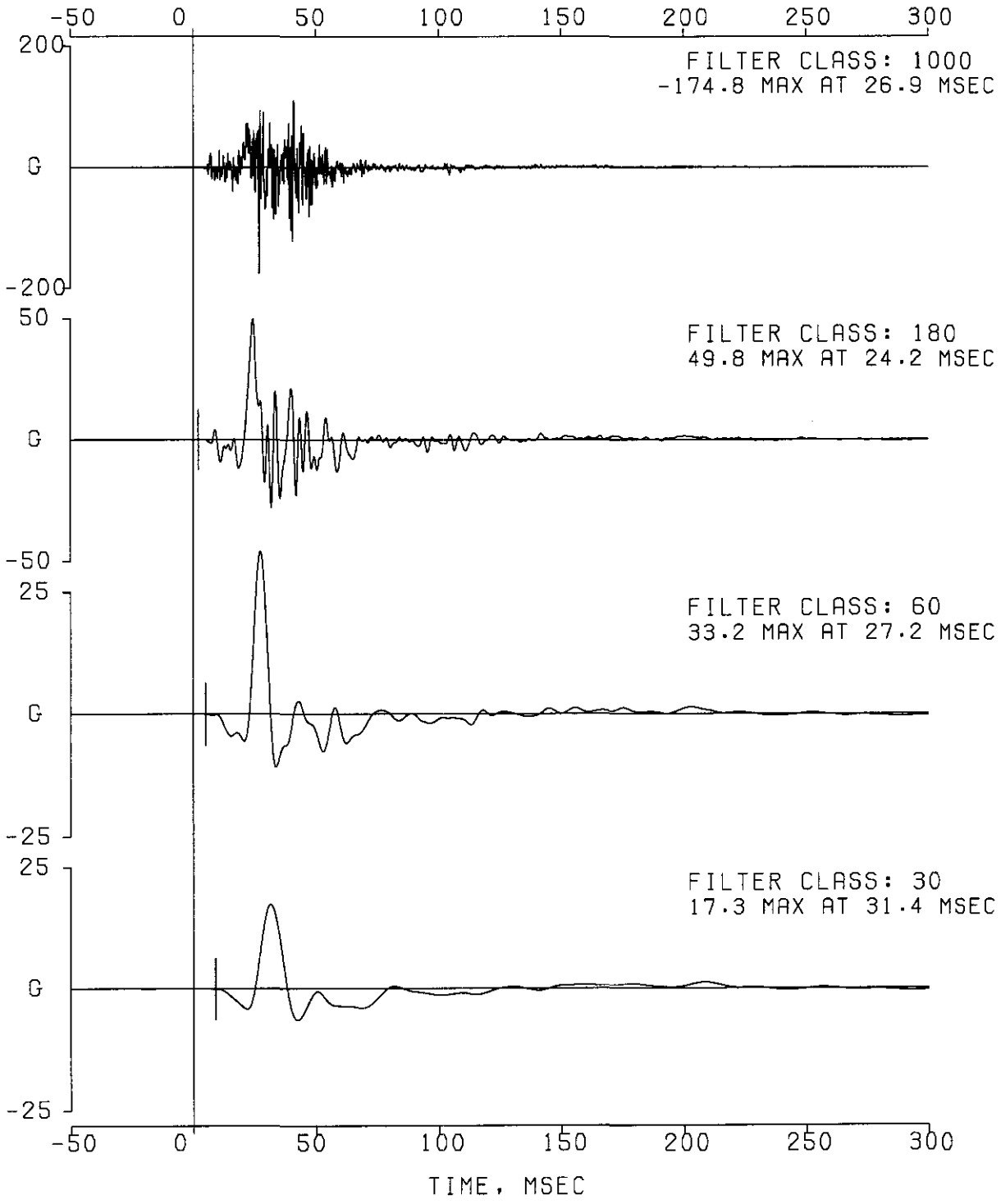


C0MPUTED MPH
C0MPUTED IN

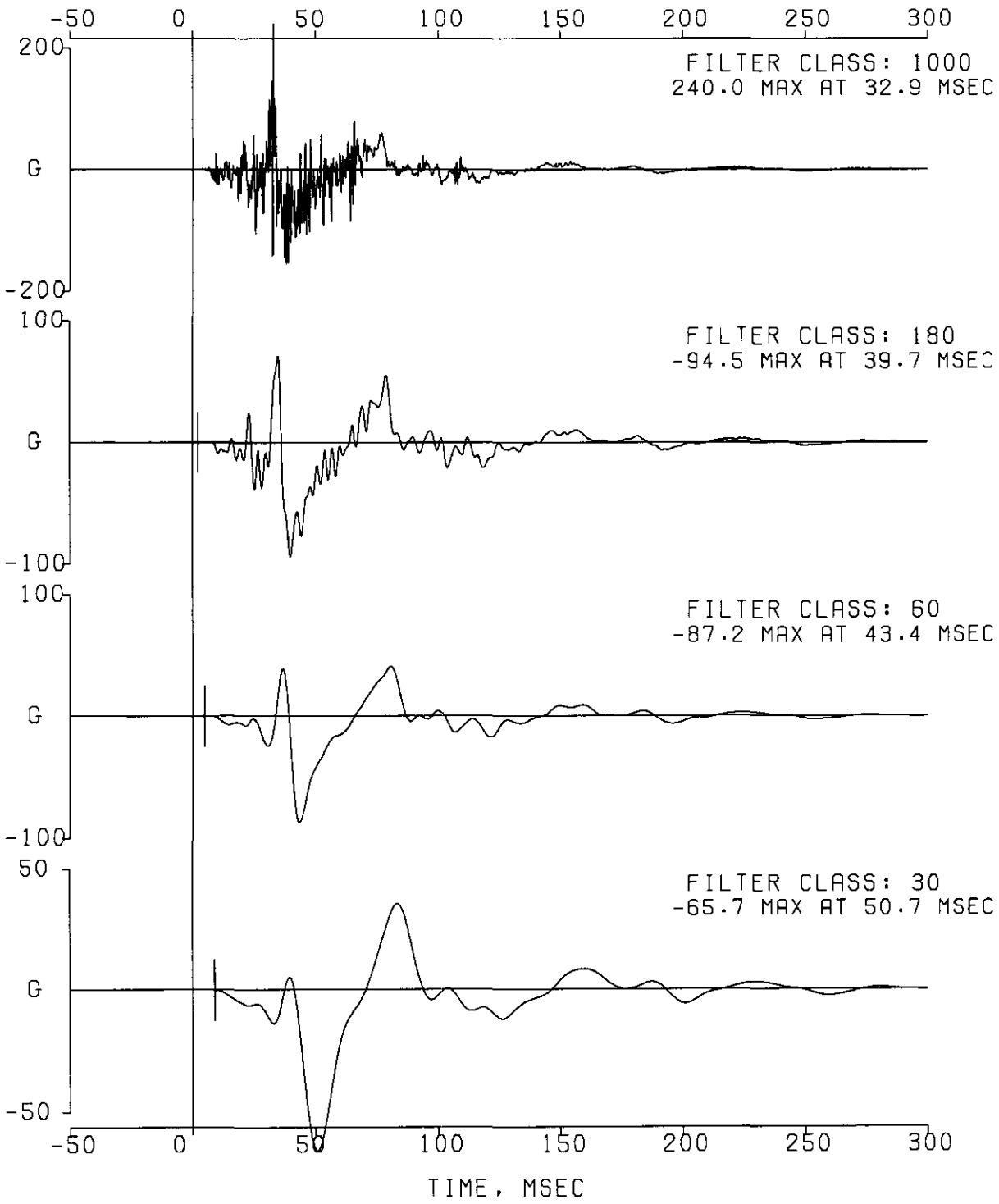
CHANNEL 010 FUEL TANK RL PASS-THRUY J25340
FILTER TYPE: 0BOAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 011 FUEL TANK RL PASS-THRUZ AHTJ7
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



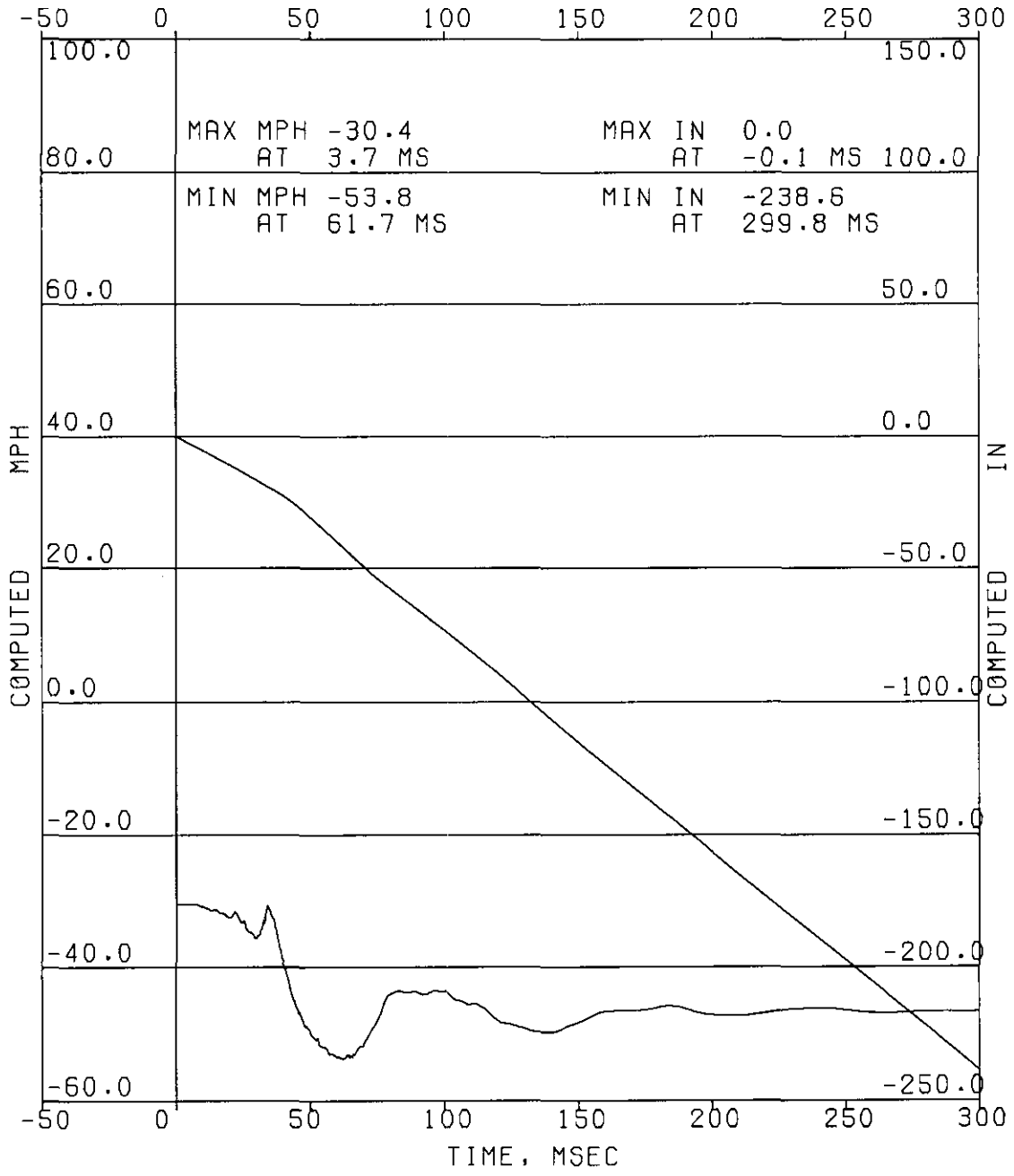
CHANNEL 012 FUELTANK BTM CTR X J17361
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 012 FUELTANK BTM CTR X J17361

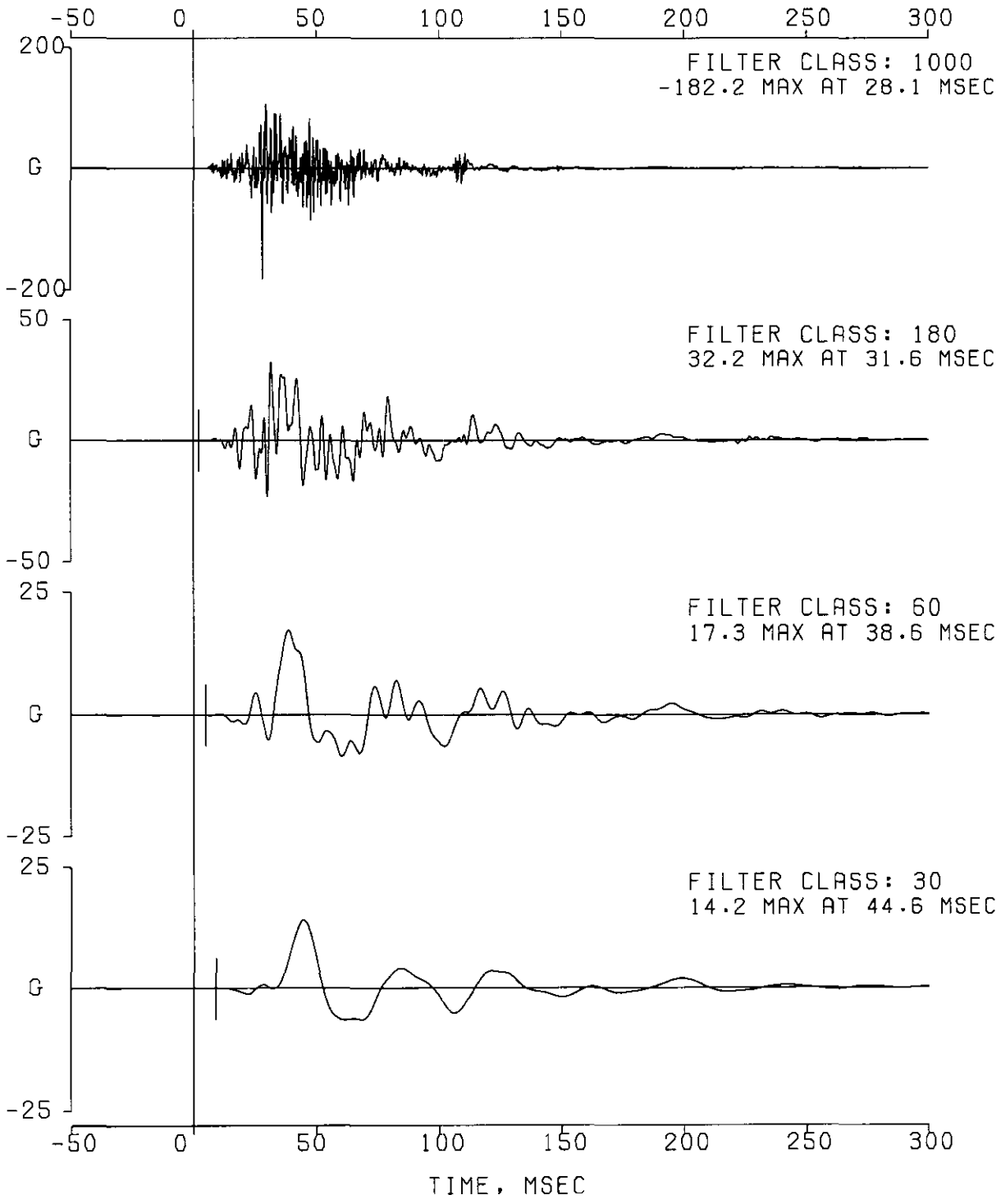
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

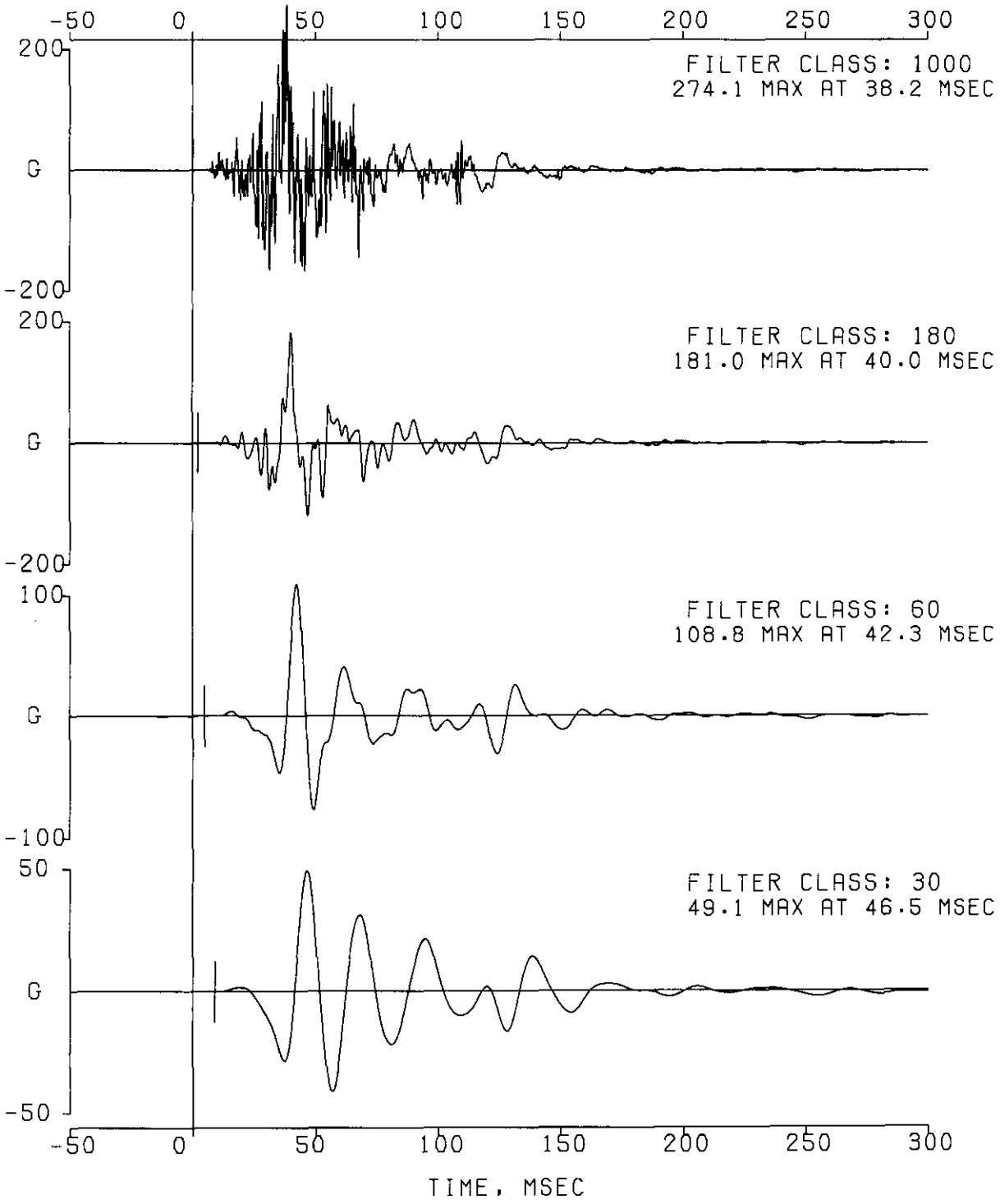


COMPUTED MPH
COMPUTED IN

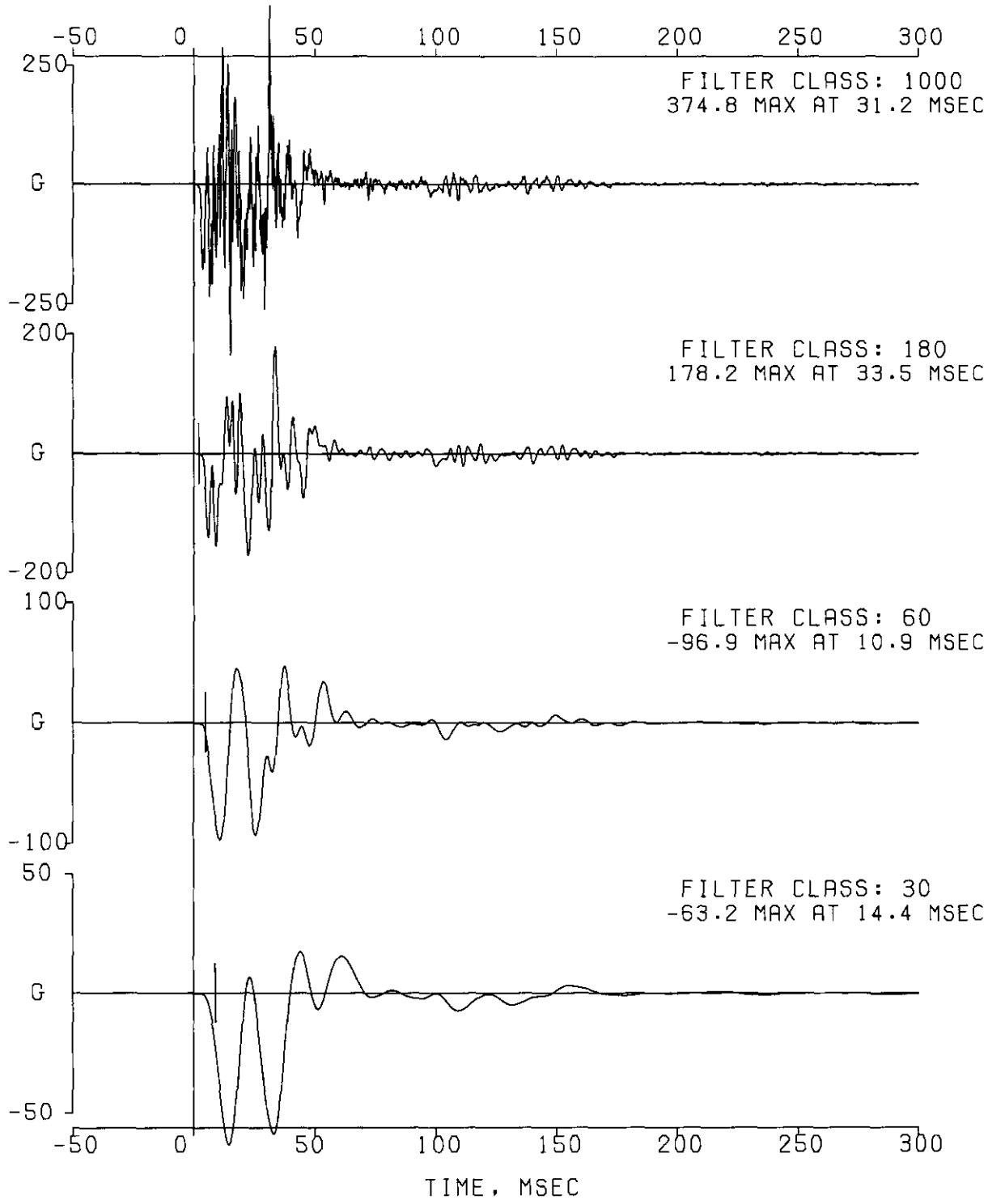
CHANNEL 013 FUELTANK BTM CTR Y AHT27
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 014 FUELTANK BTM CTR Z AH066
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



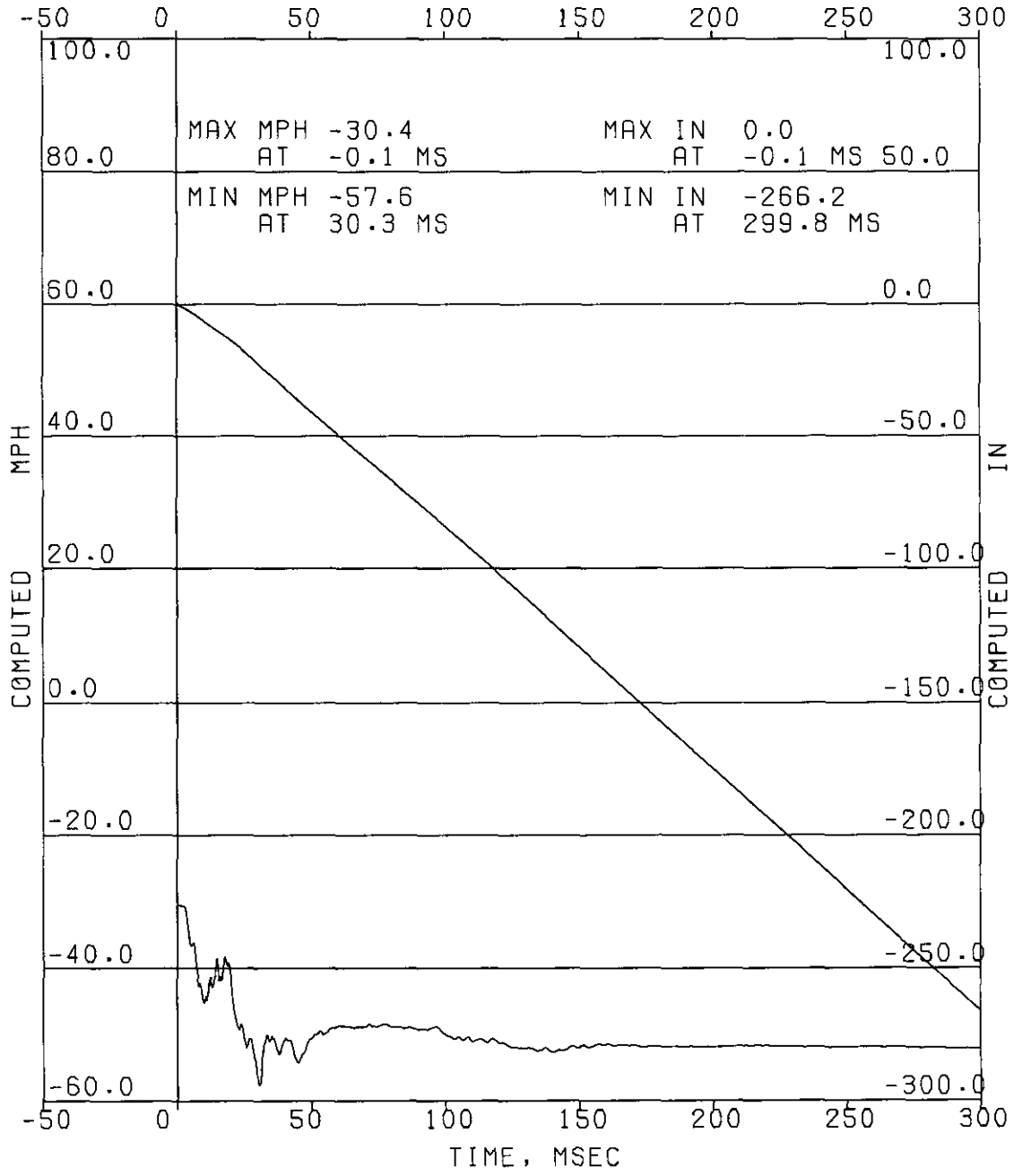
CHANNEL 015 SWINGGATE ABV DR HANDLX AAH65
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



CHANNEL 015 SWINGGATE ABV DR HANDLX AAH65

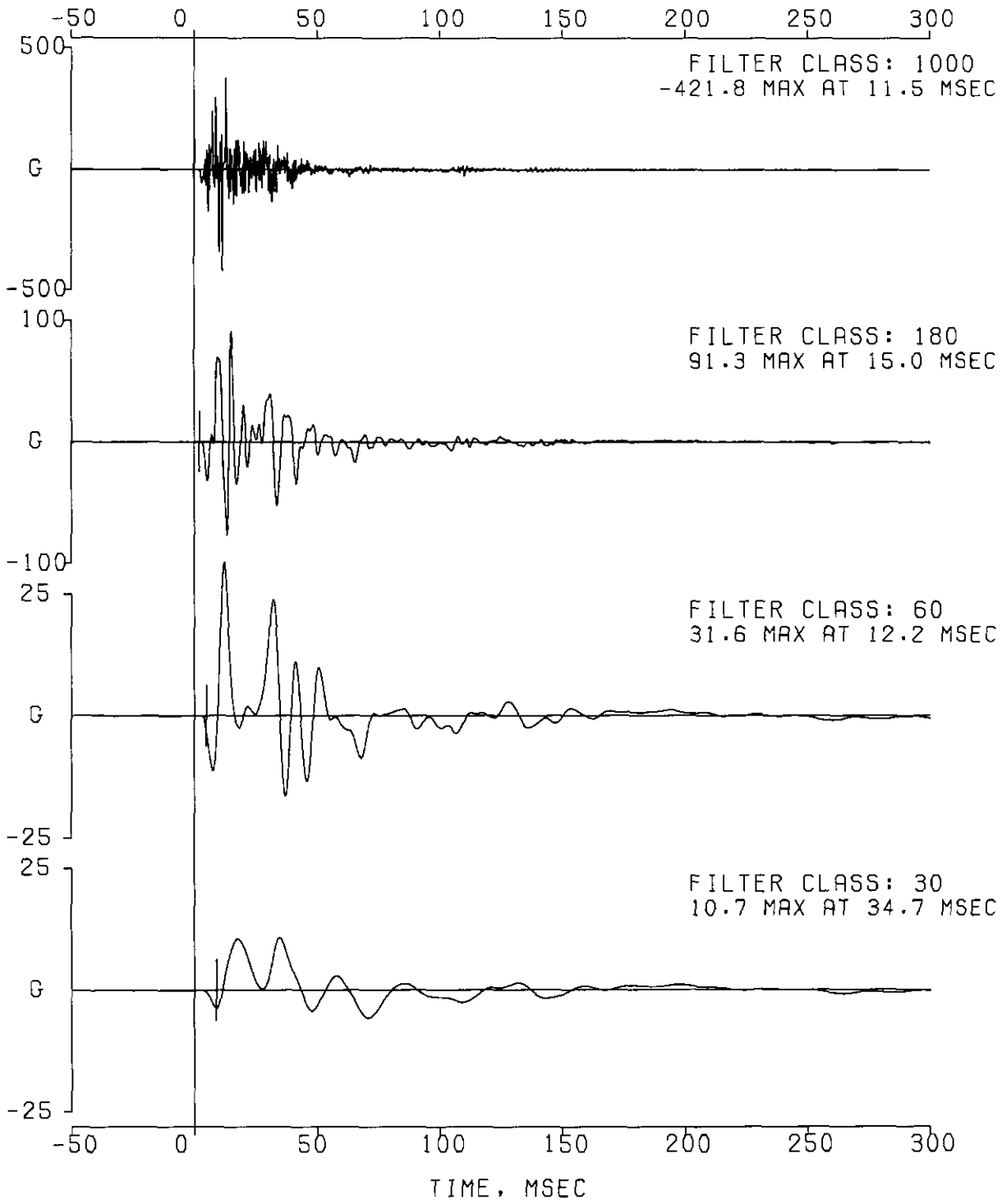
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1

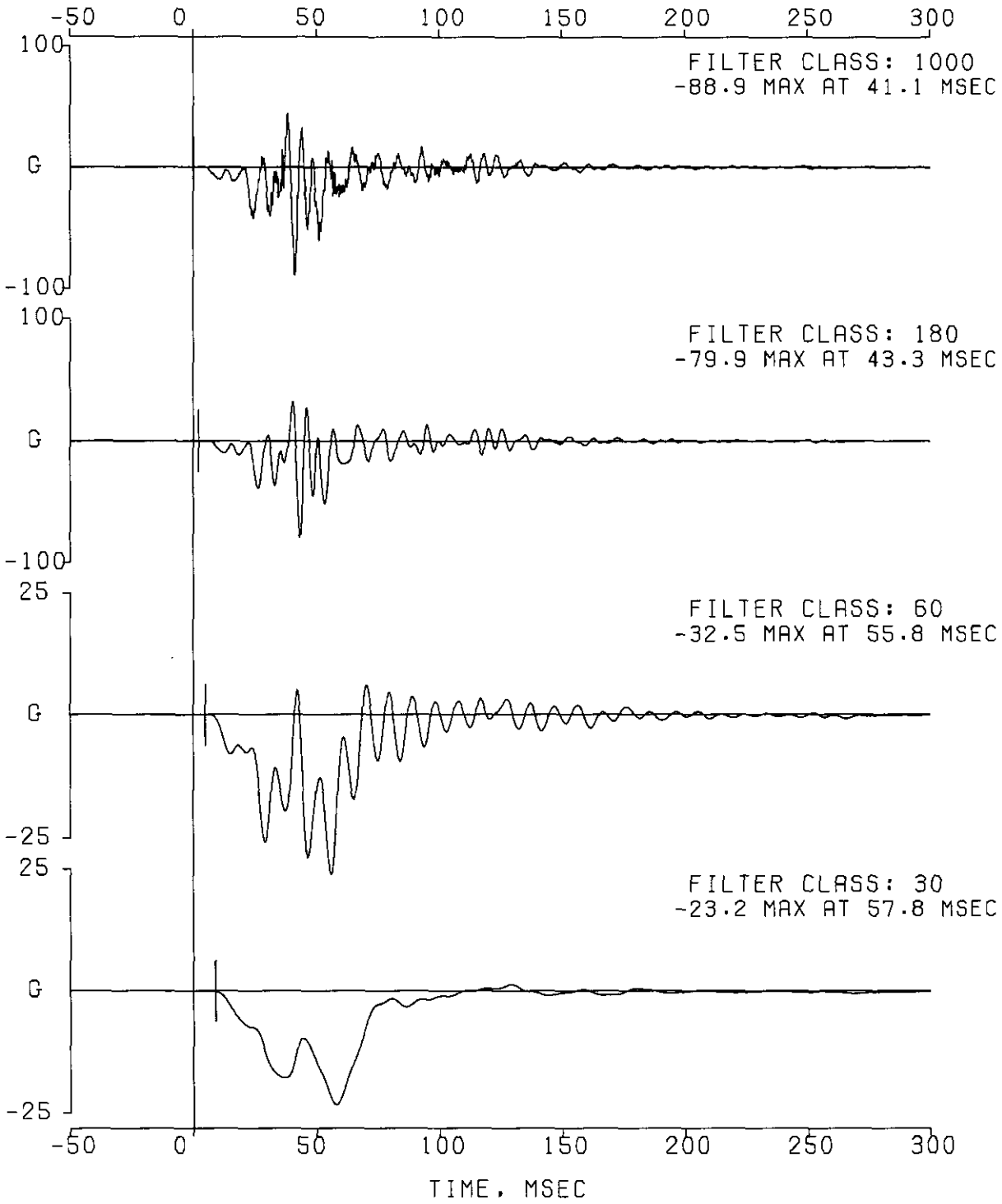


COMPUTED MPH
COMPUTED IN

CHANNEL 016 SWINGGATE ABV DR HANDLZ AGP65
FILTER TYPE: 0BOAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BG
JAN 30,2001 ERRATA 1



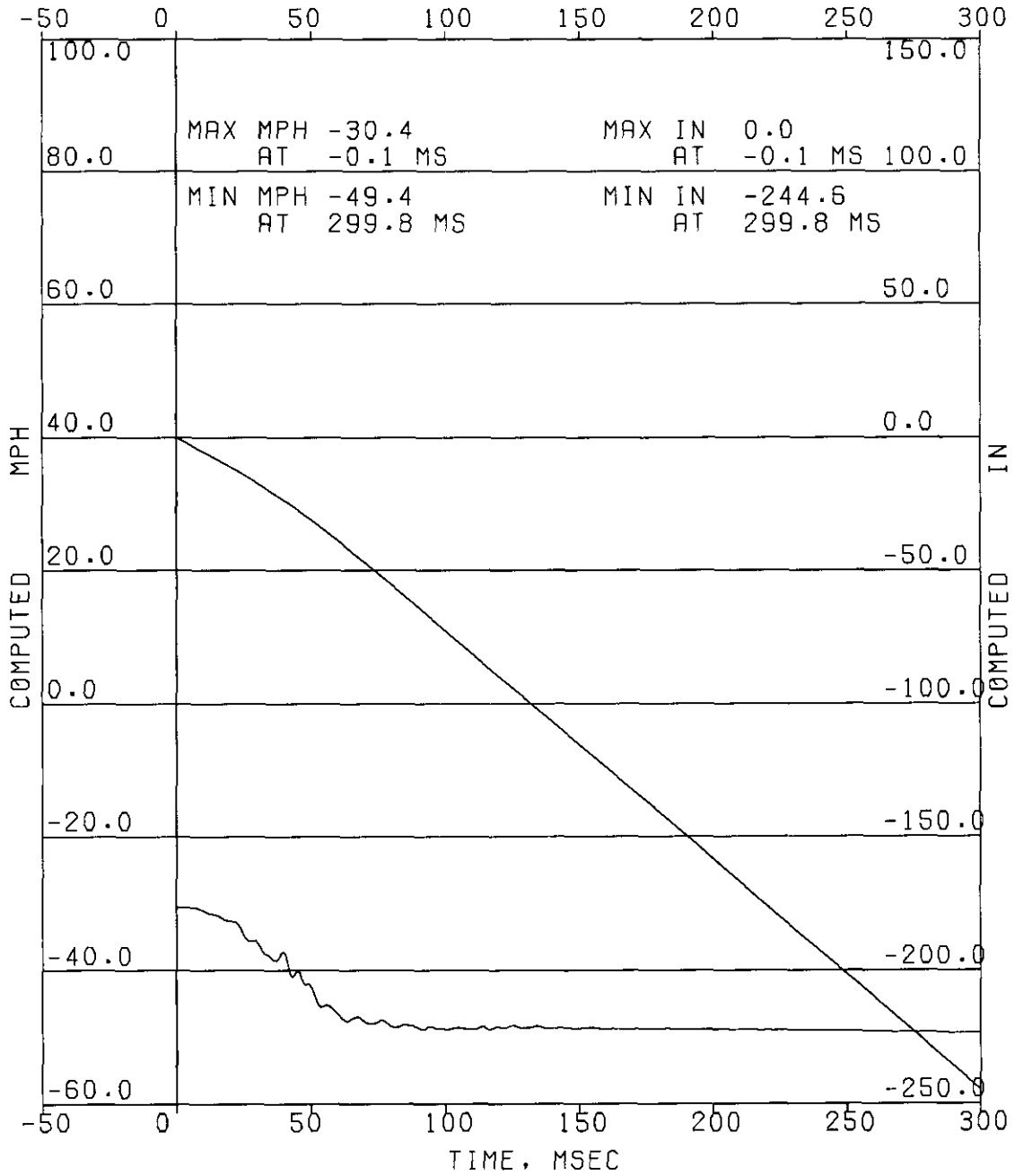
CHANNEL 017 ORC TOP FT LT X AAKB7
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



CHANNEL 017 ORC TOP FT LT X AAKB7

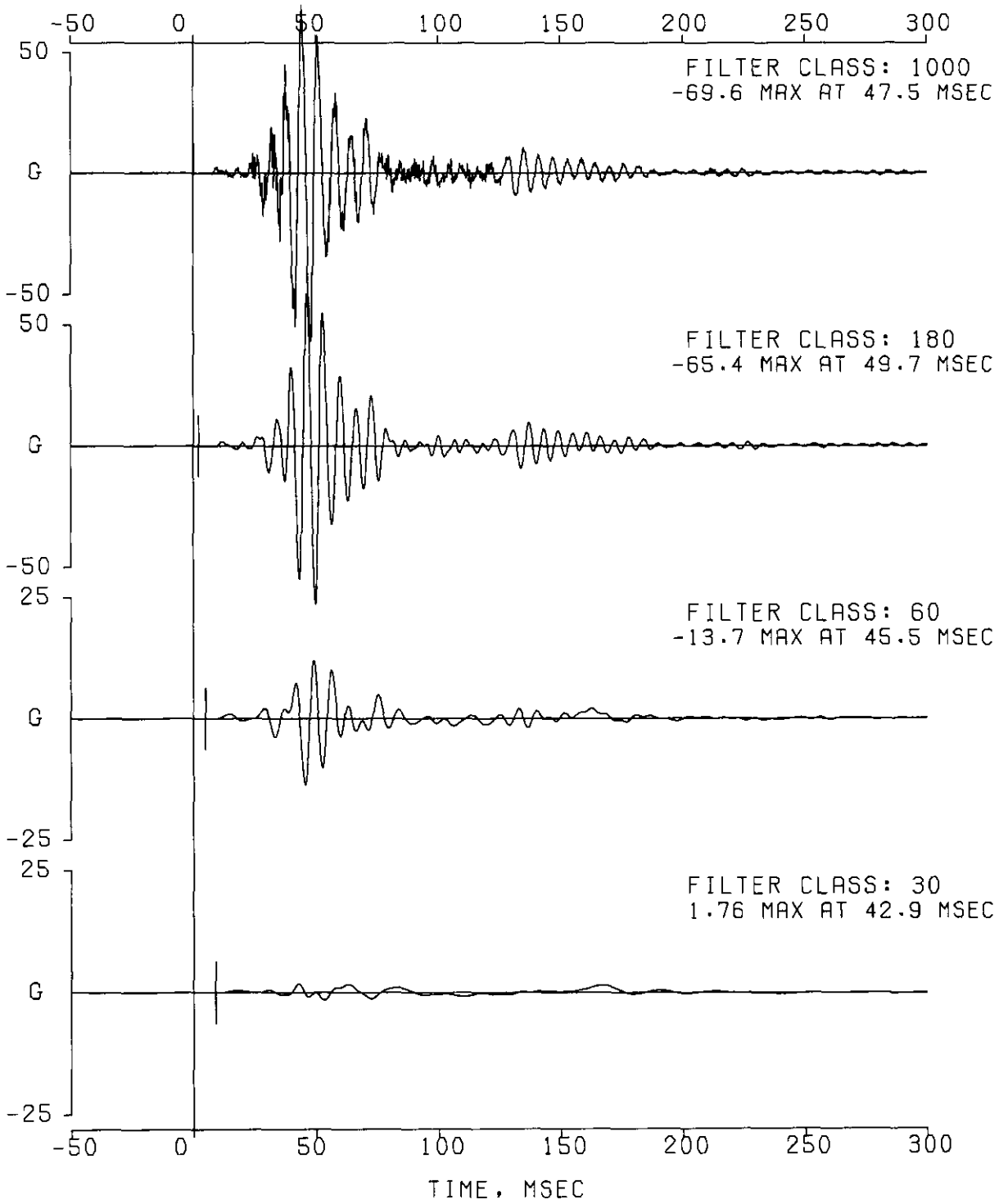
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1

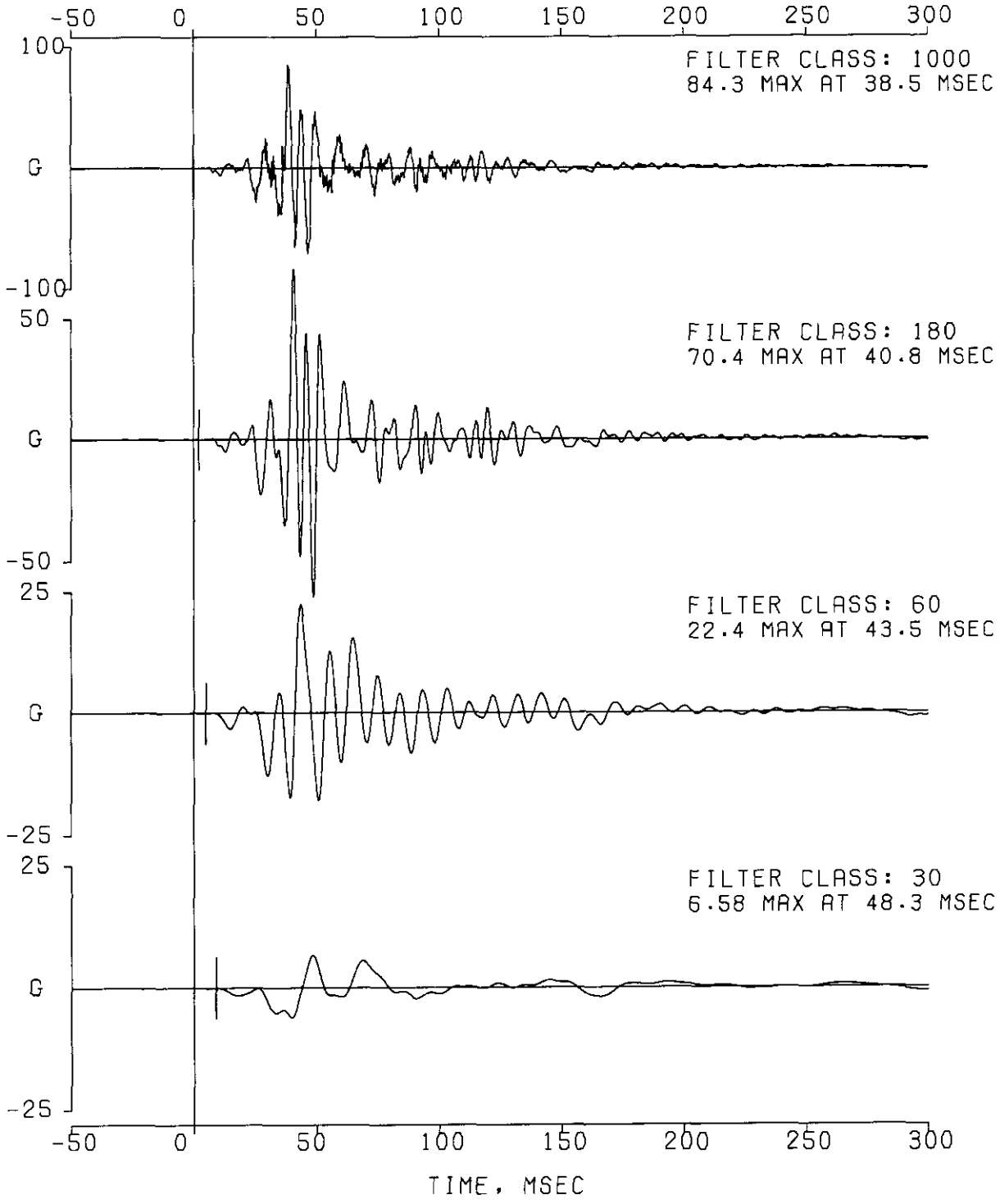


COMPUTED MPH
COMPUTED IN

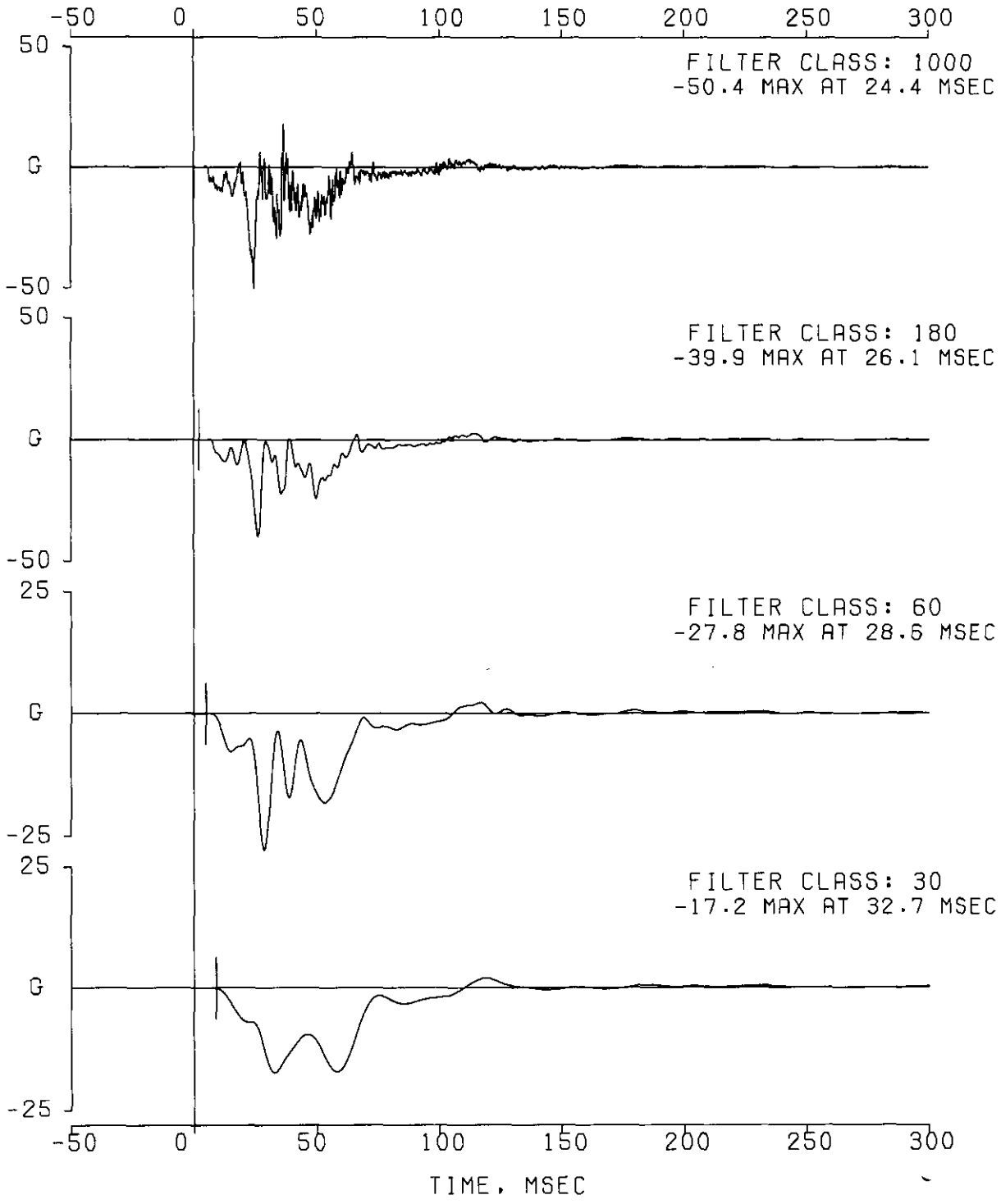
CHANNEL 018 0RC T0P FT LT Y J15463
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



CHANNEL 019 ORC TOP FT LT Z P13322
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



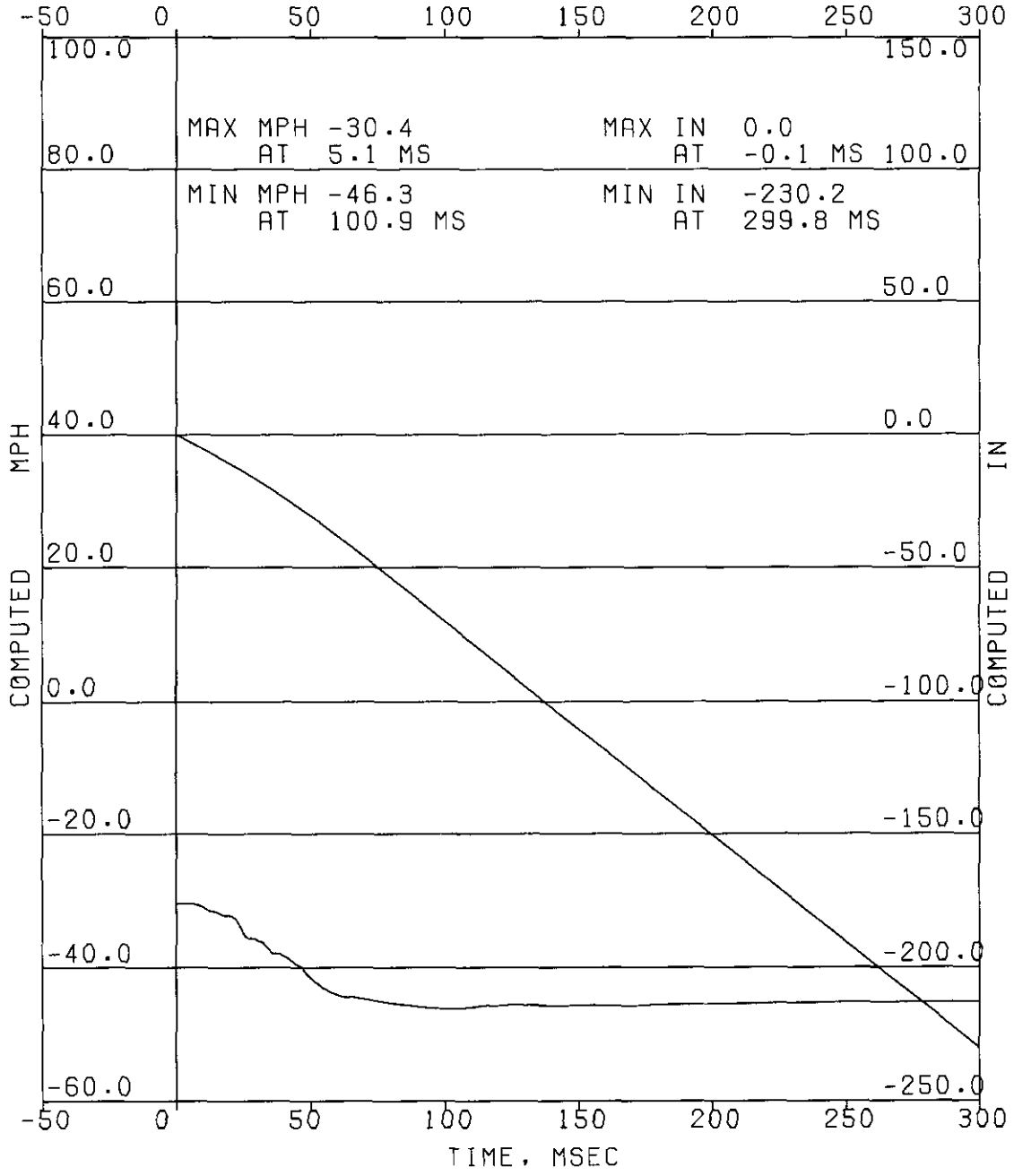
CHANNEL 020 LEFT FRONT SILL X ETBBB21
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



CHANNEL 020 LEFT FRONT SILL X ETBBB21

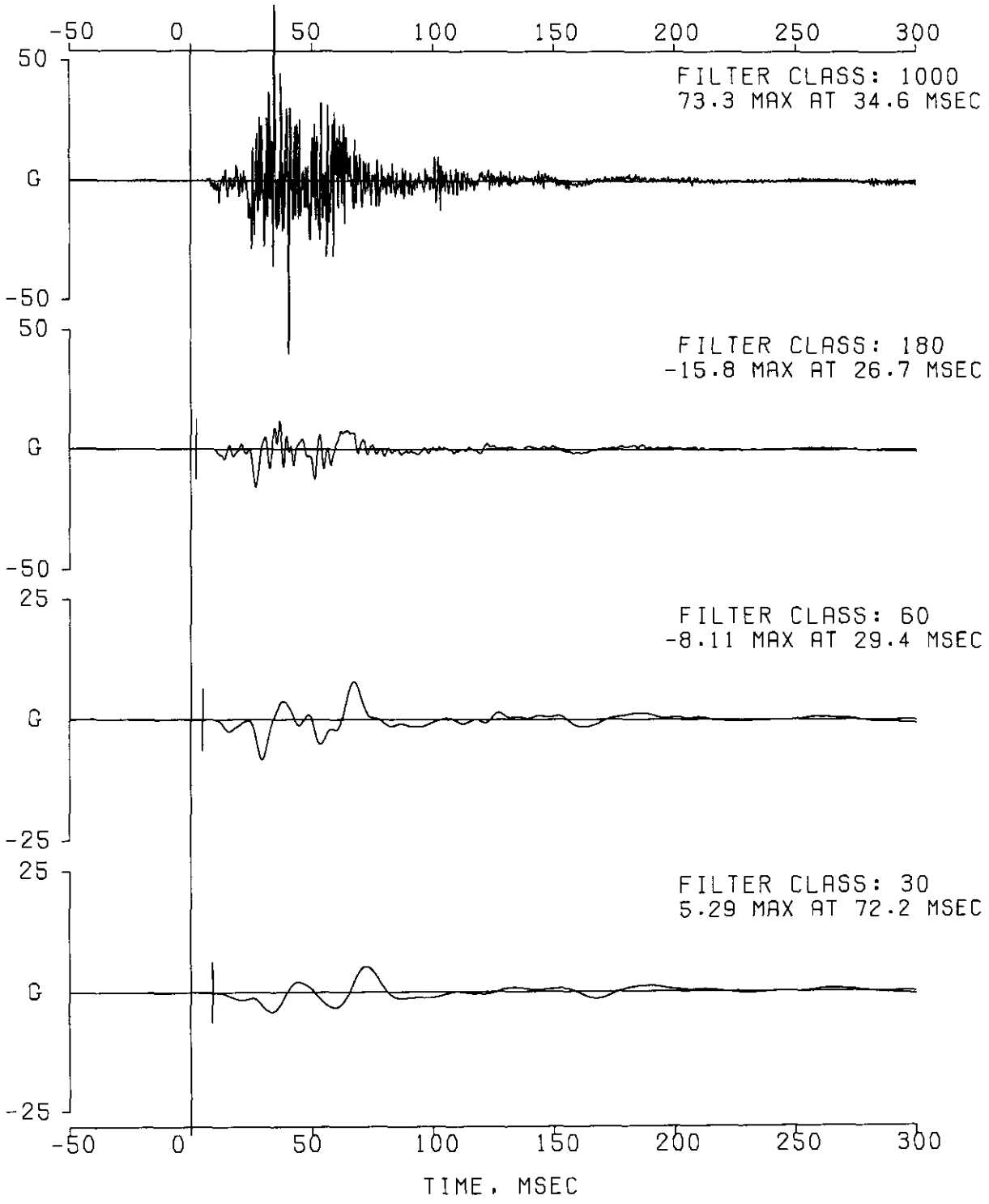
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1

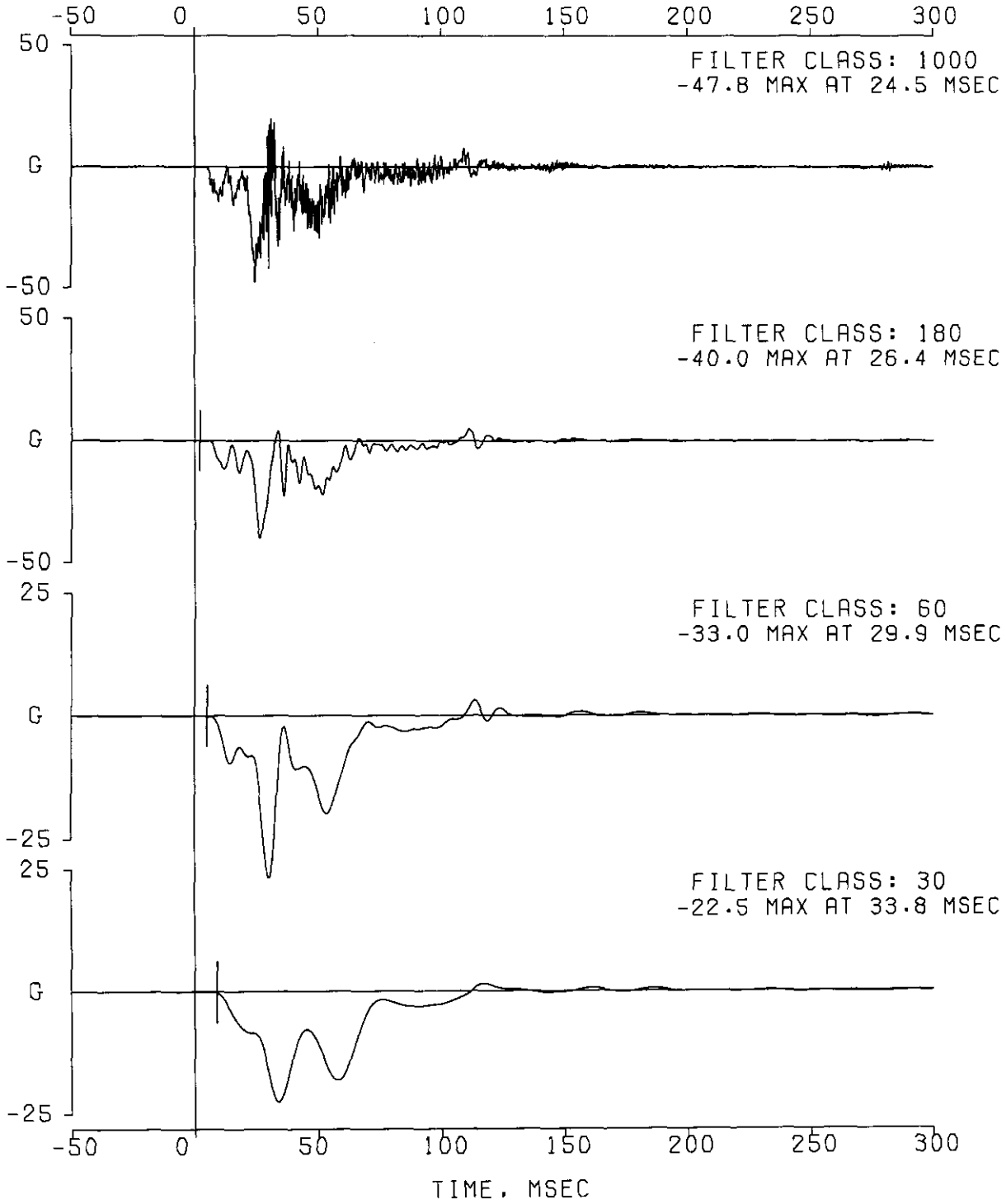


COMPUTED MPH
COMPUTED IN

CHANNEL 021 LEFT FRONT SILL Z ETBBB33
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



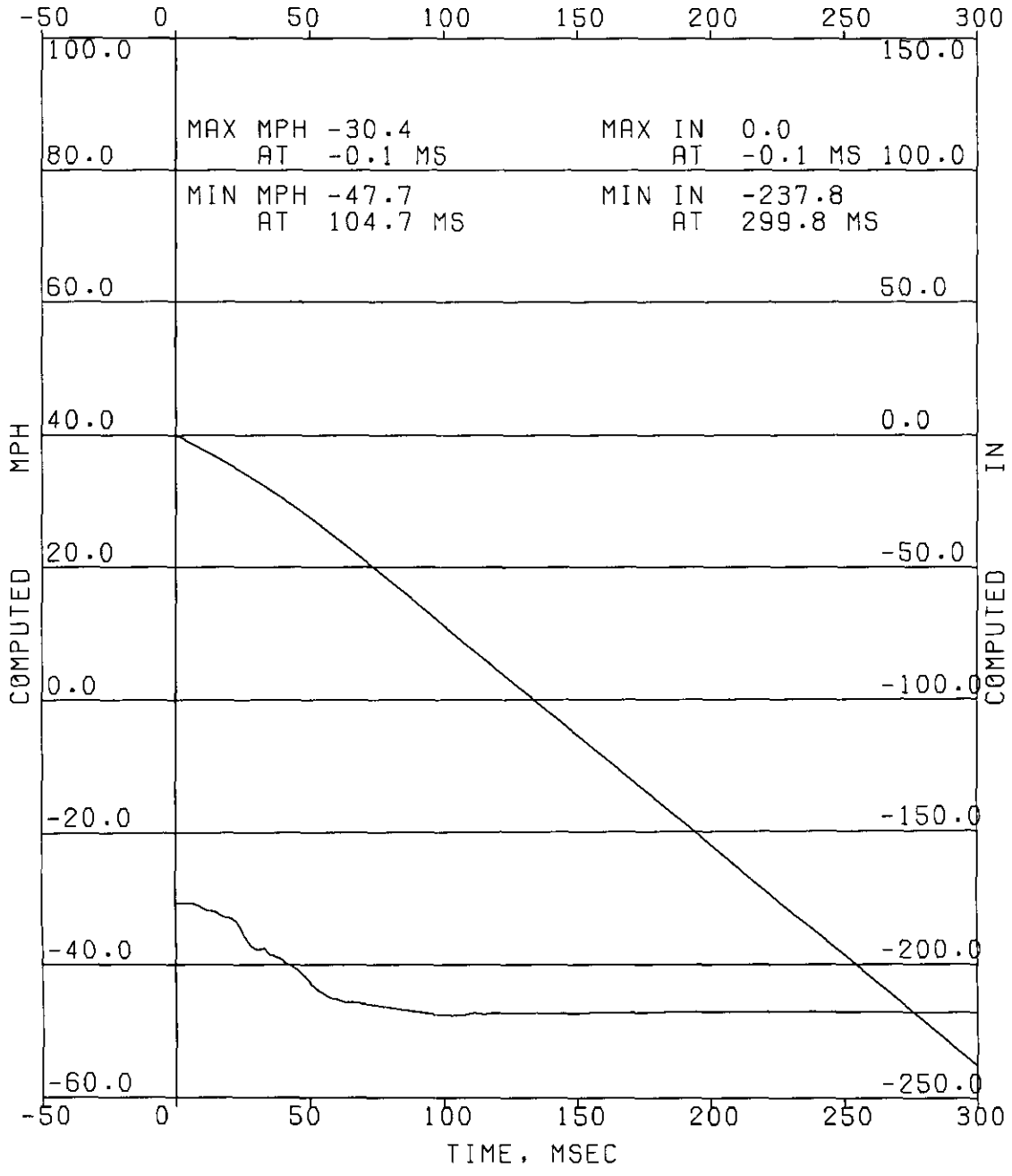
CHANNEL 022 RIGHT FRONT SILL X J17456
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



CHANNEL 022 RIGHT FRONT SILL X J17456

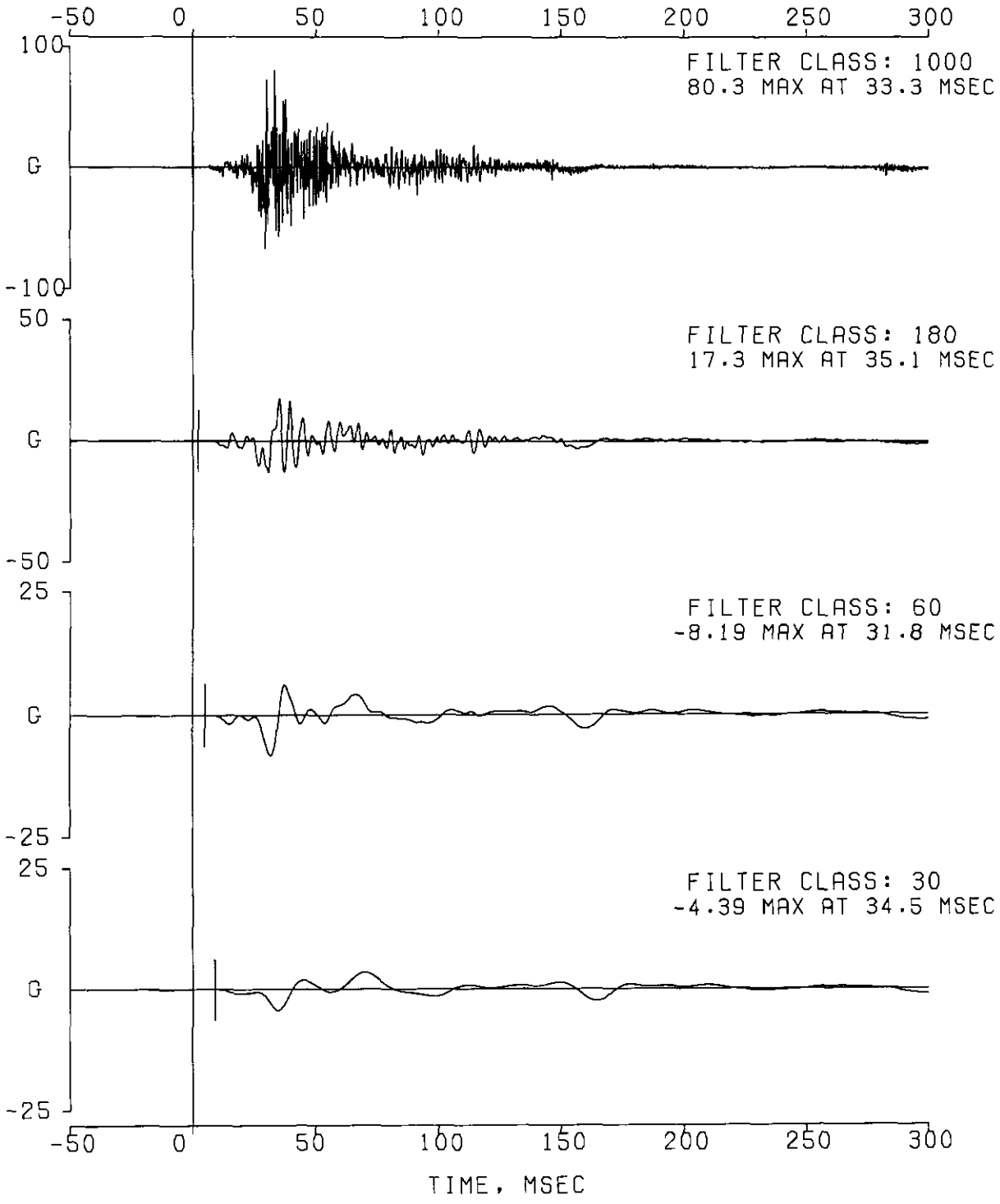
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1

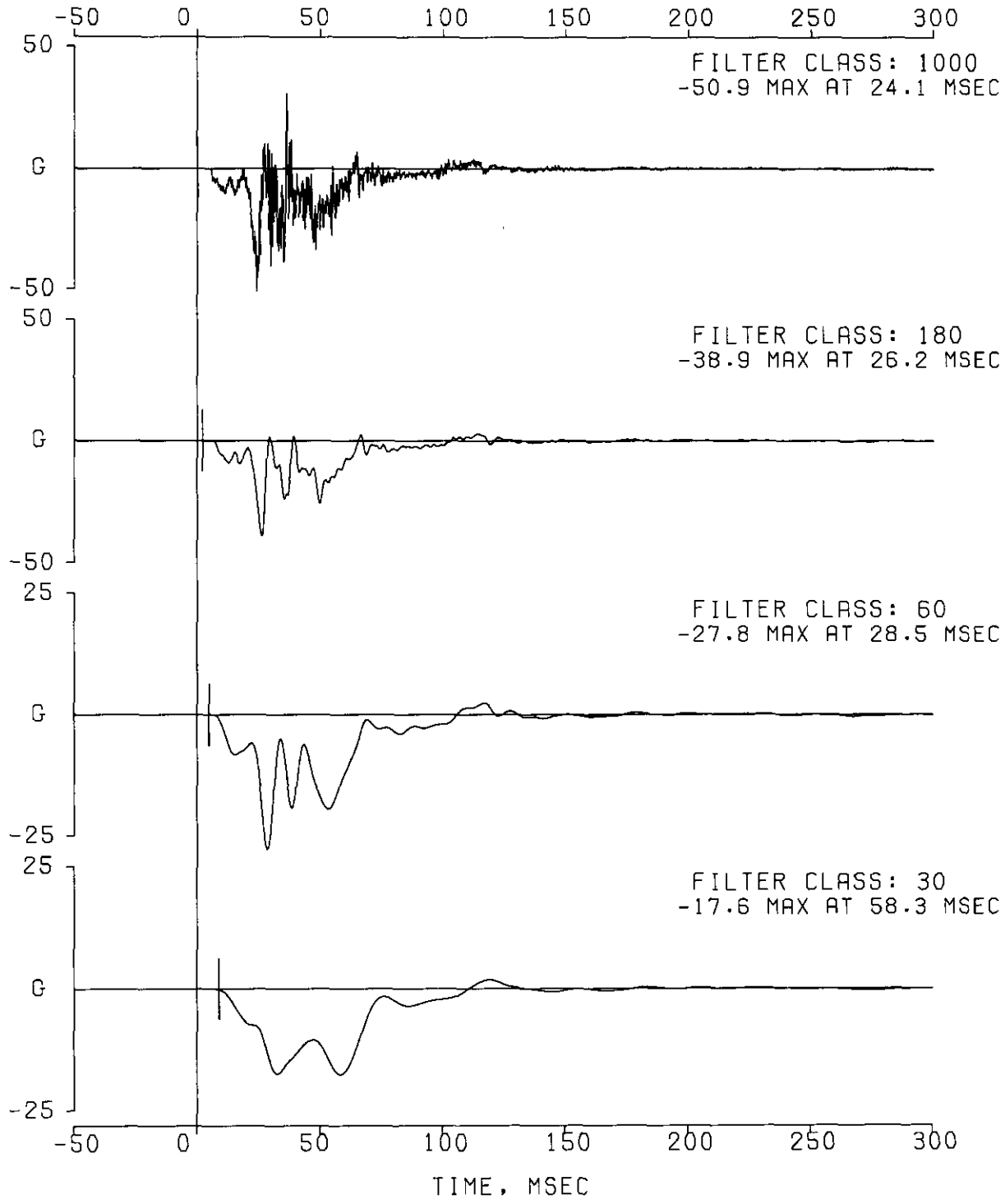


COMPUTED MPH
COMPUTED IN

CHANNEL 023 RIGHT FRONT SILL Z A08NJ
FILTER TYPE: SAE J211/1 DAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



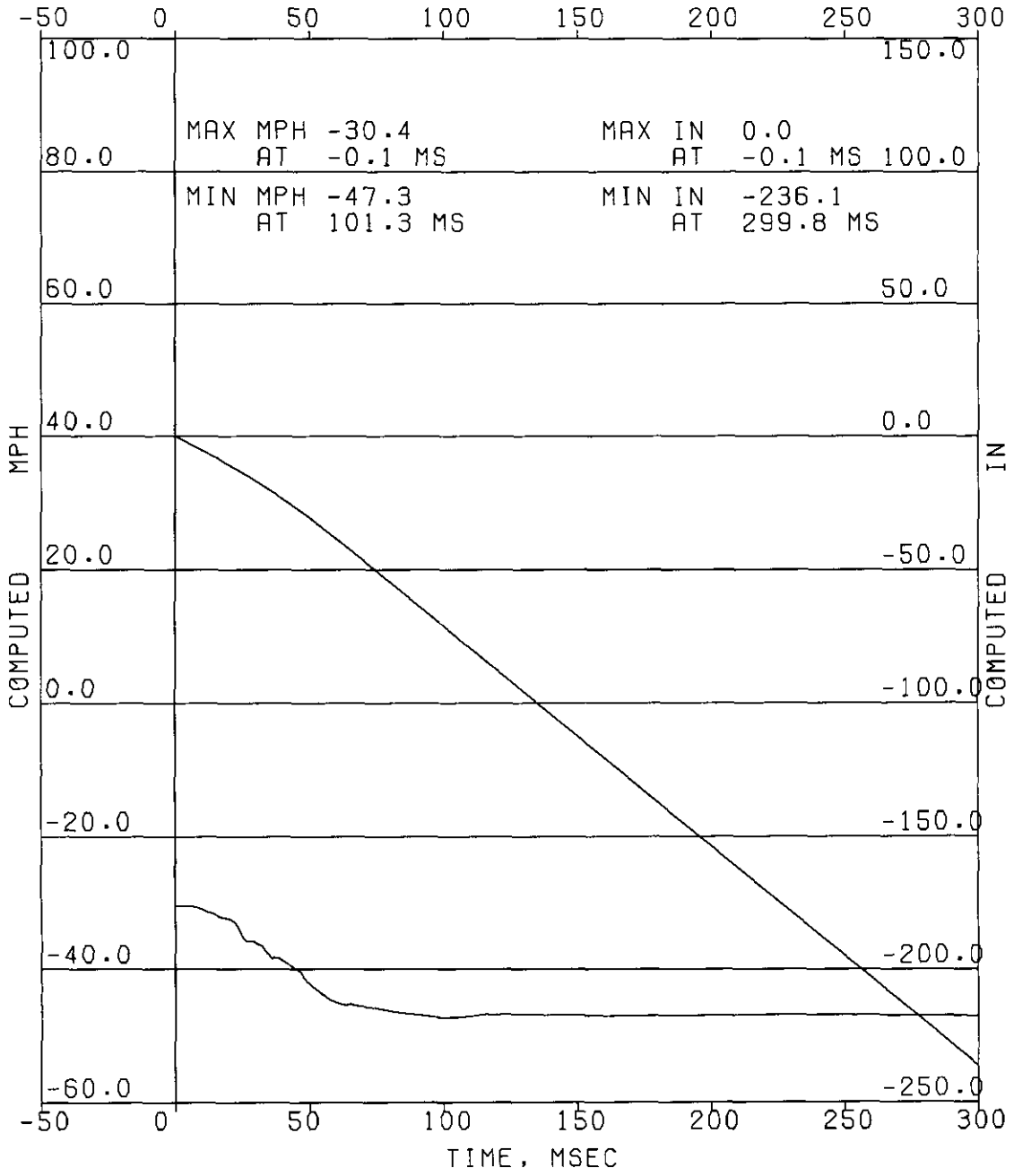
CHANNEL 024 LEFT REAR SILL X ETBBB99
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



CHANNEL 024 LEFT REAR SILL X ETBBB99

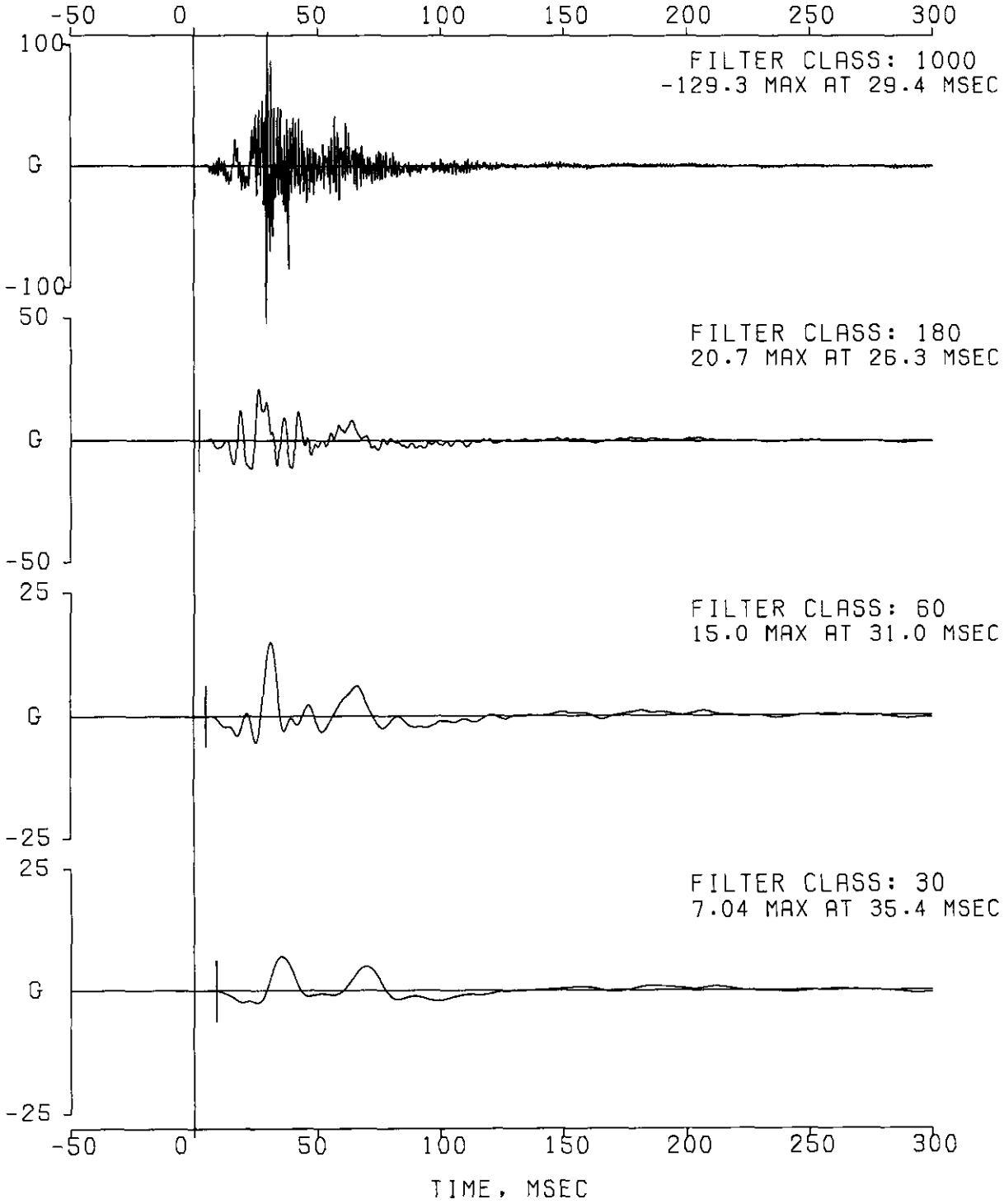
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1

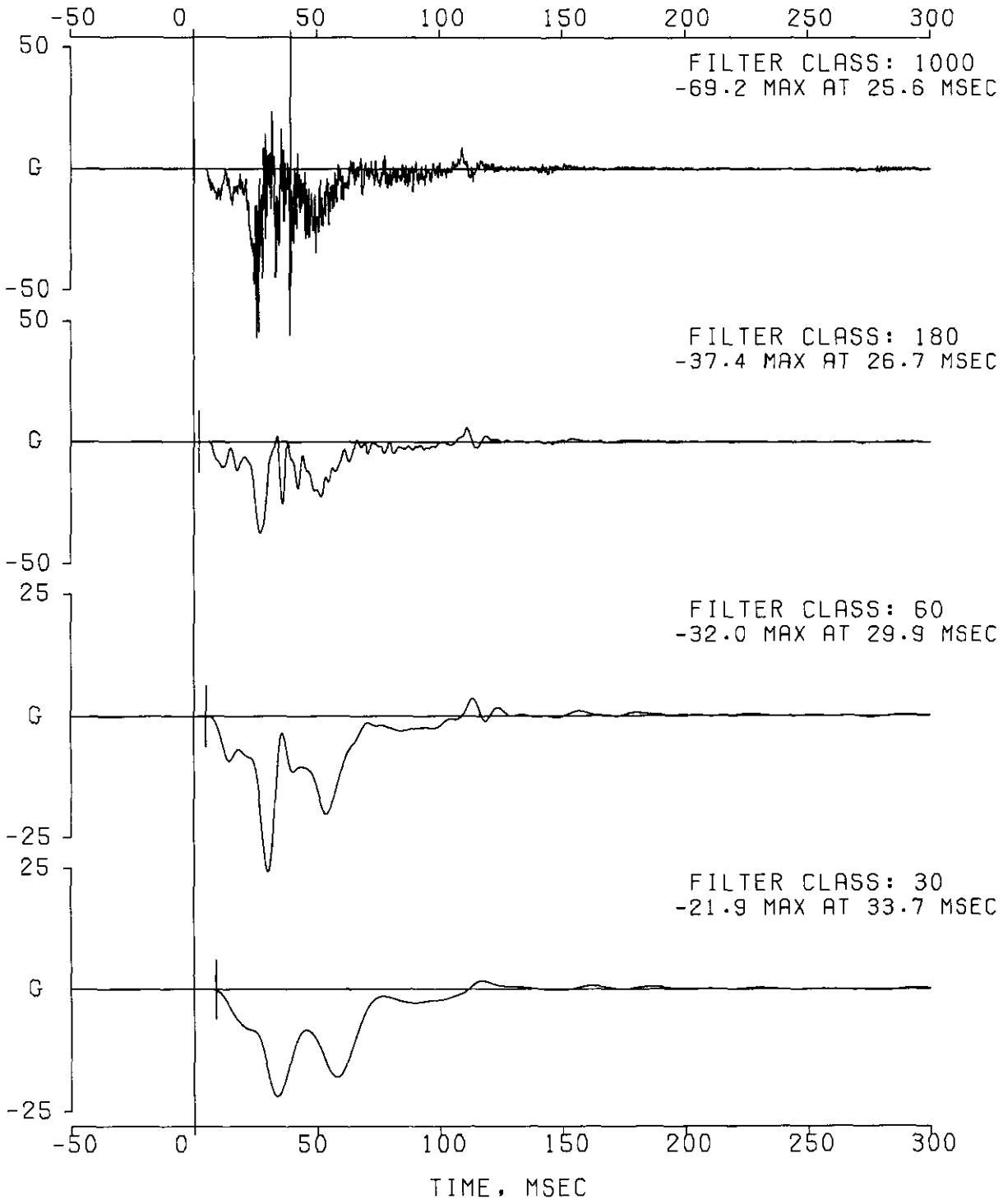


COMPUTED MPH
COMPUTED IN

CHANNEL 025 LEFT REAR SILL Z ETBBB92
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



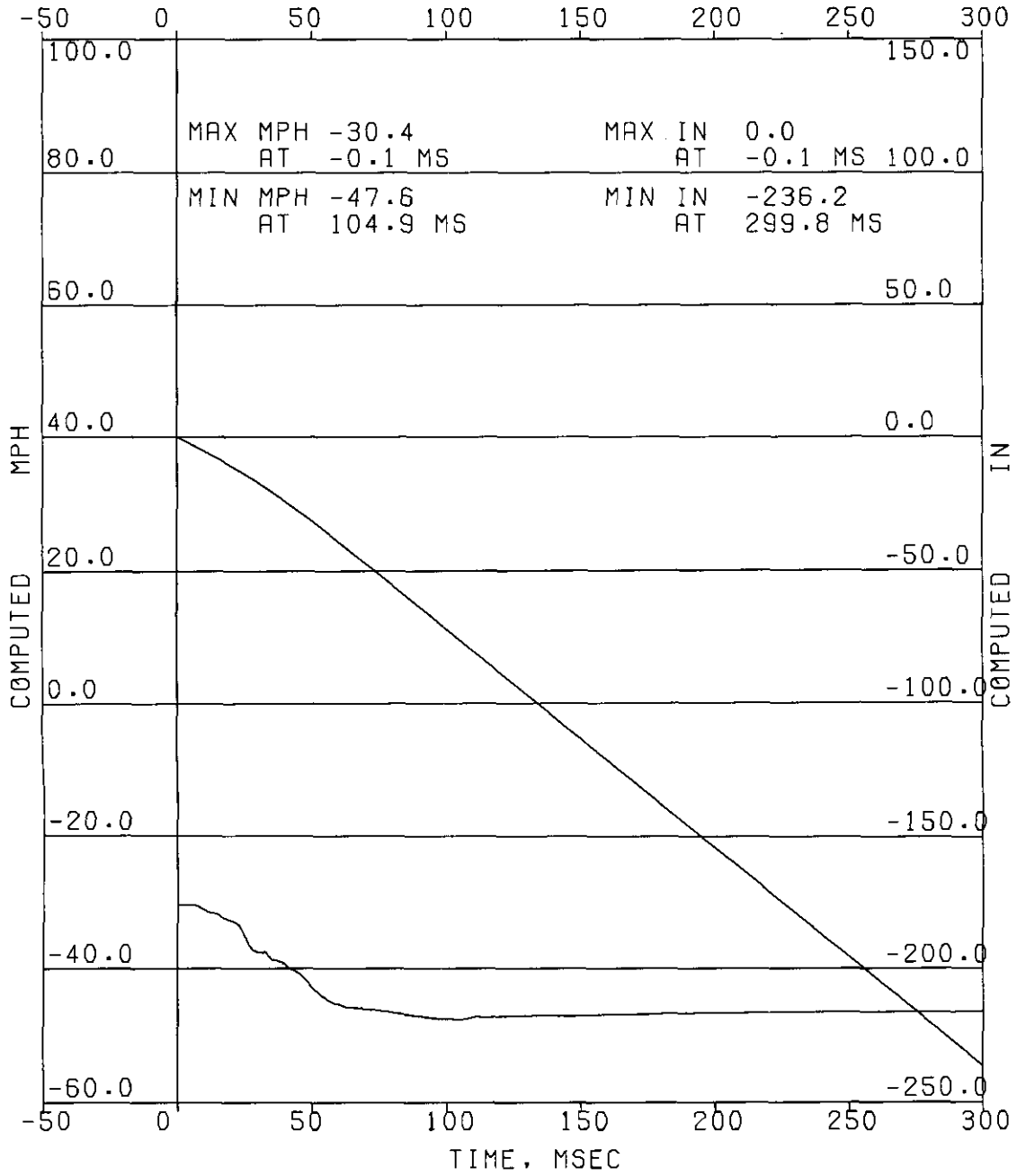
CHANNEL 026 RIGHT REAR SILL X AABE9J
FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



CHANNEL 026 RIGHT REAR SILL X AABE9J

FILTER TYPE: 0BDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

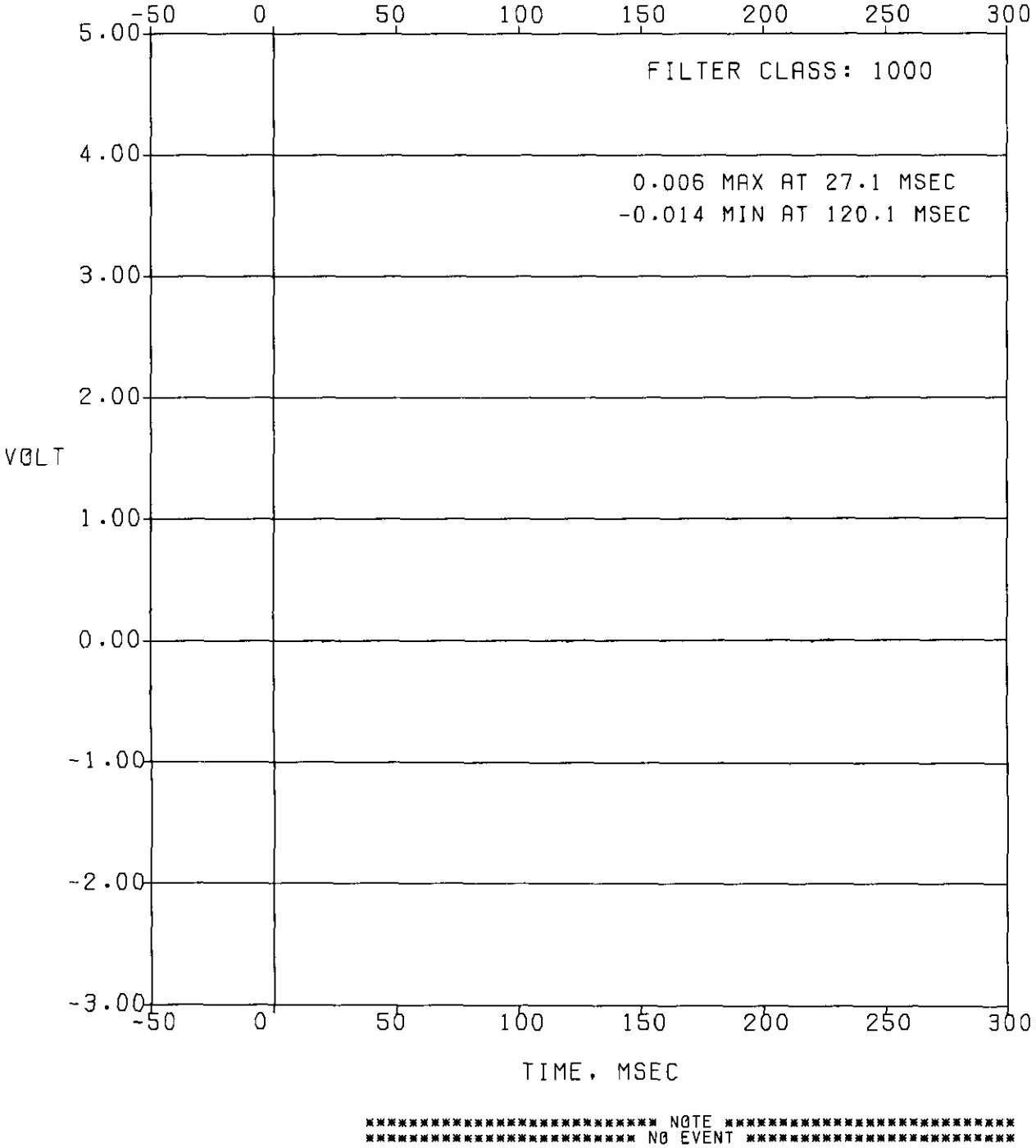
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



COMPUTED MPH
COMPUTED IN

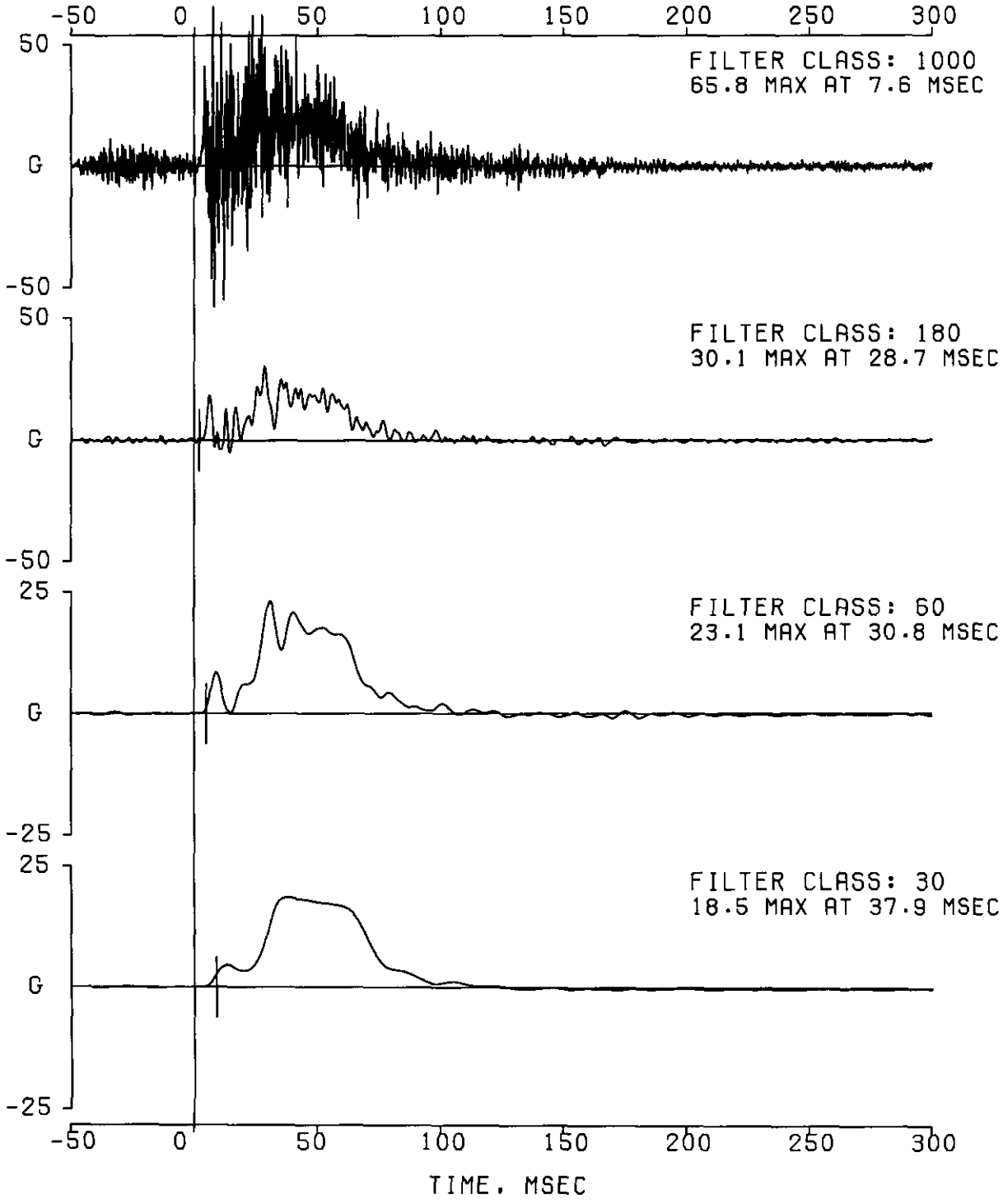
CHANNEL 028 DRIVER SQUIB EVENT EE

FILTER TYPE: BOAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BH
JAN 30,2001 ERRATA 1



********** NOTE **********
********** NO EVENT **********

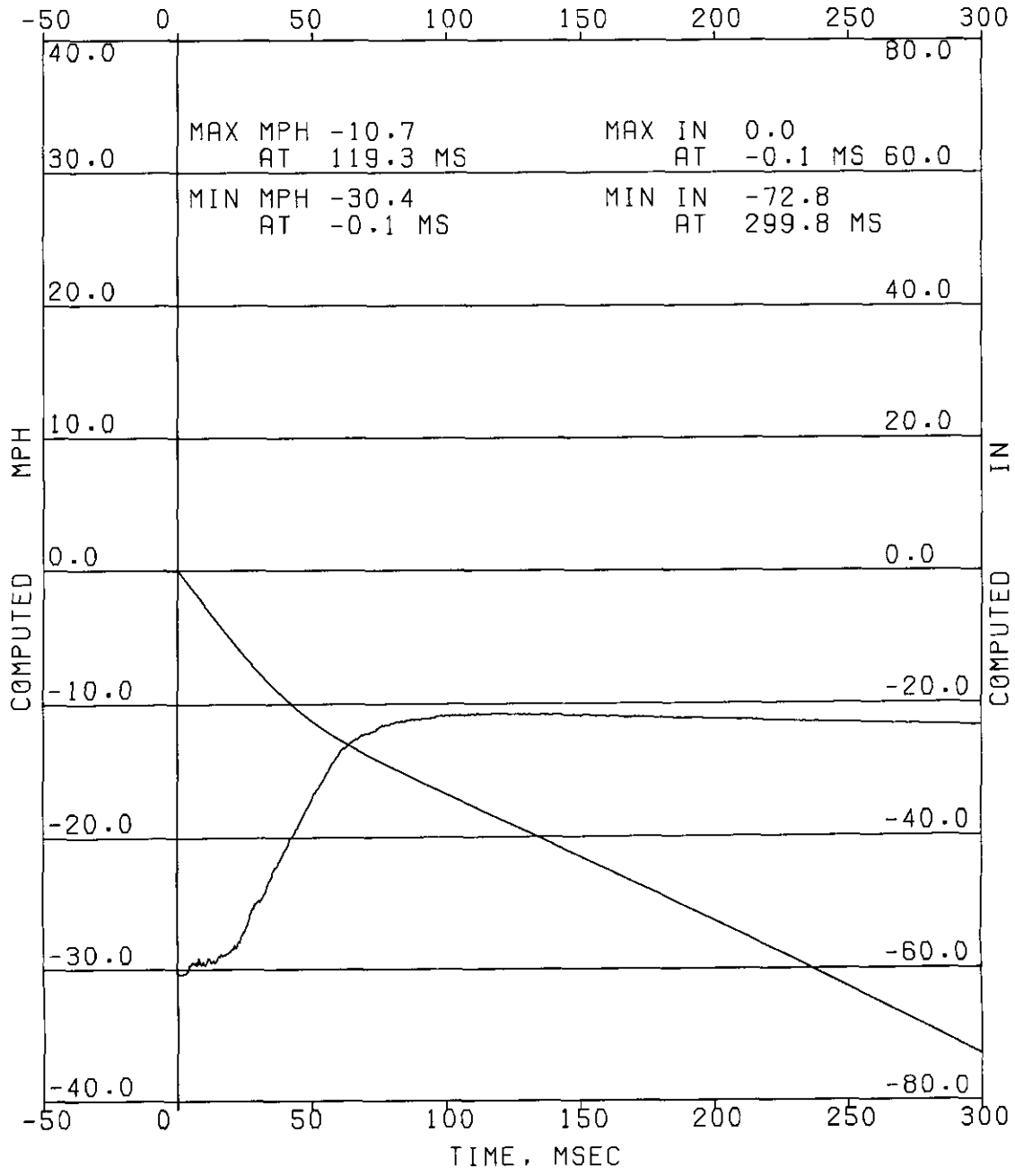
CHANNEL 033 LT RAIL MBAR MID X 14414
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BI
JAN 30.2001 ERRATA 1



CHANNEL 033 LT RAIL MBAR MID X 14414

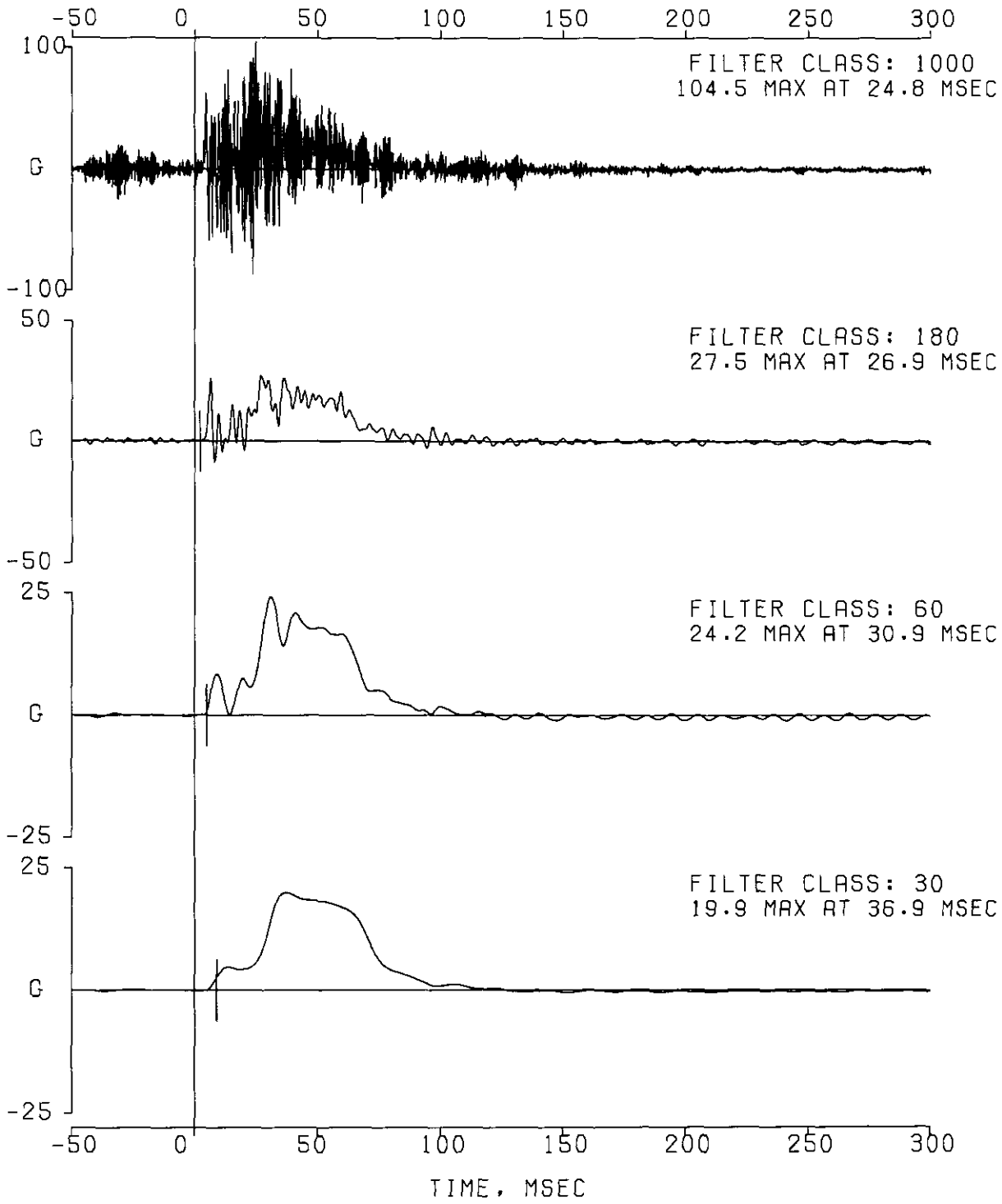
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BI
JAN 30,2001 ERRATA 1



COMPUTED MPH
COMPUTED IN

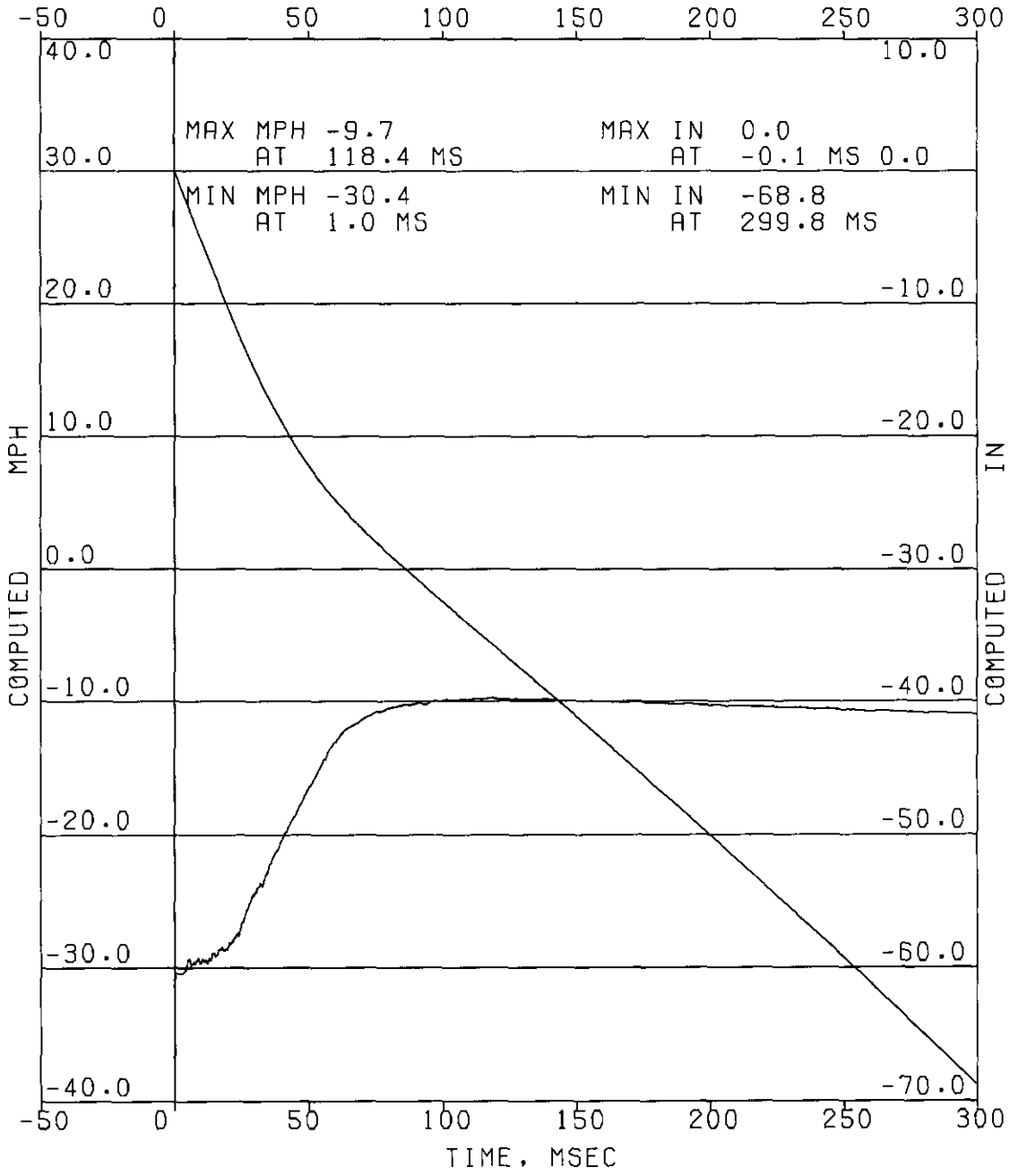
CHANNEL 034 RT RAIL MBAR MID X 510091
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BI
JAN 30,2001 ERRATA 1



CHANNEL 034 RT RAIL MBAR MID X 510091

FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320 DATA SET 01/29/01BI
JAN 30,2001 ERRATA 1



COMPUTED MPH
COMPUTED IN

DATE 03/20/03 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 14:37:48. EDP TEST LETTER DEPT 5320

VC10546 ITEM KJ4W100041
VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 03/10/03
TEST SITE MORTON-AUTOLIV

TEST PURPOSE	PRIMARY, 2004 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.3 KPH
	DAMAGE LOCATION;	REAR (FULL)
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	3.7 LITER
	ENGINE NOTE;	V6
	TRANSMISSION;	5 SPEED MANUAL
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL38K74W[redacted] MOD.
	VIN AS BUILT;	1J8GL38K74W[redacted] MOD.
TEST SPEED	48.8 KPH BY ELECTRONIC TRAP TIMER 1	
TEST WEIGHT (KG)	2245.3 TOTAL, 1170.7 FRONT, 1074.6 REAR	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH	AD-TA1
	RESTRAINT- 3-PT UNIBELT ONLY	
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH	AD-TA2
	RESTRAINT- 3-PT UNIBELT ONLY	

DATE 03/20/03 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 14:37:48. EDP TEST LETTER DEPT 5320

VC10546 ITEM KJ4W100041
VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 03/10/03
TEST SITE MORTON-AUTOLIV

BUILD CONDITION	ORIGINAL BUILD: 2004 S1 BUILT LIBERTY RENEGADE -- FLEET #: C4KJJ-0212 MODIFICATIONS: - REMOVED ONE OF THREE DOOR HINGE BOLTS FROM ALL FOUR PASSENGER DOORS - DAB ADI9.2G V0 230KPA INFLATOR, 28" DIAMETER COATED BAG, 2X27.5MM VENTS, I TEAR SEAM, 10" TETHER, STAR FOLD - PAB PPI32S 50/50 LS2 INFLATOR - CYLINDRICAL, 160 LITRES, 2X50 MM VENTS, NO TETHER, UNCOATED 585 DTEX MATERIAL, 50/50 FOLD - INSTALLED PASSENGER AIRBAG COVER WITH H-PATTERN TEAR SEAM - INSTALLED DRIVER SEATBELT WITH MONOTWILL RUKAFLEX WEBBING - INSTALLED PASSENGER SEAT BELT WITH MONOTWILL RUKAFLEX WEBBING, 9.5MM DIAMETER TORSION BAR, PRETENSIONER, AND BUCKLE TENSION SENSOR - DID NOT INSTALL PASSENGER SEAT BELT WIRING HARNESS TO PRETENSIONER - DID NOT FLASH ORC WITH CALIBRATION 5
TARGET WEIGHT (KG)	2247 TOTAL, 1173 FRONT, 1074 REAR INCLUDING BALLAST AND OCCUPANTS
FUEL AND BALLAST	68.1 LITERS STODDARD SOLVENT 136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA
EDP TECHNICIAN	S. MARCHENIA

No. of Pages 23
CC
R. BORTOLIN 514-17-39
M. STEBELTON 422-05-01

VEHICLE CRASH TEST LETTER

VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 03/10/03
TEST SITE MORTON-AUTOLIV

TEST PURPOSE	PRIMARY, 2004 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED; 48.3 KPH	
	DAMAGE LOCATION; REAR (FULL)	
	BARRIER TYPE; REAR TYPE IV	
	BARRIER SURFACE; PLYWOOD	
VEHICLE	BODY CLASS; KJ	
	CAR LINE; J	
	BODY; 74	
	ENGINE; 3.7 LITER	
	ENGINE NOTE; V6	
	TRANSMISSION; 5 SPEED MANUAL	
	TRANS. NOTE;	
	VIN AS TESTED; 1J8GL38K74W[redacted]	MOD.
	VIN AS BUILT; 1J8GL38K74W[redacted]	MOD.
TEST SPEED	48.8 KPH BY ELECTRONIC TRAP TIMER 1	
TEST WEIGHT (KG)	2245.3 TOTAL, 1170.7 FRONT, 1074.6 REAR	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH	AD-TA1
	RESTRAINT- 3-PT UNIBELT ONLY	
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH	AD-TA2
	RESTRAINT- 3-PT UNIBELT ONLY	

VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 03/10/03
TEST SITE MORTON-AUTOLIV

BUILD CONDITION	ORIGINAL BUILD: 2004 S1 BUILT LIBERTY RENEGADE -- FLEET #: C4KJJ-0212 MODIFICATIONS: - REMOVED ONE OF THREE DOOR HINGE BOLTS FROM ALL FOUR PASSENGER DOORS - DAB ADI9.2G V0 230KPA INFLATOR, 28" DIAMETER COATED BAG, 2X27.5MM VENTS, I TEAR SEAM, 10" TETHER, STAR FOLD - PAB PPI32S 50/50 LS2 INFLATOR - CYLINDRICAL, 160 LITRES, 2X50 MM VENTS, NO TETHER, UNCOATED 585 DTEX MATERIAL, 50/50 FOLD - INSTALLED PASSENGER AIRBAG COVER WITH H-PATTERN TEAR SEAM - INSTALLED DRIVER SEATBELT WITH MONOTWILL RUKAFLEX WEBBING - INSTALLED PASSENGER SEAT BELT WITH MONOTWILL RUKAFLEX WEBBING, 9.5MM DIAMETER TORSION BAR, PRETENSIONER, AND BUCKLE TENSION SENSOR - DID NOT INSTALL PASSENGER SEAT BELT WIRING HARNESS TO PRETENSIONER - DID NOT FLASH ORC WITH CALIBRATION 5
TARGET WEIGHT (KG)	2247 TOTAL, 1173 FRONT, 1074 REAR INCLUDING BALLAST AND OCCUPANTS
FUEL AND BALLAST	68.1 LITERS STODDARD SOLVENT 136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA
REPORT CODES	A = TRANSDUCER DATA B = ALL FILM DATA
DISTRIBUTION	M. STEBELTON 422-05-01 (AB) R. BORTOLIN 514-17-39 (AB) DATE 03/20/03 TIME 09:09:39.

Test Request for VC10546/ JPE Item No.: KJ4W100041

Doc. Rev. #: 9

Key People:	
***Test Requester:** **Roger Bortolin/JTE/DCC/DCX** **Platform:** JPE **Phone:** 733-1083 Others to be copied on correspondence related to this test: Eric G Willis/JTE/DCC/DCX Suzanne M Marsh/JTE/DCC/DCX	**TEST STATUS:** **TEST COMPLETE** **Test Completed on 03/10/2003** **TEST SITE:** **Morton-AutoLiv** **SLOT #:** **1st Test of the Day** **SCHEDULED DATE:** **03/10/2003** **LAST MODIFIED / BY:** **03/20/2003 08:26:19 AM by: Brian D Grenke** **REQUESTOR'S NOTE PAD:**

INVOICE INFORMATION (Service Center Purpose)	
LOCATION:	1275
DEPARTMENT:	1060
COMMIT NUMBER:	
DO NUMBER:	

CPG Personnel Assigned to This Test:	
Test Engineer(s)	**Data Acquisition Engineer(s)**
Test Engineer Assigned:	Data Acquisition Test Engineer:
Test Engineer Check Completed By:	Data Acquisition Check Completed By:
Test Engineer Test Day:	Data Acquisition Write-Up Engineer: Michael D Rhew - 836-5674
Film Analysis Liaison: Andre S Dsouza - 722-1916	INSTRUMENTATION SECTION REVIEW COMPLETED BY: on

Test Requested:

MVSS 301 30MPH Flat Rear Impact

***Procedure** (Select One): SLTI3500 ***Target Speed:** 48.3 **KPH** (30.0 MPH) mph->kph ***Best Estimate of Ship Date:** 03/04/2003 Estimated Schedule Date:03/10/2003 Estimated Vehicle Buildup (Days):	**Regulatory Purpose(s):** (used to determine numeric processing) PRIMARY, 2004 USA 301-REAR COMPLIANCE

Specific Test Date Required?: ***When this test is complete, please send test property to:** PROC	
***Stage of Development:** ● Compliance ○ Development	**Priority** (optional)**:** ● A ○ B ○ C

***** All Required fields (*) must be entered up to this point for test specification to be accurate ******

Occupants For This Test:

1L - (Standard) H2-50TH MALE BALLAST DUMMY, 0 - CH, RESTRAINT- 3-PT UNIBELT ONLY, AD-TA1
1R - (Standard) H2-50TH MALE BALLAST DUMMY, 0 - CH, RESTRAINT- 3-PT UNIBELT ONLY, AD-TA2

FILM ANALYSIS AND PHOTOGRAPHIC VIEWS:

Film Analysis Ordered:
Targets and Views for 'If Requested' FA Only

Film Analysis "If Requested":
VELOCITY

Test Site Constraints based on Film Analysis:
Advanced Film Analysis Req'd: CPG site recommended

Film Analysis Requested - Custom:
No Custom

Photographic Views Required:

>>VELOCITY HG2000
>>CATWALK VEHICLE REAR MDB INTERACTION
>>RIGHT OVERALL
>>PIT FUEL FILLER TUBE
>>PIT FUEL TANK: view to show entire tank plus axle and rear cross member
>>LEFT OVERALL

IMAGING PRODUCT ORDER:
VCE PROVIDES ONE ORIGINAL AND ONE PRINT 16 MM FILM REEL WITH EACH TEST.

Still Photos Required:

STANDARD VIEWS FOR: REAR

	PRE	POST
TOP REAR BOTTOM REAR FUEL FILL TUBE FILLER KEYWAY ACCELS (# OF SHOTS)		

ADDITIONAL STILL PHOTOS:

Pre-Test Still Photo: top rear
Pre-Test Still Photo: bottom rear
Pre-Test Still Photo: fuel filler tube
Pre-Test Still Photo: filler keyway
Post-Test Still Photo: top rear
Post-Test Still Photo: bottom rear
Post-Test Still Photo: fuel filler tube
Post-Test Still Photo: filler keyway

FILM ANALYSIS REPORT UPDATE:

(This Section Indicates the Status of Film Analysis Completion)

FA NAME	PUBLISHED	REISSUED	CANCELLED	COMMENTS

Vehicle Information:

Program: 04 KJ

Core Item No.: KJ4W100041

NOTE: the **Core Item No.** cannot exceed 10 characters in length.

Restrike No.: R

☐ **Right-Hand Drive** ☐ **Competitive Car**

CAR LINE: J **BODY:** 74
Number of Doors in this Vehicle: 4
Vehicle Build Level: S1

Other Vehicle Configuration Flag (*optional* word or short phrase to use in further sorting of platform reports)**:**

VIN(as built): 1J8GL38K74W[redacted]
VIN(as tested): 1J8GL38K74W[redacted]

Vehicle Readiness to Ship:

THIS IS A MINIMALLY MODIFIED VEHICLE, NO CHECKLIST IS REQUIRED

ENGINE: 3.7 **Liters**
ENGINE NOTE: V6

TRANSMISSION: 5 SPEED MANUAL

TRANS. NOTE:
DRIVE:
4 X 4

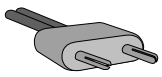
GVW (opt): **kg**

Vehicle Logistics:

Note: Vehicle must be fully inspected prior to shipment to test site.

☐ **Yes**

	Start Date:	**End Date:**
EMD Work Oder:		
Wet Fuels Work Order:		
Shipped to Test Site:		
Rec'd at Test Site:	09/12/2003	
Returned from Test Site:		
When I expect vehicle to be off hold:		



Instrumentation Build Info:

General Instrumentation Requirements:

Modules Used:	**Pyrotechnics Used:**
Other Notes:	**Deployment Method:**

FUEL PUMP RUNNING DURING TEST	**No Deployment** **Deployment Notes:**

Vehicle Channel Entry:	**List of Dummy Channel Titles Used on this Test:**
Create New Instrumentation Sheet **Attach Instrumentation Sheet Here:** *DO NOT ATTACH MORE THAN ONE FILE TO THIS FIELD.*  instKJ4w100041.xl Attach New or Replacement Sheet • Protected section of instrumentation sheet indicates **minimum** instrumentation requirements for the test selected and may only be modified by your Data Acquisition Engineer. • Please indicate all changes made to the spreadsheet after Test Request submission at the base of the spreadsheet.	BALLAST DUMMY- NO CHANNELS-1L BALLAST DUMMY- NO CHANNELS-1R

Total Occupant Channels: 0 **Total Vehicle Channels: 15** **Estimated Vehicle Buildup Time (days):** **TOTAL ON-BOARD CHANNELS FOR THIS TEST: 15**	**Total Data Acq. Boxes Required: 1** Channels in Last Data Acq. Box : 15 out of 32

Build Condition as Reported in Test Letter:

Paragraph summarizing the original build condition of this vehicle

(This will appear in the Test Letter as shown, please describe any unique features this vehicle was originally built with. If this is a mule vehicle, please describe the original vehicle model and model year)**:**

ORIGINAL BUILD:
2004 S1 BUILT LIBERTY RENEGADE -- FLEET #:
C4KJJ-0212

Paragraph summarizing the modifications made to the original build prior to test

(This will appear in the Test Letter as shown, please describe any modifications affecting test performance)**:**

MODIFICATIONS:
- REMOVED ONE OF THREE DOOR HINGE BOLTS FROM ALL FOUR PASSENGER DOORS
- DAB ADI9.2G V0 230KPA INFLATOR, 28" DIAMETER COATED BAG, 2X27.5MM VENTS, I TEAR SEAM, 10" TETHER, STAR FOLD
- PAB PPI32S 50/50 LS2 INFLATOR - CYLINDRICAL, 160 LITRES, 2X50 MM VENTS, NO TETHER, UNCOATED 585 DTEX MATERIAL, 50/50 FOLD
- INSTALLED PASSENGER AIRBAG COVER WITH H-PATTERN TEAR SEAM
- INSTALLED DRIVER SEATBELT WITH MONOTWILL RUKAFLEX WEBBING
- INSTALLED PASSENGER SEAT BELT WITH MONOTWILL RUKAFLEX WEBBING, 9.5MM DIAMETER TORSION BAR, PRETENSIONER, AND BUCKLE TENSION SENSOR

```
          - DID NOT INSTALL PASSENGER SEAT BELT WIRING
          HARNESS TO PRETENSIONER
          - DID NOT FLASH ORC WITH CALIBRATION 5
```

Test Weight:

Target Test Weight Requested

Please note: This is an approximate value and includes vehicle, ballast, fuel, ATDs, and instrumentation.

1 POUND WEIGHT = 0.4536 KILOGRAMS (KG)

Total Target Test Weight: 2247 **kg** (4,954 lbs)

lb->kg

Weight Adjustment Method:

(standard procedure to be used unless otherwise specified. Define which parts should be removed first if the vehicle is over the target weight after occupants and instrumentation are added)

Weight represents a 3.7L Liberty Renegade + 2 50th male occupants + luggage (4324lbs + 330lbs + 300lbs = 4954lbs)

Weight Balance and Luggage:

Please note: This section is OPTIONAL. Values entered here are approximate.

Total Front 1,173 **kg** (2,586 lbs)

lb->kg

Total Rear 1,074 **kg** (2,368 lbs)

Luggage: 136.1 **kg**

lb->kg

ACTUAL TEST WEIGHT: 2245.3 KG
WEIGHT BALANCE:
- **TOTAL FRONT: 1170.7 KG**
- **TOTAL REAR: 1074.6 KG**

ADDITIONAL BALLAST INSTALLED: N/A
DETAIL OF ADDITIONAL BALLAST INSTALLED: N/A

ACTUAL TEST SPEED: 48.8 KPH
SPEED DETERMINED BY: ELECTRONIC TRAP TIMER 1

Mechanical Requirements:

Specific Work to Be Done at Test Site:

CAUTION: ensure the weight balance of the vehicle matches the numbers in the Test Weight section
CAUTION: ensure all 5 tire pressures have been set to the recommended 33 psi
CAUTION: do not remove access panel in the cargo area
CAUTION: ensure the parking brake is disengaged, the transmission is in neutral, and the transfer case is in neutral
Part R&R: please replace all 5 tire and wheel assemblies, old part disposition TBD, delivery 03/05/03
Part R&R: remove exhaust hanger and cut post from exhaust at location shown in attachment "exhaust_hanger.ppt" below
Part R&R: remove fuel line clip and cut stud at location shown in attachment "fuel clip 030403.ppt" below
DO NOT DISTURB: swing gate, flipper glass, and spare tire
TEST VEHICLE WITH 17.6 GALLONS STODDARD IN FUEL SYSTEM
FUEL FILL TO SPEC IS MANDATORY
PRE-TEST PRESSURE CHECK REQUIRED
FUEL PUMP RUNNING DURING TEST
STATIC ROLL ASSESSMENT REQUIRED (SLWI3532)
Steering Column Setting: mid
Seat Back Setting: 23.5
Seat Head Restraint Setting: highest position possible
Pre-Test Measurement: vehicle attitude as received and post instrumentation build-up - ensure that the difference is uniform across the four corners
Paint: floor pan around the gas tank and fuel filler tube in a bright colour for contrast during filming

Work Orders for This Test:

PRE TEST:	POST TEST:

Extra Attachments, Rich Text or Additional Info here if required:

exhaust_hanger.pp fuel clip 030403.pp

Document Information

Date Created: 02/14/2003 10:14 AM	**Last Edited:** 03/20/2003 08:26:19 AM
Created By: Roger Bortolin/JTE/DCC/DCX	**Edited By:** Brian D Grenke/CPG/DCC/DCX

Edit History:

Edit History:

2/27/03 9:03:03 AM Glenn A Buss TestSite [CPG] --> [Alt. Site TBA] MODIFIED /Rev#:2

02/27/2003 09:03:29 AM Glenn A Buss: Additional Comments: Hope to run at Autoliv 3/10. New wheels & tires will be delivered there. /Rev#:2

2/27/2003 9:35:32 AM Michael T Stebelton SchedTest [] --> [03/10/2003 12:00:00 AM] MODIFIED /Rev#:3

2/27/2003 9:35:32 AM Michael T Stebelton Slot [] --> [1st] MODIFIED /Rev#:3

2/27/2003 9:35:32 AM Michael T Stebelton TestSite [Alt. Site TBA] --> [Morton-AutoLiv] MODIFIED /Rev#:3

2/27/2003 10:32:06 AM Michael D Rhew VehicleChan [0] --> [15] MODIFIED /Rev#:4

3/3/2003 9:14:29 AM Michael T Stebelton EditApprovalStatus [] --> [**** TEST REQUEST INITIALLY APPROVED ****] MODIFIED /Rev#:6

3/3/2003 9:23:47 AM Michael T Stebelton FAPVFALater [VELOCITY] --> [] MODIFIED /Rev#:7

3/3/2003 9:23:47 AM Michael T Stebelton FAOrder [Targets and Views for 'If Requested' FA Only] --> [No Film Analysis on This Test] MODIFIED /Rev#:7

2/28/2003 11:25:40 AM Eric G Willis MECHlistall [Part R&R: please replace all 5 tire and wheel assemblies, old part disposition TBD, delivery TBD] ADDED /Rev#:5

3/3/2003 2:32:44 PM Eric G Willis ShipDate [02/21/2003 12:00:00 AM] --> [03/04/2003 12:00:00 AM] MODIFIED /Rev#:6

3/4/2003 2:46:12 PM Suzanne M Marsh BuildCondition [2004 S1 BUILT LIBERTY RENEGADE] --> [2004 S1 BUILT LIBERTY RENEGADE -- FLEET #: C4KJJ-0212] MODIFIED /Rev#:7

3/4/2003 2:46:12 PM Suzanne M Marsh BuildConditionMods [- INSTALLED PASSENGER SEAT BELT WIRING HARNESS TO PRETENSIONER] REMOVED /Rev#:7

3/4/2003 2:46:12 PM Suzanne M Marsh BuildConditionMods [- ORC WITH CALIBRATION 5 PER SERIAL NUMBER NOTED ABOVE] REMOVED /Rev#:7

3/4/2003 2:46:12 PM Suzanne M Marsh BuildConditionMods [- DID NOT INSTALL PASSENGER SEAT BELT WIRING HARNESS TO PRETENSIONER] ADDED /Rev#:7

3/4/2003 2:46:12 PM Suzanne M Marsh BuildConditionMods [- DID NOT FLASH ORC WITH CALIBRATION 5] ADDED /Rev#:7

Last Edit:

03/20/2003 08:19:18 AM Brian D Grenke FINAL TEST LETTER SUBMITTED
3/11/2003 10:05:28 AM Michael T Stebelton EditApprovalStatus [] --> [**** TEST REQUEST INITIALLY APPROVED ****] MODIFIED /Rev#:9

Click here to view previous edits

Old Change Method Info

History of Changes to This Record After Test Request Approval:

Date/Time	Edited By	Description
	Roger Bortolin/JTE/DCC/DCX	TEST REQUEST INITIALLY APPROVED

DATE 03/20/03 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 14:37:48. EDP TEST LETTER DEPT 5320

VC10546 ITEM KJ4W100041
VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 03/10/03
TEST SITE MORTON-AUTOLIV

TEST PURPOSE	PRIMARY, 2004 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.3 KPH
	DAMAGE LOCATION;	REAR (FULL)
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	3.7 LITER
	ENGINE NOTE;	V6
	TRANSMISSION;	5 SPEED MANUAL
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL38K74W[redacted] MOD.
	VIN AS BUILT;	1J8GL38K74W[redacted] MOD.
TEST SPEED	48.8 KPH BY ELECTRONIC TRAP TIMER 1	
TEST WEIGHT (KG)	2245.3 TOTAL, 1170.7 FRONT, 1074.6 REAR	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH	AD-TA1
	RESTRAINT- 3-PT UNIBELT ONLY	
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH	AD-TA2
	RESTRAINT- 3-PT UNIBELT ONLY	

DATE 03/20/03 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 14:37:48. EDP TEST LETTER DEPT 5320

VC10546 ITEM KJ4W100041
VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 03/10/03
TEST SITE MORTON-AUTOLIV

BUILD CONDITION	ORIGINAL BUILD: 2004 S1 BUILT LIBERTY RENEGADE -- FLEET #: C4KJJ-0212 MODIFICATIONS: - REMOVED ONE OF THREE DOOR HINGE BOLTS FROM ALL FOUR PASSENGER DOORS - DAB ADI9.2G V0 230KPA INFLATOR, 28" DIAMETER COATED BAG, 2X27.5MM VENTS, I TEAR SEAM, 10" TETHER, STAR FOLD - PAB PPI32S 50/50 LS2 INFLATOR - CYLINDRICAL, 160 LITRES, 2X50 MM VENTS, NO TETHER, UNCOATED 585 DTEX MATERIAL, 50/50 FOLD - INSTALLED PASSENGER AIRBAG COVER WITH H-PATTERN TEAR SEAM - INSTALLED DRIVER SEATBELT WITH MONOTWILL RUKAFLEX WEBBING - INSTALLED PASSENGER SEAT BELT WITH MONOTWILL RUKAFLEX WEBBING, 9.5MM DIAMETER TORSION BAR, PRETENSIONER, AND BUCKLE TENSION SENSOR - DID NOT INSTALL PASSENGER SEAT BELT WIRING HARNESS TO PRETENSIONER - DID NOT FLASH ORC WITH CALIBRATION 5
TARGET WEIGHT (KG)	2247 TOTAL, 1173 FRONT, 1074 REAR INCLUDING BALLAST AND OCCUPANTS
FUEL AND BALLAST	68.1 LITERS STODDARD SOLVENT 136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA
EDP TECHNICIAN	S. MARCHENIA

No. of Pages 23
CC

R. BORTOLIN 514-17-39
M. STEBELTON 422-05-01

DATE 03/20/03 TEST VALUES SAFETY TEST
TIME 14:37:57. EDP CHANNEL SUMMARY DEPT 5320

VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST

TEST DATE 03/10/03 SPEED 48.8 TEST WT 2245.3

LIBRARY VC10546
Errata # 1 Data Set 03/20/03QA CHL001-015 30.3 FRT VC10546T

The data is displayed in the Metric system of Units (G, CM, N, N-M, KPH, etc.)

CHL	TRANSDUCER LOCATION			FFT 1000 CFC PEAK	FFT 600 CFC PEAK	PH 180 CFC PEAK	PH 60 CFC PEAK	AT 300MS	
1	LEFT FRONT SILL	X	97D10-G	-47.9	-47.6	-45.2	-32.6	-25.2	KPH
2	LEFT FRONT SILL	Y	98L10-K	-59.5	48.6	17.0	9.8	-0.7	KPH
3	LEFT FRONT SILL	Z	98L14-N	-50.6	-39.2	-14.0	-7.5	0.8	KPH
4	RIGHT FRONT SILL	X	97I15-A	-58.3	-56.2	-49.2	-35.9	-26.5	KPH
5	RIGHT FRONT SILL	Y	03A20-N	-57.6	-42.5	18.5	-7.2	-0.8	KPH
6	RIGHT FRONT SILL	Z	98L14-N	44.5	37.3	-13.6	-8.0	-0.4	KPH
7	LEFT RAIL MID TANK	X	99F28-Z	142.4	90.7	-64.8	-43.7	-25.1	KPH
8	LEFT RAIL MID TANK	Y	99G28-Z	-262.5	-160.5	-54.6	-33.5	-3.4	KPH
9	LEFT RAIL MID TANK	Z	99F23-F	351.1	-186.0	62.3	38.5	0.3	KPH
10	RIGHT RAIL MID TANK	X	97D15-G	82.8	-73.7	-57.8	-44.4	-25.0	KPH
11	RIGHT RAIL MID TANK	Y	97D15-J	167.5	107.3	-43.6	-16.0	-1.4	KPH
12	RIGHT RAIL MID TANK	Z	97I22-F	-229.6	-159.1	61.0	41.5	1.3	KPH
13	FUEL TANK BOTTOM ACC	Y	B12952	93.4	92.3	91.2	74.2	G	KPH*
14	FUEL TANK BOTTOM ACC	X	98L07-K	-301.1	-290.2	-263.7	-147.2	-34.6	KPH*
15	FUEL TANK BOTTOM ACC	Z	98L10-N	-466.8	-297.5	175.3	79.1	-7.2	KPH*

Multi-Channel Plot data

CHLS & 1 4 CL PH60 AVERAGE OF FRT SILL -324.4G AT .1 MS

* - See Notes & Comments page

DATE 03/20/03 TEST VALUES SAFETY TEST
TIME 14:37:57. NOTES & COMMENTS DEPT 5320

VC10546 48.3 KPH REAR (FULL) TYPE IV ITEM KJ4W100041
04 KJ, USA 301-REAR COMPLIANCE TEST

LIBRARY VC10546
Errata # 1 Data Set 03/20/03QA CHL001-015 30.3 FRT VC10546T

********** STATUS NOTE **********
********** IMPORTED DATA, DO NOT USE FOR A COMPLIANCE REPORT **********
********** **********
****

CHL 13 *C* ******* CH 13 FUEL TANK BOTTOM ACC Y; INSTRUMENTATION ******
********** MALFUNCTION AT 25.2 MSEC. **********

CHL 14 *C* ******* CH 14 FUEL TANK BOTTOM ACC X; DATA CHANNEL IS ******
********** QUESTIONABLE AFTER 38 MSEC. **********

CHL 15 *C* * CH 16 FUEL TANK BOTTOM ACC Z; DATA CHANNEL IS QUESTIONABLE
********** AFTER 38 MSEC. **********

DATE 05/13/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 11:48:17. EDP TEST LETTER DEPT 5320

VC11711 ITEM 5W500044
VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 05/13/04
TEST SITE CPG

TEST PURPOSE	PRIMARY, 2005 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.0 KPH
	DAMAGE LOCATION;	REAR FULL
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	NONE
	BODY;	74
	ENGINE;	EKG
	ENGINE NOTE;	
	TRANSMISSION;	DEH
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL38K65W[redacted]
	VIN AS BUILT;	1J8GL38K65W[redacted]
TEST SPEED	48.95 KPH BY TRAP A AVERAGE	
TEST WEIGHT(KG)	2233.98 TOTAL, 1182.08 FRONT, 1051.9 REAR,	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-75	
	RESTRAINT- UNIBELT	
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-60	
	RESTRAINT- UNIBELT	

BUILD CONDITION

ORIGINAL BUILD:
2005 S1 BUILD LIBERTY RENEGADE (KJJM74)3.7L ? 6SP MAN ? 4X4- NO POWER SEAT- HAS SIDE AIRBAG- HAS TOW HOOKS- HAS FRONT SKID PLATE- HAS FUEL TANK SKID PLATE- NO SUN ROOF
MODIFIED BUILD:
- INSTALLED 05 S2 GASOLINE FUEL TANK - REMOVED TRAILER HITCH- REMOVED FUEL TANK SKID PLATE- REMOVED REAR TOW HOOKS
MODIFIED EMD BUILD:

TARGET WEIGHT(KG)	2231.0 TOTAL, 1160.2 FRONT, 1070.9 REAR
	INCLUDING BALLAST AND OCCUPANTS
FUEL AND BALLAST	73.8 LITRES STODDARD SOLVENT
	195.04 KG ADDITIONAL BALLAST WEIGHTS
	136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA

DATE 05/13/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 11:48:17. EDP TEST LETTER DEPT 5320

VC11711 ITEM 5W500044
VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 05/13/04
TEST SITE CPG
EDP TECHNICIAN S. MARCHENIA

No. of Pages 29
CC

S. MARSH 514-17-39
M. STEBELTON 422-05-01

VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 05/13/04
TEST SITE CPG

TEST PURPOSE	PRIMARY, 2005 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.0 KPH
	DAMAGE LOCATION;	REAR FULL
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	NONE
	BODY;	74
	ENGINE;	EKG
	ENGINE NOTE;	
	TRANSMISSION;	DEH
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL38K65W[redacted]
	VIN AS BUILT;	1J8GL38K65W[redacted]
TEST SPEED	48.95 KPH BY TRAP A AVERAGE	
TEST WEIGHT(KG)	2233.98 TOTAL, 1182.08 FRONT, 1051.9 REAR,	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH RESTRAINT- UNIBELT	AD-75
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH RESTRAINT- UNIBELT	AD-60
BUILD CONDITION	ORIGINAL BUILD:	
	2005 S1 BUILD LIBERTY RENEGADE (KJJM74)3.7L ? 6SP MAN ? 4X4- NO POWER SEAT- HAS SIDE AIRBAG- HAS TOW HOOKS- HAS FRONT SKID PLATE- HAS FUEL TANK SKID PLATE- NO SUN ROOF	
	MODIFIED BUILD:	
	- INSTALLED 05 S2 GASOLINE FUEL TANK - REMOVED TRAILER HITCH- REMOVED FUEL TANK SKID PLATE- REMOVED REAR TOW HOOKS	
	MODIFIED EMD BUILD:	
TARGET WEIGHT(KG)	2231.0 TOTAL, 1160.2 FRONT, 1070.9 REAR INCLUDING BALLAST AND OCCUPANTS	

VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 05/13/04
TEST SITE CPG

FUEL AND BALLAST	73.8 LITRES STODDARD SOLVENT
	195.04 KG ADDITIONAL BALLAST WEIGHTS
	136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA
REPORT CODES	A = TRANSDUCER DATA B = ALL FILM DATA
DISTRIBUTION	M. STEBELTON 422-05-01 (AB)
	S. MARSH 514-17-39 (AB)

DATE 05/13/04 TIME 08:34:46.

DATE 05/13/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 11:48:17. EDP TEST LETTER DEPT 5320

VC11711 ITEM 5W500044
VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 05/13/04
TEST SITE CPG

TEST PURPOSE	PRIMARY, 2005 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.0 KPH
	DAMAGE LOCATION;	REAR FULL
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	NONE
	BODY;	74
	ENGINE;	EKG
	ENGINE NOTE;	
	TRANSMISSION;	DEH
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL38K65W[redacted]
	VIN AS BUILT;	1J8GL38K65W[redacted]
TEST SPEED	48.95 KPH BY TRAP A AVERAGE	
TEST WEIGHT(KG)	2233.98 TOTAL, 1182.08 FRONT, 1051.9 REAR,	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-75	
	RESTRAINT- UNIBELT	
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-60	
	RESTRAINT- UNIBELT	

BUILD CONDITION

ORIGINAL BUILD:
2005 S1 BUILD LIBERTY RENEGADE (KJJM74)3.7L ? 6SP MAN ? 4X4- NO POWER SEAT- HAS SIDE AIRBAG- HAS TOW HOOKS- HAS FRONT SKID PLATE- HAS FUEL TANK SKID PLATE- NO SUN ROOF
MODIFIED BUILD:
- INSTALLED 05 S2 GASOLINE FUEL TANK - REMOVED TRAILER HITCH- REMOVED FUEL TANK SKID PLATE- REMOVED REAR TOW HOOKS
MODIFIED EMD BUILD:

TARGET WEIGHT(KG)	2231.0 TOTAL, 1160.2 FRONT, 1070.9 REAR
	INCLUDING BALLAST AND OCCUPANTS
FUEL AND BALLAST	73.8 LITRES STODDARD SOLVENT
	195.04 KG ADDITIONAL BALLAST WEIGHTS
	136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA

DATE 05/13/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 11:48:17. EDP TEST LETTER DEPT 5320

VC11711 ITEM 5W500044
VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 05/13/04
TEST SITE CPG
EDP TECHNICIAN S. MARCHENIA

No. of Pages 29
CC

S. MARSH 514-17-39
M. STEBELTON 422-05-01

DATE 05/13/04 TEST VALUES SAFETY TEST
TIME 11:49:46. EDP CHANNEL SUMMARY DEPT 5320

VC11711 48.0 KPH REAR REAR TYPE IV ITEM 5W500044
05 KJ, USA 301-REAR COMPLIANCE TEST

TEST DATE 05/13/04 SPEED 48.9 TEST WT 2233.9

LIBRARY VC11711
Errata # 1 Data Set 05/13/04BA CHL001-016 30.4 REAR VC11711E
Errata # 1 Data Set 05/13/04BB CHL017-032 30.4 REAR VC11711E

The data is displayed in the Metric system of Units (G, CM, N, N-M, KPH, etc.)

CHL	TRANSDUCER LOCATION			1000 CFC PEAK	DCX 600 CFC PEAK	180 CFC PEAK	PH 60 CFC PEAK	AT 300MS	
1	LEFT FRONT SILL	X	P23321	-40.5	-39.2	-34.9	-28.4	-25.6	KPH
2	LEFT FRONT SILL	Y	P16172	50.3	42.5	16.7	8.0	0.2	KPH
3	LEFT FRONT SILL	Z	P18599	-53.4	-42.2	12.8	7.8	1.0	KPH
4	RIGHT FRONT SILL	X	P24117	-48.0	-46.5	-40.3	-31.9	-24.9	KPH
5	RIGHT FRONT SILL	Y	P26904	47.4	29.4	18.0	5.4	-0.8	KPH
6	RIGHT FRONT SILL	Z	ETBB726	-34.8	30.5	-13.1	-9.1	-0.5	KPH
7	LEFT REAR SILL	X	P26894	-44.4	-36.3	-32.4	-26.5	-26.7	KPH
8	LEFT REAR SILL	Y	P27150	-60.8	-51.4	19.3	-6.8	-1.3	KPH
9	LEFT REAR SILL	Z	P17572	67.2	48.4	14.8	-8.2	1.3	KPH
10	RIGHT REAR SILL	X	P21804	-48.4	-43.4	-38.2	-30.5	-26.1	KPH
11	RIGHT REAR SILL	Y	P26845	63.7	58.1	21.6	-10.0	-0.9	KPH
12	RIGHT REAR SILL	Z	P26839	-38.6	27.2	14.3	10.1	0.3	KPH
13	FUEL TANK BOTTOM ACC	X	P14926	229.1	209.8	145.8	-105.2	-26.8	KPH
14	FUEL TANK BOTTOM ACC	Y	P16669	126.3	94.7	58.7	30.4	1.0	KPH
15	FUEL TANK BOTTOM ACC	Z	P17454	-158.6	138.6	-114.0	-63.1	-1.2	KPH
33	M-FLAT LT RAIL MID	X	ETBB765		39.6		21.8	29.9	KPH
34	M-FLAT RT RAIL MID	X	ETBB316		55.0		22.8	30.3	KPH

Multi-Channel Plot data

CHLS 1 4 7 1 & 0 CL PH60 AVERAGE OF FRT SILL -225.0G AT .2 MS
CHLS & 1 4 CL PH60 AVERAGE OF FRT SILL -324.9G AT .1 MS

DATE 06/15/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 10:18:26. EDP TEST LETTER DEPT 5320

VC11790 ITEM 5W500049
VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 06/14/04
TEST SITE CPG

TEST PURPOSE	PRIMARY, 2005 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.0 KPH
	DAMAGE LOCATION;	REAR FULL
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	NONE
	BODY;	74
	ENGINE;	ENR
	ENGINE NOTE;	
	TRANSMISSION;	DGQ
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL58585W[redacted]
	VIN AS BUILT;	1J8GL58585W[redacted]
TEST SPEED	48.63 KPH BY TRAP AVERAGE AVERAGE	
TEST WEIGHT(KG)	2327.87 TOTAL, 1231.52 FRONT, 1096.35 REAR,	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-70	
	RESTRAINT- UNIBELT	
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-60	
	RESTRAINT- UNIBELT	
BUILD CONDITION	ORIGINAL BUILD:	
	2005 S1 BUILD LIBERTY LIMITED (KJJP74)2.8L ? 5SP A	
	UTO ? 4X4 - HAS POWER SEAT- HAS SIDE AIRBAG- HAS T	
	OW HOOKS- HAS FRONT SKID PLATE- HAS FUEL TANK SKID	
	PLATE	
	MODIFIED BUILD:	
	- INSTALLED 05 S2 DIESEL FUEL TANK- REMOVED TRAILE	
	R HITCH, FUEL TANK SKIDPLATE, AND REAR TOW HOOK	
	MODIFIED EMD BUILD:	
TARGET WEIGHT(KG)	2323.8 TOTAL, 1231.6 FRONT, 1092.2 REAR	
	INCLUDING BALLAST AND OCCUPANTS	

DATE 06/15/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 10:18:26. EDP TEST LETTER DEPT 5320

VC11790 ITEM 5W500049
VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 06/14/04
TEST SITE CPG
FUEL AND BALLAST 73.8 LITRES STODDARD SOLVENT
330LBS 2-50TH BALLAST ATD'S SECOND ROW; 75LBS ON 2
R FLOOR.
KG ADDITIONAL BALLAST WEIGHTS
136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA

EDP TECHNICIAN S. MARCHENIA

No. of Pages 29
CC

S. MARSH 514-17-39
M. STEBELTON 422-05-01

VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 06/14/04
TEST SITE CPG

TEST PURPOSE	PRIMARY, 2005 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.0 KPH
	DAMAGE LOCATION;	REAR FULL
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	NONE
	BODY;	74
	ENGINE;	ENR
	ENGINE NOTE;	
	TRANSMISSION;	DGQ
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL58585W[redacted]
	VIN AS BUILT;	1J8GL58585W[redacted]
TEST SPEED	48.63 KPH BY TRAP AVERAGE AVERAGE	
TEST WEIGHT(KG)	2327.87 TOTAL, 1231.52 FRONT, 1096.35 REAR,	
OCCUPANTS	1L - 50TH MALE BALLAST HYBRID 2, 0 - CH RESTRAINT- UNIBELT	AD-70
	1R - 50TH MALE BALLAST HYBRID 2, 0 - CH RESTRAINT- UNIBELT	AD-60
BUILD CONDITION	ORIGINAL BUILD: 2005 S1 BUILD LIBERTY LIMITED (KJJP74)2.8L ? 5SP AUTO ? 4X4 - HAS POWER SEAT- HAS SIDE AIRBAG- HAS TOW HOOKS- HAS FRONT SKID PLATE- HAS FUEL TANK SKID PLATE MODIFIED BUILD: - INSTALLED 05 S2 DIESEL FUEL TANK- REMOVED TRAILER HITCH, FUEL TANK SKIDPLATE, AND REAR TOW HOOK MODIFIED EMD BUILD:	
TARGET WEIGHT(KG)	2323.8 TOTAL, 1231.6 FRONT, 1092.2 REAR INCLUDING BALLAST AND OCCUPANTS	

VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 06/14/04
TEST SITE CPG

FUEL AND BALLAST	73.8 LITRES STODDARD SOLVENT 330LBS 2-50TH BALLAST ATD'S SECOND ROW; 75LBS ON 2 R FLOOR. KG ADDITIONAL BALLAST WEIGHTS 136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA
REPORT CODES	A = TRANSDUCER DATA B = ALL FILM DATA
DISTRIBUTION	M. STEBELTON 422-05-01 (AB) S. MARSH 514-17-39 (AB)

DATE 06/15/04 TIME 09:05:49.

DATE 06/15/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 10:18:26. EDP TEST LETTER DEPT 5320

VC11790 ITEM 5W500049
VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 06/14/04
TEST SITE CPG

TEST PURPOSE	PRIMARY, 2005 USA 301-REAR COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	48.0 KPH
	DAMAGE LOCATION;	REAR FULL
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	NONE
	BODY;	74
	ENGINE;	ENR
	ENGINE NOTE;	
	TRANSMISSION;	DGQ
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL58585W[redacted]
	VIN AS BUILT;	1J8GL58585W[redacted]
TEST SPEED	48.63 KPH BY TRAP AVERAGE AVERAGE	
TEST WEIGHT(KG)	2327.87 TOTAL, 1231.52 FRONT, 1096.35 REAR,	

OCCUPANTS
1L - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-70
RESTRAINT- UNIBELT
1R - 50TH MALE BALLAST HYBRID 2, 0 - CH AD-60
RESTRAINT- UNIBELT

BUILD CONDITION
ORIGINAL BUILD:
2005 S1 BUILD LIBERTY LIMITED (KJJP74)2.8L ? 5SP A
UTO ? 4X4 - HAS POWER SEAT- HAS SIDE AIRBAG- HAS T
OW HOOKS- HAS FRONT SKID PLATE- HAS FUEL TANK SKID
PLATE
MODIFIED BUILD:
- INSTALLED 05 S2 DIESEL FUEL TANK- REMOVED TRAILE
R HITCH, FUEL TANK SKIDPLATE, AND REAR TOW HOOK
MODIFIED EMD BUILD:

TARGET WEIGHT(KG) 2323.8 TOTAL, 1231.6 FRONT, 1092.2 REAR
INCLUDING BALLAST AND OCCUPANTS

DATE 06/15/04 ELECTRONIC DATA PROCESSING VEHICLE CRASH ENGINEERING
TIME 10:18:26. EDP TEST LETTER DEPT 5320

VC11790 ITEM 5W500049
VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST
TEST DATE 06/14/04
TEST SITE CPG
FUEL AND BALLAST 73.8 LITRES STODDARD SOLVENT
330LBS 2-50TH BALLAST ATD'S SECOND ROW; 75LBS ON 2
R FLOOR.
KG ADDITIONAL BALLAST WEIGHTS
136.1 KG BALLAST WEIGHT SECURED IN CARGO AREA

EDP TECHNICIAN S. MARCHENIA

No. of Pages 29
CC

S. MARSH 514-17-39
M. STEBELTON 422-05-01

DATE 06/15/04 TEST VALUES SAFETY TEST
TIME 10:18:56. EDP CHANNEL SUMMARY DEPT 5320

VC11790 48.0 KPH REAR REAR TYPE IV ITEM 5W500049
05 KJ, USA 301-REAR COMPLIANCE TEST

TEST DATE 06/14/04 SPEED 48.6 TEST WT 2327.8

LIBRARY VC11790
Errata # 1 Data Set 06/14/04BQ CHL001-016 30.2 FRT VC11790E
Errata # 1 Data Set 06/14/04BR CHL017-032 30.2 FRT VC11790E

The data is displayed in the Metric system of Units (G, CM, N, N-M, KPH, etc.)

CHL	TRANSDUCER LOCATION			1000 CFC PEAK	DCX 600 CFC PEAK	180 CFC PEAK	PH 60 CFC PEAK	AT 300MS	
1	LEFT FRONT SILL	X	ETBB7B9	-45.5	-44.9	-40.9	-31.3	-25.2	KPH
2	LEFT FRONT SILL	Y	ETBB736	31.9	28.3	-17.3	-5.2	-0.4	KPH
3	LEFT FRONT SILL	Z	ETBB879	-37.9	31.5	15.0	-7.0	0.3	KPH
4	RIGHT FRONT SILL	X	ETBB713	-43.3	-42.2	-38.5	-31.5	-26.0	KPH
5	RIGHT FRONT SILL	Y	ETBB753	-49.4	-44.5	16.5	7.9	-0.9	KPH
6	RIGHT FRONT SILL	Z	ETBB746	-42.9	-33.8	20.1	9.5	0.9	KPH
7	LEFT REAR SILL	X	ETBB161	-43.9	-42.6	-39.1	-29.9	-25.8	KPH
8	LEFT REAR SILL	Y	ETBB826	37.2	34.5	17.9	8.1	0.1	KPH
9	LEFT REAR SILL	Z	ETBB825	43.1	40.3	-17.3	-8.2	0.0	KPH
10	RIGHT REAR SILL	X	ETBB763	-38.3	-38.0	-36.8	-29.6	-25.5	KPH
11	RIGHT REAR SILL	Y	ETBB793	-43.7	-39.2	12.0	6.0	0.9	KPH
12	RIGHT REAR SILL	Z	ETBB372	-78.6	-61.0	-16.5	10.5	1.1	KPH
13	FUEL TANK BOTTOM ACC	X	ETBB719	227.3	-128.0	-94.6	-91.4	-26.8	KPH
14	FUEL TANK BOTTOM ACC	Y	ETBB868	132.8	82.3	40.8	28.0	-1.4	KPH
15	FUEL TANK BOTTOM ACC	Z	ETBB749	-203.0	-144.6	115.8	-69.3	-1.5	KPH
33	M-FLAT LT RAIL MID	X	ETBB765		54.8		20.4	27.7	KPH
34	M-FLAT RT RAIL MID	X	ETBB316		51.3		-23.3	28.4	KPH

Multi-Channel Plot data

CHLS 1 4 7 1 & 0 CL PH60 AVERAGE OF FRT SILL -325.6G AT .6 MS
CHLS & 1 4 CL PH60 AVERAGE OF FRT SILL -325.6G AT .4 MS

VEHICLE CRASH TEST LETTER

VC09094 30 MPH REAR MOVING BARRIER, KJJ-74 ITEM KJ6333
2002 MVSS REAR IMPACT COMPLIANCE
TEST DATE 03/12/01

TEST PURPOSE	PRIMARY, 2002 USA 301 COMPLIANCE.	
	SECONDARY, 2002 TRIAS-33 COMPLIANCE	
IMPACT TYPE	TARGET SPEED;	30.0 MPH
	DAMAGE LOCATION;	REAR CENTER
	BARRIER TYPE;	REAR TYPE IV
	BARRIER SURFACE;	PLYWOOD
VEHICLE	BODY CLASS;	KJ
	CAR LINE;	J
	BODY;	74
	ENGINE;	3.7 LITRE
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION
	TRANSMISSION;	4 SPEED AUTO ELECTRONIC 4x4
	TRANS. NOTE;	
	VIN AS TESTED;	1J8GL58K02W[redacted] MOD.
	VIN AS BUILT;	1J8GL58K02W[redacted] MOD.
TEST SPEED	30.6 MPH SOURCE TRAP TIMER	
TEST WEIGHT (LBS)	4864 TOTAL, 2574 FRONT, 2290 REAR	
OCCUPANTS	LEFT FRONT, HII BALLAST	AD-47
	RESTRAINT-RESTRAINT - BELTS ONLY	
	RIGHT FRONT - HII BALLAST	AD-61
	RESTRAINT-RESTRAINT - BELTS ONLY	
BUILD CONDITION	2002 DESIGN INTENT SWING GATE HANDLE W/146G C/B AND ANTI-ROTATION FINGER	
	ORC CALIBRATION N	
	MODIFY WELDS @ SPLICE JOINT TO PRODUCTION INTENT	
	2002 PRODUCTION INTENT EXHAUST FLANGE	
	2002 DESIGN INTENT FUEL LINES	
TARGET WEIGHT (LBS)	4233 LBS TOTAL, 2235 LBS FRONT, 1998 LBS REAR	
	REPRESENTS MAX OPTION WEIGHT FOR 3.7L 4X4 KJ	
	WITHOUT OCCUPANTS OR LUGGAGE	
	(TARGET TEST WEIGHT 4863 = 4233 + 330 + 300)	
FUEL AND BALLAST	17.5 GALLONS OF STODDARD SOLVENT	
	350 LBS. SECURED IN LF AND REAR SEAT AREA	

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

ITEM KJ6333 CHARGE NO. 02 ISSUE DATE 03/08/01

VC 9098 30 MPH REAR MOVING BARRIER, KJJ-74
2002 MVSS REAR IMPACT COMPLIANCE

TEST DATE 3/12/01 ENGINEER KobyLarz
SPEED 30.6 MPH SOURCE tape

TEST PURPOSE PRIMARY, 2002 USA 301 COMPLIANCE.
SECONDARY, 2002 TRIAS-33 COMPLIANCE

IMPACT TYPE
TARGET SPEED; 30.0 MPH
DAMAGE LOCATION; REAR CENTER
BARRIER TYPE; REAR TYPE IV
BARRIER SURFACE; PLYWOOD

VEHICLE
BODY CLASS; KJ
CAR LINE; J
BODY; 74
ENGINE; 3.7 LITRE
ENGINE NOTE; ELECTRONIC FUEL INJECTION
TRANSMISSION; 4 SPEED AUTO ELECTRONIC 4x4
TRANS. NOTE;
VIN AS TESTED; 1J8GL58K02W[redacted] MOD.
VIN AS BUILT; 1J8GL58K02W[redacted] MOD.

BUILD CONDITION
2002 DESIGN INTENT SWING GATE HANDLE W/146G C/B AND ANTI-ROTATION FINGER
ORC CALIBRATION N
MODIFY WELDS @ SPLICE JOINT TO PRODUCTION INTENT
2002 PRODUCTION INTENT EXHAUST FLANGE
2002 DESIGN INTENT FUEL LINES

TARGET WEIGHT (LBS) 4233 LBS TOTAL, 2235 LBS FRONT, 1998 LBS REAR
REPRESENTS MAX OPTION WEIGHT FOR 3.7L 4X4 KJ
WITHOUT OCCUPANTS OR LUGGAGE
(TARGET TEST WEIGHT 4863 = 4233 + 330 + 300)

TEST WEIGHT (LBS) 4864 TOTAL, 2574 FRONT, 2290 REAR

FUEL BALLAST 17.5 GALLONS OF STODDARD SOLVENT

LUGGAGE BALLAST 300 LBS

OTHER BALLAST 200# IN Rear Seat Area
150# IN Ft Seat Area

POST TEST REMARKS

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

OCCUPANTS	LEFT FRONT, HII BALLAST RESTRAINT-RESTRAINT - BELTS ONLY RIGHT FRONT - HII BALLAST RESTRAINT-RESTRAINT - BELTS ONLY	AD NO 47 AD NO 61
MECHANICAL REQ	TARGET VEHCILE PER 02KJ THIRD SHEETS FOR REAR IMPACTS (UNDERBODY AND LEFT SIDE) PLACE TARGETS ON TOP, LT AND RT SIDE OF SPARE TIRE THAT WILL BE VISIBLE IN CAMERA VIEWS PLEASE INSTALL NEW TRAILER HITCH, SWING GATE WITH HANDLE EQUIP. AND SKID PLATE PAINT REAR GATE HANDLE TO ENSURE ANY MOVEMENT IS VISIBLE IN FILM POSITION DRIV AND PASS SEATS IN MID POSITION ENSURE SPARE TIRE, SWING GATE & FLIPPER GLASS REMAIN IN PLACE FOR TEST ENSURE PARKING BRAKE IS DISENGAGED AND TRANS IS IN NEUTRAL MEASURE VEHICLE ATTITUDE AS RECEIVED AND WHEN TESTED PRESSURE TEST PRE-TEST WITH PUMP RUNNING FUEL PUMP TO BE RUNNING DURING TEST STATIC ROLL VEHICLE POST TEST PAINT RAILS & REAR UNDERBODY COMPONENTS INCLUDING FUEL FILLER LINE, PASS THRU HOLE IN RAIL, FUEL TANK CANISTER, REAR SUSPENSION, REAR BUMPER, OVOR CANISTER, LINES AND EQUIPMENT, ETC. IN CONTRASTING COLORS FOR UNDERBODY VIEW.	
INSTRUMENTATION REQ	ENSURE DRIV & PASS AIRBAGS, SIDE CURTAINS & PRETENSIONERS DO NOT DEPLOY **ENSURE VEHICLE ELECTRICAL SYSTEM IS POWERED**	

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

PHOTOGRAPHIC REQ

1-VELOCITY CAMERA
1-LEFT OVERALL (DYNAMIC CRUSH)
1-RIGHT OVERALL
2-PIT CAMERAS FOR REAR UNDERBODY ANALYSIS
1-LT SIDE CLOSE UP OF FUEL FILLER AREA FROM PIT
1-LT & RT CLOSE UP OF REAR QUARTERS OF VEHICLE
1-OVERHEAD VIEW OF SWING GATE HANDLE AT EVENT
1-OVERHEAD VIEW CONTINUING SWING GATE HANDLE VIEW THROUGH EVENT

ALL CAMERAS TO HAVE DIGITAL TIMING IF POSSIBLE
PRE & POST TEST PHOTOS OF OVERALL & UNDERBODY (REAR), FRAME RAILS, FUEL TANK/REAR AXLE AREA,ETC

FILM ANALYSIS

REAR DYNAMIC CRUSH - IF REQUESTED
REAR UNDERBODY ANALYSIS - IF REQUESTED
VEHICLE VELOCITY - IF REQUESTED

REMARKS

TEST REQUESTER: ANNE STEFANGO 733-5368
MAKE 1 COPY OF FILM AND VIDEO AND SEND TO A. STEFANGO 514-17-39
PLEASE RETURN VEHICLE TO PROC ATTN: PAM MORTON

T. E. REPORT

FUEL SYSTEM REPORT REQUIRED

REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
G = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	N = CATALOG EDP DATA
* = REPORT REQUESTOR	

DISTRIBUTION

A. STEFANGO	514-17-39 (AB)
M. STEBELTON	422-05-01 (AB)

DAIMLERCHRYSLER
VEHICLE CRASH ENGINEERING
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 01

**********CHANGED 03/08/01 07:43 STEFANGO SUPPLEMENT 01

MECHANICAL REQ
ADD PLEASE INSTALL NEW TRAILER HITCH, SWING GATE WITH
ADD HANDLE EQUIP. AND SKID PLATE

INSTRUMENTATION REQ
DELETE SWINGGATE ABOVE DOOR HANDLE X,Z (2)
DELETE LEFT & RIGHT REAR SILLS X,Z (4)

VEHICLE ATTITUDE

TEST NUMBER VC9094 TEST ENGINEER KOBYLARZ

ITEM NUMBER KJ6333

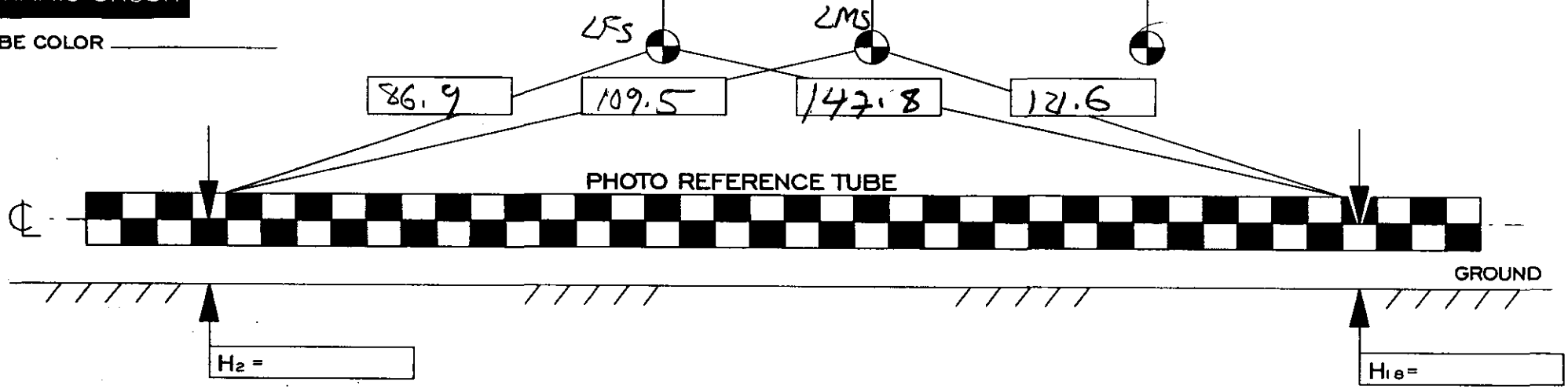
✓ FENDER/WHEELWELL HEIGHTS _____ SILL HEIGHTS

	LF	LR	RF	RR
AS RECEIVED	32.3	33.4	32.4	33.3
AS BUILT-UP	32.2	31.8	32.1	32.0
AS TESTED				

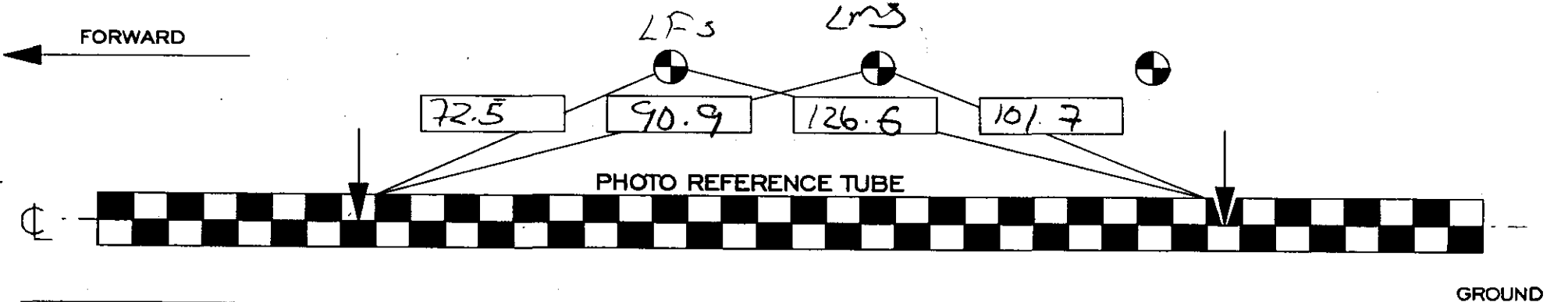
LEFT
SIDE
REAR
DYNAMIC CRUSH

TUBE COLOR _____

FRONT SILL	REAR SILL	REAR AXLE
X=	X=	X=
Y=	Y=	Y=
Z=	Z=	Z=



FORWARD



CAMERA LATERAL TO LENS MOUNT
(MEASURE TO EAST EDGE OF WEST WALKWAY @ -526.4")
501.0" INCHES

NOTES:
1. THE Z DIMENSION FOR THE SILL TARGETS AND REAR AXLE MUST BE RETAKEN AT THE TEST SITE
2. IF OTHER TUBE POINTS ARE USED, SO INDICATE

FOR REAR IMPACT TESTS - DIMENSIONING BETWEEN SILL TARGETS AND PHOTO REFERENCE TUBE
TEST ENGR Kobylarz
VC 9041

TUBE.PRE FA DIAGRAMS 01/28/97
EA12-005- Chrysler -003054

X, Y, Z DIMENSIONS

TEST NUMBER VC9094 TEST ENGINEER KOBYLARZ

ITEM NUMBER KJ6333 V.I.N. 1J8GL58K02W[redacted]

TEST TYPE: 30 MPH REAR TYPE IV MOVING BARRIER IMPACT

LOCATION	X	Y	Z	LOCATION	X	Y	Z
BC1		0.0	XXXX	BC2		0.0	XXXX
B1	0.5	- 17.9	XXXX	B2	0.5	18.7	XXXX
U1	101.2	- 18.5	11.1	U2	101.2	18.4	11.0
U3	123.1	- 7.8	18.4	U4	123.9	8.8	18.4
U5	129.0	- 1.0	8.8	U6	141.0	18.9	21.6
U7	141.1	- 19.8	22.0	U8	143.5	5.7	11.5
U9	143.1	- 5.3	7.6	U10	150.9	6.0	11.1
U11	151.2	- 5.2	11.8	U12	156.0	19.3	22.5
U13	154.9	- 20.0	22.9				
		-		UC1	158.6	0	13.9
LAP	57.7	50- 21.1 | -	49.6				
LFS	64.3	50- | - 31.9	14.3				
LMS	94.5	50- | - 31.8	14.4				
LRW	132.9	50- | - 33.6	13.8				

TRAMMEL DIMENSIONS;

LFS-LMS PRE 29.87 U1-U2 36.85

POST 29.84

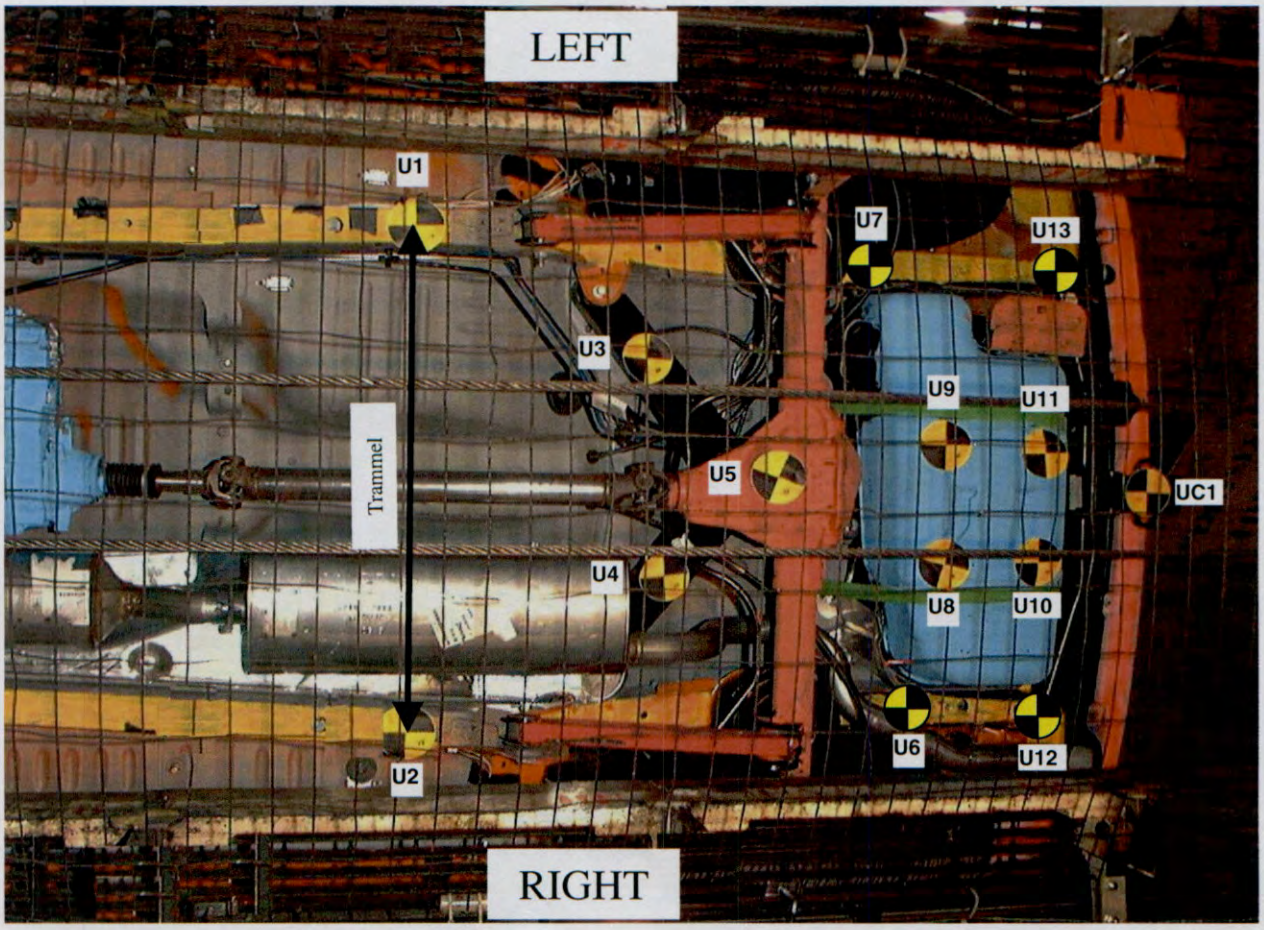
Program: 02KJ

VC 4094 ; Item No.

REAR UNDERBODY FOR ALL REAR IMPACTS

Visibility Approved: DGL / 05/03/1999
Approved for CPG Use: GAB / 05/03/1999
Impact Analysis Engineer: DCC / 01/21/2000
DCC T/L: 722-1918; PAGER: 313-709-9150

FRONT



REAR

Guidelines to Placement of Critical Targets:

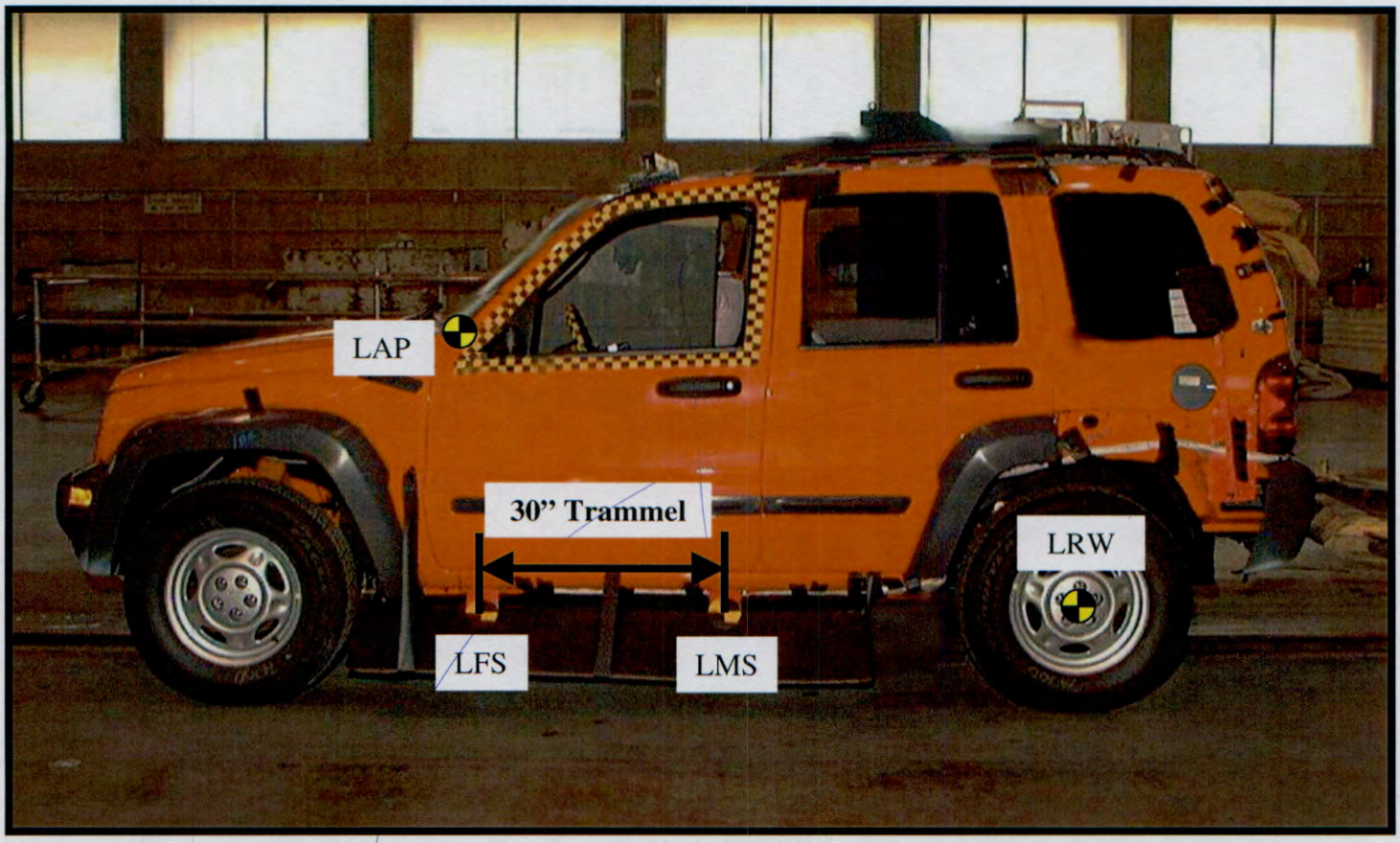
ITEM	COMMENTS
U1 & U2	5.5" IN FRONT OF FORWARD EDGE OF CONTROL ARM MOUNTING BRACKET.
U3 & U4	CENTER OF UPPER SWING ARMS.
U5	ON CENTER OF REAR DIFFERENTIAL
U12 & U13	END OF RAILS AT REAR BUMPER CROSSMEMBER
U6	14" FORE OF U12
U7	ON LEFT RAIL 16" FORWARD OF U13
U8,U9,U10 & U11	IN SQUARE PATTERN, INSIDE STRAPS ON BOTTOM SURFACE OF THE FUEL TANK
UC1	CENTERED ON REAR BUMPER CROSSMEMBER

Program: 02KJ

VC 9054 ; Item No.

LEFT SIDE
FOR ALL REAR IMPACTS

Visibility Approved: DGL / 05/03/1999
Approved for CPG Use: GAB / 05/03/1999
Impact Analysis Engineer: DCC / 01/21/2000
DCC T/L: 722-1918; PAGER: 313-709-9150

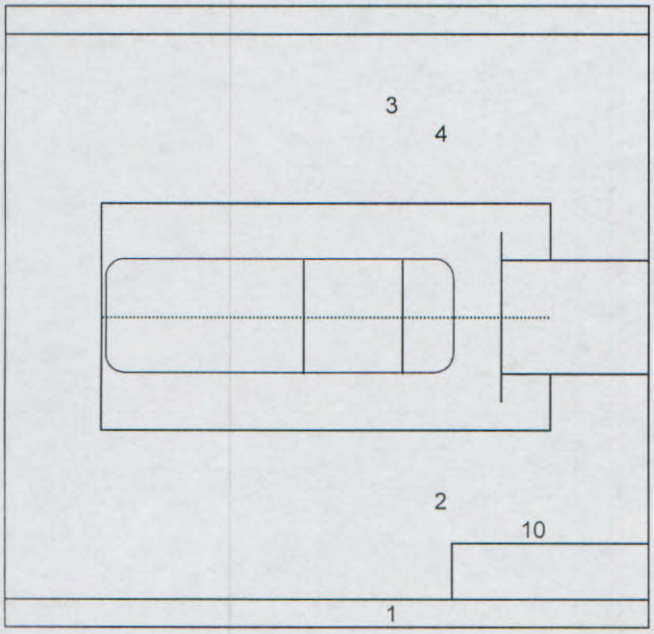


Guidelines to Placement of Critical Targets:

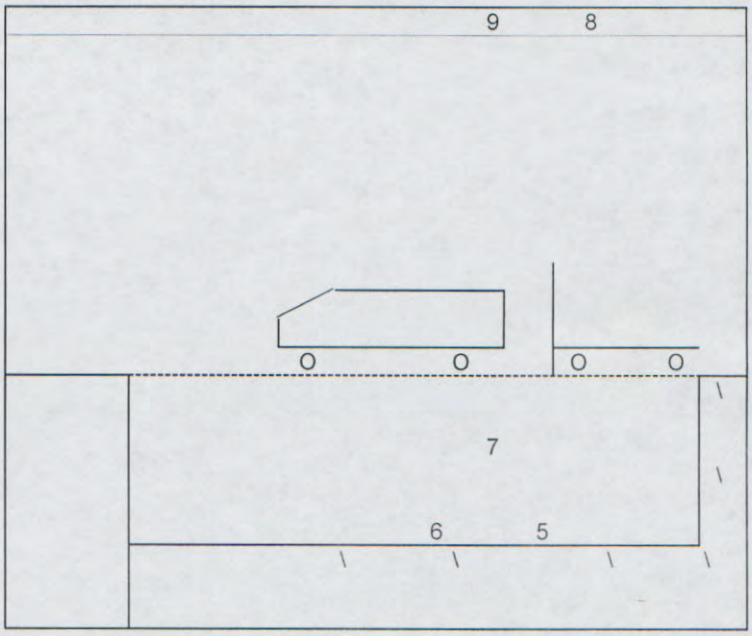
ITEM	COMMENTS
LMS	BOTTOM OF B-POST ON SILL
LRS	30" FORE OF LMS
LRW	CENTER OF REAR WHEEL

3-8-01

PLAN VIEW



SIDE VIEW



TEST NUMBER:	VC9094	**VEHICLE TYPE:**	KJ
TEST TYPE:	30 MPH REAR TYPE IV IMPACT		
REQUEST DATE:	03/08/01	**TEST ENGINEER:**	KOBYLARZ

#		VIEW DESCRIPTION A=ANALYSIS	CAM S/N	LENS FL	LENS S/N	LENS MFG.	F - STP	PNL	SKT	CBL	MISC
1	A	LEFT SIDE OVERALL DYNAMIC CRUSH	428	18MM	116693	KIN	428				
2		LEFT - BARRIER TO C POST	1876	35MM	111302	KIN	1876				
3		RIGHT SIDE OVERALL	1890	18MM	107233	KIN					
4		RIGHT - BARRIER TO C POST	1891	35MM	111290	KIN	5.6 1/2				
5	A	PIT - SOUTH	432	13MM	13-7	COS	4 1/4				
6	A	PIT - NORTH	433	13MM	13-5	COS	4 1/4				
7		PIT - FILLER TUBES	277	ZOOM	#7	CAN					
8		CATWALK - REAR DOOR HANDLE	278	ZOOM	#8	CAN					
9		CATWALK - REAR DOOR HANDLE THRU EVENT	279	ZOOM	#9	CAN					
10	A	VELOCITY	286	100MM	B2088	LGT					
		1 PRINT - STEFANGO									

3/12/01

MONDAY #1

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC9094, ITEM NUMBER KJ6333, TEST ENGINEER KOBYLARZ

V.I.N. 1J8GL58K02W[redacted], TEST DATE 3/12/01, ROLL DATE 3/14/01

TEST TYPE; 30 MPH REAR TYPE IV MOVING BARRIER IMPACT

FUEL; TYPE AND QUANITY - .767 S.G. STODDARD SOLVENT, 17.5 GALLONS

TEST SPEED 30.6 MPH, TEST WEIGHT 4464 POUNDS.

POST IMPACT LEAKAGE(OZ); AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK N/A

ELECTRIC FUEL PUMP RUN N/A

| | | NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE Left SIDE DOWN FIRST

		FUEL LEAKAGE LOCATIONS DURING STATIC ROLL					
ROLL TIME						TOTAL	
0-90	1ST 5 MIN					0	*
1:52	POST 5 MIN					0	**
90-180	1ST 5 MIN					0	*
1:46	POST 5 MIN					0	**
180-270	1ST 5 MIN					0	*
1:43	POST 5 MIN					0	**
270-360	1ST 5 MIN					0	*
1:42	POST 5 MIN					0	**

* OUNCES IN 5 MINUTES, ** OUNCES PER MINUTE

POST TEST FUEL SYSTEM OBSERVATIONS No fuel leaks

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)

EA12-005

CHRYSLER

12-13-2012

Enclosure 6C

Summary of 301 Crash Tests Public

XJ FMVSS 301 Test History

Cherokee (XJ) Development Summaries Public

1984-2001 MY Cherokee (XJ)
FMVSS 301 Test History

VC #	Test Date	Vehicle Tested	Purpose of Test	Results
AM1458	8/21/1981		198X FMVSS 301 Development Test	Successful
AM1522	4/2/1982		1983 FMVSS 301 Development Test	Successful
AM1533	6/7/1982		1983 FMVSS 301 Development Test	Successful
AM1540	9/30/1982		1984 FMVSS 301 Development Test	Successful
AM1573	12/8/1982		1984 FMVSS 301 Pre-Certification Test	Unsuccessful
AM1581	1/20/1983		1984 FMVSS 301 Pre-Certification Test	Unsuccessful
AM1584	2/14/1984		1984 FMVSS 301 Pre-Certification Test	Successful
AM1623	4/27/1983	1984 XJ - 20.2 gallon fuel tank	1984 FMVSS 301 Certification Test - relied on for 1984 and 1985 compliance	Successful
AM1626	7/8/1983		1984 FMVSS 301 Development Test	Successful
AM1635	4/27/1983	1984 XJ - 20.2 gallon fuel tank	1984 FMVSS 301 Certification Test - relied on for 1984 compliance	Successful
AM1661	7/7/1983	1984 XJ - 20.2 gallon fuel tank	1984 FMVSS 301 Certification Test - relied on for 1984 and 1985 compliance	Successful
AM1665	7/13/1983	1984 XJ - 20.2 gallon fuel tank - trailer hitch (class undefined)	1984 FMVSS 301 Certification Test - relied on for 1984 and 1985 compliance	Successful
AM1669	7/13/1983	1984 XJ - 20.2 gallon fuel tank - trailer hitch (class undefined)	1984 FMVSS 301 Certification Test - relied on for 1984 and 1985 compliance	Successful
AM1671	6/28/1983		1984 FMVSS 301 Development Test	Unsuccessful
AM1679	6/30/1983		1984 FMVSS 301 Development Test	Successful
AM1689	10/6/1983		1984 FMVSS 301 Development Test	Unsuccessful
AM1696	10/25/1983	1984 XJ - 20.2 gallon fuel tank - rear mounted swing away spare.	1984 FMVSS 301 Certification Test	Unsuccessful
AM1700	11/10/1983		1984 FMVSS 301 Development Test	Successful
AM1706	11/11/1983		1984 FMVSS 301 Monitor Test	Successful
AM1711	12/7/1983		1984 FMVSS 301 Monitor Test	Successful
AM1723	1/12/1984		1984 FMVSS 301 Development Test	Successful
AM1736	2/10/1984		1984 FMVSS 301 Development Test	Successful
AM1762	4/3/1984	1984 XJ - 20.2 gallon fuel tank - skid plate	1984 FMVSS 301 Certification Test	Successful
AM1798	5/30/1984		1984 FMVSS 301 Development Test	Unsuccessful
AM1829	9/20/1984		1984 FMVSS 301 Development Test	Successful
AM1845	12/20/1984		1984 FMVSS 301 Development Test	Successful
AM1848	11/28/1984		1985 FMVSS 301 Development Test	Successful
AM1880	2/26/1985		1985 FMVSS 301 Development Test	Unsuccessful
AM1888	5/21/1985	1986 XJ - 20.2 gallon fuel tank	1986 MY FMVSS 301 Compliance Test used for 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, & 1994 Model Year Compliance	Successful
AM1928	5/23/1985		1985 FMVSS 301 Development Test	Successful
AM1932	6/4/1985	1985 XJ - 13.5 gallon fuel tank - new production intent engine mount.	1986 MY FMVSS 301 Compliance Test used for 1986, 1987 & 1988 Model Year Compliance	Successful
AM2028	3/17/1987	1987 XJ fuel system - 20 gallon fuel tank	1987 compliance test used for 1989, 1990, & 1991 model year Compliance	Successful
AM2041	3/17/1987	1987 XJ fuel system proposed new filler tube and mounting at filler door area. 20 gallon fuel tank	1987 production compliance - relied on for 1989, 1990, 1991, 1992, 1993, & 1994 compliance	Successful
VC3597	3/25/1988		1990 MY FMVSS 301 Development Test	Successful
VC3790	12/22/1988		1991 MY FMVSS 301 Development Test	Unsuccessful
VC3860	4/4/1989		1991 MY FMVSS 301 Development Test	Successful
VC3918	6/15/1989		1991 MY FMVSS 301 Development Test	Unsuccessful
VC3960	8/25/1989		1991 MY FMVSS 301 Development Test	Unsuccessful
VC5211	8/2/1994	1995 XJ built with a 1995 production fuel system. Includes new fuel sending locking ring. 20 gallon steel fuel tank.	1995 MVSS 301 Compliance relied on for the 1995 & 1996 Compliance Reporting	Successful
VC5241	9/21/1994		1997 MY FMVSS 301 Development Test	Unsuccessful
VC5282	10/21/1994		1997 MY FMVSS 301 Development Test	Unsuccessful
VC5309	12/12/1994		1997 MY FMVSS 301 Development Test	Successful

1984-2001 MY Cherokee (XJ)
FMVSS 301 Test History

VC5383	2/20/1995	[redacted]	1997 MY FMVSS 301 Development Test	Successful
VC5682	11/4/1995	[redacted]	1997 MY FMVSS 301 Development Test	Successful
VC6062	8/20/1996	1997 XJ production intent 20 gallon plastic fuel tank. Fuel system production intent	1997 Compliance Test relied on for 1997, 1998, 1999, 2000.	Successful
VC6146	10/16/1996	1997 XJ factory trailer hitch installed. Fuel system production intent - 20 gallon plastic fuel tank.	1997 Compliance Test relied on for 1997, 1998, 1999, 2000 & 2001.	Successful

EA12-005

CHRYSLER

12-13-2012

Enclosure 6C

Summary of 301 Crash Tests Public

KJ FMVSS 301 Test History

Liberty (KJ) Development Test Summaries Public

2002 - 2007 KJ VC Development Summary

VC #	Test Date	Vehicle Tested	Purpose of Test	Result
V0C7506	4/25/1999		2002 MY FMVSS 301 Development Test	Successful
VC07623	6/16/1999		2002 MY FMVSS 301 Development Test	Successful
VC07746	8/27/1999		2002 MY FMVSS 301 Development Test	Unsuccessful
VC08023	12/13/1999		2002 MY FMVSS 301 Development Test	Successful
VC08025	12/13/1999		2002 MY FMVSS 301 Development Test	Unsuccessful
VC08268	8/3/2000		2001 MY FMVSS 301 Development Test	Successful
VC08459	5/17/2000		2001 MY FMVSS 301 Development Test	Successful
VC08945	12/5/2000		2001 MY FMVSS 301 Development Test	Successful
VC09026	1/29/2001	2002 prototype KJ with design intent swing gate handle and fuel lines. Production intent exhaust flange	2001 MY FMVSS 301 Compliance Test	Successful
VC09029	2/27/2001		2002 MY FMVSS 301 Development Test	Successful
VC09089	3/6/2001		2002 MY FMVSS 301 Development Test	Successful
VC09094	3/12/2001	2002 prototype KJ with design intent swing gate handle and fuel lines. Production intent exhaust flange	2002 MY FMVSS 301 Compliance Test	Successful
VC09559	2/6/2002		2002 MY FMVSS 301 Development TEST	Successful
VC09935	6/21/2002		2003 MY FMVSS 301 Development TEST	Unknown
VC10306	11/14/2002		2003 MY FMVSS 301 Development TEST	Successful
VC10307	11/14/2002		2003 MY FMVSS 301 Development TEST	Successful
VC10445	1/30/2003		2003 MY FMVSS 301 Development TEST	Successful
VC10499	2/17/2003		2004 MY FMVSS 301 Development TEST	Successful
VC10546	3/20/2003	2004 production intent KJ	2004 MY FMVSS 301 Compliance Test	Successful
VC10771	6/6/2003		2004 MY FMVSS 301 Development TEST	Successful
VC11439	2/6/2004		2005 MY FMVSS 301 Development TEST	Successful
VC11444	3/17/2004		2005 MY FMVSS 301 Development TEST	Successful
VC11711	5/13/2004	2005 production intent KJ	2005 MY FMVSS 301 Compliance Test	Successful
VC11790	6/4/2004	2005 production intent KJ	2005 MY FMVSS 301 Compliance Test	Successful

EA12-005

CHRYSLER

12-13-2012

Enclosure 6F

FARS and NAS Analyses

FARS Data Analysis Dec 2012

FARS Data Analysis

SUVs and Cars

Contents

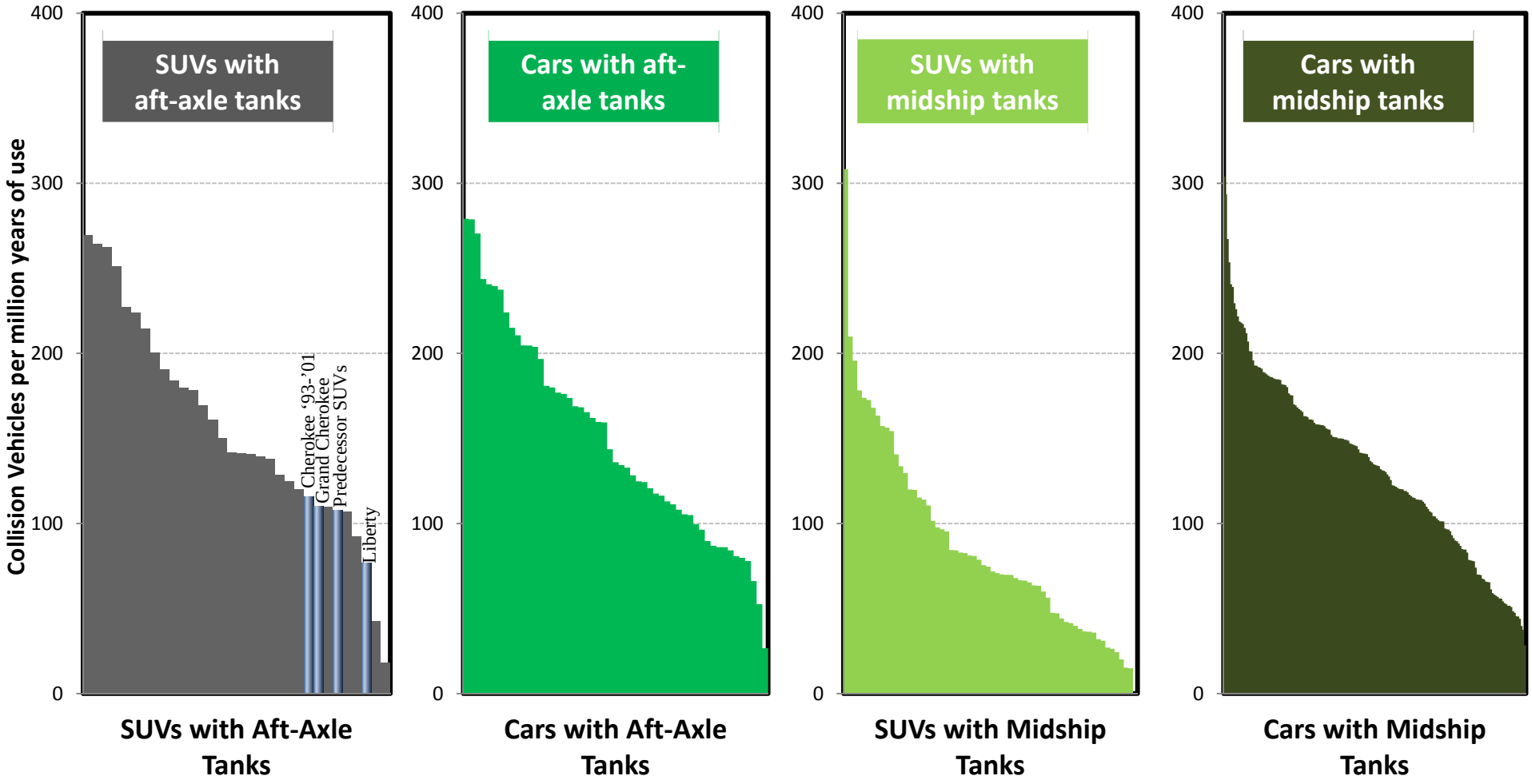
- Crash rates defined as collision vehicles per million years of use (million registered vehicle years), based on:
  - FARS data 1984-2010
  - RL Polk vehicle registration data
  - 95% confidence interval calculations about rates
- Rates of crashes of different types, rank-ordered by individual model
- Average rates of crashes of different types, grouped by vehicle type, tank location and subject vehicle. Includes confidence intervals.
- Rates of fatal rear crashes accompanied by fire, rank-ordered by model (including confidence intervals)
  - 100 models having the highest rates
  - SUVs and Passenger Cars with aft-axle fuel tanks
  - SUVs with aft-axle or midship fuel tanks
  - SUVs with aft-axle fuel tanks

Rates Rank-Ordered by Model

- Models grouped according to vehicle type and tank location
  - SUV vs. Passenger car
  - Aft-axle vs. Midship tank location
- Rates are per million years of use (million registered vehicle years)
  - Vehicles in a collision with an occupant fatality
  - Vehicles in a collision with an occupant fatality accompanied by fire
  - Rear crashes with an occupant fatality
  - Rear crashes with an occupant fatality accompanied by fire
  - Rear crashes with an occupant fatality and fire as the Most Harmful Event (MHE)
  - Rear crashes (fatality in any vehicle in the crash) accompanied by fire
  - Rear crashes (fatality in any vehicle in the crash) with fire as the MHE

Rates of Fatal Collisions

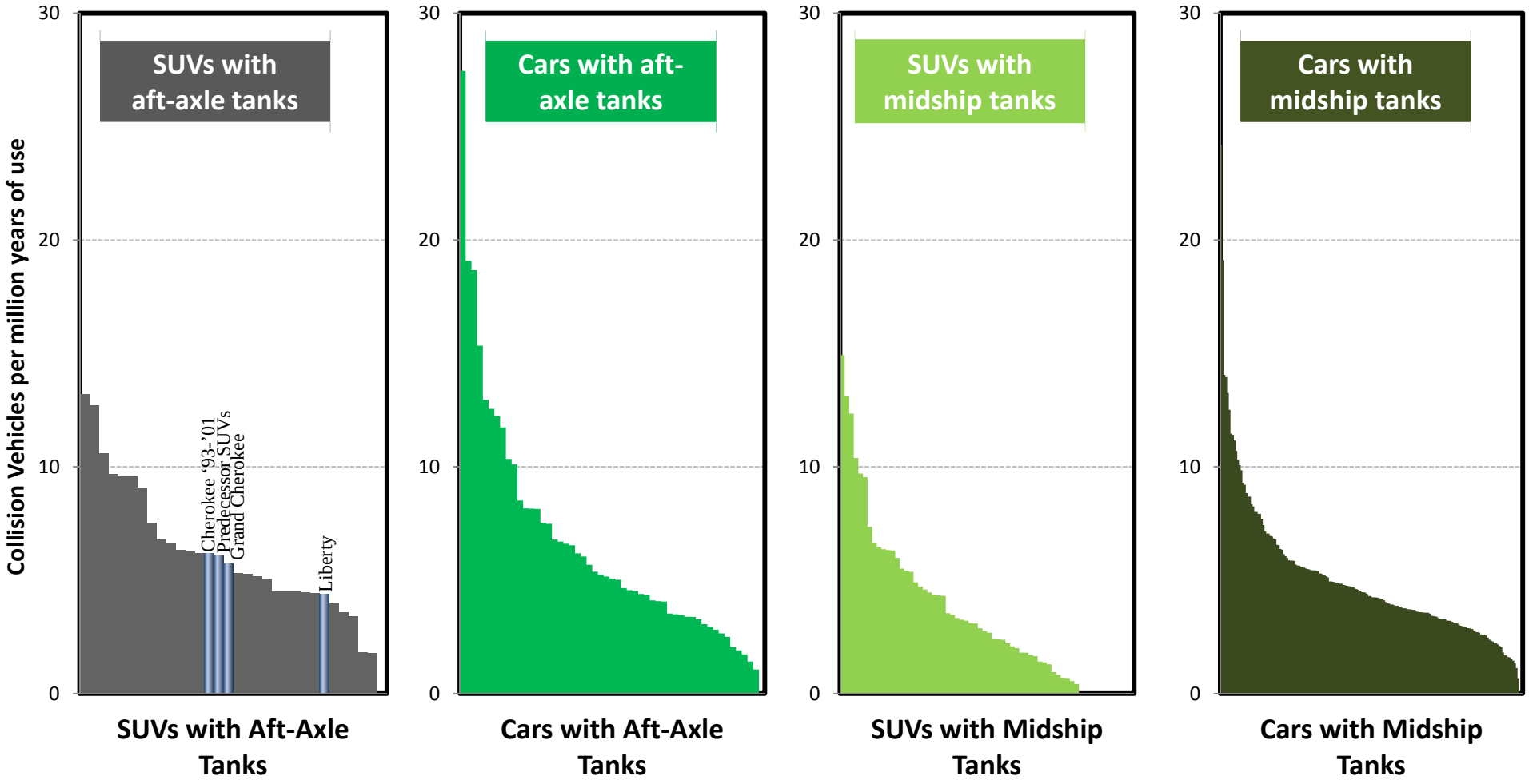
Vehicles involved in any collision with occupant fatality, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes collision vehicles with an occupant fatality.

Rates of Fatal Collisions with Fire

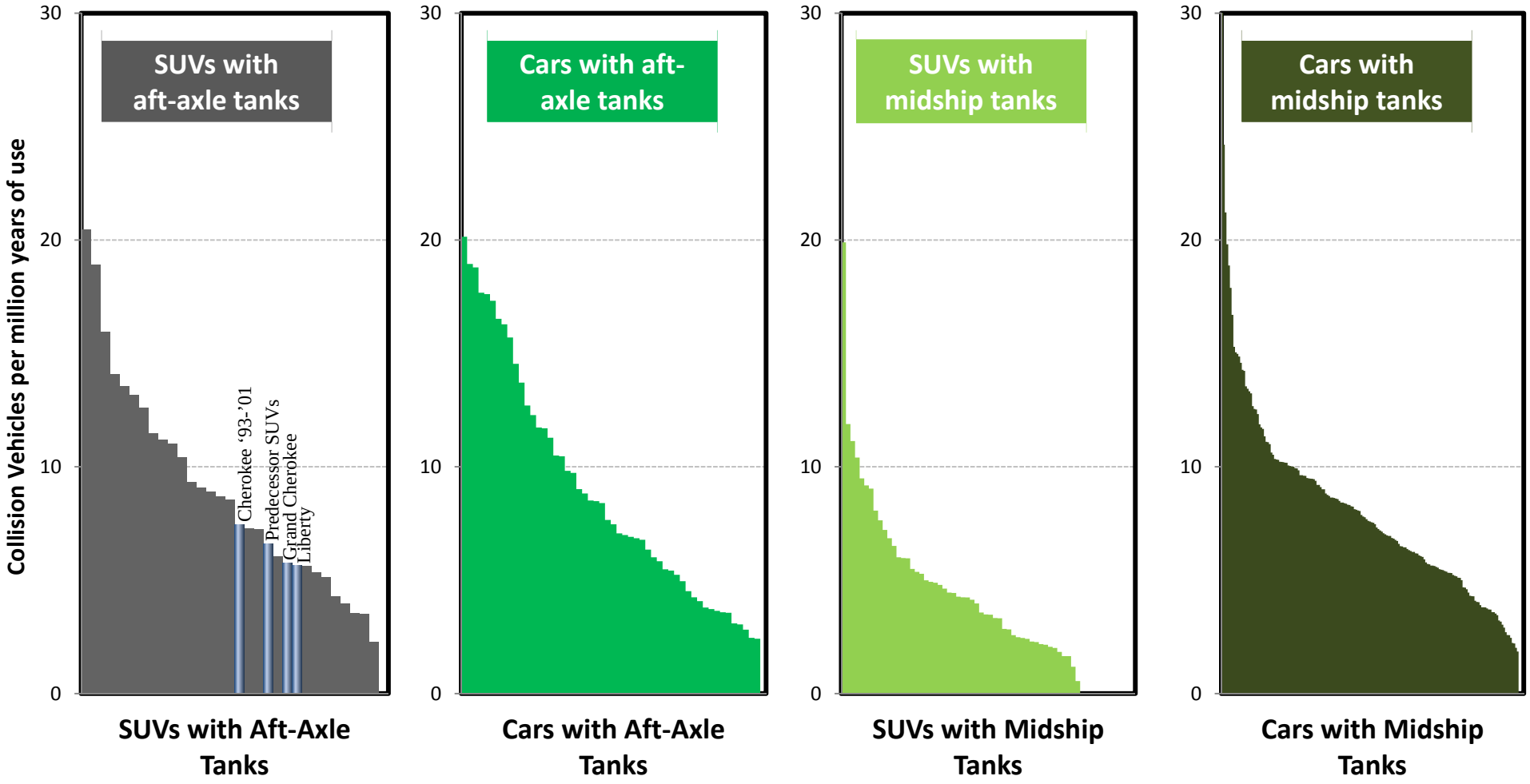
Vehicles involved in any collision with occupant fatality and post-collision fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes collision vehicles with an occupant fatality where the vehicle experienced a post-collision fire.

Rates of Rear Fatal Collisions

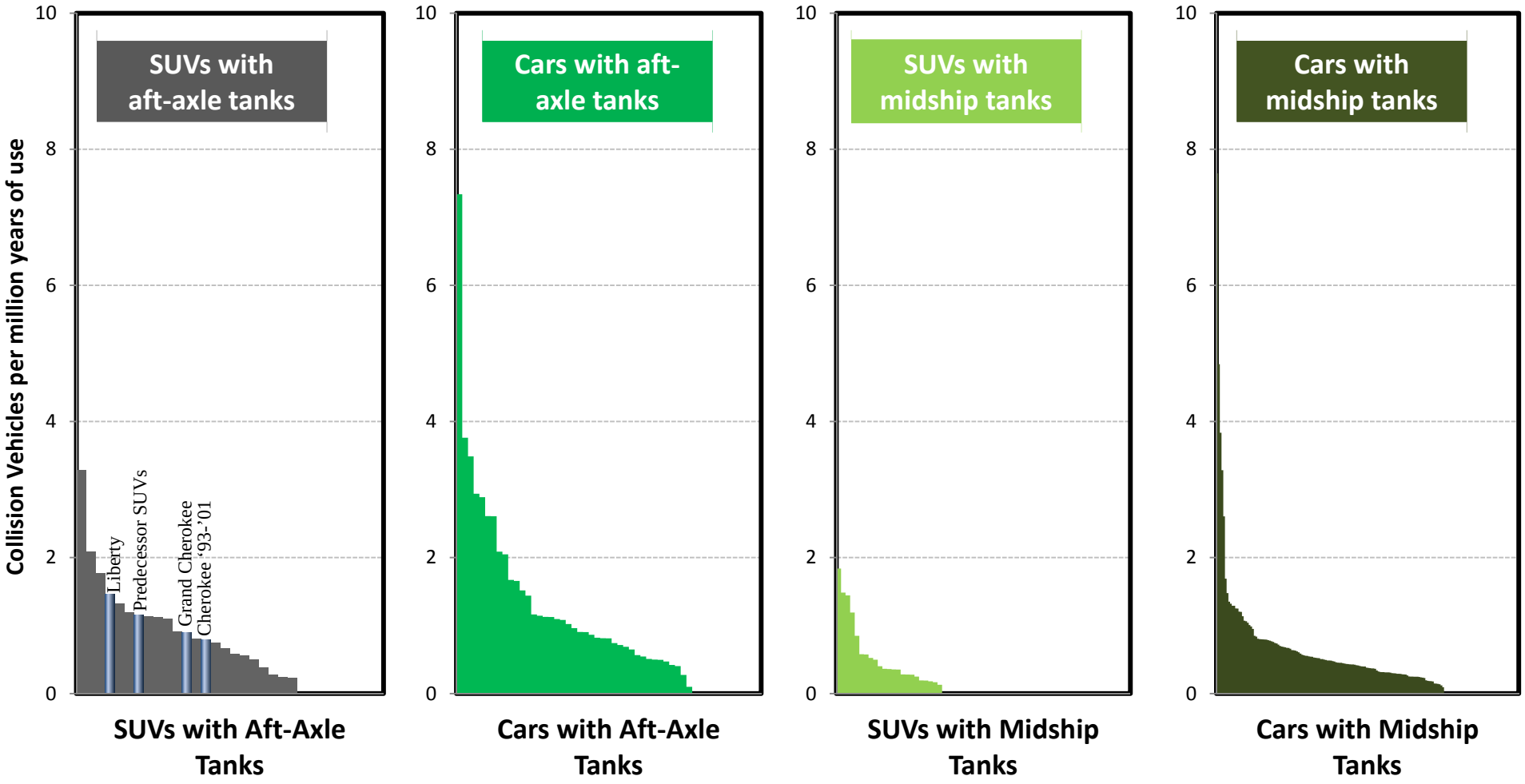
Vehicles involved in a rear collision with occupant fatality, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes collision vehicles with an occupant fatality.

Rates of Rear Fatal Collisions with Fire

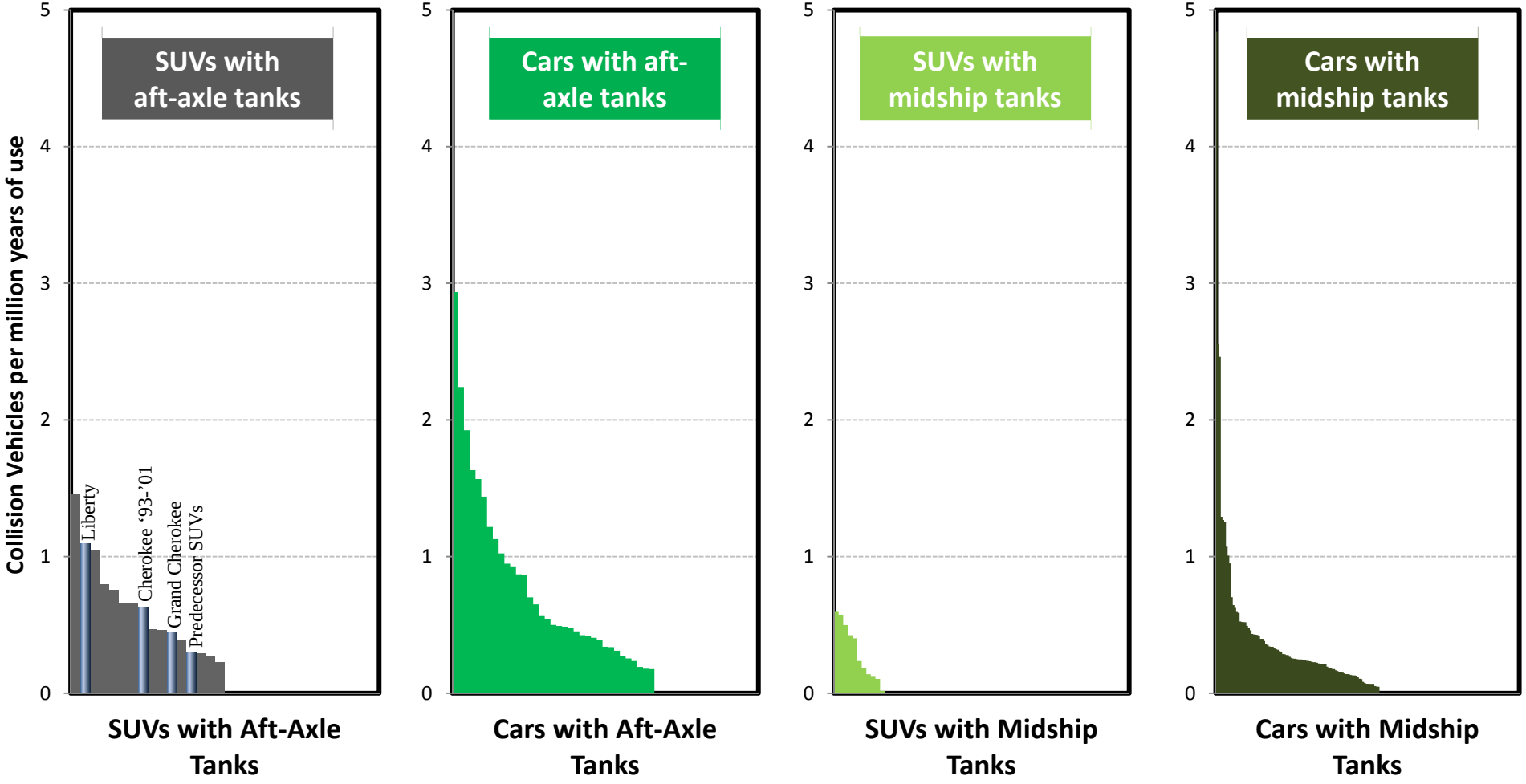
Vehicles involved in a rear collision with occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire.

Rates of Rear Fatal Collisions with MHE Fire

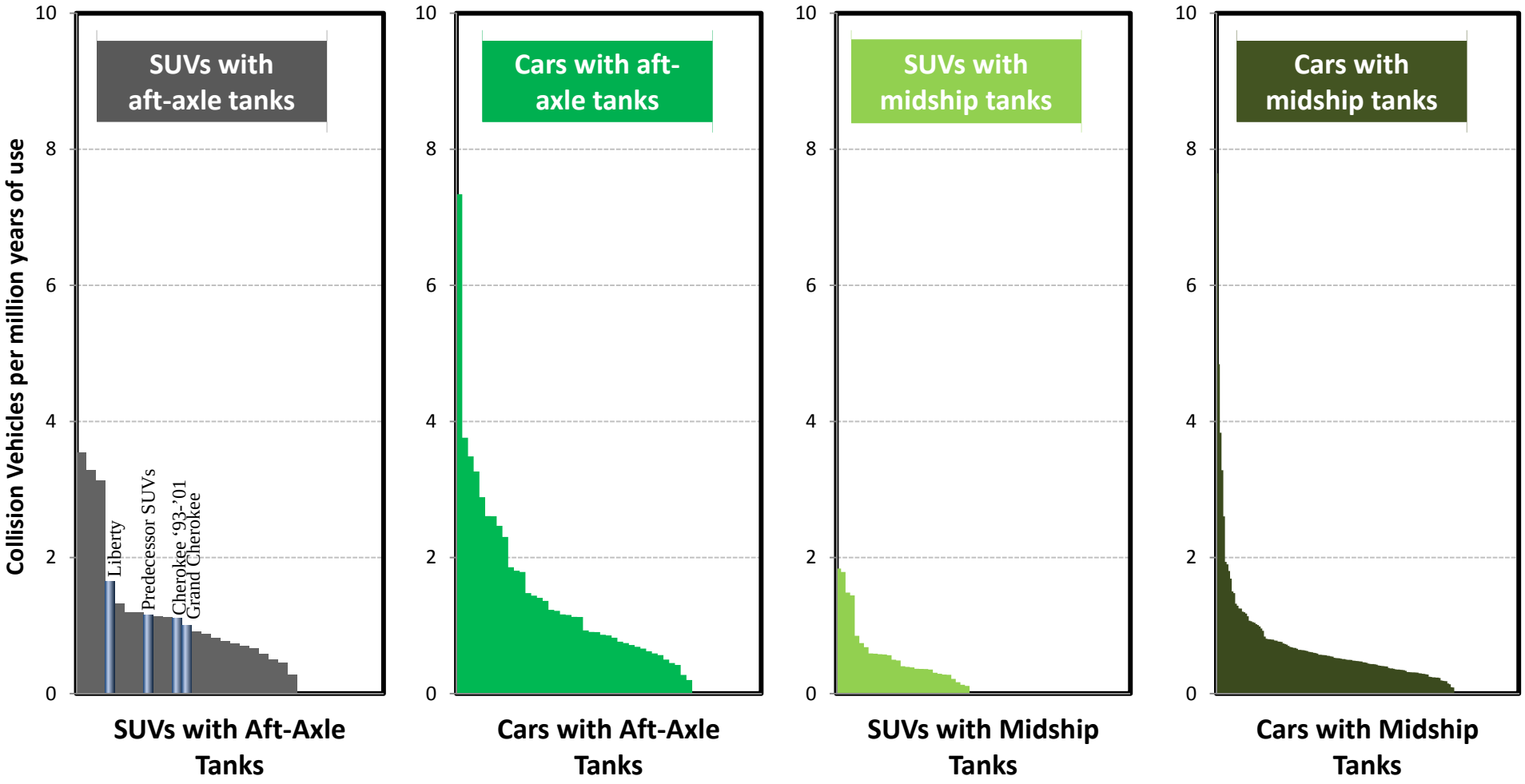
Vehicles involved in a rear collision with occupant fatality and most harmful event fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire as the most harmful event.

Rates of Rear Collisions with Fire

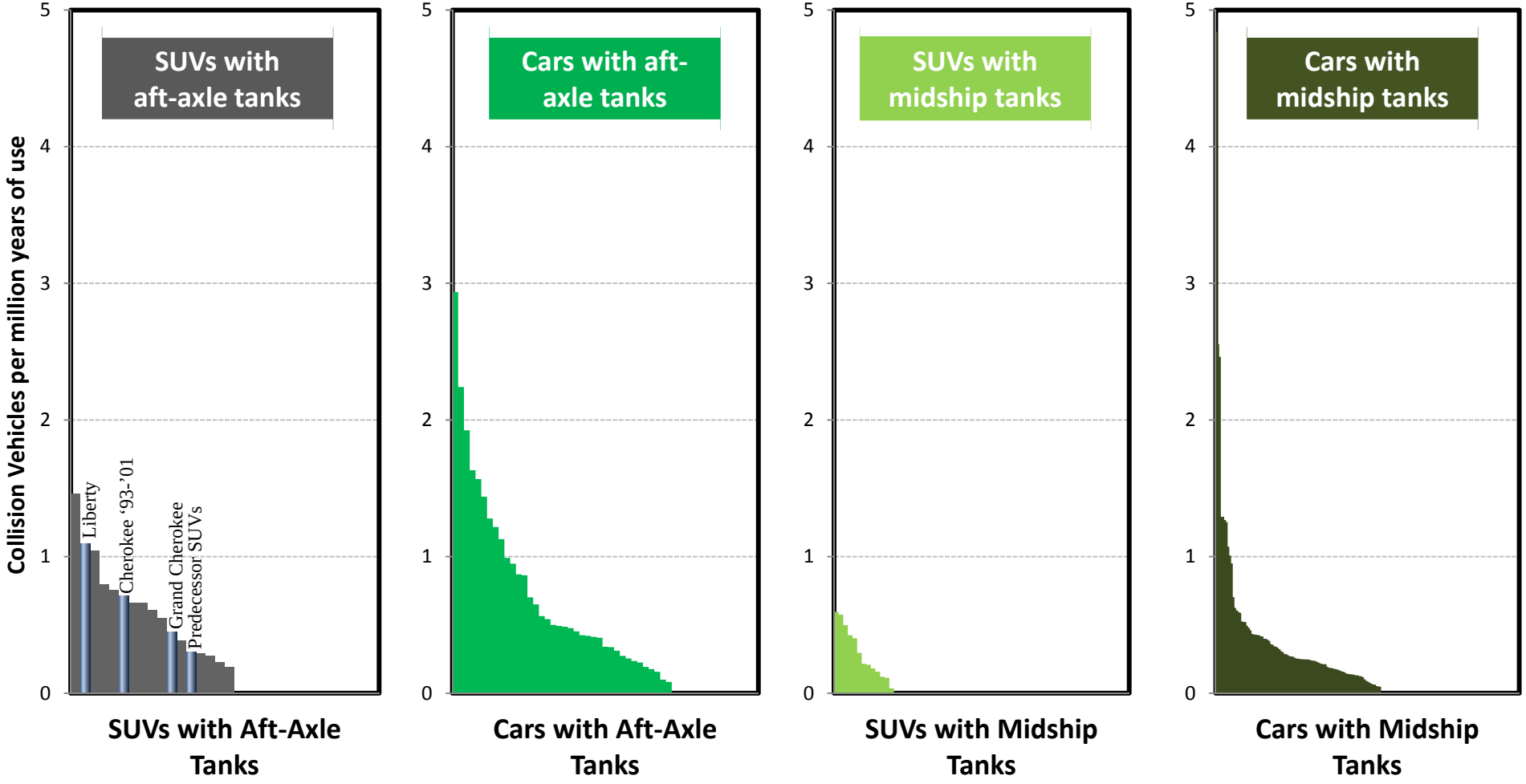
Vehicles involved in a rear collision with post-collision fire, per million years of use
Fatality in any vehicle in the crash



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles where the vehicle experienced a post-collision fire. Fatality in any vehicle in the crash.

Rates of Rear Collisions with MHE Fire

Vehicles involved in a rear collision with fire as MHE, per million years of use
Fatality in any vehicle in the crash



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles where the vehicle experienced a post-collision fire as the most harmful event. Fatality in any vehicle in the crash.

Conclusions
Vehicles Rank Ordered and Grouped

- Within the four different groupings of vehicles, for each category of collision type studied*
  - Vehicle models have differences in rates that vary markedly, sometimes by more than an order of magnitude
  - The Subject SUV Design vehicles** have rates that are neither the highest nor the lowest within their grouping

* Groupings of vehicles are: SUVs with aft-axle fuel tanks, Passenger Cars with aft-axle fuel tanks, SUVs with midship fuel tanks, and Passenger Cars with midship fuel tanks. Categories of collision types include a) collision vehicles with an occupant fatality, b) collision vehicles with an occupant fatality accompanied by fire, c) vehicles in a rear collision with occupant fatality, d) vehicles in a rear collision with occupant fatality accompanied by fire, e) vehicles in a rear collision with occupant fatality and MHE fire, f) vehicles in a rear collision accompanied by fire (fatality in any vehicle in the crash), and g) vehicles in a rear collision accompanied by MHE fire (fatality in any vehicle in the crash).

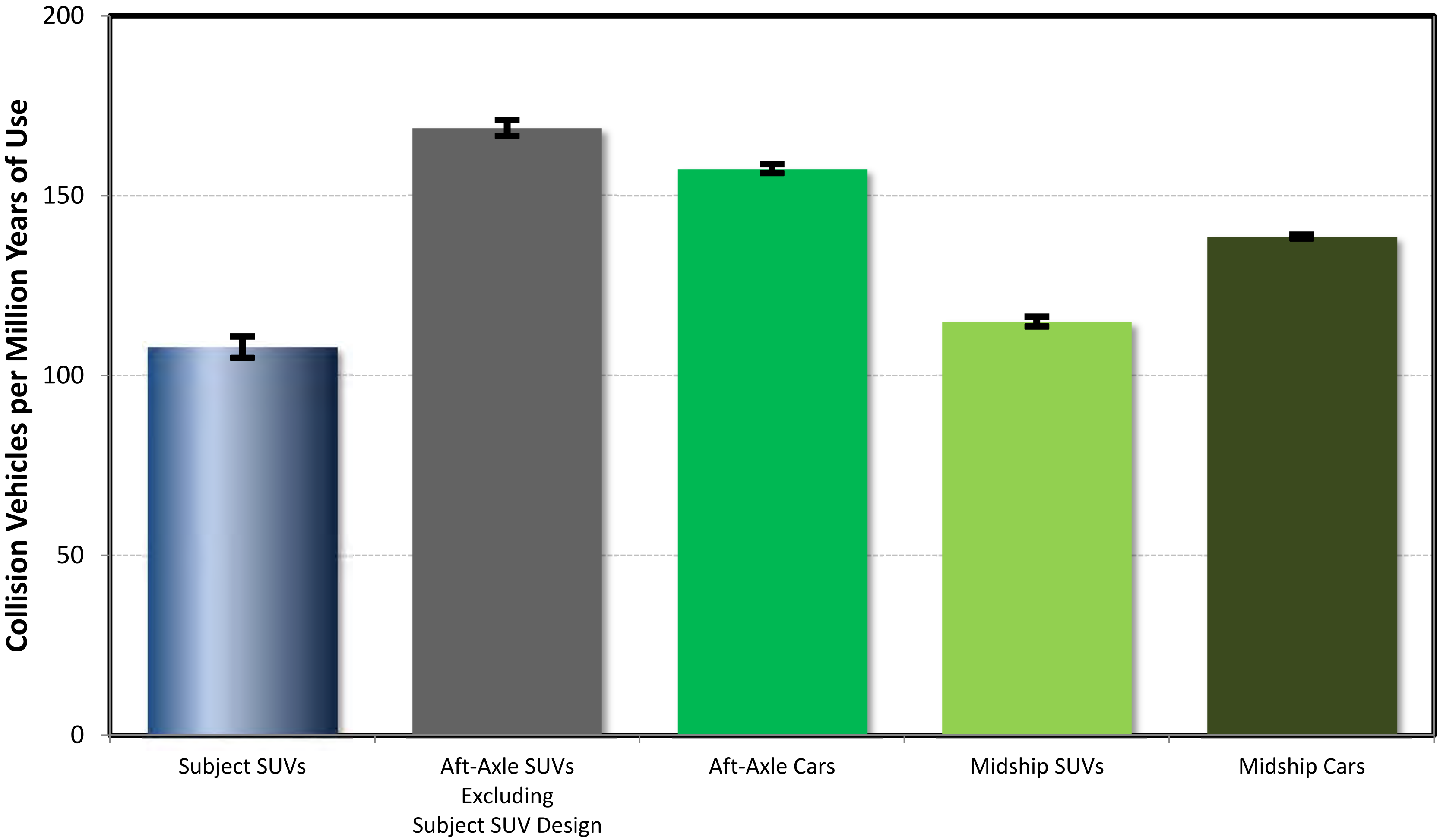
** Subject SUVs are the 1993-2004 Grand Cherokee, 1993-2001 Cherokee, and 2002-2007 Liberty. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are Jeep Cherokee 1984-1992 and Wagoneer 1984-1990.

Grouped Rates of Crashes

- Rates grouped by vehicle type and tank location, shown with confidence intervals
  - SUV vs. Passenger car
  - Aft-Axle vs. Midship tank location
  - Subject SUVs
    - Grand Cherokee 1993-2004
    - Cherokee 1993-2001
    - Liberty 2002-2007
  - Subject SUV Design vehicles
    - Subject SUVs
    - Cherokee 1984-1992 and Wagoneer 1984-1990
  - Rates for SUVs with aft-axle tanks do not include Subject SUV Design vehicles
  - Rates shown with confidence intervals
- Collision types
  - Fatal collisions
  - Fatal collisions with fire
  - Rear fatal collisions
  - Rear fatal collisions with fire
  - Rear fatal collisions with MHE fire

Rates of Fatal Collisions

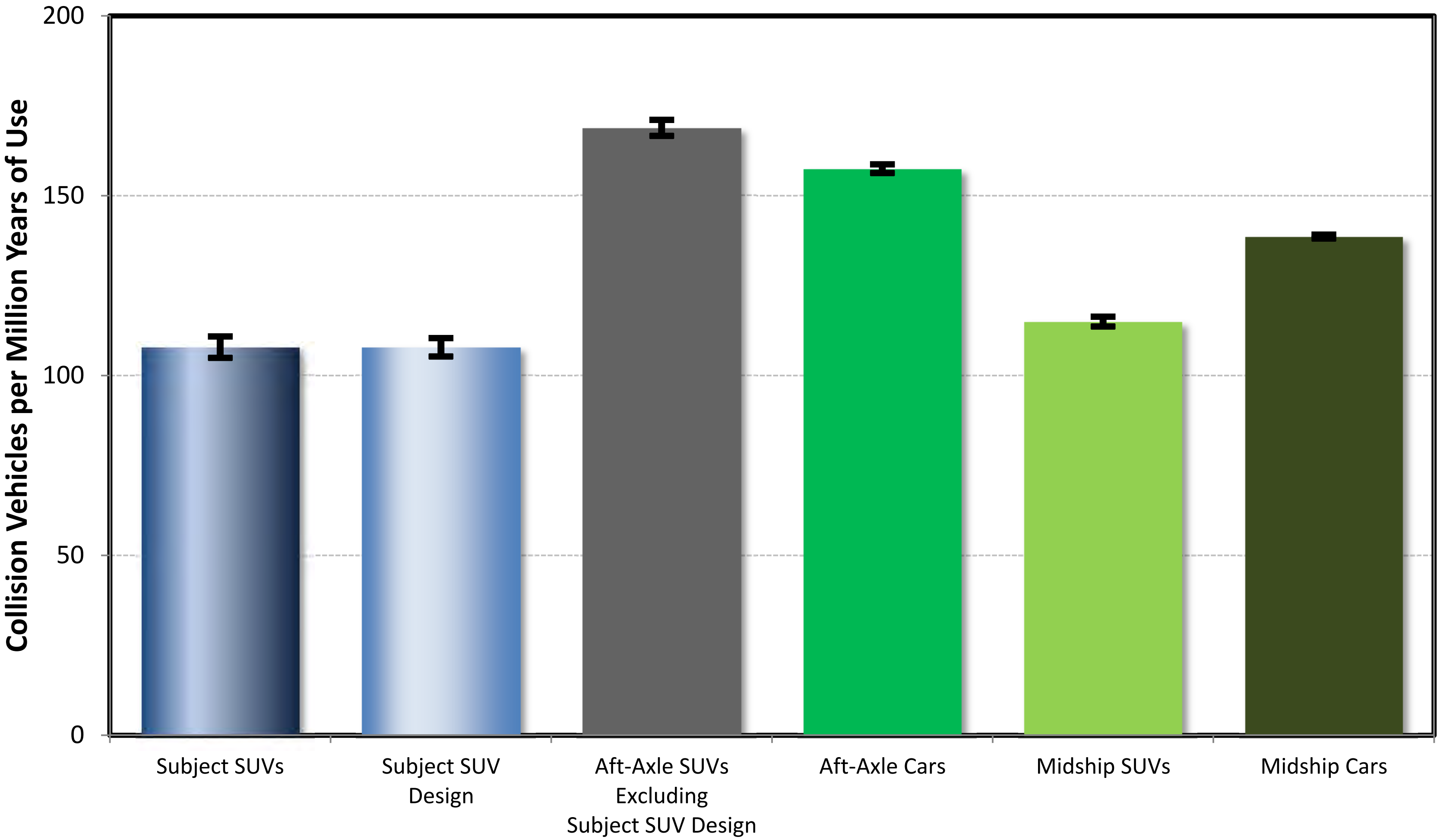
Vehicles involved in any collision with occupant fatality, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as Predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes collision vehicles with an occupant fatality. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Rates of Fatal Collisions

Vehicles involved in any collision with occupant fatality, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as Predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes collision vehicles with an occupant fatality. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Conclusions

Rates of Collisions with Occupant Fatality

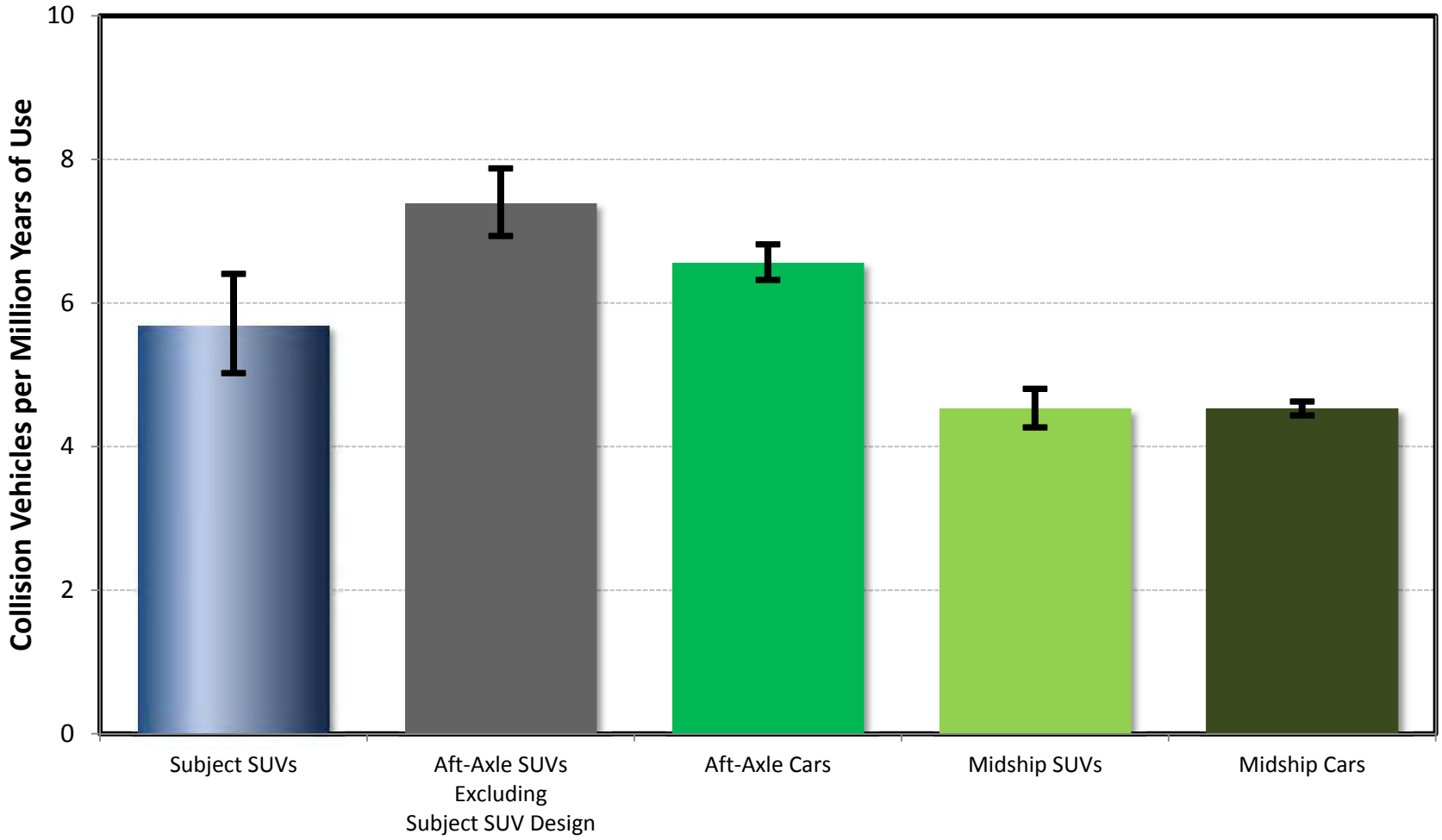
- Collectively, the Subject SUVs and Subject SUV Design vehicles have rates of collisions with occupant fatality that are statistically significantly* better than the average rates for the other groups of vehicles.

- The different groupings of vehicles have average rates that are statistically significantly* different from each other.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

Rates of Fatal Collisions with Fire

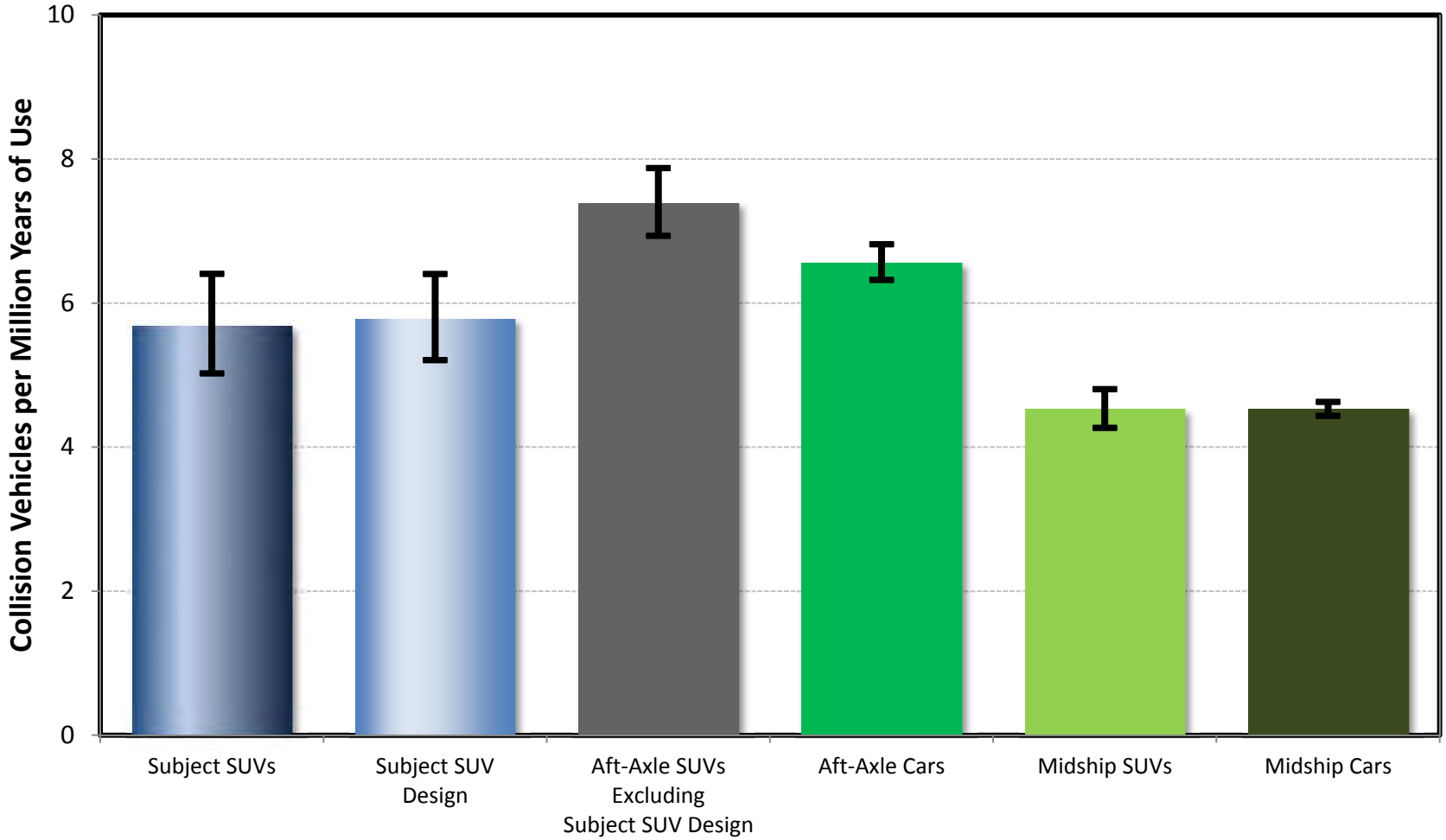
Vehicles involved in any collision with occupant fatality and post-collision fire, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Rates of Fatal Collisions with Fire

Vehicles involved in any collision with occupant fatality and post-collision fire, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Conclusions

Rates of Collisions with Occupant Fatality and Fire

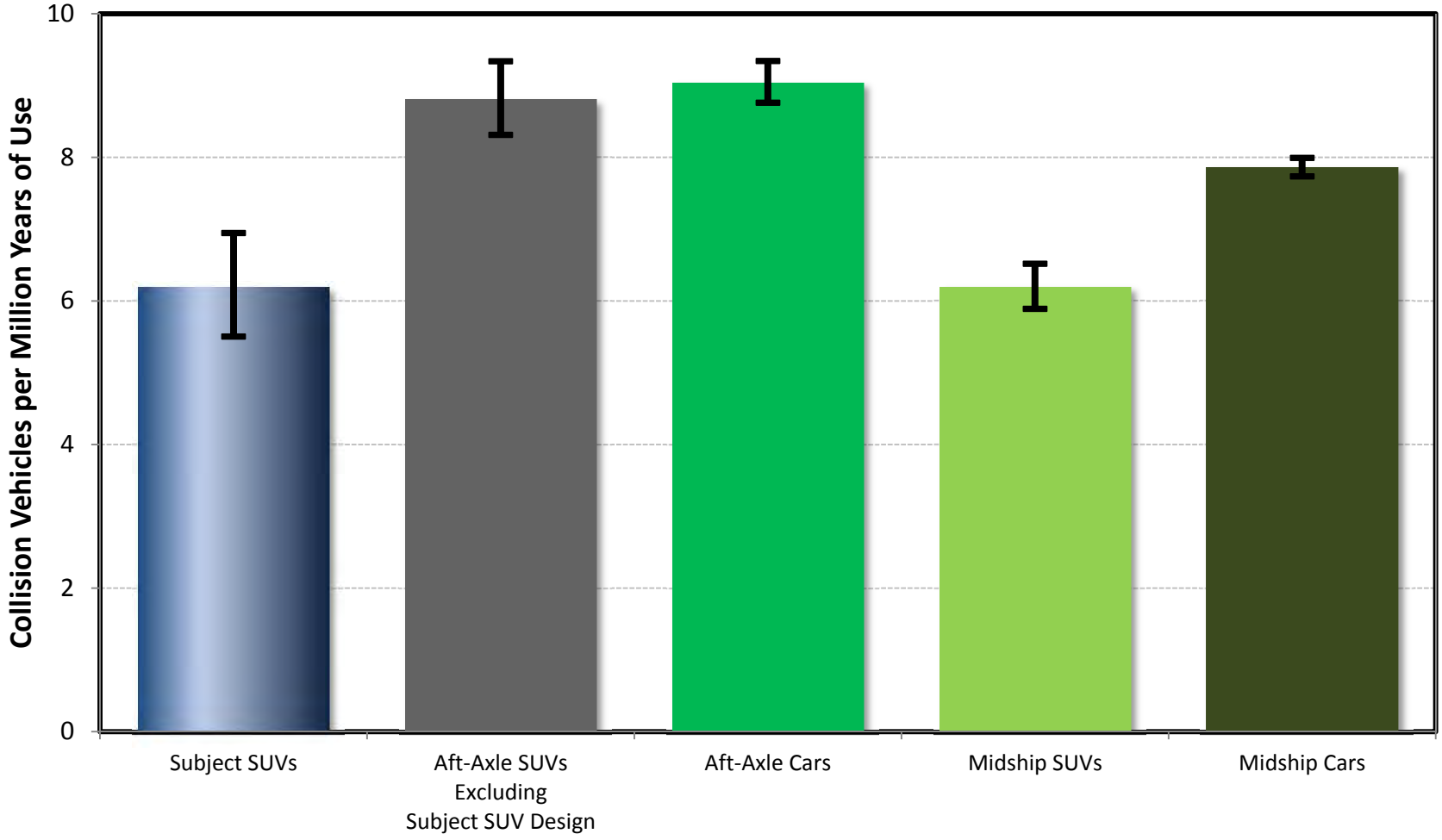
- Collectively, the Subject SUVs and Subject SUV Design vehicles have rates of collision with occupant fatality accompanied by fire that are statistically significantly* better than the average rate for the other aft-axle SUVs.

- The rates of collision with occupant fatality accompanied by fire for Cars and SUVs with midship fuel tanks are statistically significantly* better than the average rates for the other groupings of vehicles.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

Rates of Fatal Rear Collisions

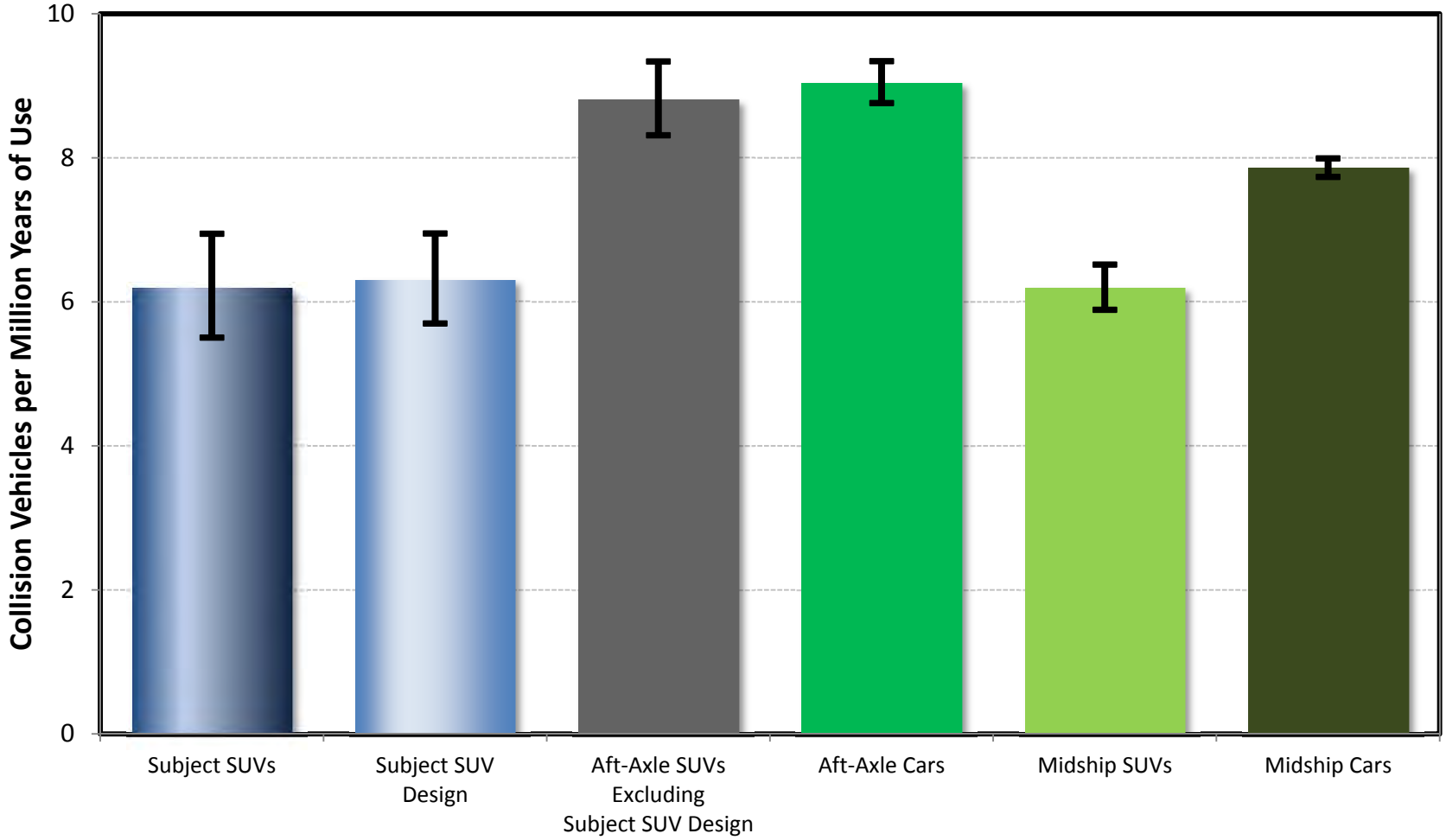
Vehicles involved in a rear collision with occupant fatality, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles involved in a rear collision with an occupant fatality. Rear collision includes either initial or principal impact at clock points 5, 6, or 7. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Rates of Fatal Rear Collisions

Vehicles involved in a rear collision with occupant fatality, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles involved in a rear collision with an occupant fatality. Rear collision includes either initial or principal impact at clock points 5, 6, or 7. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Conclusions

Rates of Rear Collisions with Occupant Fatality

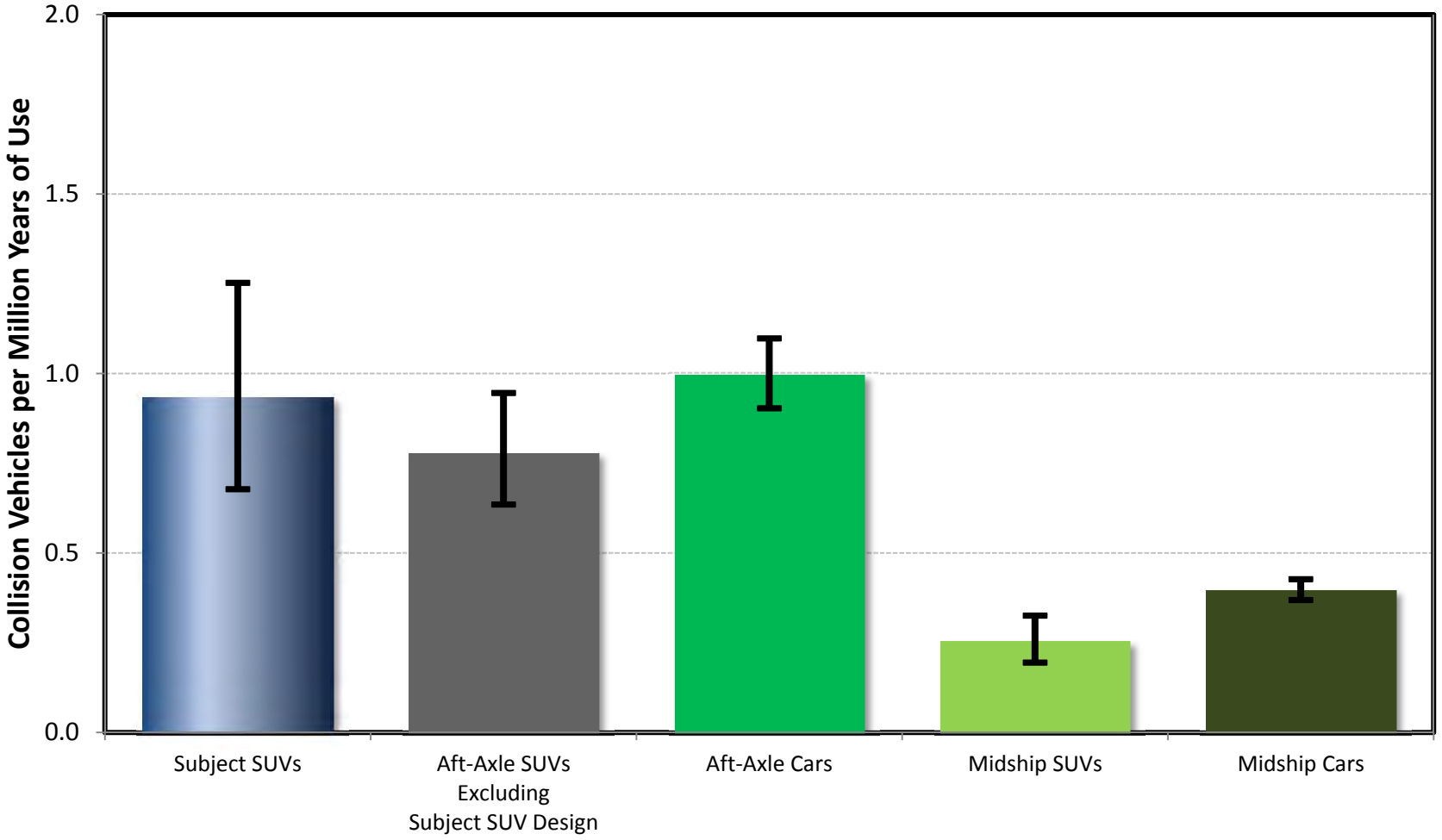
- Collectively, the Subject SUVs and Subject SUV Design vehicles have rates of rear collision with occupant fatality that are statistically significantly* better than the average rates for SUVs with aft-axle tanks, passenger cars with aft-axle tanks, and passenger cars with midship tanks.

- Collectively, the Subject SUVs and Subject SUV Design vehicles have rates of rear collision with occupant fatality that are not statistically significantly* different from the average rate for SUVs with midship fuel tanks.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

Rates of Fatal Rear Collisions with Fire

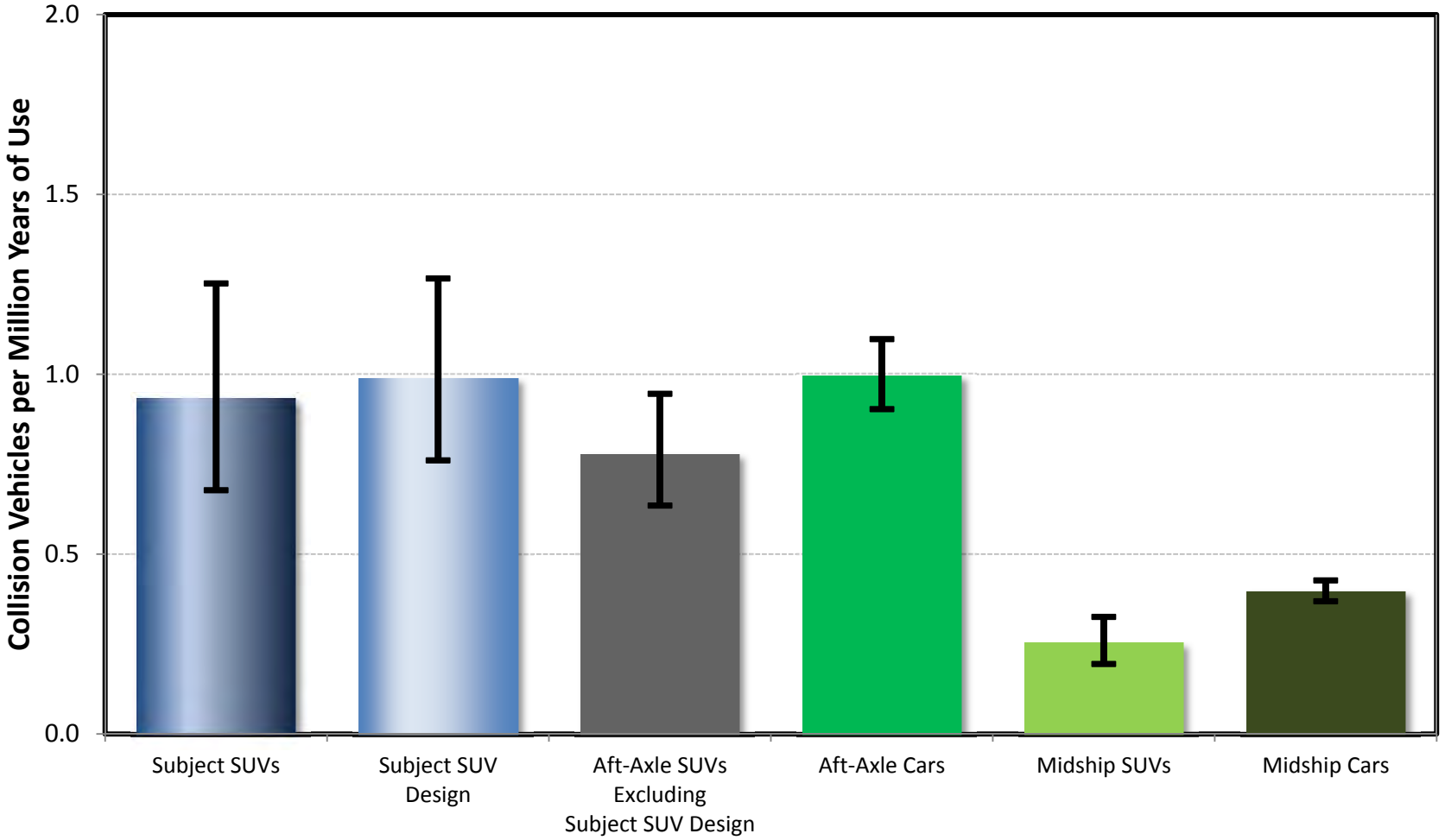
Vehicles involved in a rear collision with occupant fatality and fire, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles involved in a rear collision with an occupant fatality where the vehicle experienced a post-collision fire. Rear collision includes either initial or principal impact at clock points 5, 6, or 7. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Rates of Fatal Rear Collisions with Fire

Vehicles involved in a rear collision with occupant fatality and fire, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles involved in a rear collision with an occupant fatality where the vehicle experienced a post-collision fire. Rear collision includes either initial or principal impact at clock points 5, 6, or 7. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Conclusions

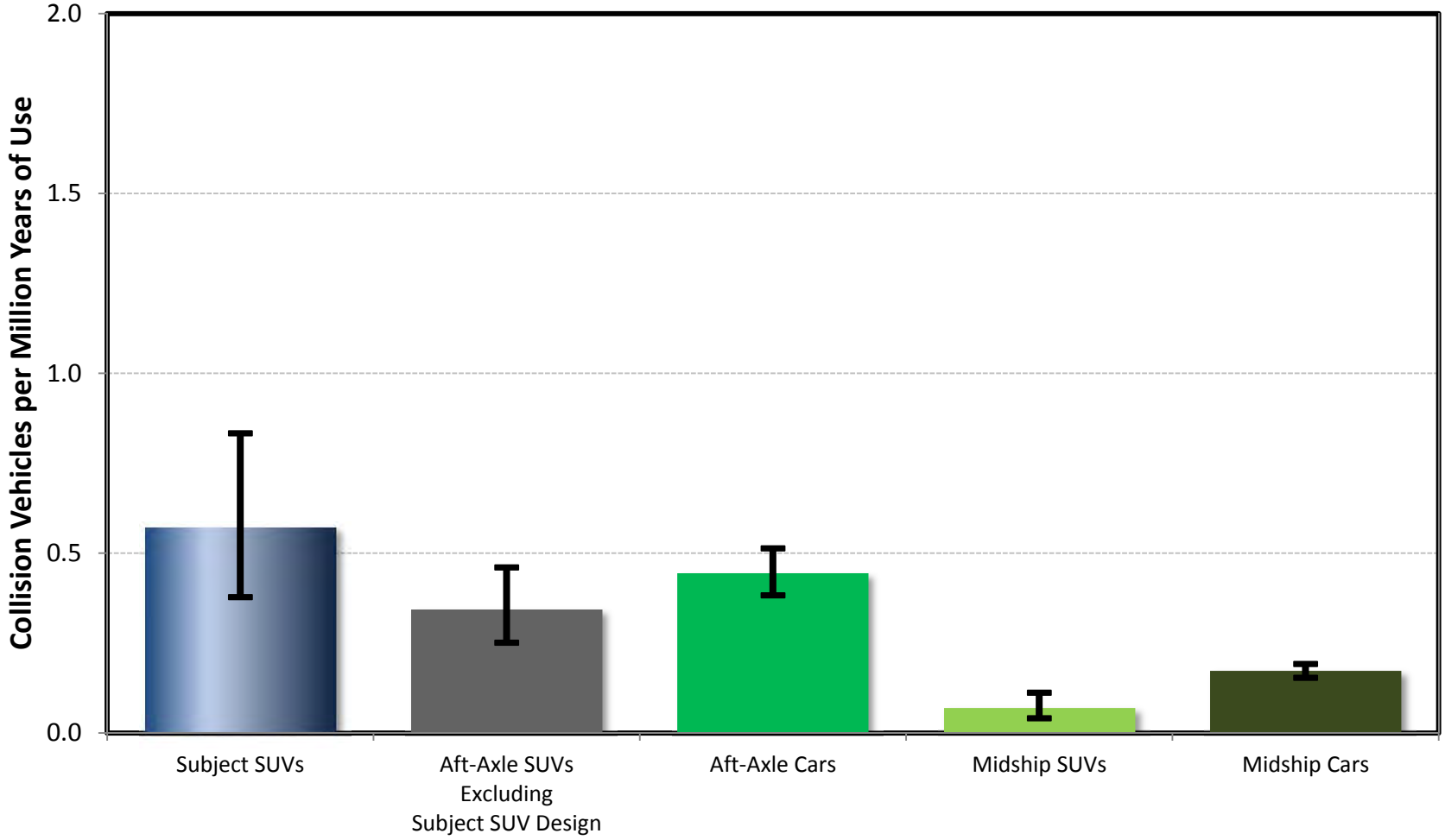
Rates of Rear Collisions with Occupant Fatality and Fire

- Collectively, the Subject SUVs and Subject SUV Design vehicles have rates of rear collision with occupant fatality accompanied by fire that are not statistically significantly* different from the average rates for SUVs with aft-axle tanks or passenger cars with aft-axle tanks.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

Rates of Fatal Rear Collisions with MHE Fire

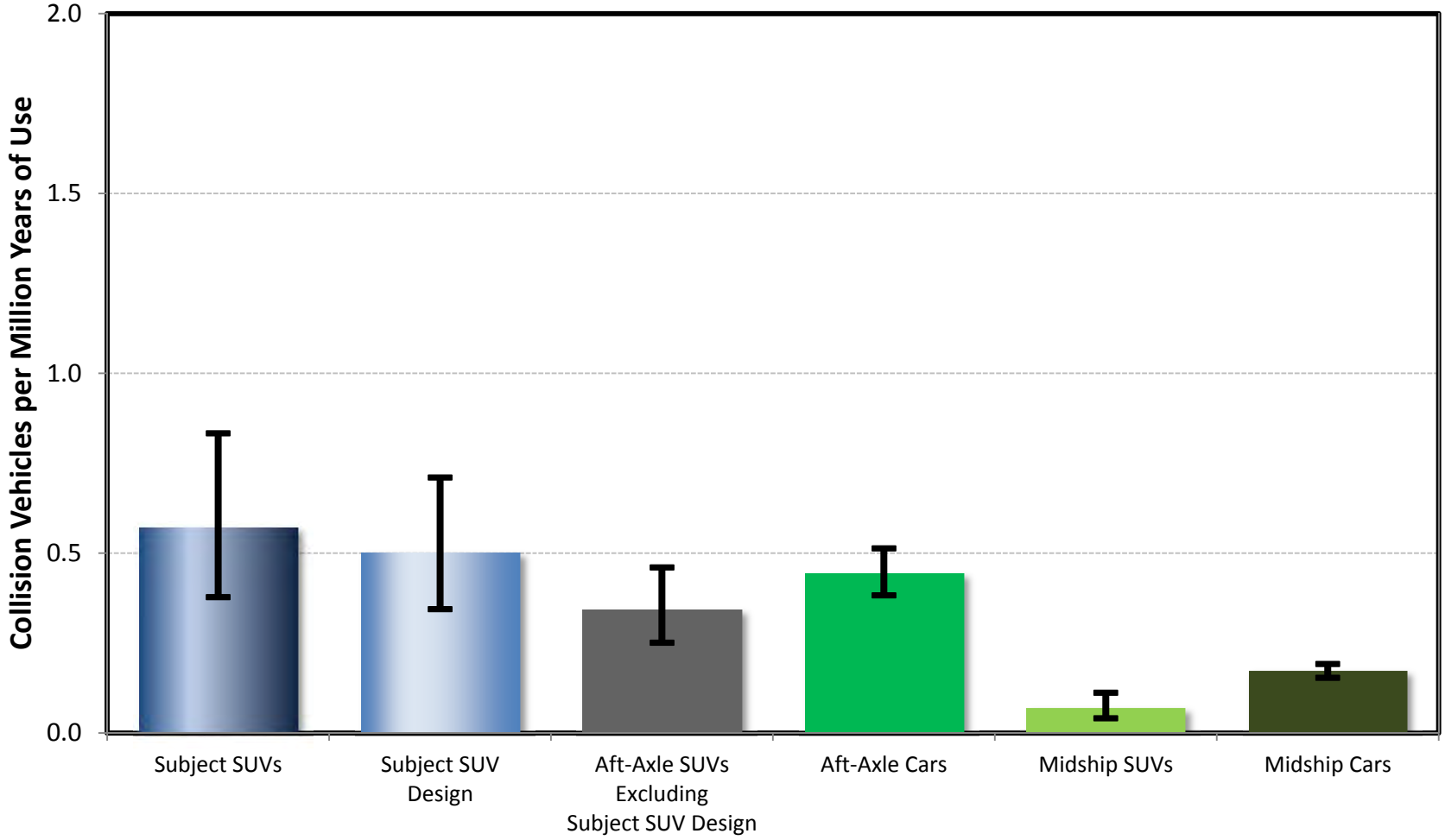
Vehicles involved in a rear collision with occupant fatality and fire as most harmful event, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles involved in a rear collision with an occupant fatality where the vehicle experienced a post-collision fire as the most harmful event. Rear collision includes either initial or principal impact at clock points 5, 6, or 7. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Rates of Fatal Rear Collisions with MHE Fire

Vehicles involved in a rear collision with occupant fatality and fire as most harmful event, per million years of use



Notes: Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Includes vehicles involved in a rear collision with an occupant fatality where the vehicle experienced a post-collision fire as the most harmful event. Rear collision includes either initial or principal impact at clock points 5, 6, or 7. Rates are calculated as combined collision vehicles divided by combined million years of use. Vertical black lines are 95% confidence intervals.

Conclusions

Rates of Rear Collisions with Occupant Fatality and MHE Fire

- Collectively, the Subject SUVs and Subject SUV Design vehicles have rates of rear collision with occupant fatality accompanied by fire as the most harmful event that are not statistically significantly* different from the average rates for SUVs with aft-axle tanks or passenger cars with aft-axle tanks.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

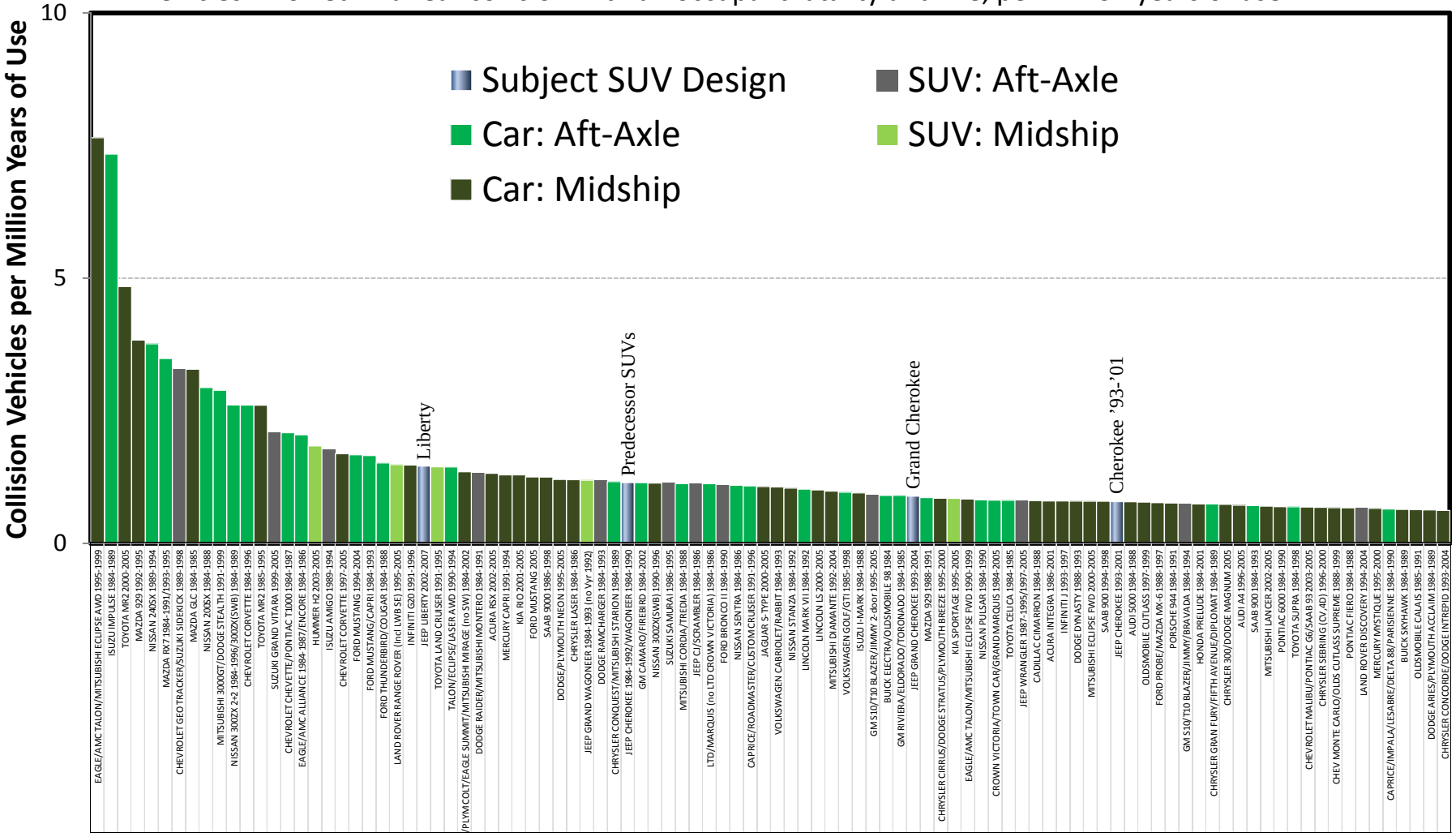
Fatal Rear Collisions with Fire

Rank Ordered by Model

- 100 Vehicles having the highest rates of fatal rear collisions accompanied by fire
    - Independent of tank location or vehicle type
    - With confidence intervals
- SUVs and Passenger Cars with aft-axle tanks
    - With counts of crashes
    - With confidence intervals
- SUVs with aft-axle or midship tanks
    - With counts of crashes
    - With confidence intervals
- SUVs with aft-axle tanks
    - With counts of crashes
    - With confidence intervals

100 Vehicles Having the Highest Rates of Rear Fatal Collisions With Fire

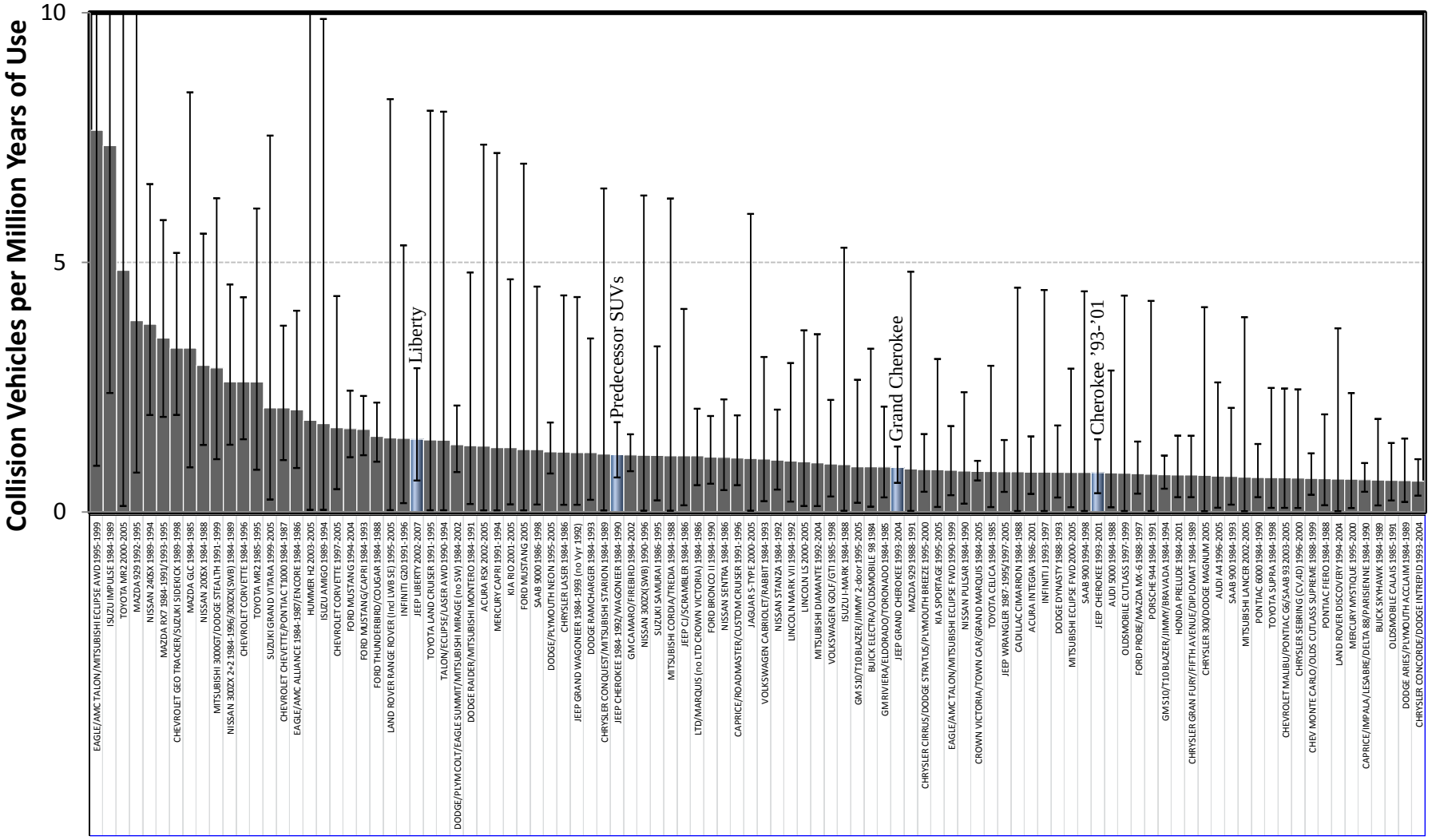
Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire.

100 Vehicles Having the Highest Rates of Rear Fatal Collisions With Fire

Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Vertical lines are 95% confidence intervals about the rates.

Conclusions

Comparison of Rates of Rear Collisions with Occupant Fatality and Fire by Model, Vehicle Type and Tank Location

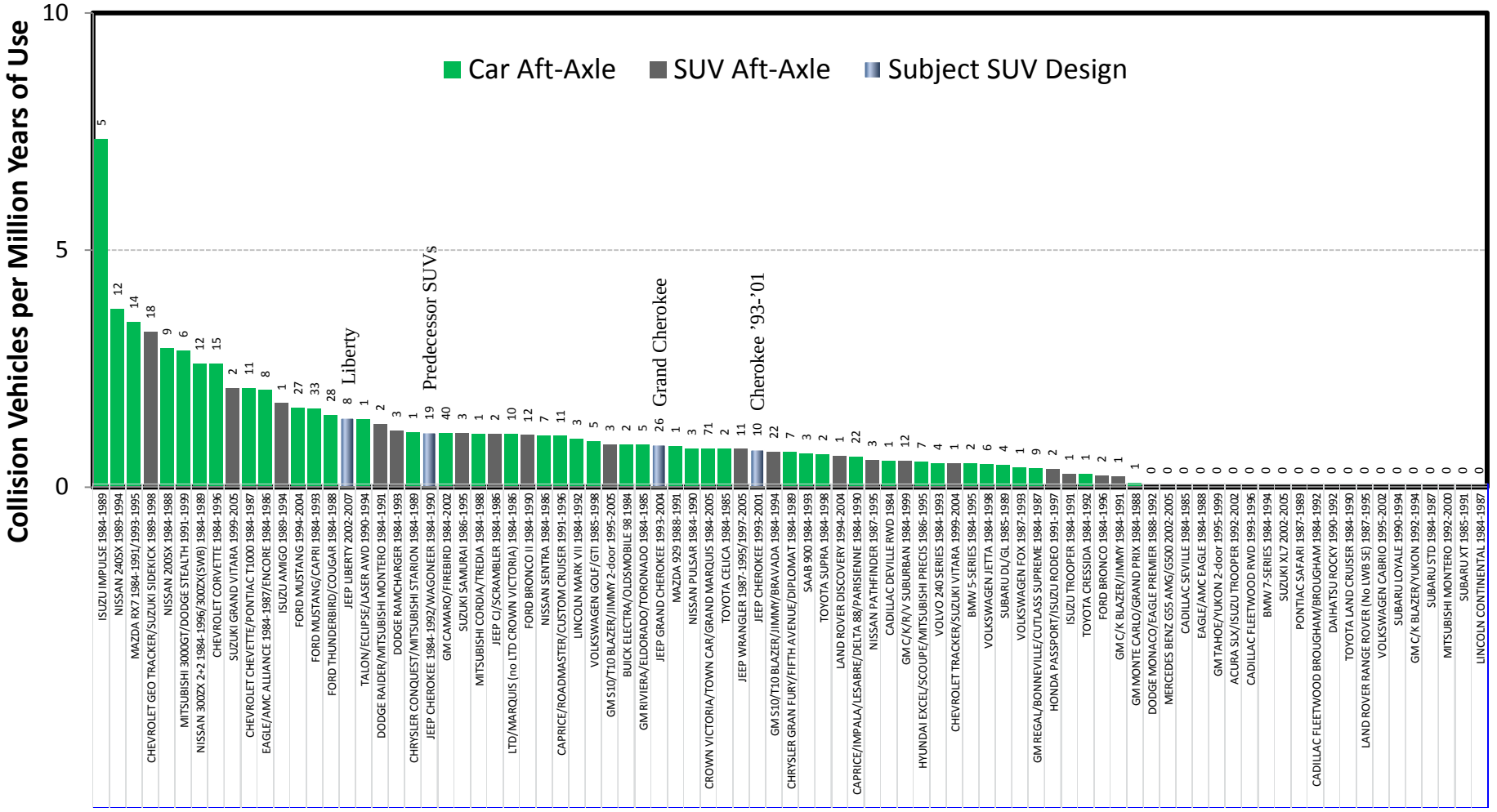
- The 100 vehicle models having the highest rates of rear collisions with occupant fatality accompanied by fire include SUVs and passenger cars with aft-axle tanks, as well as SUVs and passenger cars with midship tanks. Many such models have rates that are higher than the Subject SUVs or Predecessor SUVs.

- The Subject SUVs and Predecessor SUVs have rates of rear collisions with occupant fatality accompanied by fire that are not statistically significantly* different from most or all of the other 96 models in the list of 100 vehicle models having the highest rates.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

Vehicles with Aft-Axle Tanks: Rates of Rear Fatal Collisions With Fire

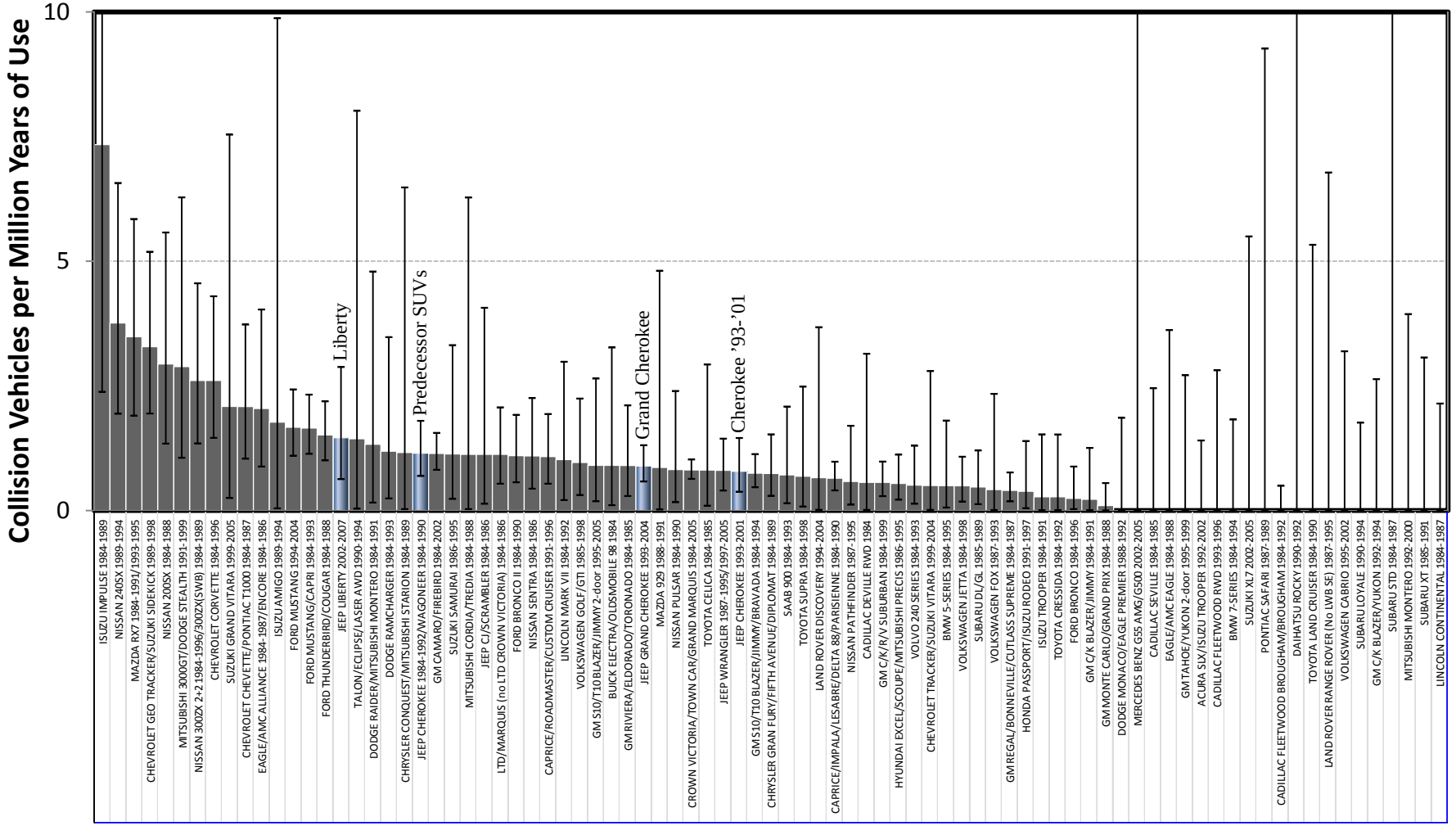
Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes 12 o'clock principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Numbers above bars are counts of fatal rear fires.

Vehicles with Aft-Axle Tanks: Rates of Rear Fatal Collisions With Fire

Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Vertical lines are 95% confidence intervals about the rates.

Conclusions

Comparison of Rates of Rear Collisions with Occupant Fatality and Fire by Model and Vehicle Type: Vehicles with Aft-Axle Tanks

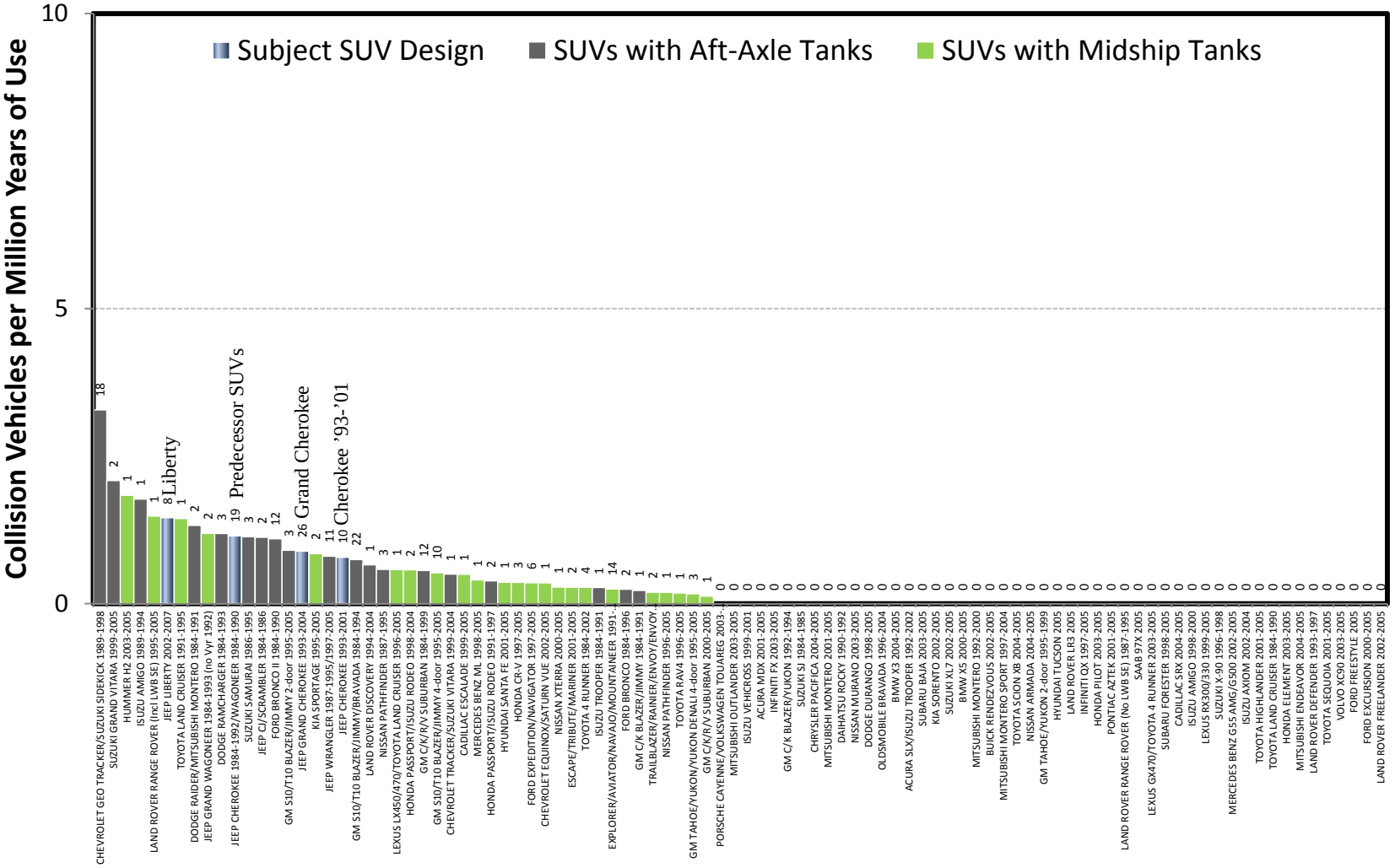
- The Subject SUVs and Predecessor SUVs do not have the highest rates of rear collisions with occupant fatality accompanied by fire when compared with other SUVs or Passenger Cars with aft-axle tanks.

- The Subject SUVs and Predecessor SUVs have rates of rear collisions with occupant fatality accompanied by fire that are not statistically significantly* different from most or all of the SUVs or Passenger Cars with aft-axle tanks.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

All SUVs : Rates of Rear Fatal Collisions With Fire

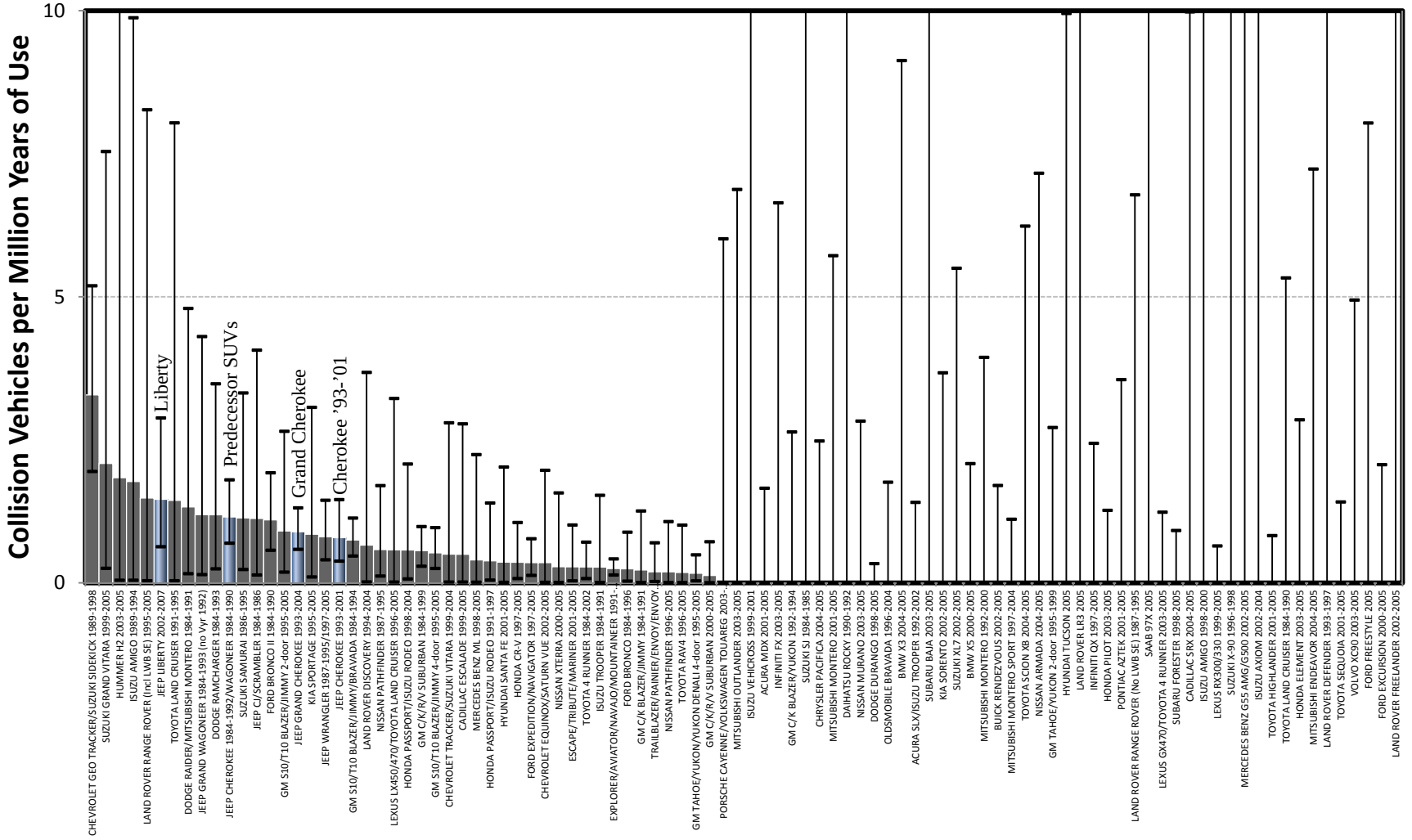
Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Numbers above bars are counts of fatal rear fires.

All SUVs : Rates of Rear Fatal Collisions With Fire

Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Vertical lines are 95% confidence intervals about the rates.

Conclusions

Comparison of Rates of Rear Collisions with Occupant Fatality and Fire by Model: SUVs Only

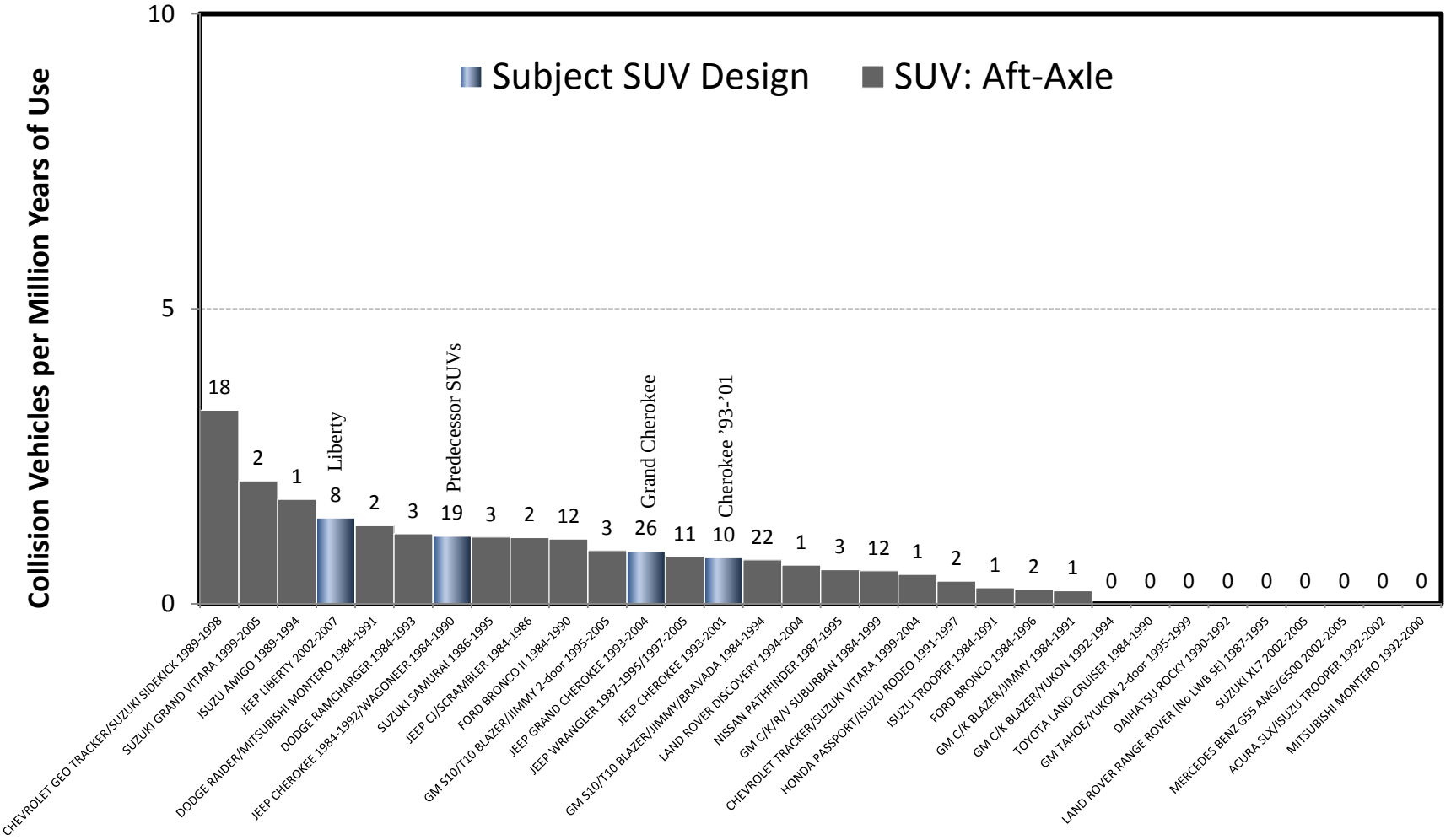
- The Subject SUVs and Predecessor SUVs do not have the highest rates of rear collisions with occupant fatality accompanied by fire when compared with other SUVs.

- The Subject SUVs and Predecessor SUVs have rates of rear collisions with occupant fatality accompanied by fire that are not statistically significantly* different from most or all of the other SUVs.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

SUVs with Aft-Axle Tanks: Rates of Rear Fatal Collisions With Fire

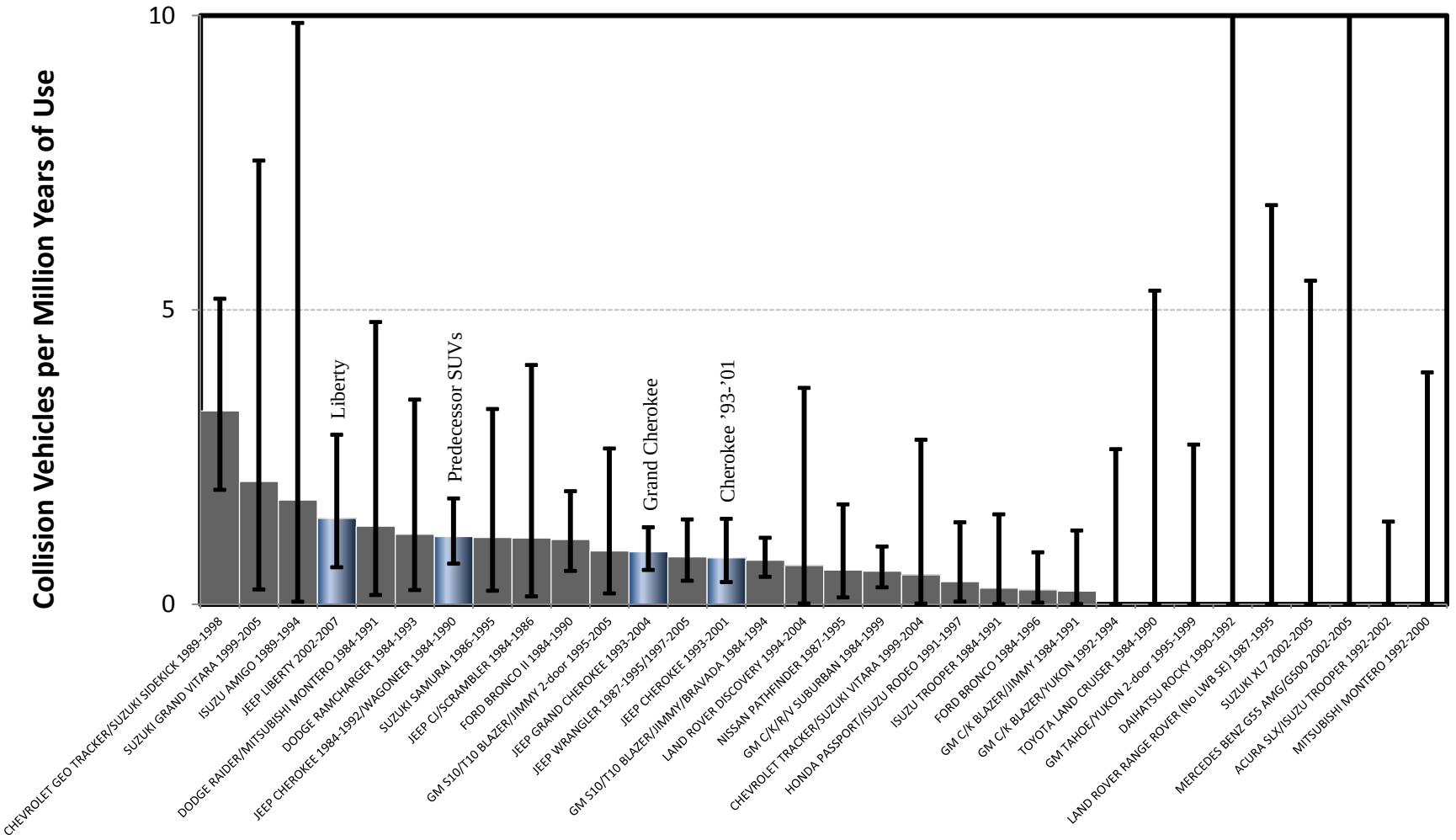
Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Subject SUV Design vehicles include the Subject SUVs as well as predecessor SUVs sharing the same fuel tank configuration. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Numbers above bars are counts of fatal rear fires.

SUVs with Aft-Axle Tanks: Rates of Rear Fatal Collisions With Fire

Vehicles involved in a rear collision with an occupant fatality and fire, per million years of use



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004, Cherokee 1993-2001, and Liberty 2002-2007. Predecessor SUVs are: Jeep Cherokee 1984-1992 and Wagoneer 1984-1990. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from R.L. Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes vehicles with an occupant fatality where the vehicle experienced a post-collision fire. Vertical lines are 95% confidence intervals about the rates.

Conclusions

Comparisons of Rates of Rear Collisions with Occupant Fatality and Fire by Model SUVs with Aft-Axle Tanks

- The Subject SUVs and Predecessor SUVs do not have the highest rates of rear collisions with occupant fatality accompanied by fire when compared with other SUVs with aft-axle tanks.

- The Subject SUVs and Predecessor SUVs have rates of rear collisions with occupant fatality accompanied by fire that are not statistically significantly* different from most or all of the other SUVs with aft-axle tanks.

* Statistical significance between rates is calculated by comparing the 95% confidence intervals about those rates. If the 95% confidence intervals for two rates overlap, then the difference in these rates is not considered statistically significant.

EA12-005

CHRYSLER

12-13-2012

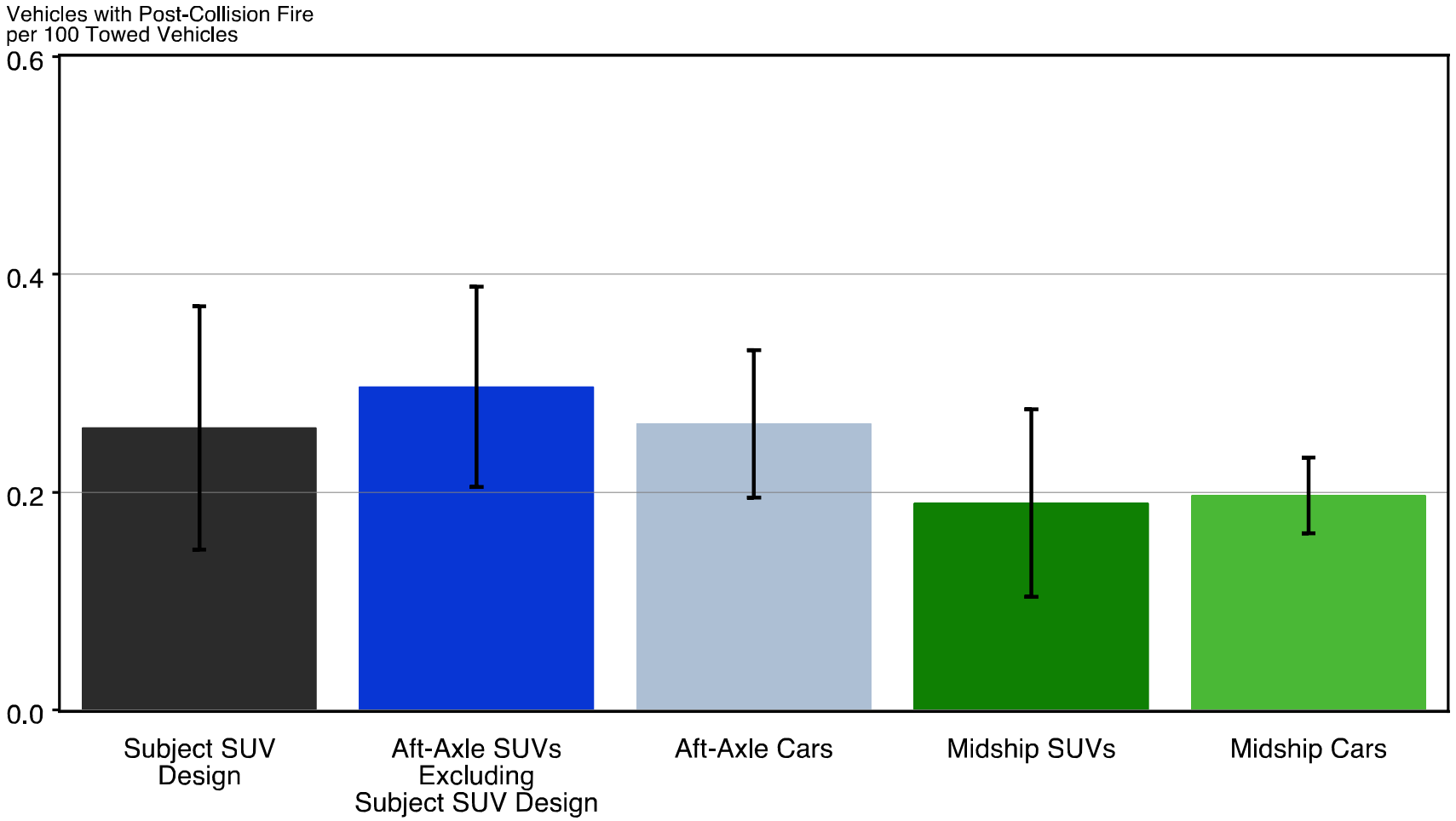
Enclosure 6F

FARS and NAS Analyses

NASS Data Analysis Dec 2012

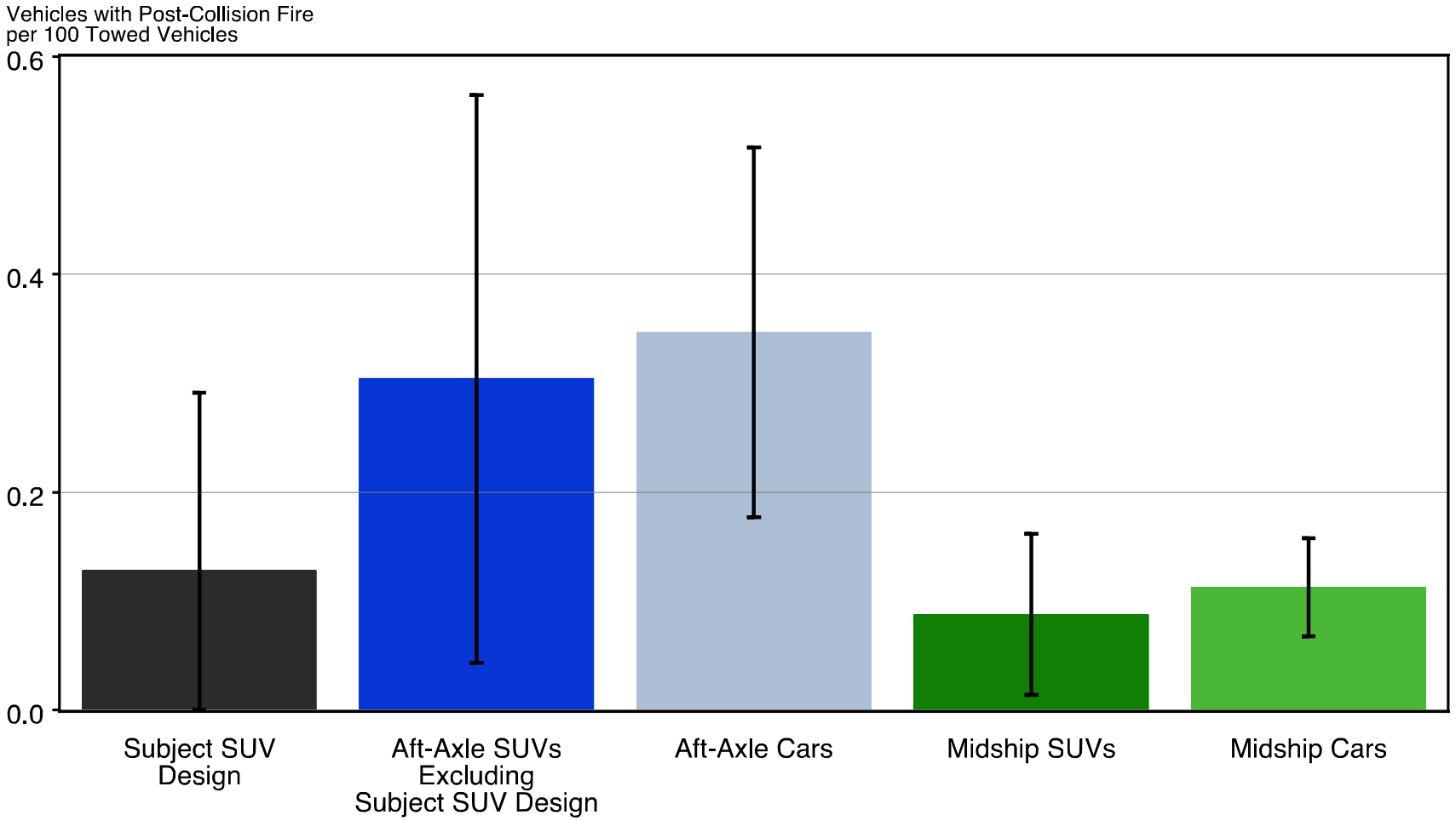
NASS GES

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



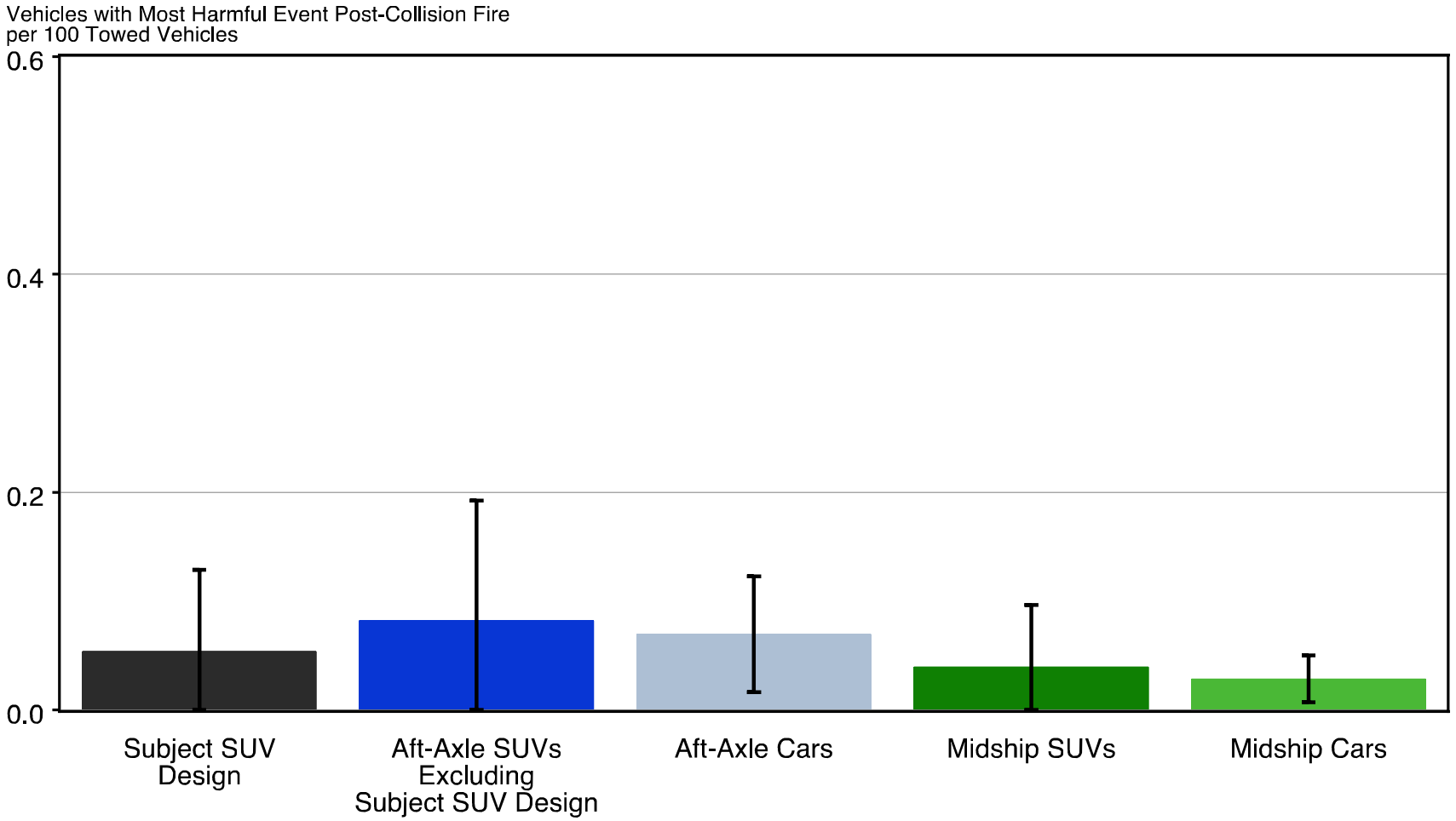
-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



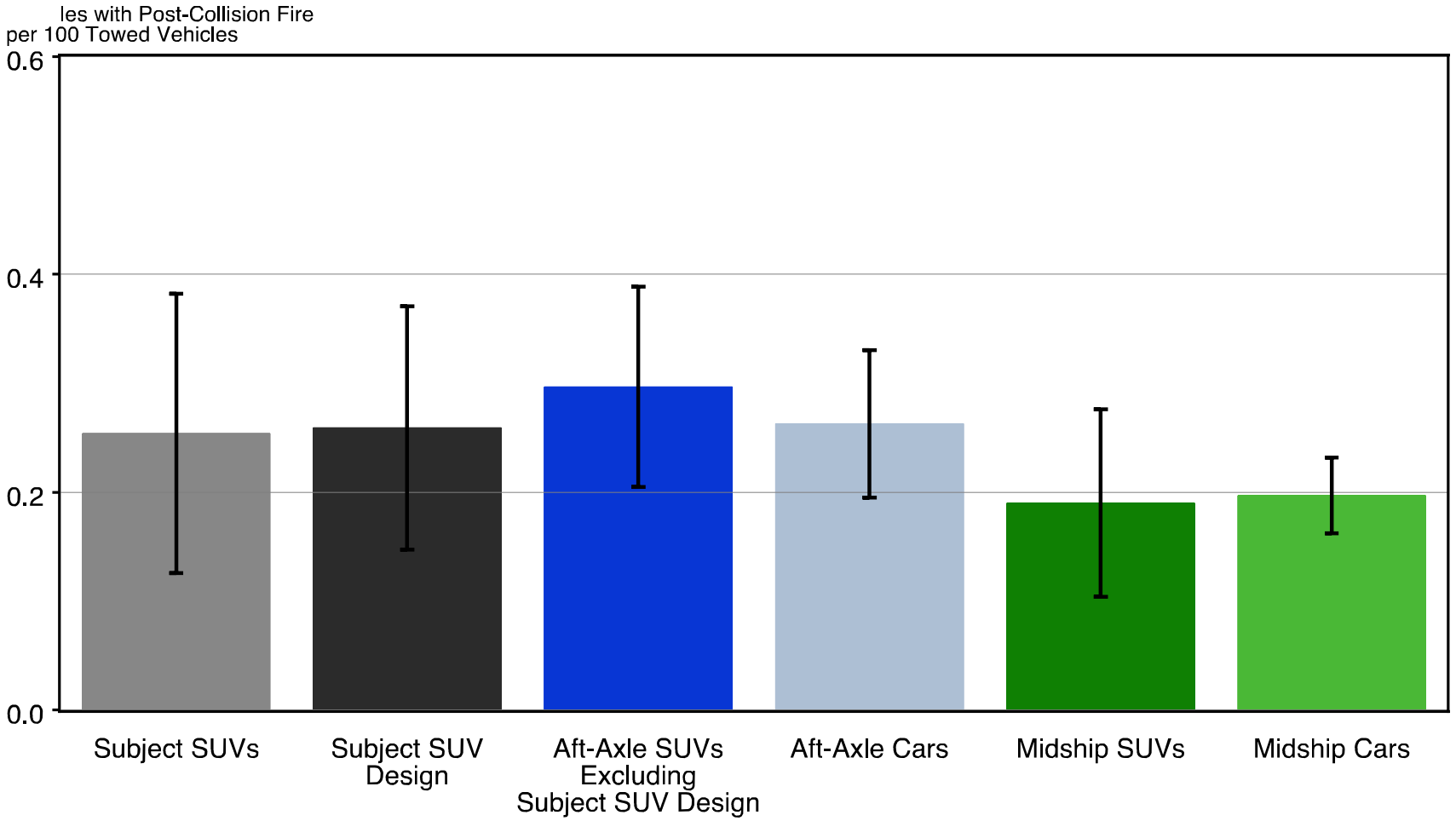
-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Most Harmful Event Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



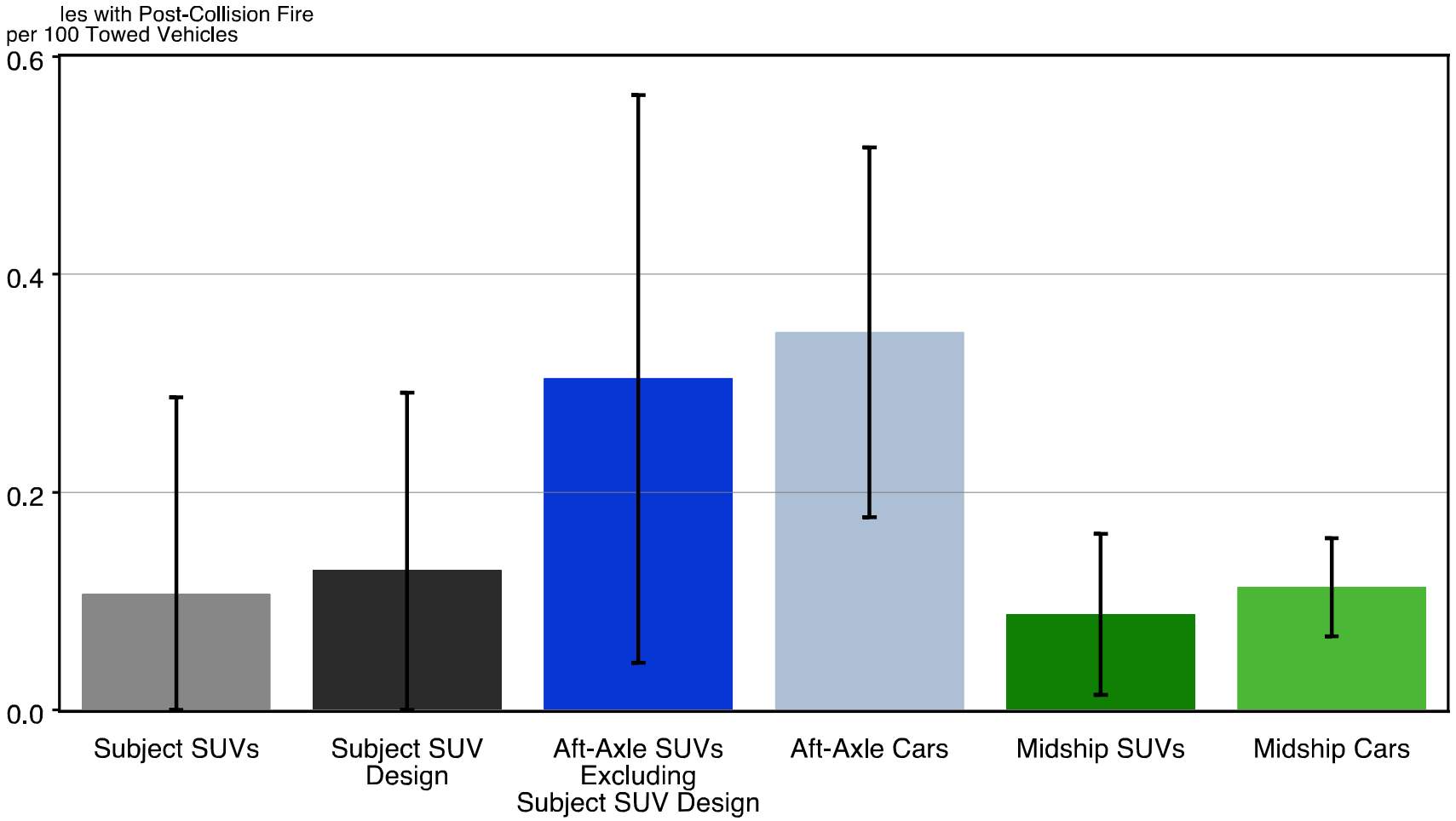
Source: NASS GES 1990-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 Jeep Cherokee.
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



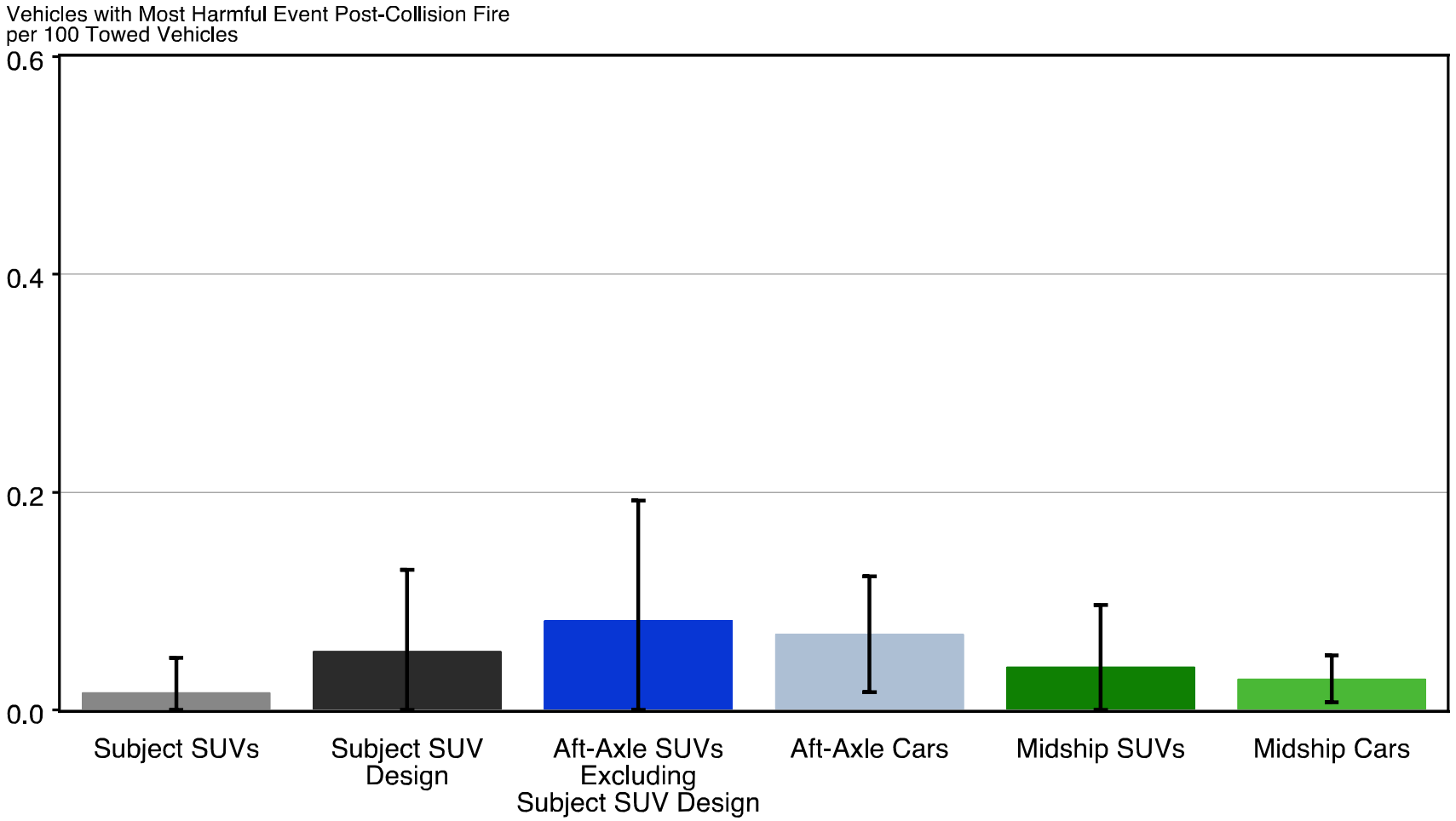
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



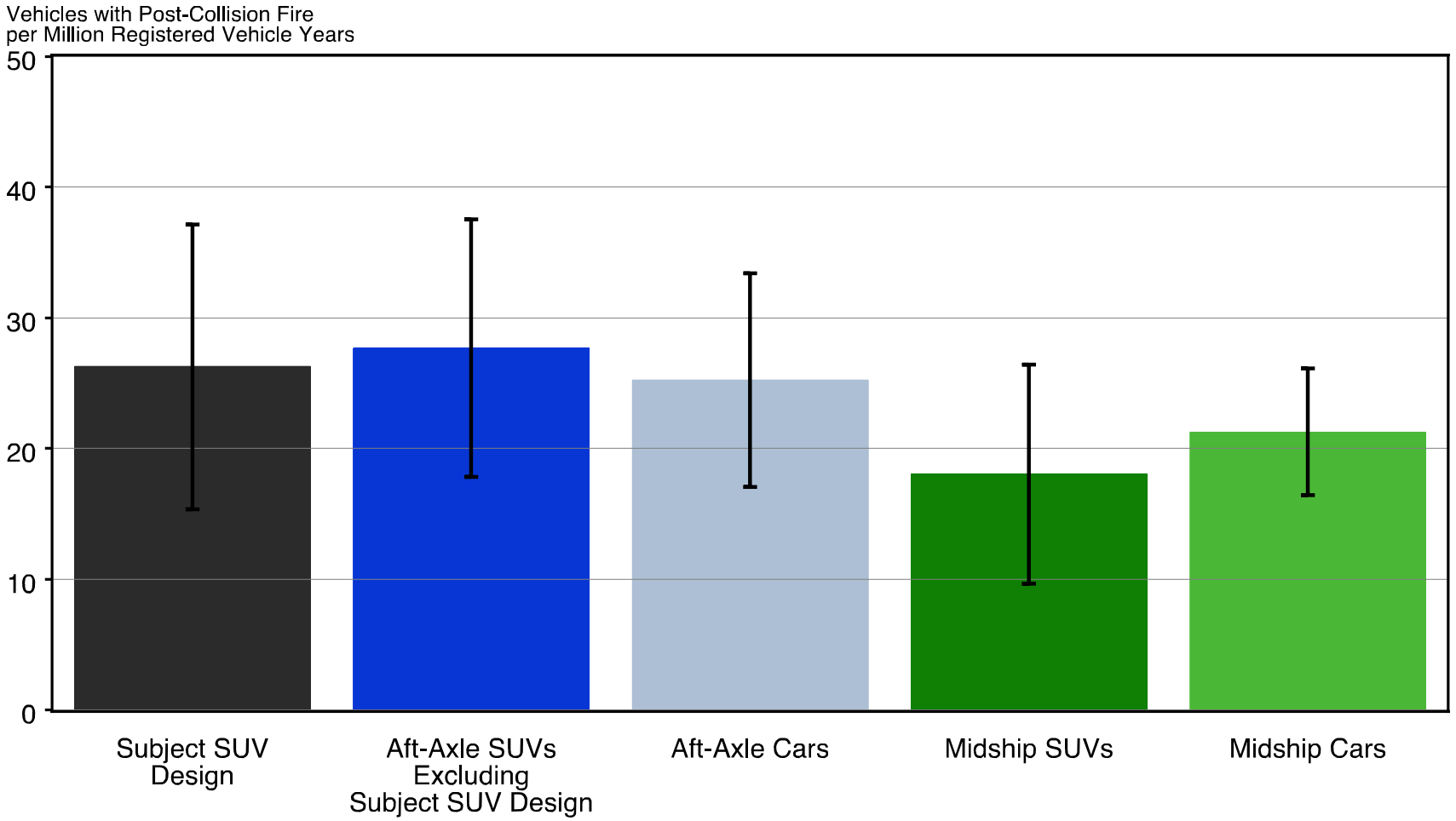
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Most Harmful Event Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



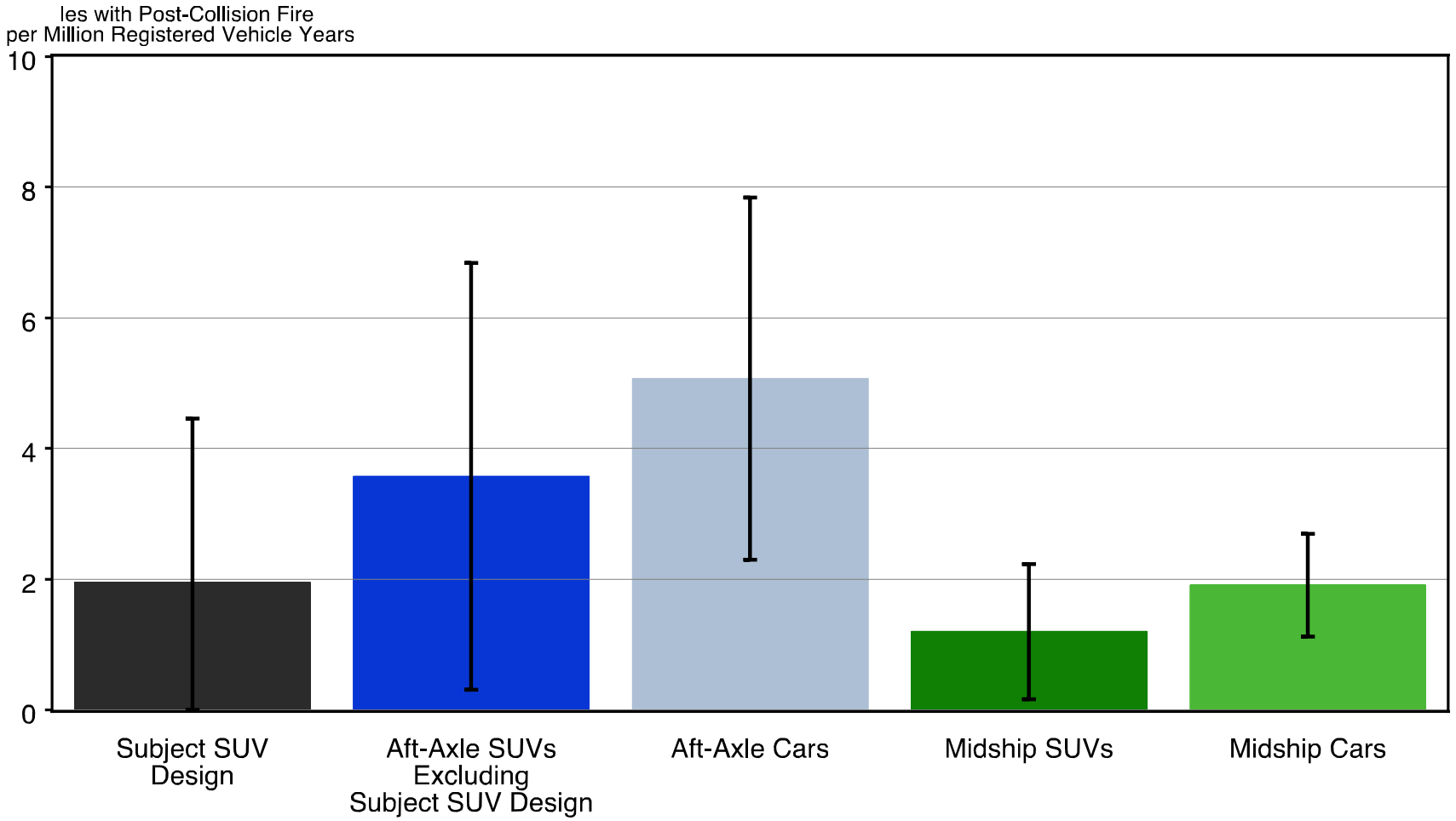
Source: NASS GES 1990-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J .
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



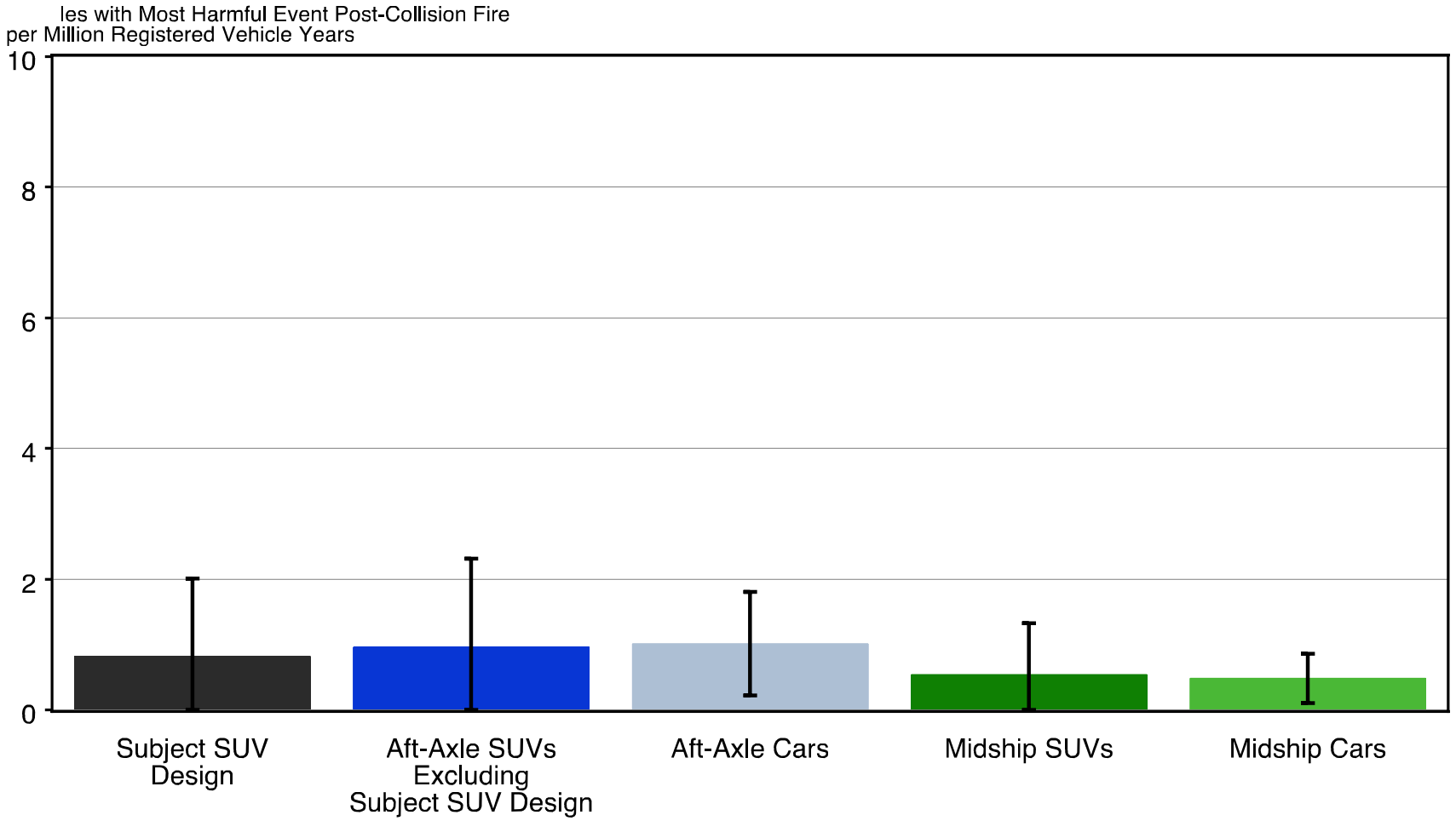
Sources: NASS GES 1990-2010 and Polk NVPP 1990-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J .
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



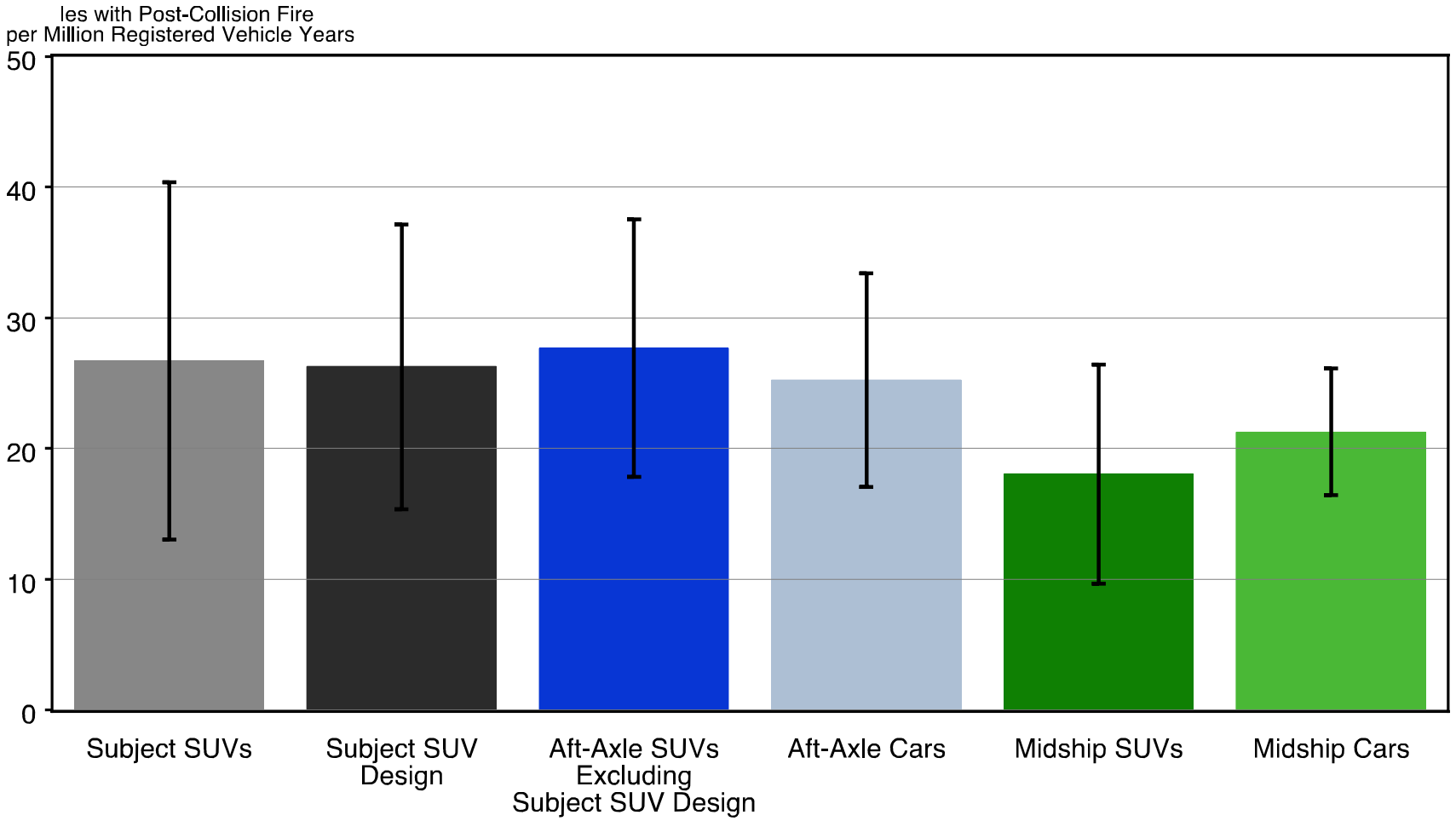
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Most Harmful Event Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



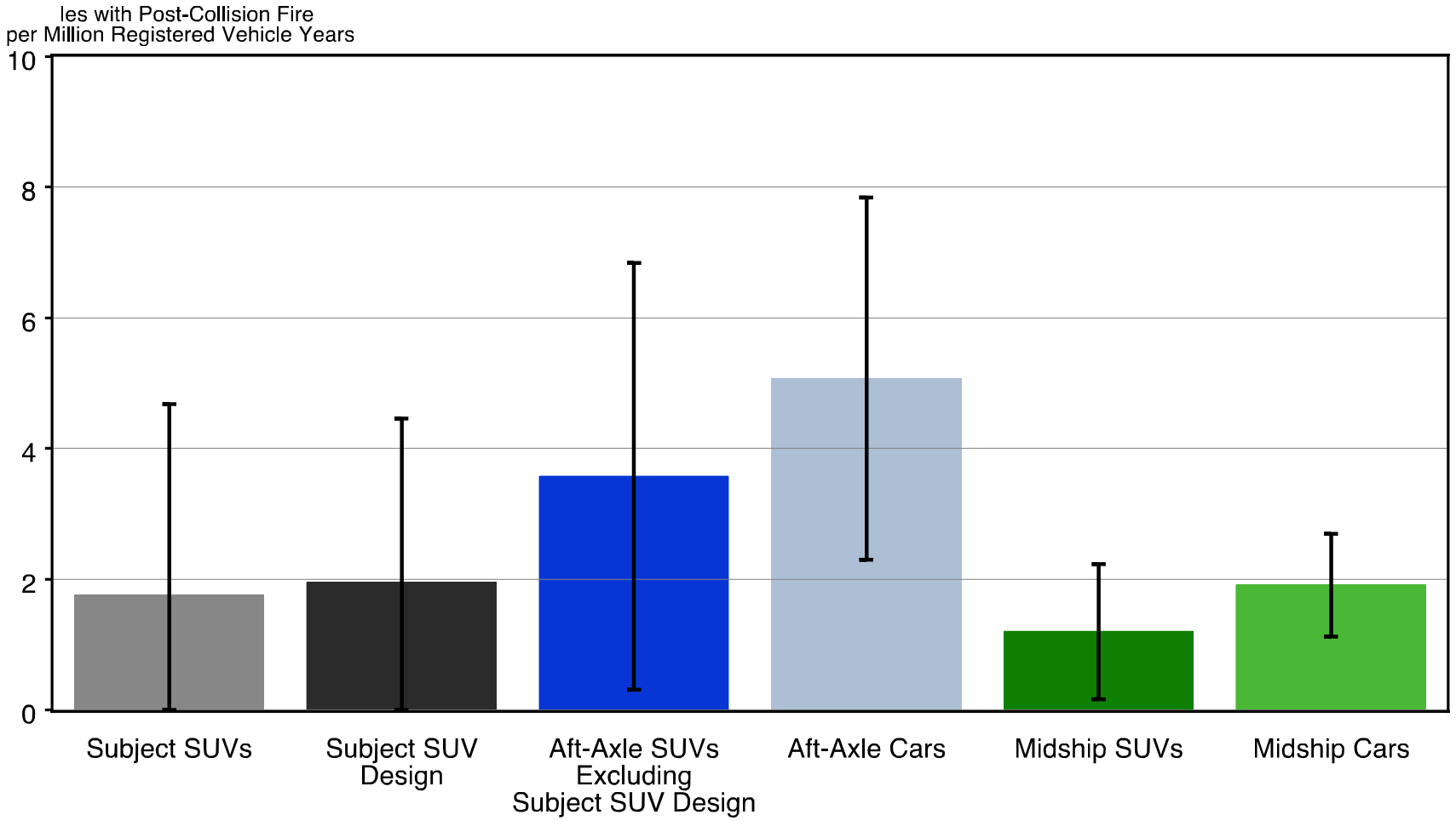
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



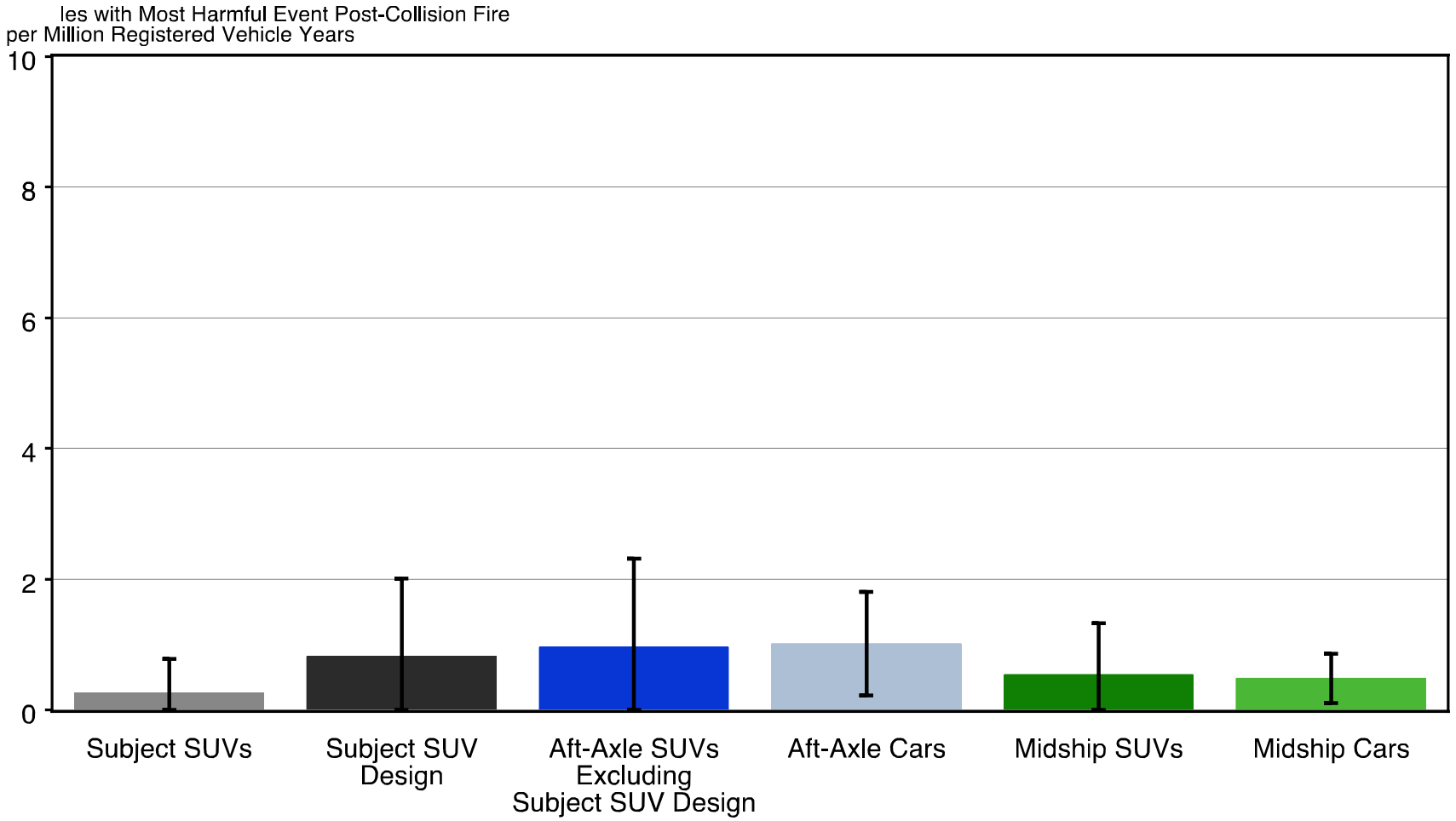
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

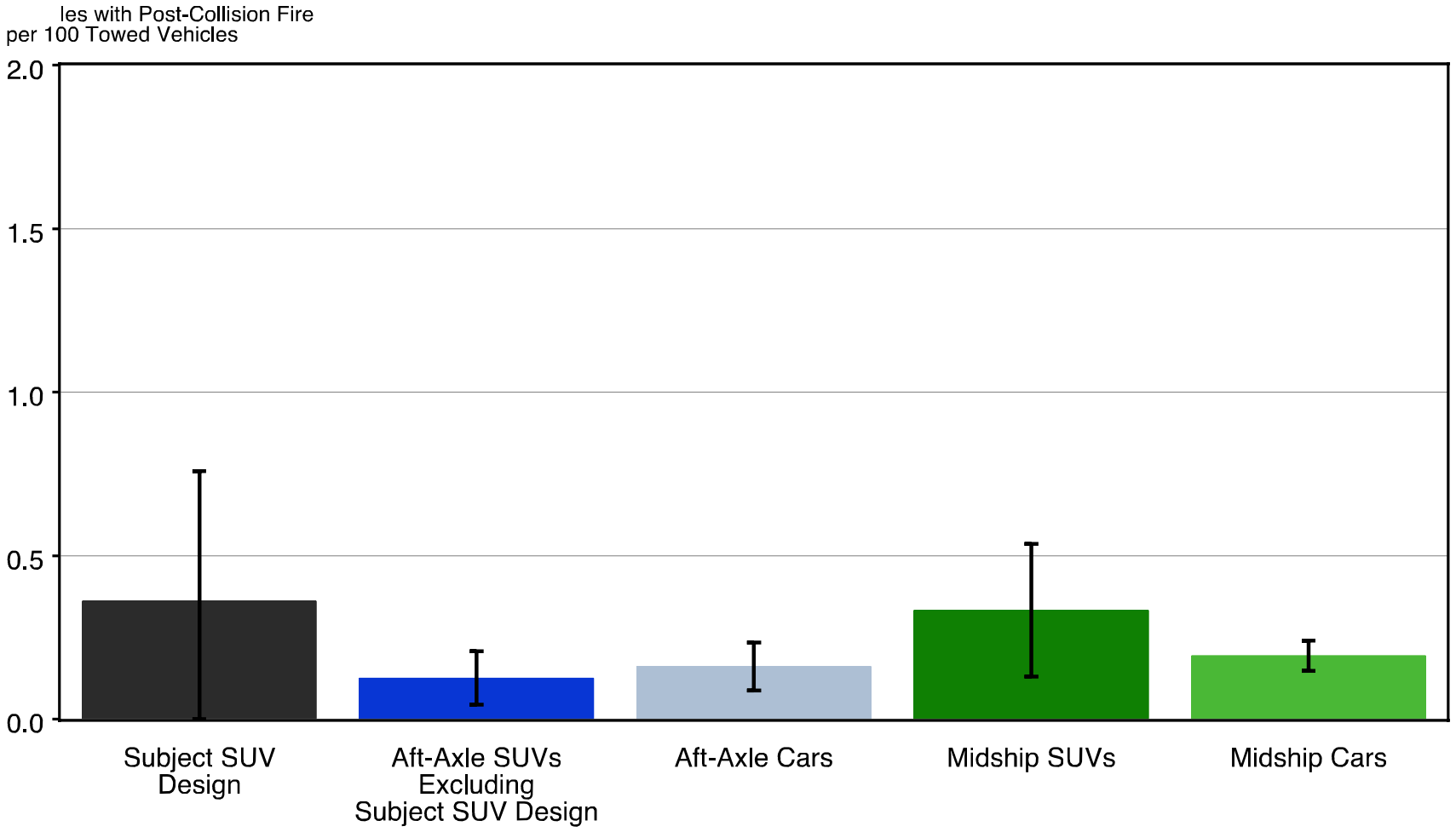
Rates of Most Harmful Event Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

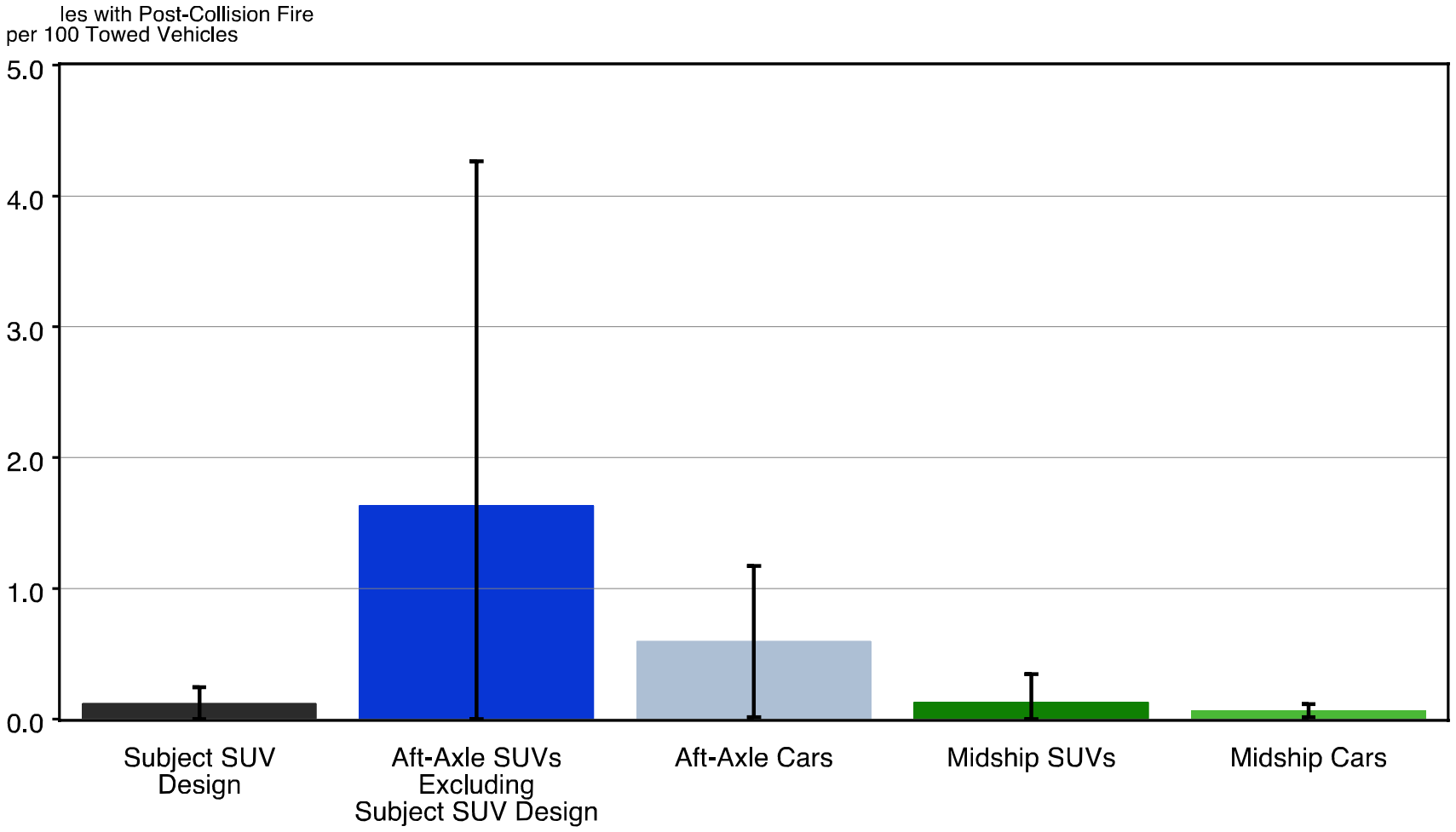
NASS CDS

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



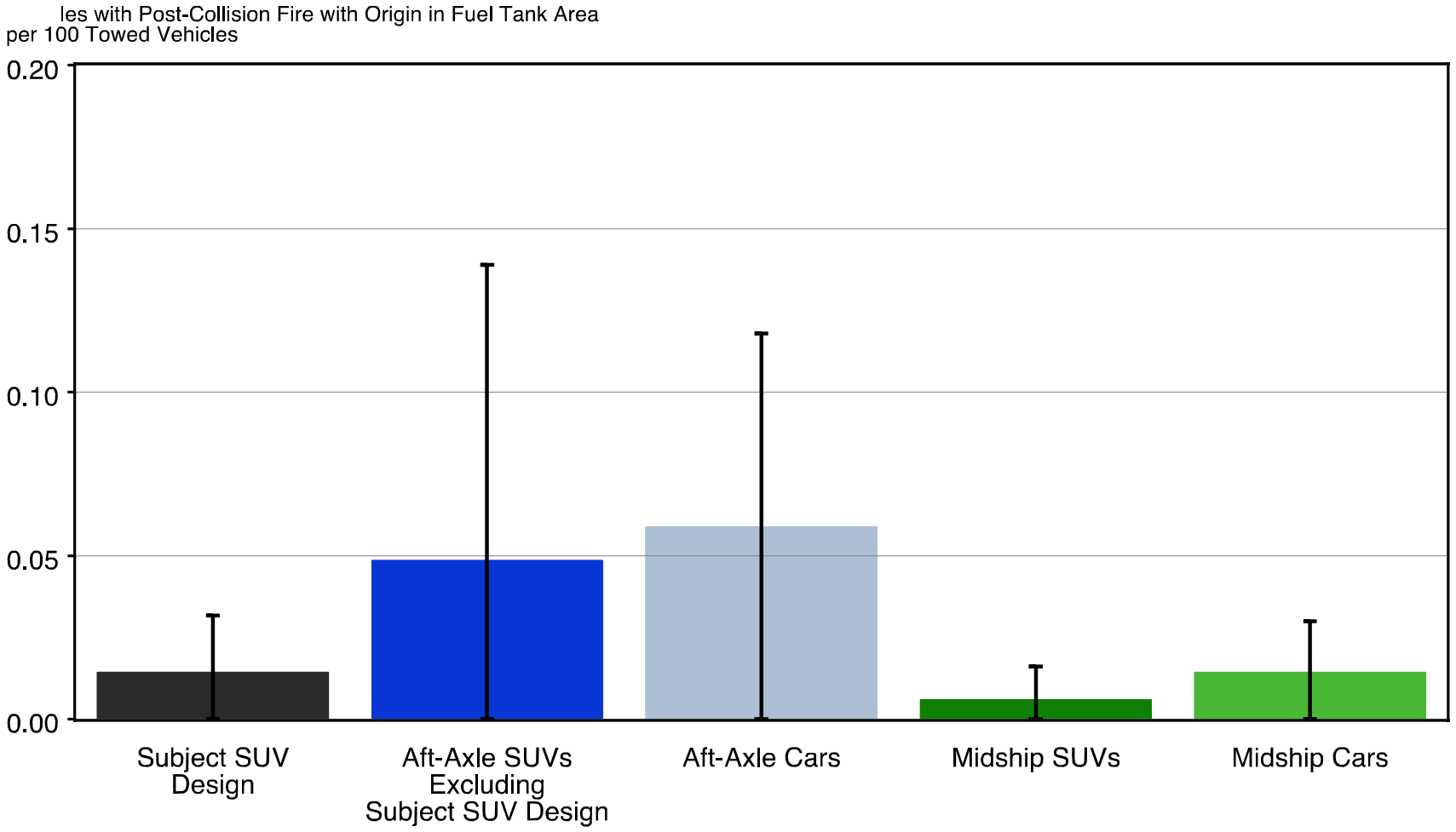
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



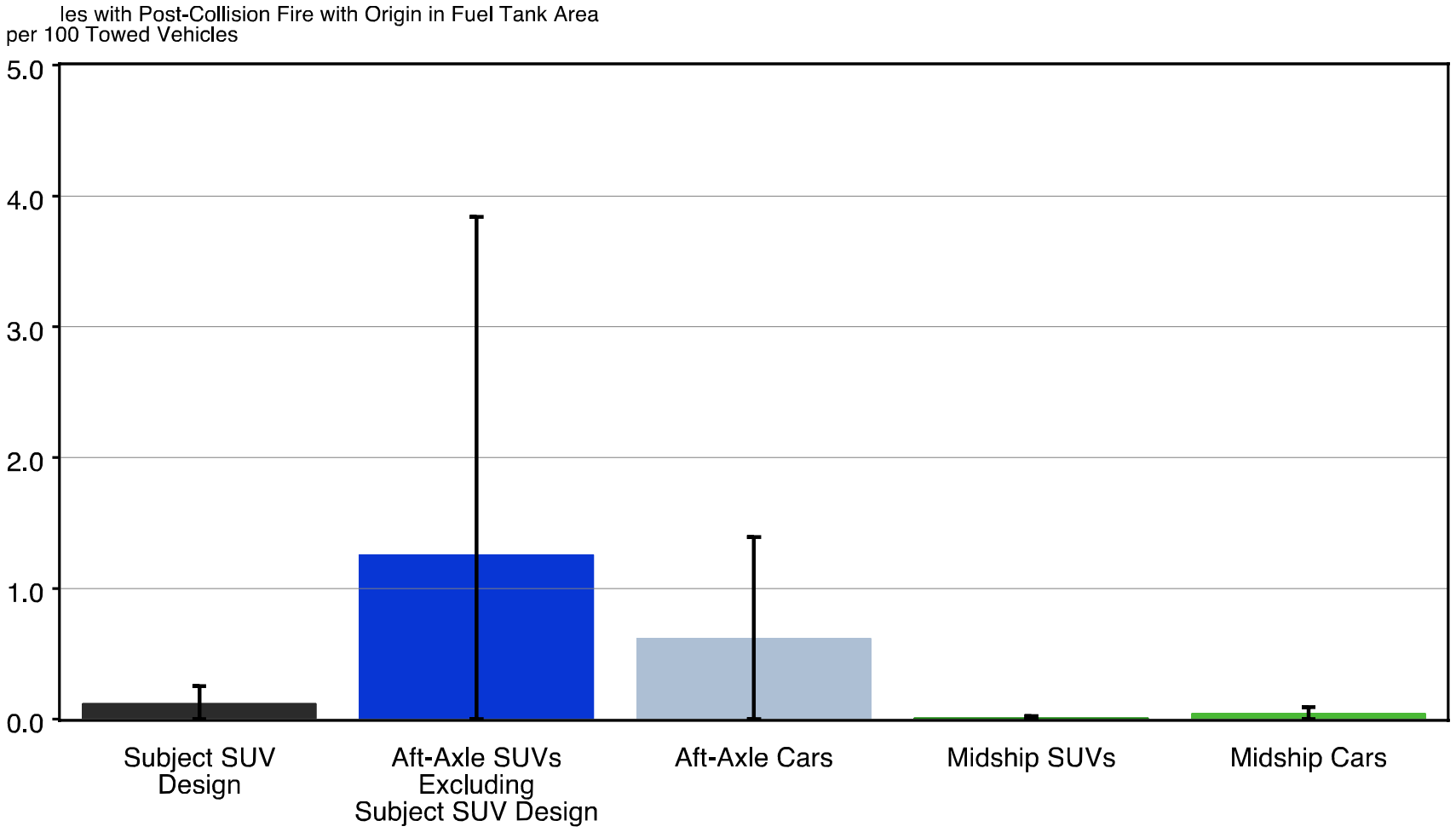
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire with Origin in Fuel Tank Area
Utility Vehicles and Cars Towed Due to Damage



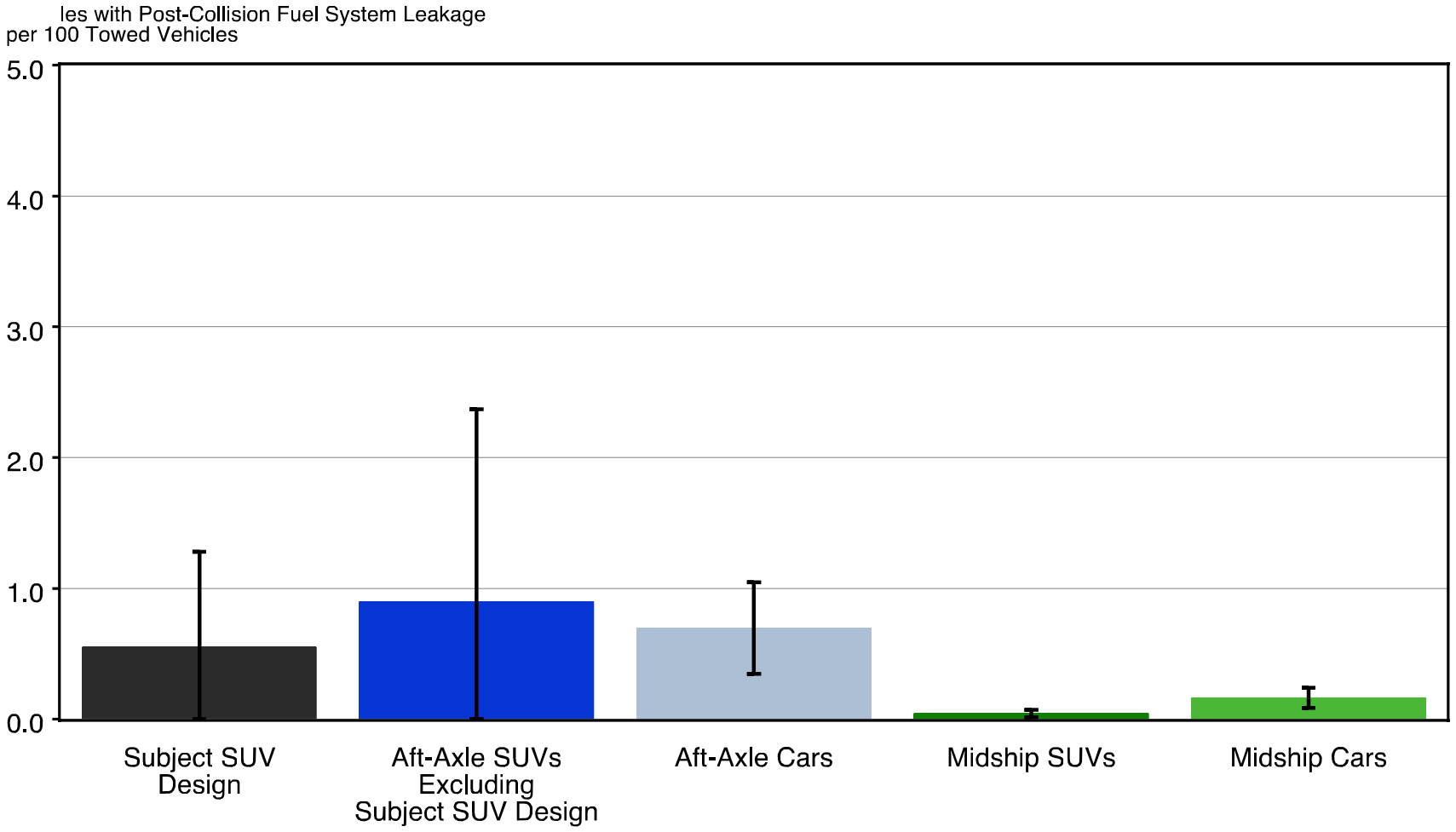
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire with Origin in Fuel Tank Area in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



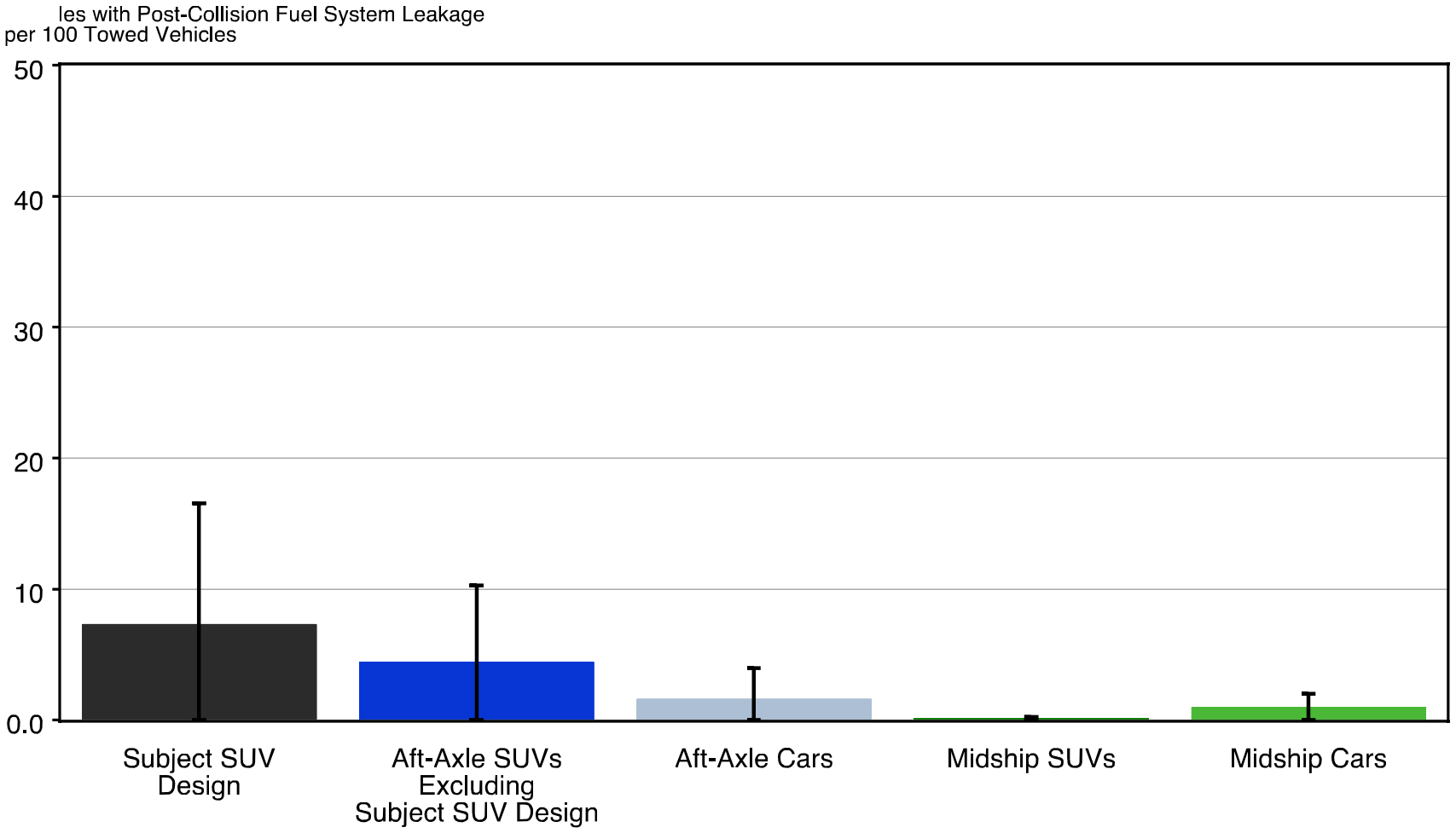
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fuel System Leakage
Utility Vehicles and Cars Towed Due to Damage



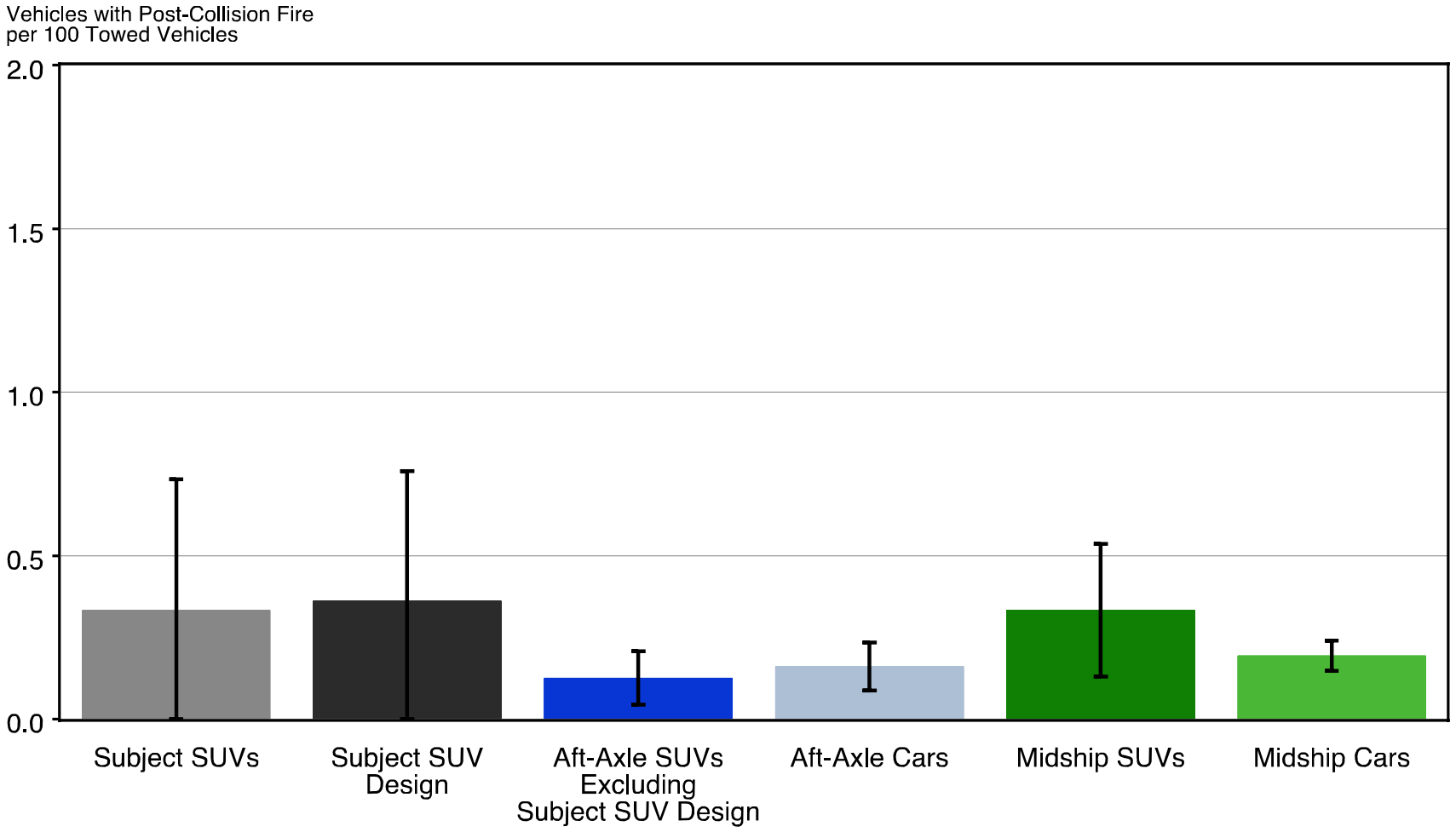
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fuel System Leakage in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



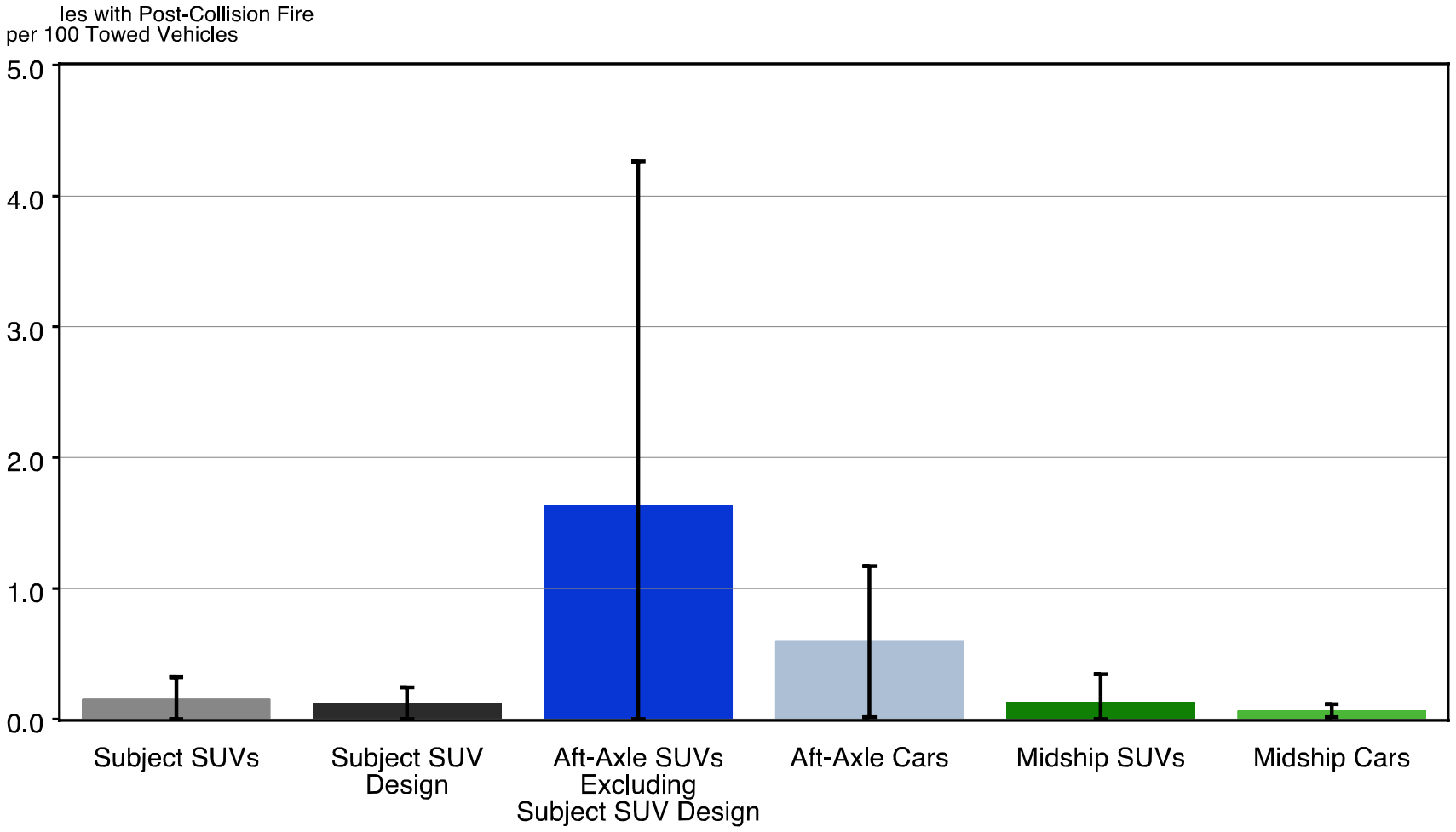
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



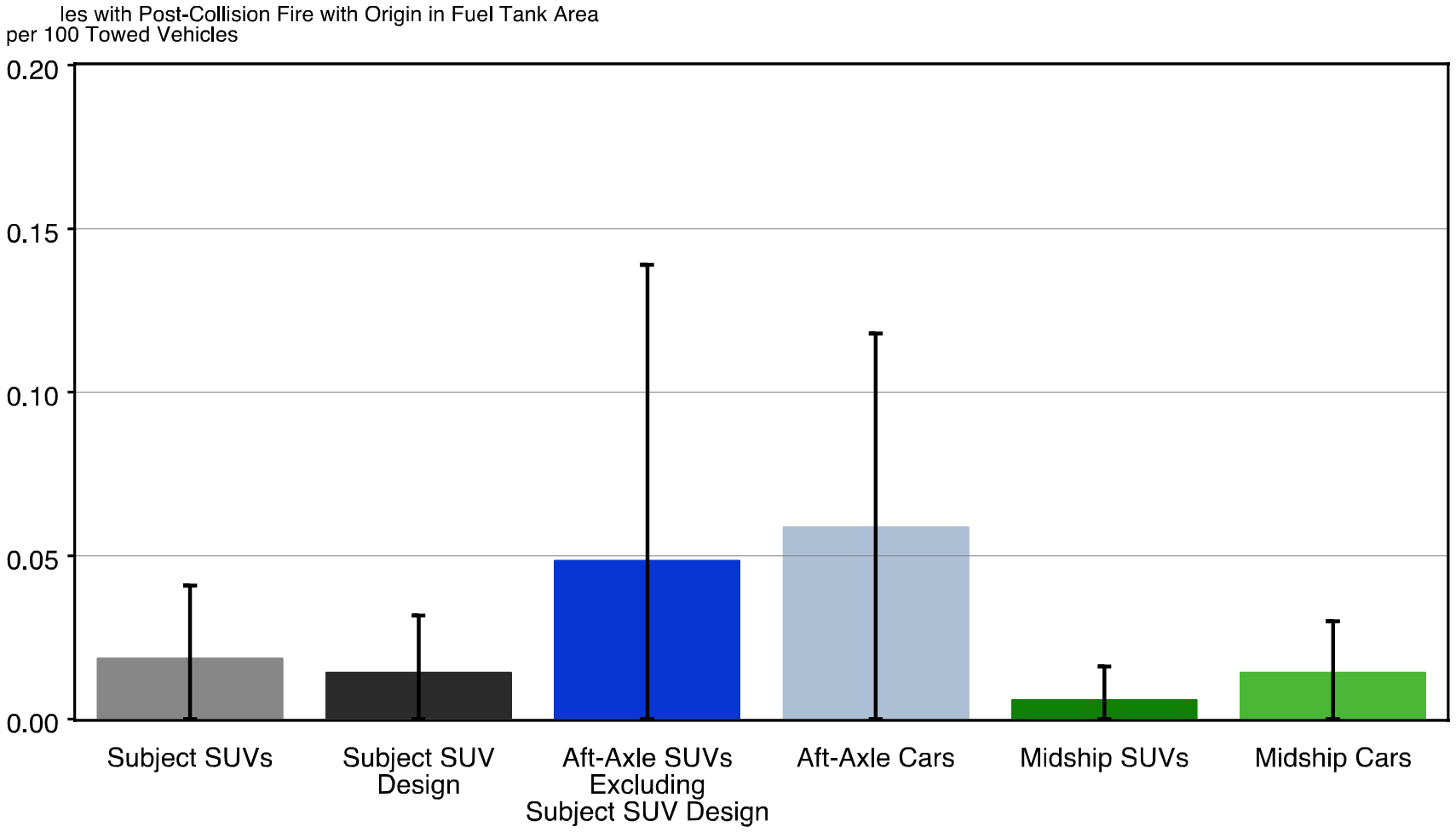
Source: NASS CDS 1988-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 Jeep Cherokee.
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



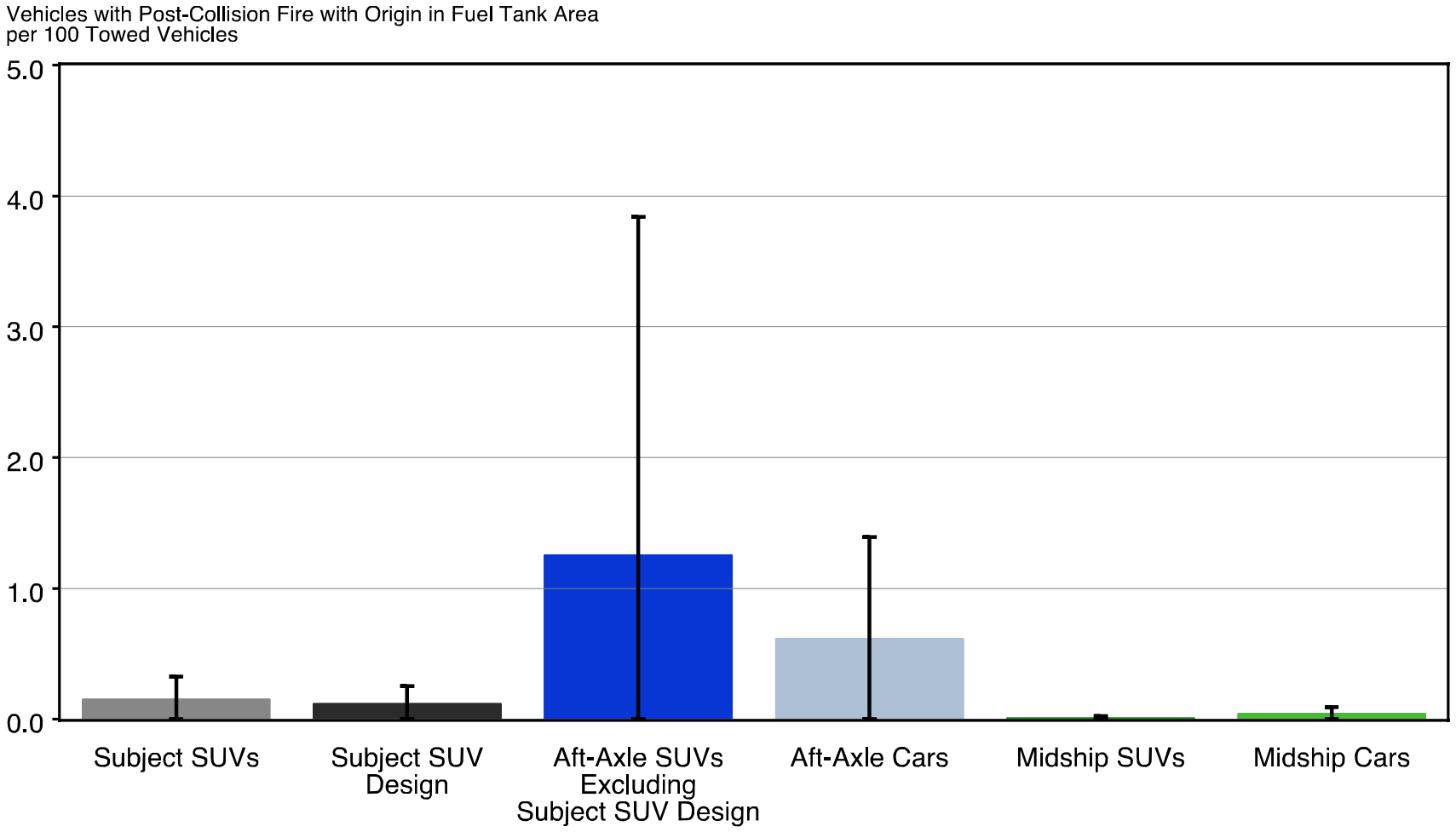
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire with Origin in Fuel Tank Area
Utility Vehicles and Cars Towed Due to Damage



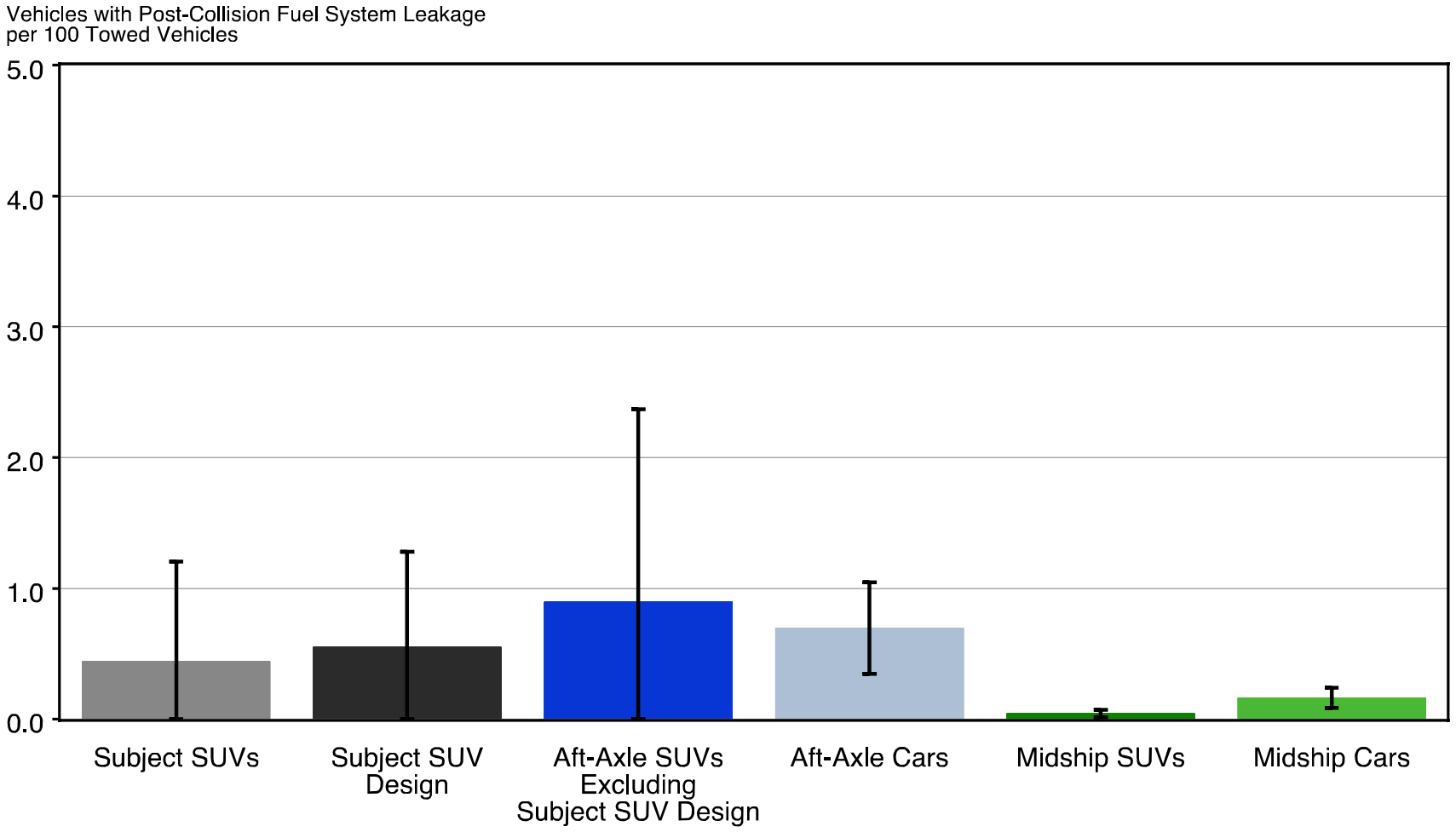
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire with Origin in Fuel Tank Area in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



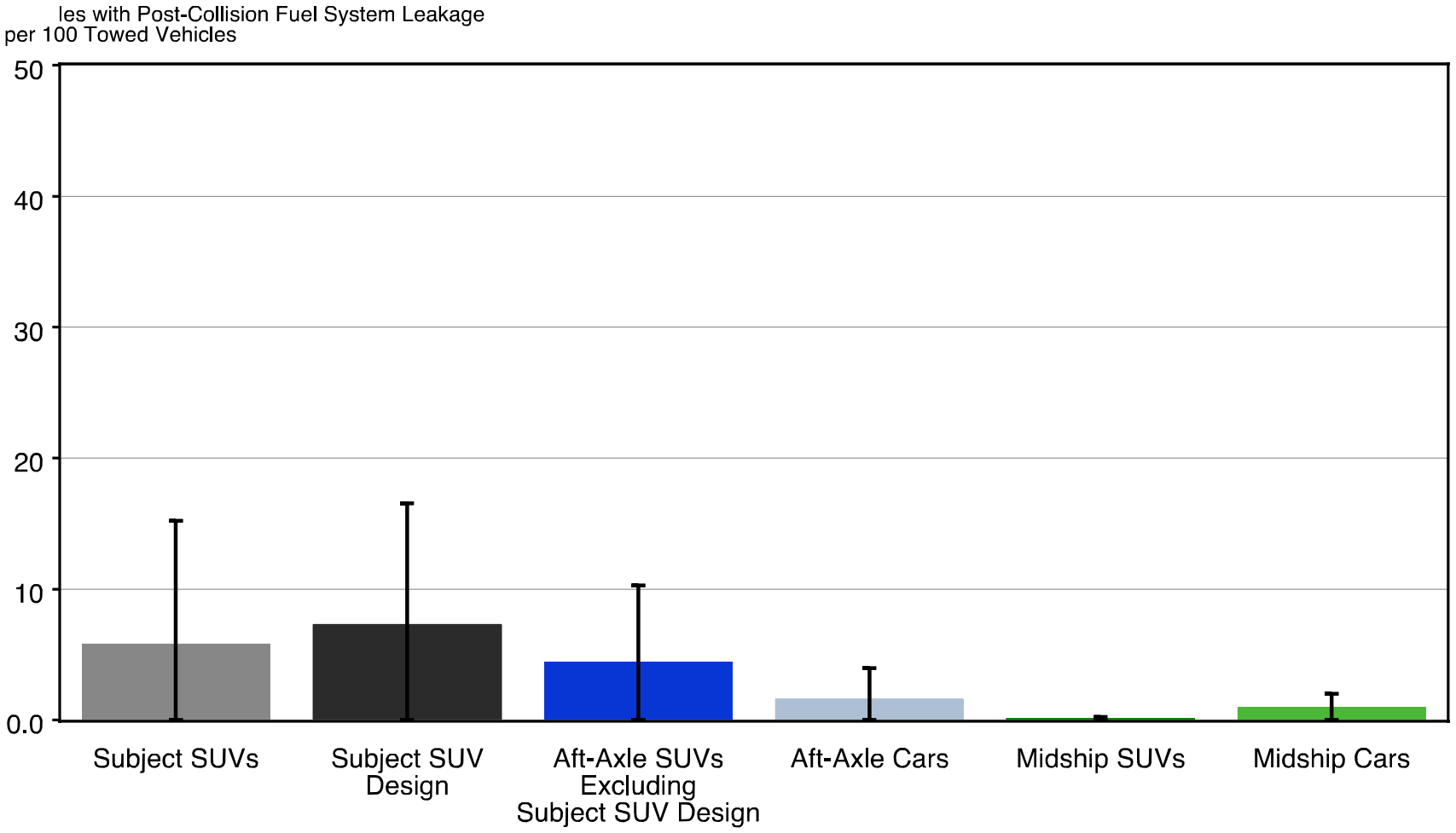
Source: NASS CDS 1991-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J .
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fuel System Leakage
Utility Vehicles and Cars Towed Due to Damage



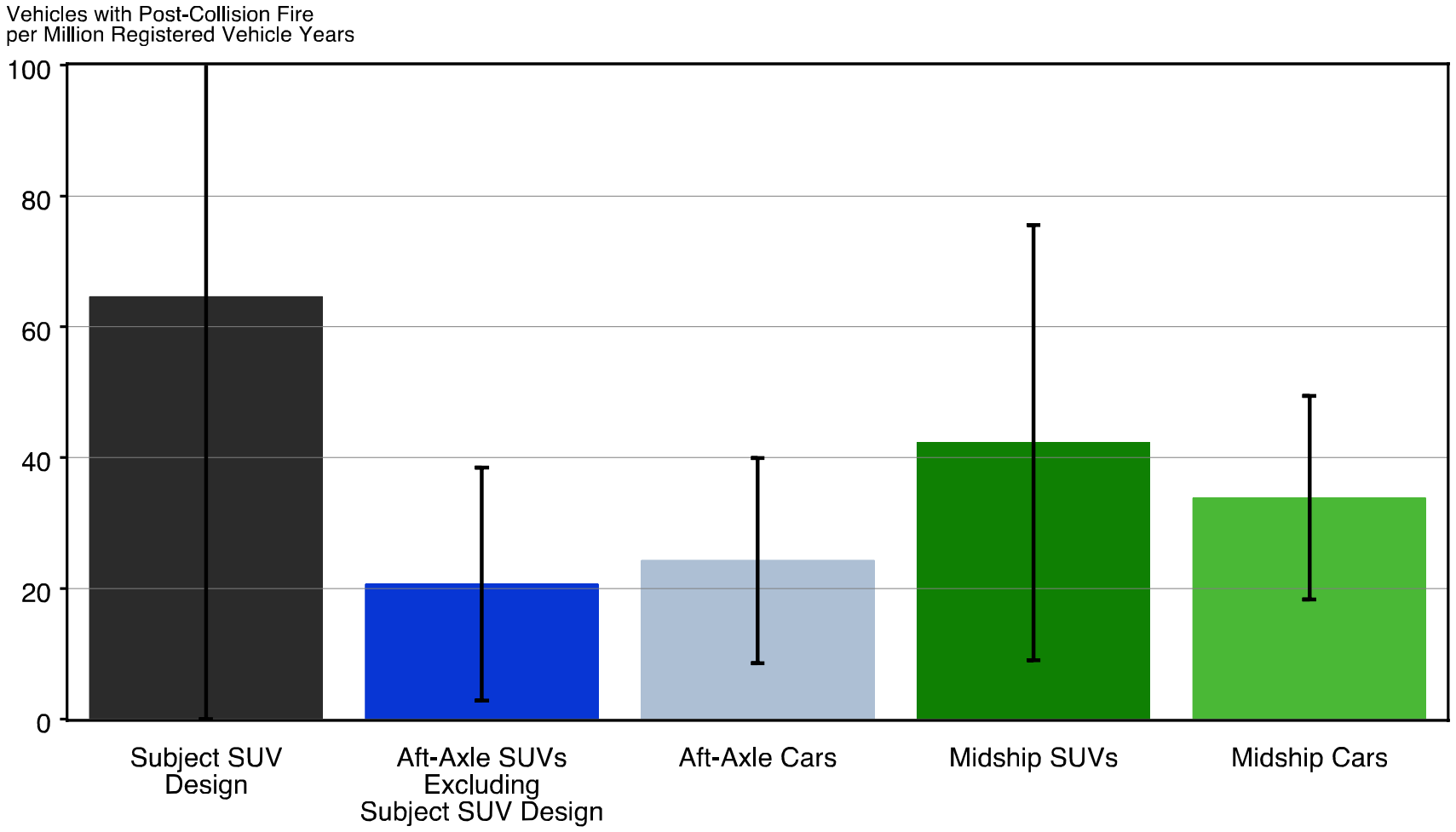
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fuel System Leakage in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



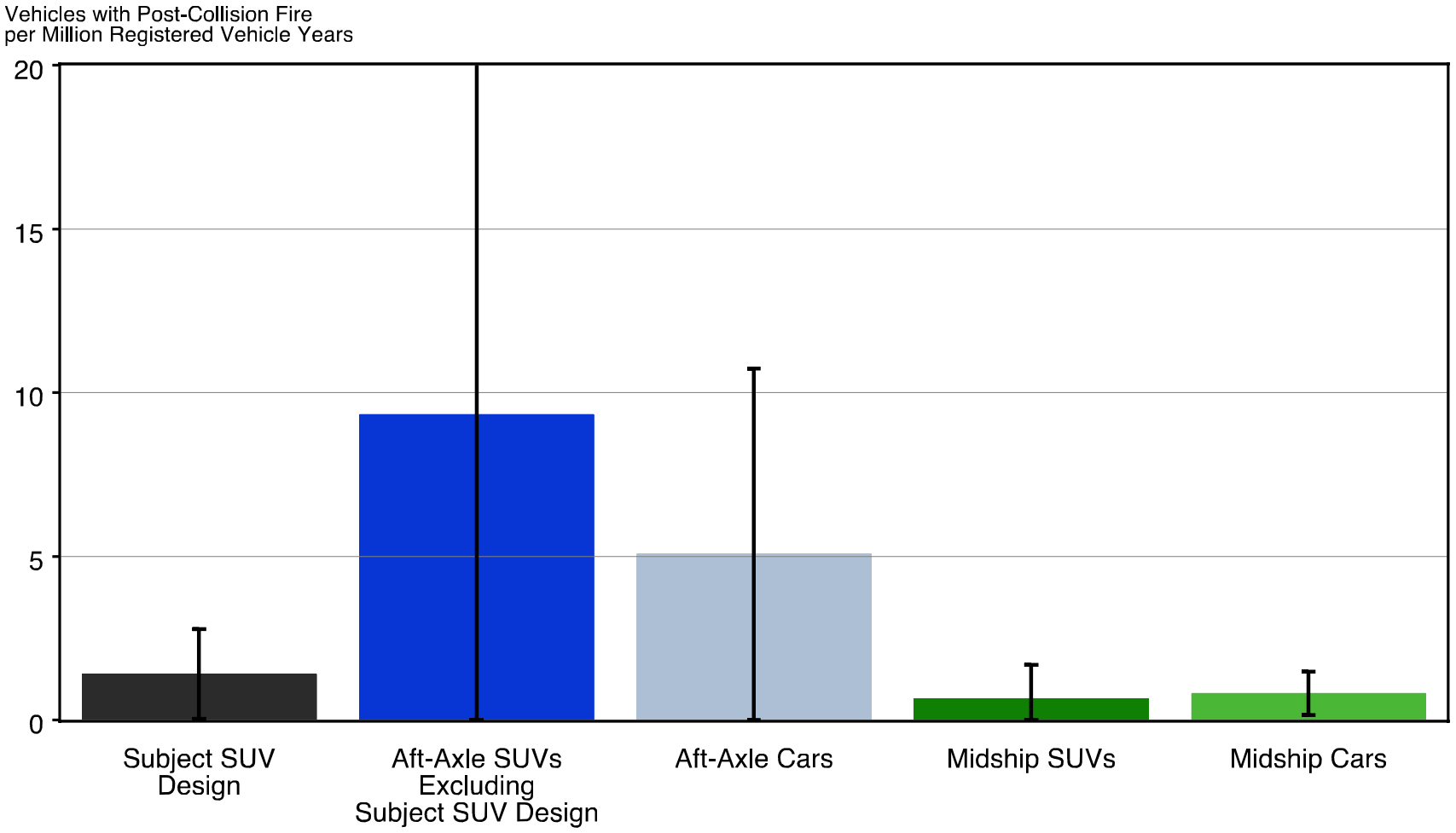
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



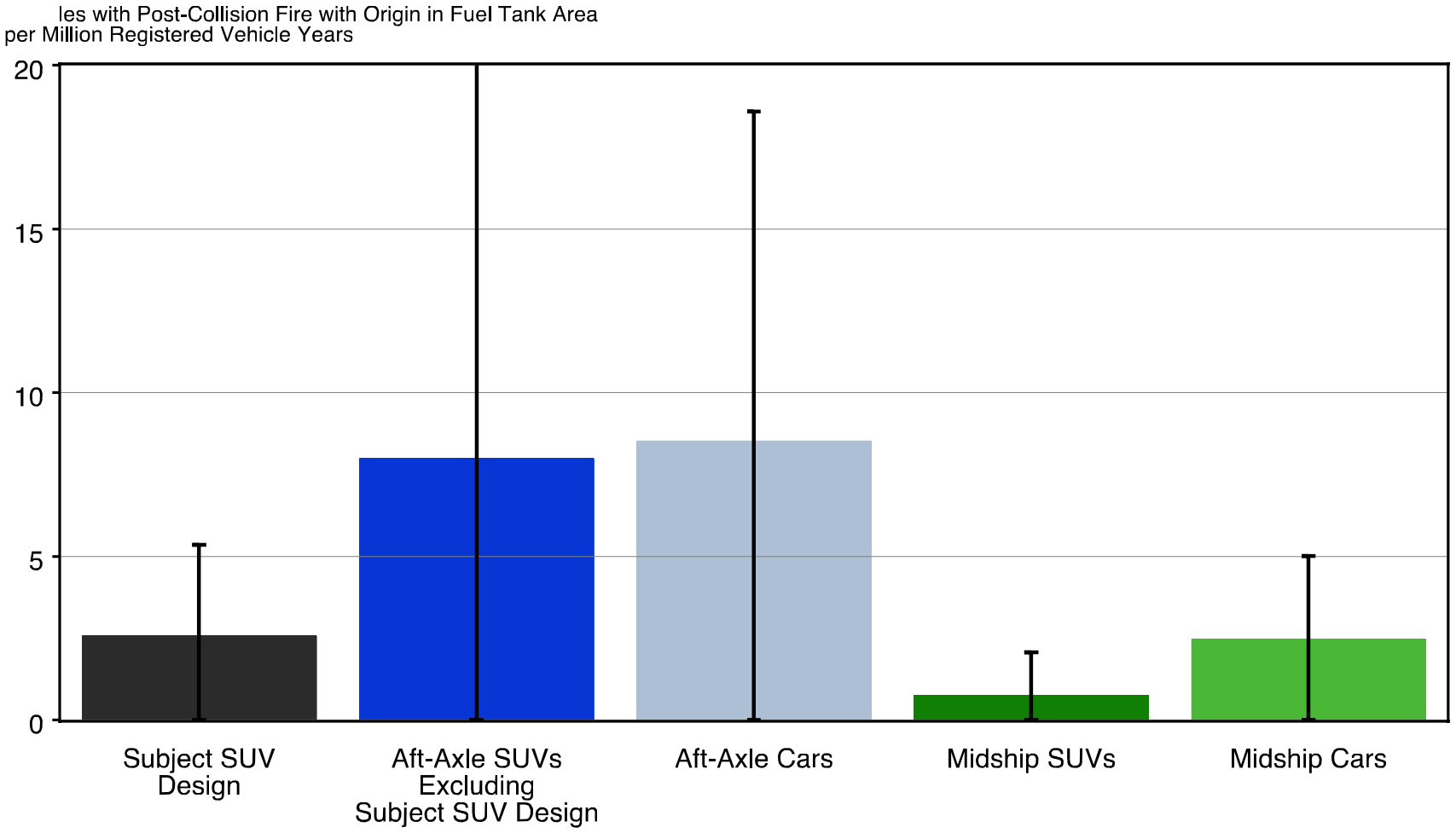
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



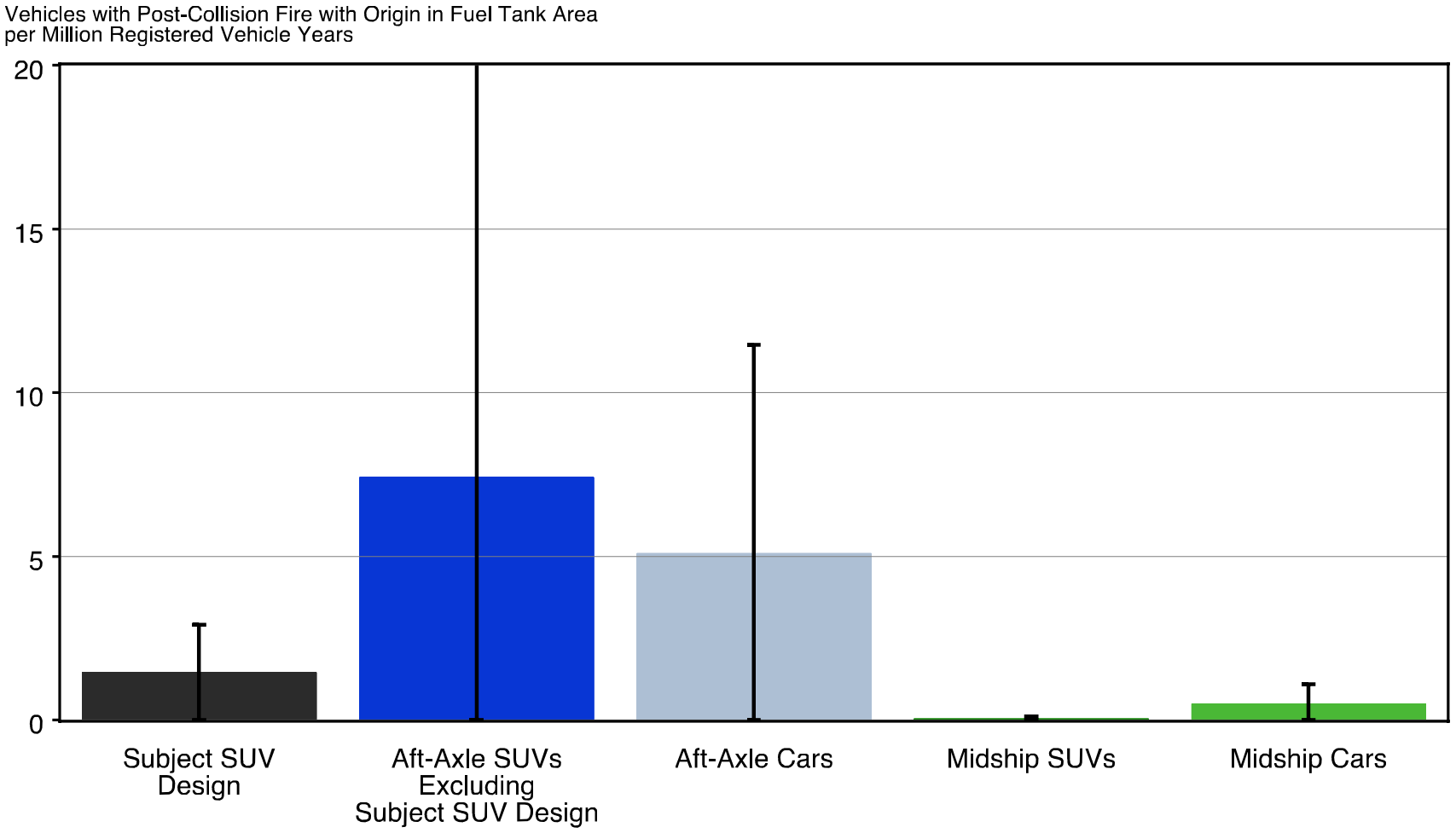
Sources: NASS CDS 1988-2010 and Polk NVPP 1988-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 Jeep Cherokee.
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire with Origin in Fuel Tank Area
Utility Vehicles and Cars Towed Due to Damage



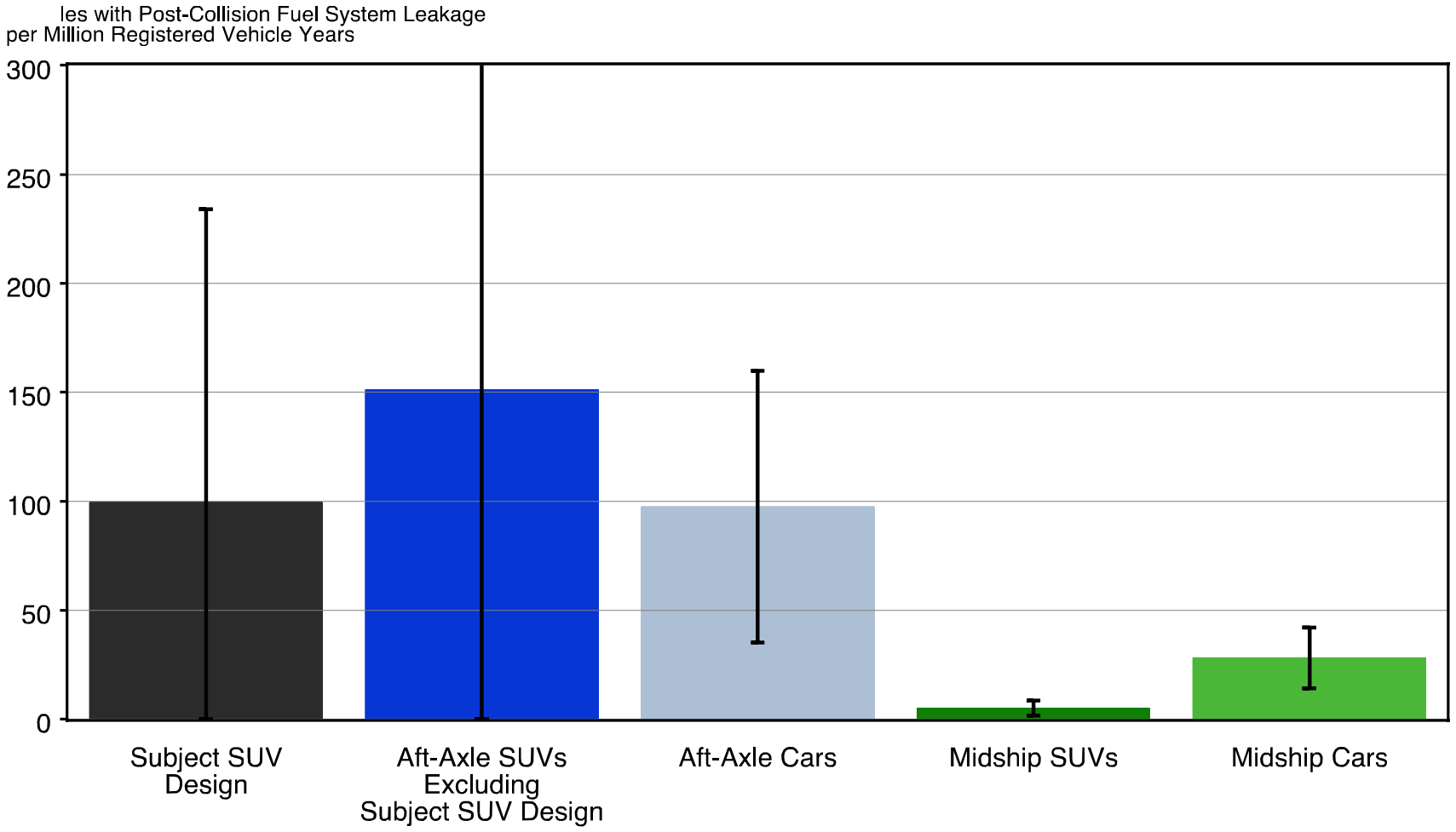
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire with Origin in Fuel Tank Area in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



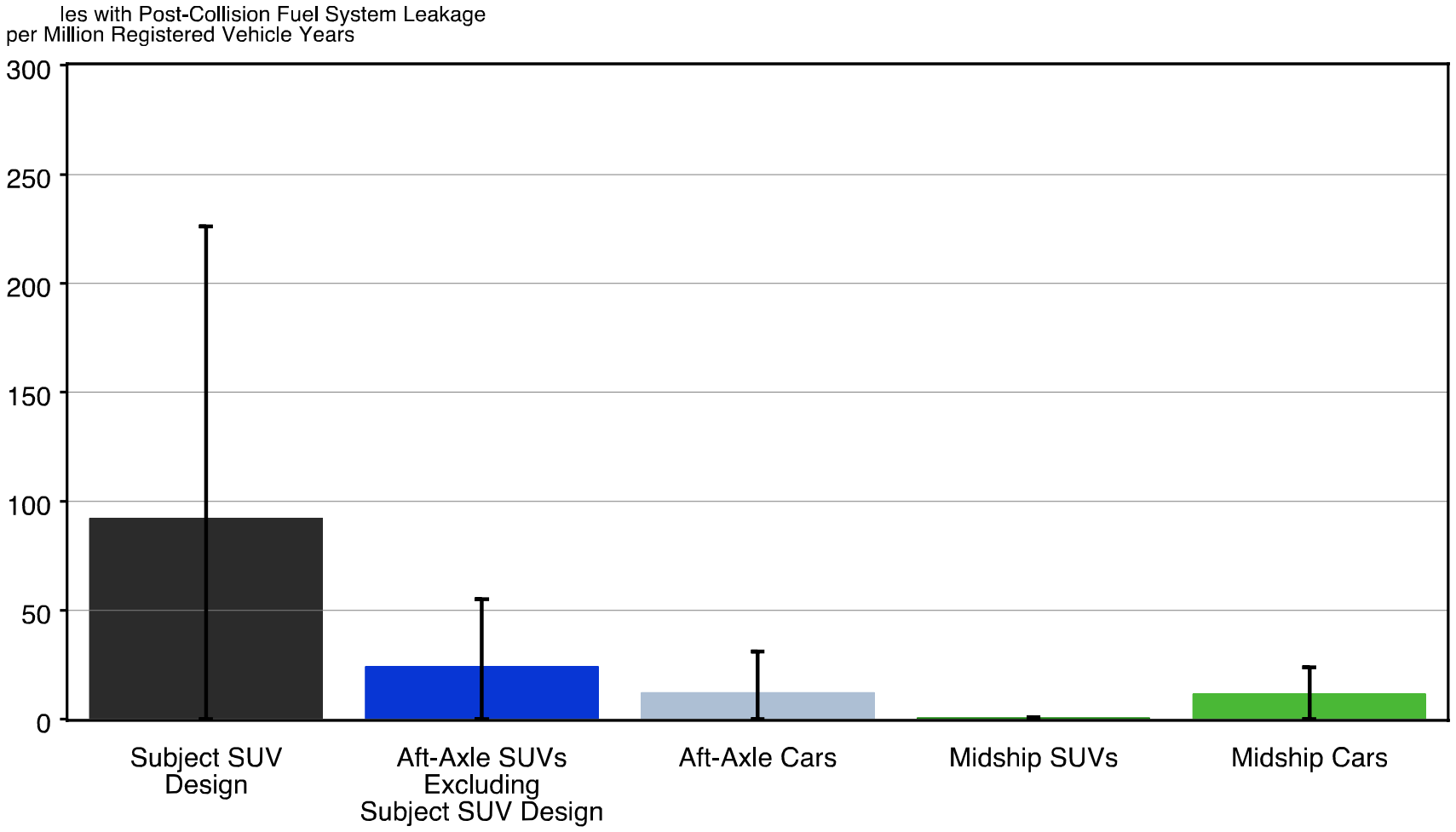
Sources: NASS CDS 1991-2010 and Polk NVPP 1991-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 Jeep Cherokee.
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fuel System Leakage
Utility Vehicles and Cars Towed Due to Damage



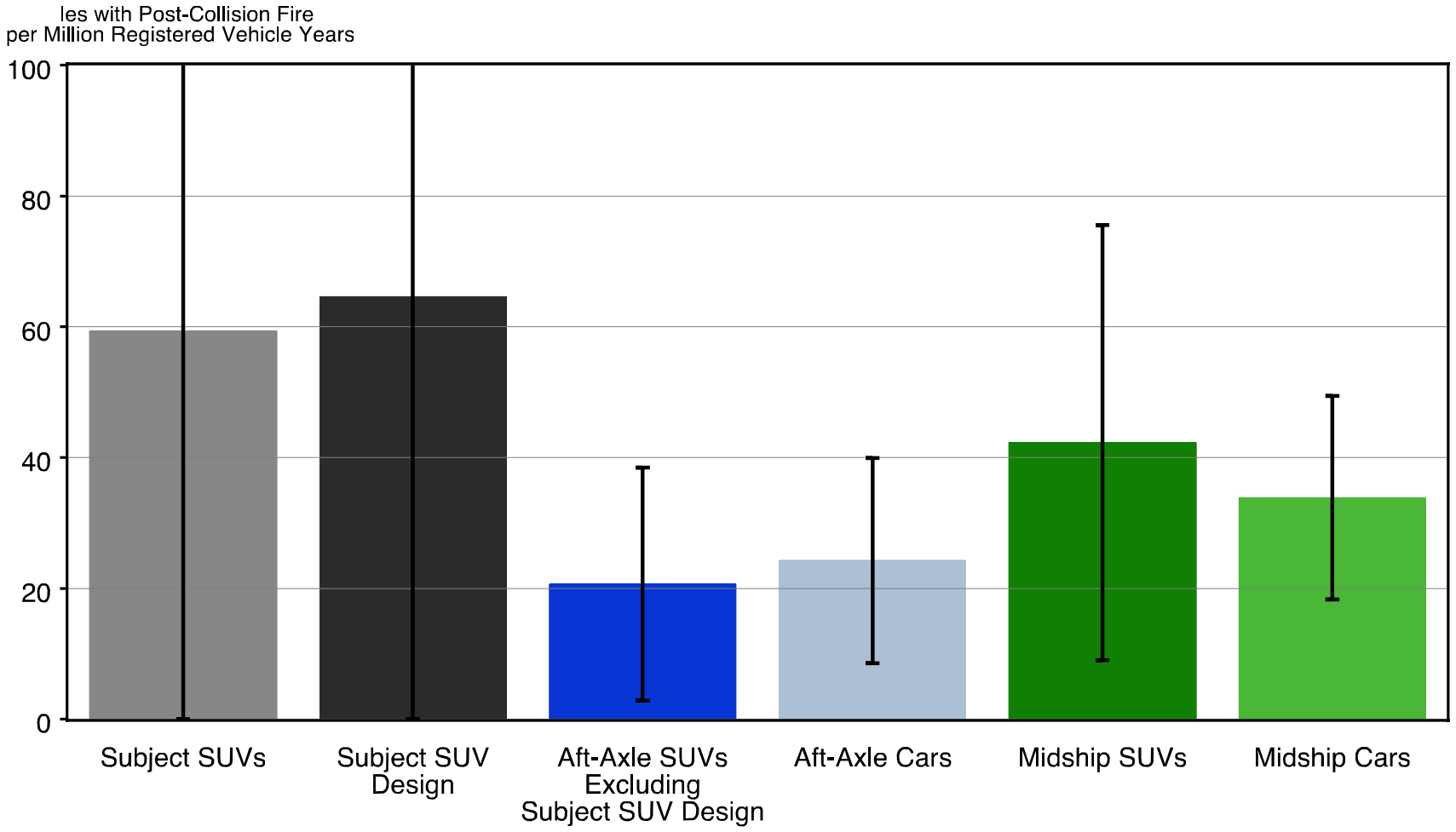
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fuel System Leakage in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



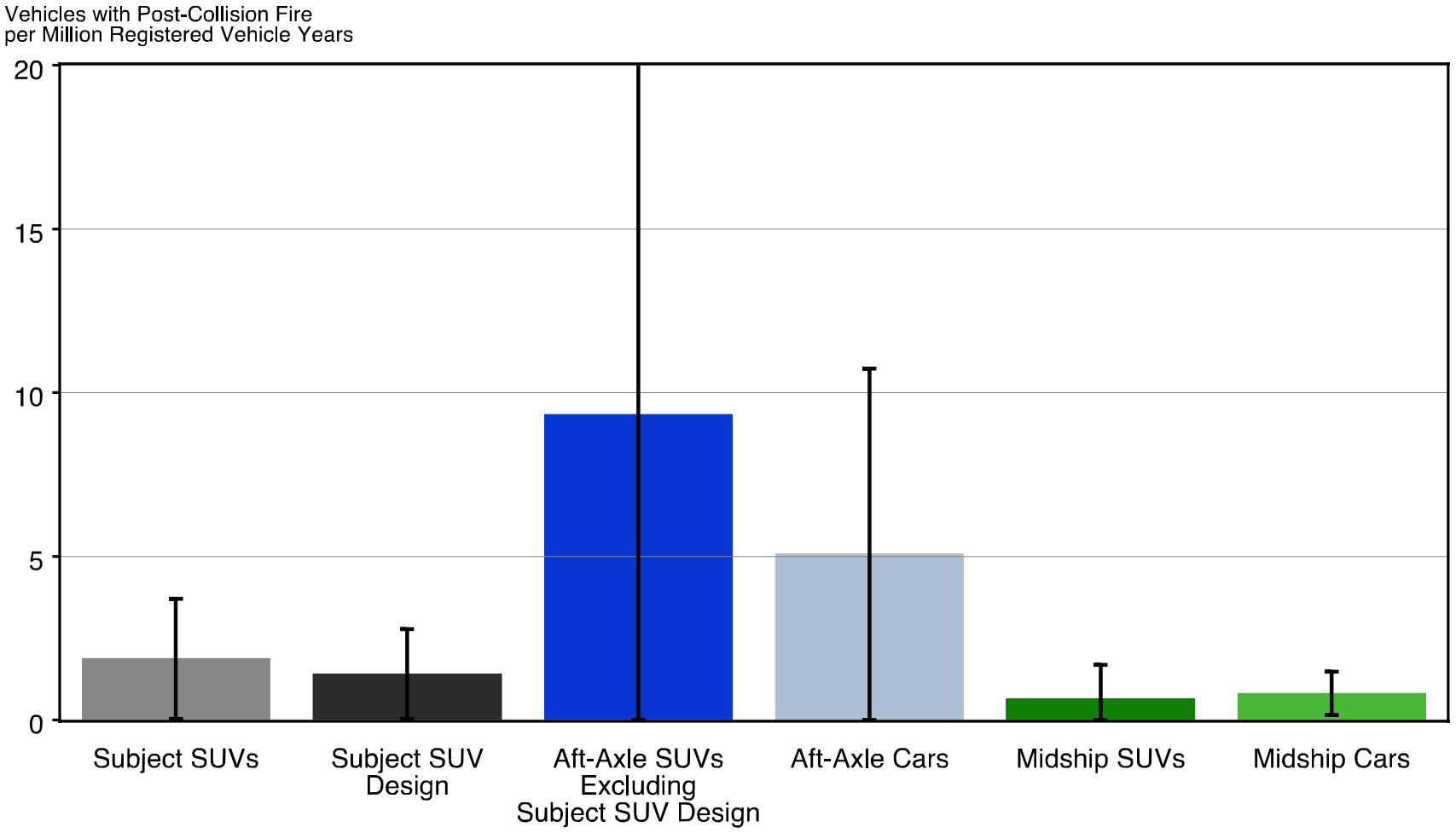
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire
Utility Vehicles and Cars Towed Due to Damage



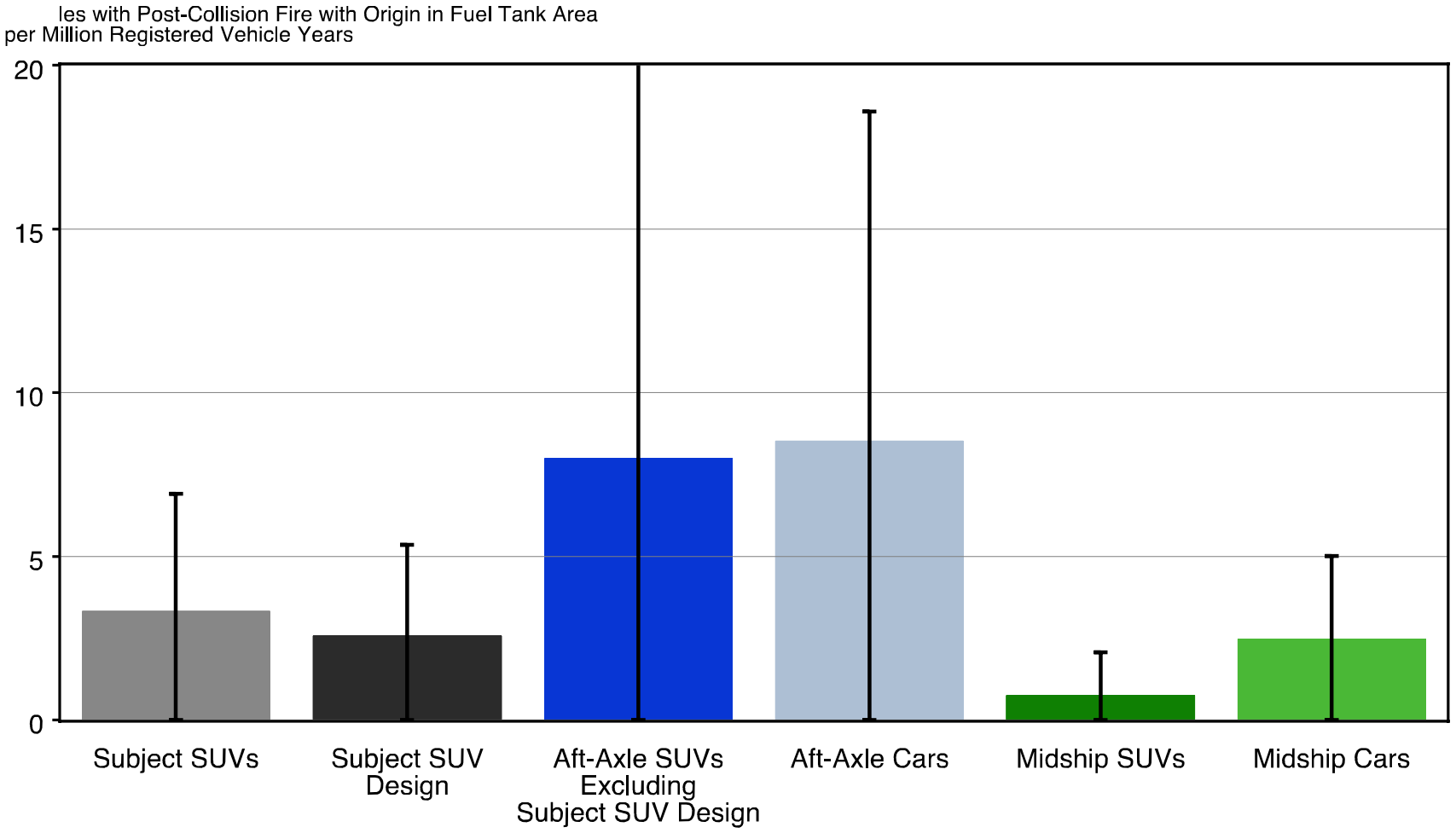
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



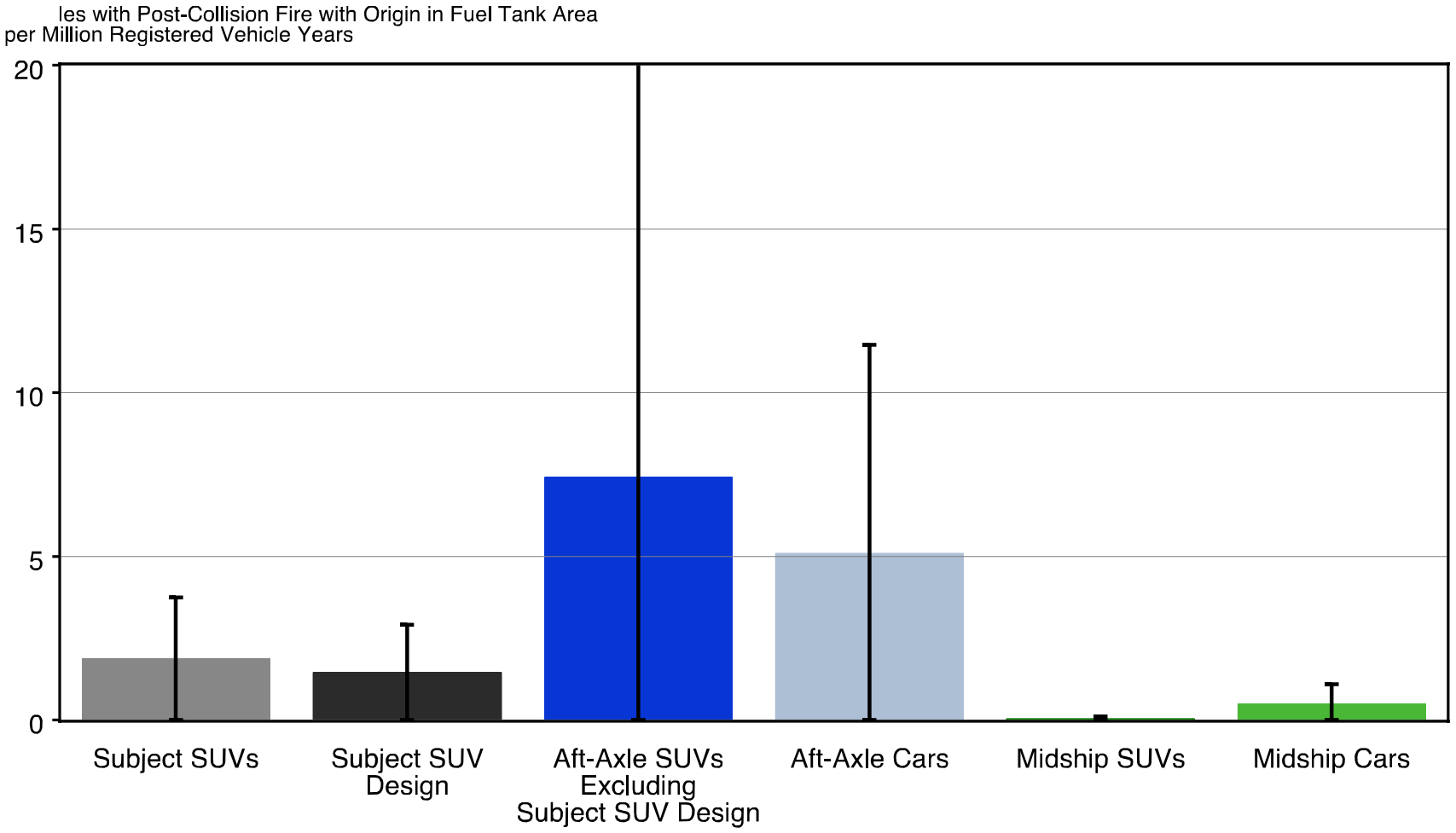
Sources: NASS CDS 1988-2010 and Polk NVPP 1988-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 Jeep Cherokee.
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fire with Origin in Fuel Tank Area
Utility Vehicles and Cars Towed Due to Damage



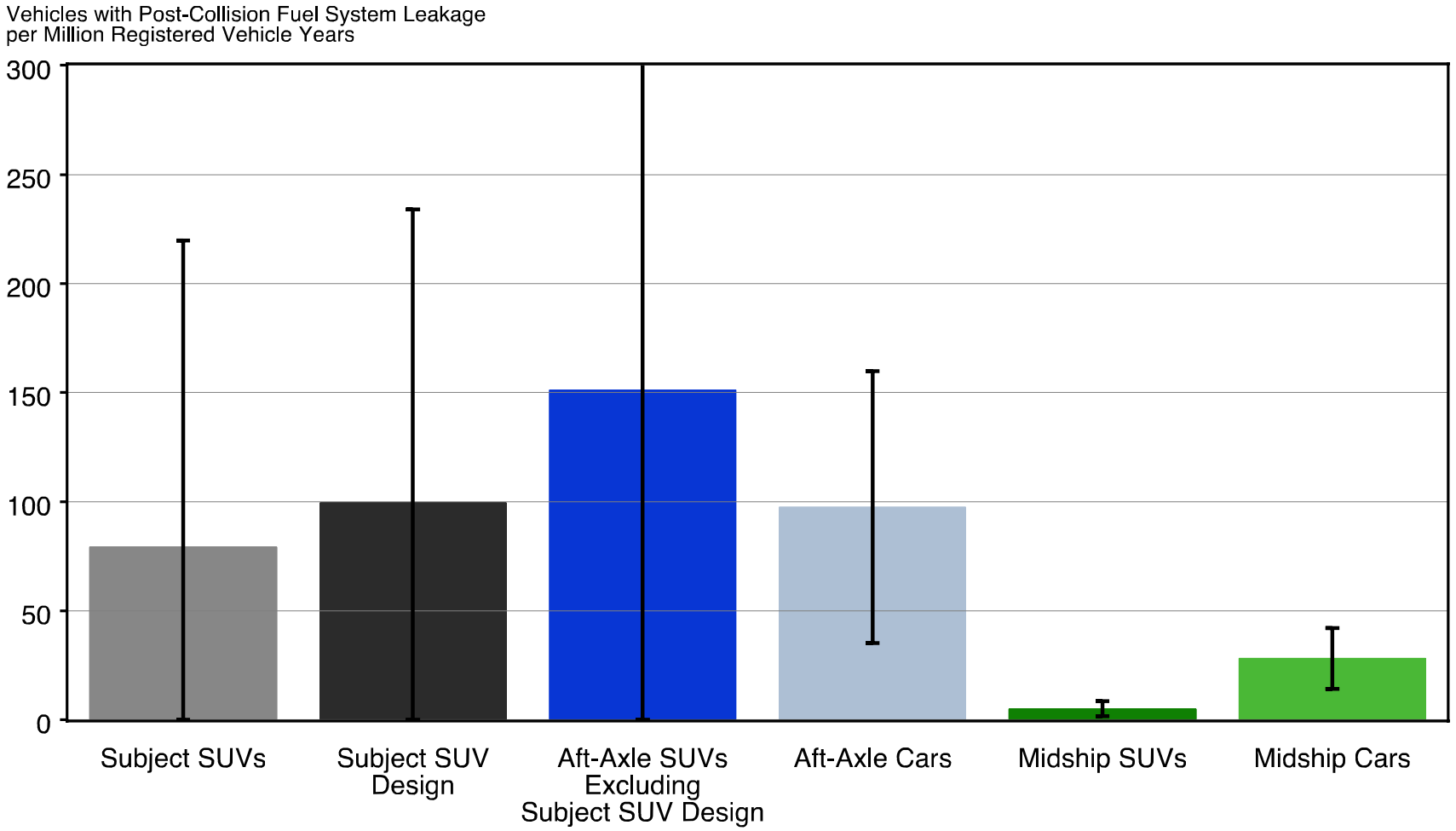
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fire with Origin in Fuel Tank Area in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



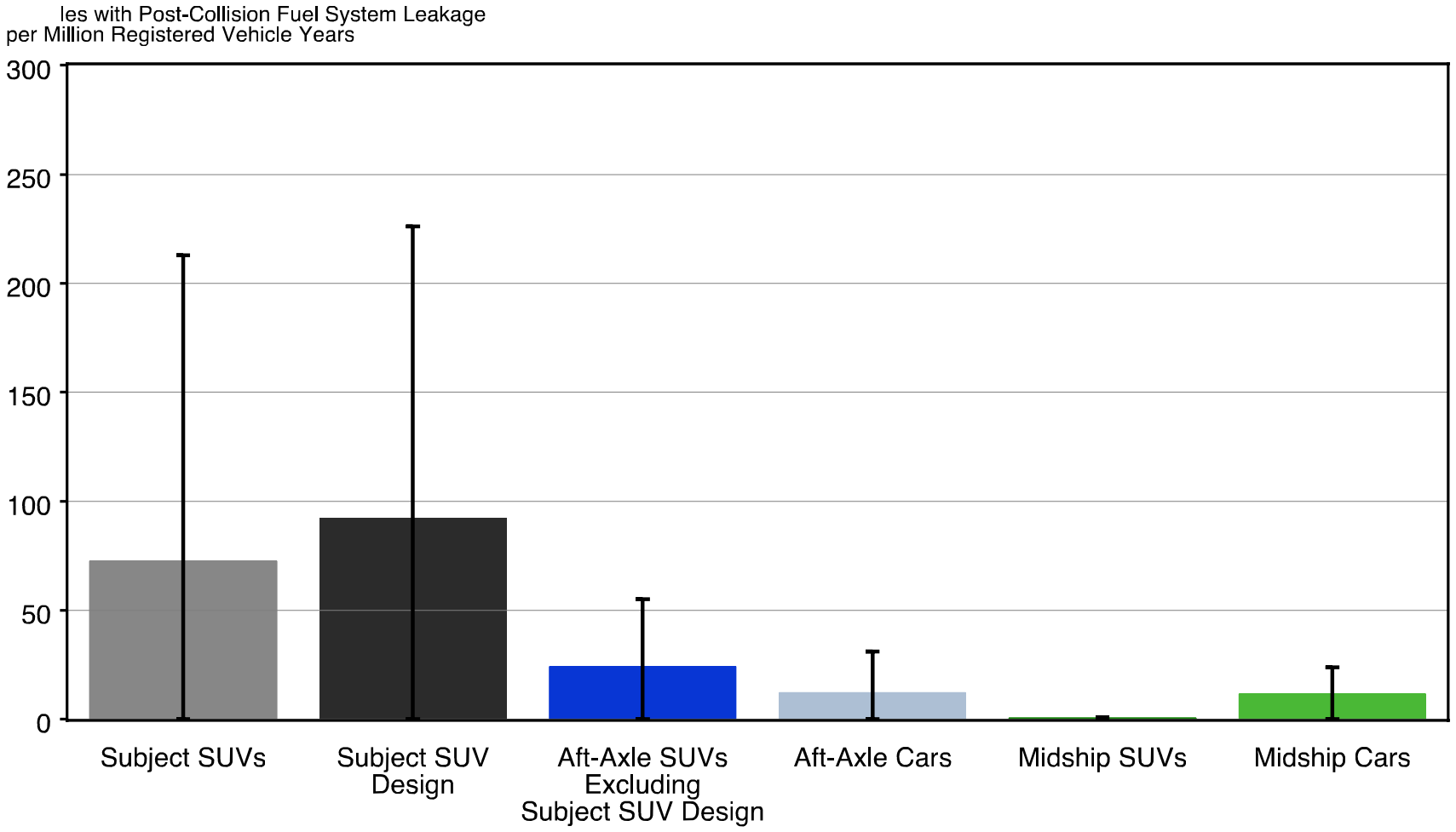
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

Rates of Post-Collision Fuel System Leakage
Utility Vehicles and Cars Towed Due to Damage



Sources: NASS CDS 1994-2010 and Polk NVPP 1994-2010.
Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 Jeep Cherokee.
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-199 -1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN.

Rates of Post-Collision Fuel System Leakage in Rear Impacts
Utility Vehicles and Cars Towed Due to Damage



Subject SUVs are the model-year 1993-2004 Jeep Grand Cherokee, 2002-2007 Jeep Liberty, and 1993-2001 J
Subject SUV Design refers to Subject SUVs as well as predecessor SUVs sharing the same fuel-tank configuration.
Predecessor SUVs are the model-year 1984-1992 Jeep Cherokee and 1984-1990 Jeep Wagoneer.
Other groups are model-year 1984-2005 cars and SUVs labeled with tank location "Mid Ship" or "Aft axle" in "Fuel Tank Location Information NHTSA 12-10-12."
Vehicle models identified by VIN. "Rear Impact" is defined as the Highest Deformation Location (variable: GAD1) equal to "Back."

NASS GES and NASS CDS

1.Rates and prevalences of post-collision fire in rear impacts for the Subject SUV Design models are comparable to or lower than those of other SUVs with aft-axle tanks, and statistically indistinguishable from them. [Slides 3, 4, 6, 7, 9, 10, 12, 13, 16, 22, 28, 34]

2. Rates and prevalences of post-collision fire with origin in fuel tank area for the Subject SUV Design models are comparable to or lower than those of other SUVs with aft-axle tanks, and statistically indistinguishable from them. This holds generally as well as in rear impacts in particular. [Slides 17, 18, 23, 24,29, 30, 35, 36]

3.Rates and prevalences of post-collision fuel system leakage for the Subject SUV Design models are comparable to or lower than those of other SUVs with aft-axle tanks, and statistically indistinguishable from them. [Slides 19, 25, 31, 37]

4.Rates and prevalences of post-collision fuel system leakage in rear impacts for the Subject SUV Design models are statistically indistinguishable from those of other SUVs with aft-axle tanks. [Slides 20, 26, 32, 38]

EA12-005

CHRYSLER

12/13/2012

Enclosure 6G

Wecker Report, DX WECKER MATLS

OPINIONS

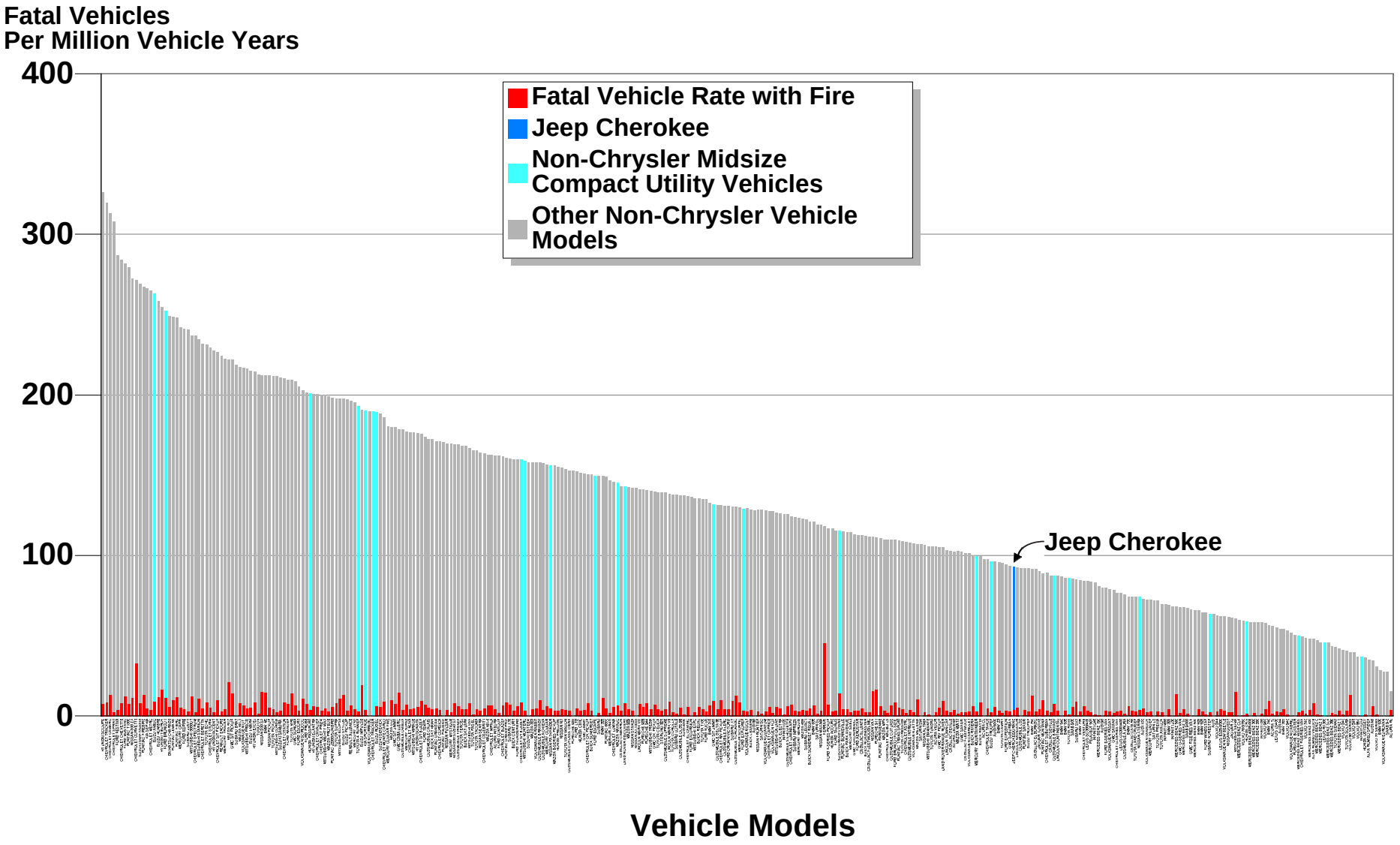
1. Many other models, including many midsize non-Chrysler compact utility vehicles and many passenger car models, have higher fatal vehicle rates than that of model year 1984-2001 Jeep Cherokees vehicles. This holds for all collisions as well as rear impact collisions.

2. Many other models, including many midsize non-Chrysler compact utility vehicles and many passenger car models, have higher fatal vehicle rates with fire than that of model year 1984-2001 Jeep Cherokees vehicles. This holds for all collisions as well as rear impact collisions.

3. The fatal or major vehicle rates of model year 1984-2001 Jeep Cherokees are comparable to those of midsize non-Chrysler compact utility vehicles of the same vintage. This holds for all collisions as well as rear impact collisions.

4. Post-collision fire rates of model year 1984-2001 Jeep Cherokees are comparable to those of non-Chrysler midsize compact utility vehicles. This holds for all collisions as well as rear impact collisions.

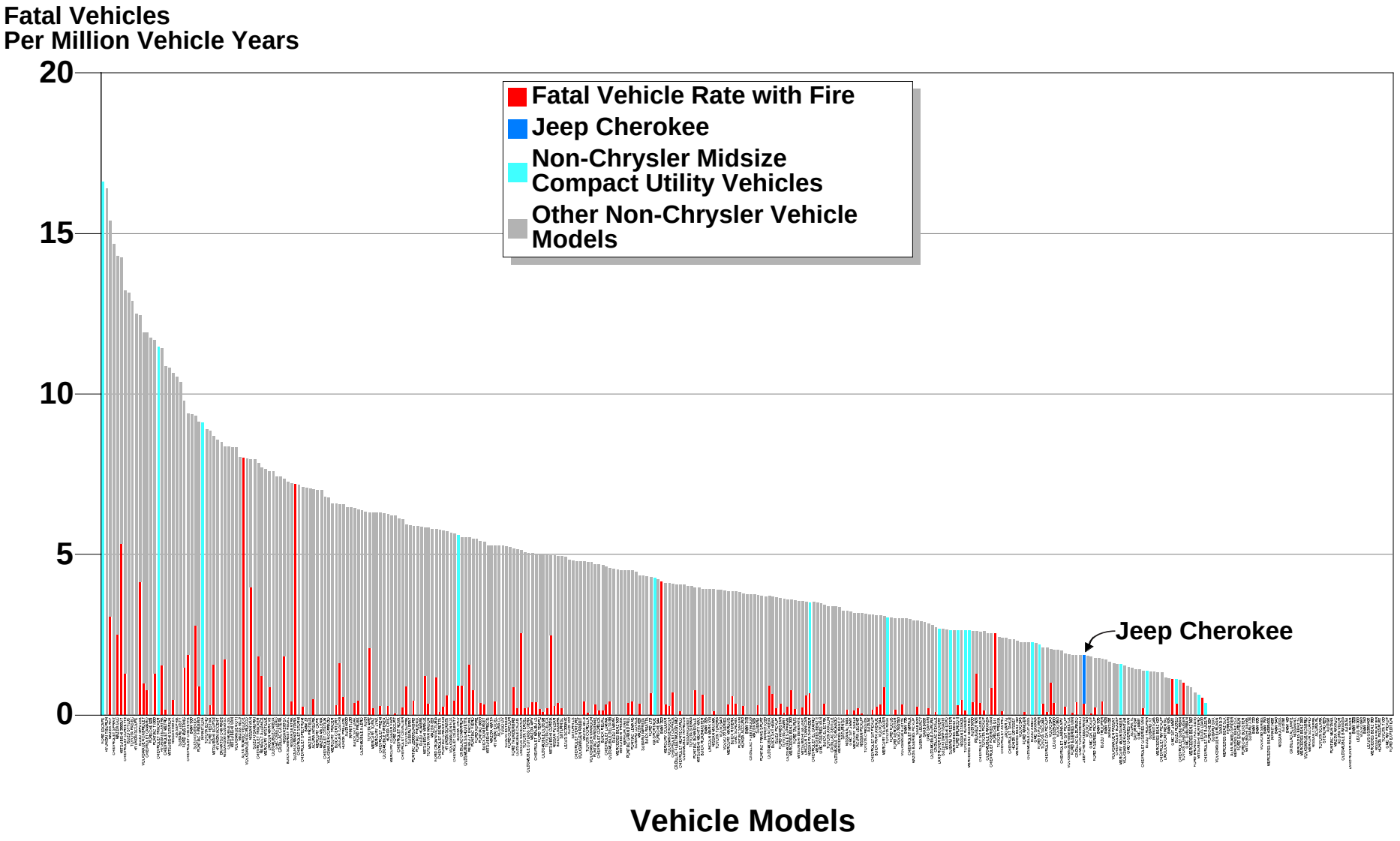
Fatal Vehicle Rates
Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks



EA12-005- Chrysler -013274

Model year 1984-2001 vehicles in FARS 1984-2001 with 100,000 or more registered years from Polk NVPP 1984-2001.
Non-Chrysler passenger cars and light trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC.
Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

Fatal Vehicle Rates in Rear Impacts
Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks



EA12-005- Chrysler -013275

Model year 1984-2001 vehicles in FARS 1984-2001 with 100,000 or more registered years from Polk NVPP 1984-2001.
Non-Chrysler passenger cars and light trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC.
Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

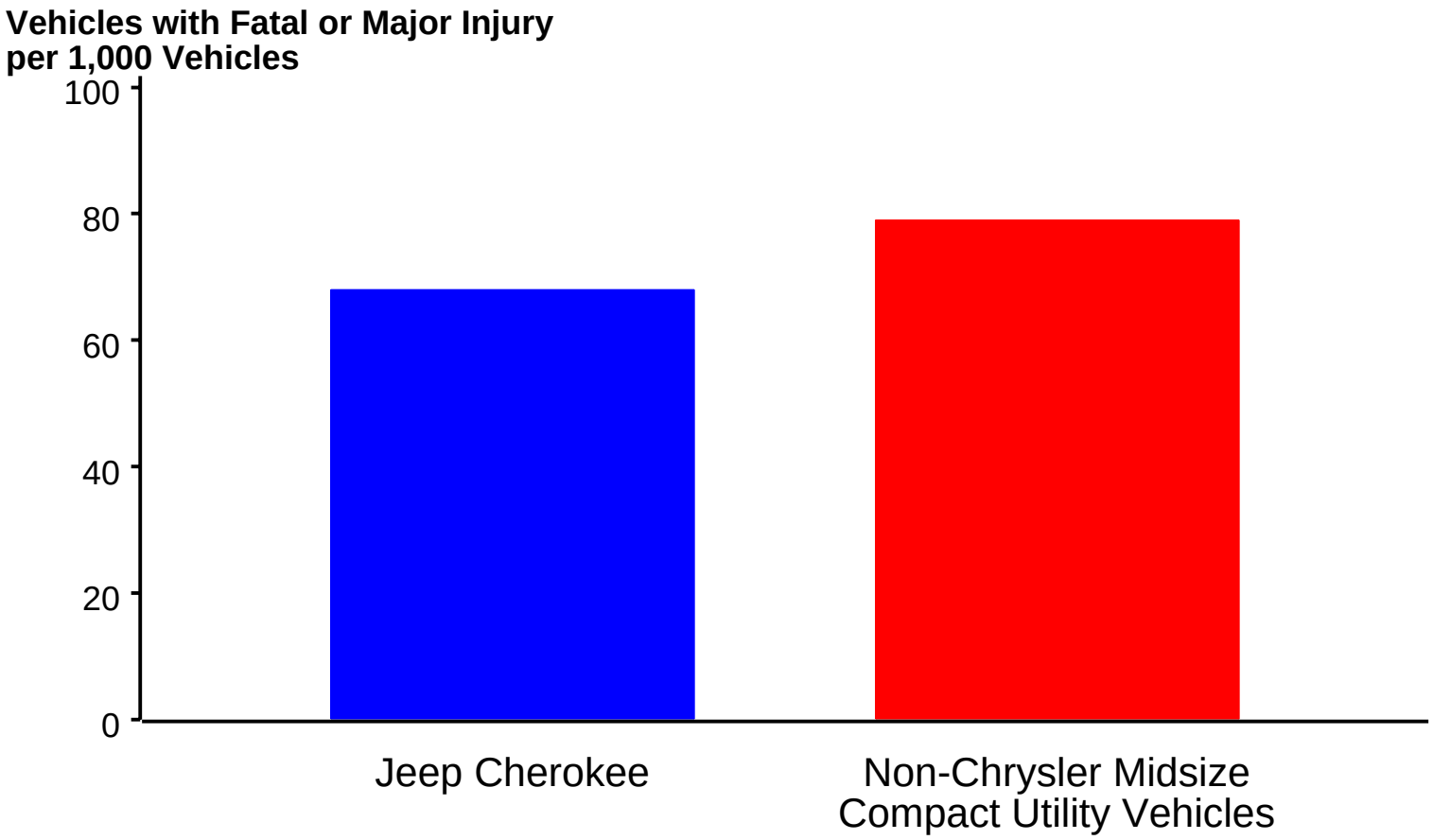
Fourteen State Accident Databases

Publicly Available with Vehicle Identification Numbers and Fire Indicators

	Accident Years	All Impacts	Rear Impact
Alabama	**1989-2001**	●	●
Arkansas	**1990-1996**	●	●
Florida	**1986-2001**	●	●
Idaho	**1989-2001**	●	●
Illinois	**1993-1995**	●	
Iowa	**1990-2000**	●	
Maryland	**1988-2000**	●	●
Michigan	**1983-1991**	●	●
Nebraska	**1993-2000**	●	●
New York	**1983-2000**	●	
North Carolina	**1988,1990-1999**	●	●
Ohio	**1991-1997,1999**	●	
Wisconsin	**1994-2001**	●	
Wyoming	**1988-2001**	●	●

Fatal or Major Injury Rates

Midsize Compact Utility Vehicles in Injury Accidents



Model year 1984-2001 compact utility vehicles in police reported collisions in Alabama, Arkansas, Florida, Idaho, Illinois, Iowa, Maryland, Michigan, Nebraska, New York, North Carolina, Ohio, Wisconsin or Wyoming.

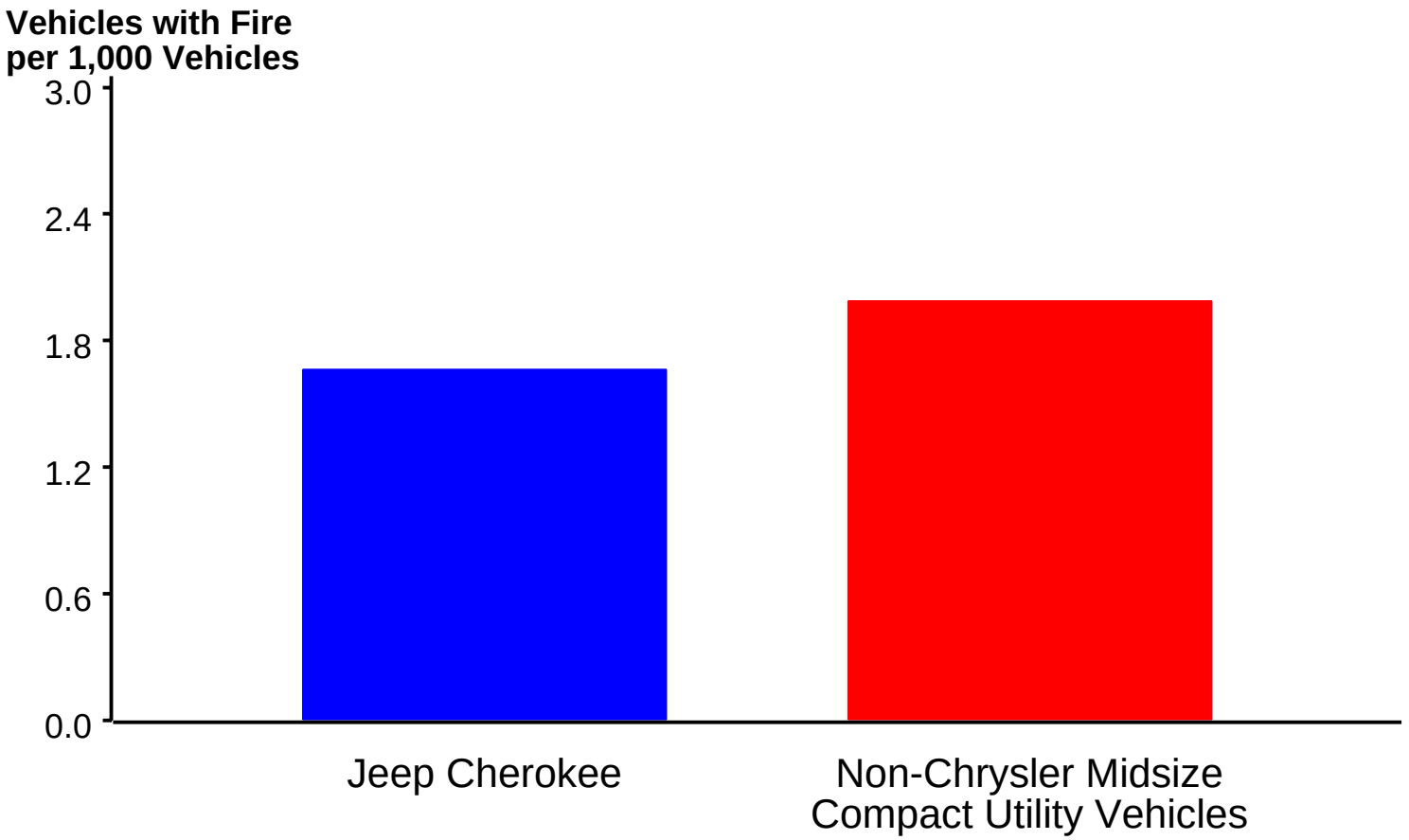
EA12-005- Chrysler -013277

Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.

Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

Post-Collision Fire Rates

Midsize Compact Utility Vehicles in Injury Accidents



Model year 1984-2001 compact utility vehicles in police reported collisions in Alabama, Arkansas, Florida, Idaho, Illinois, Iowa, Maryland, Michigan, Nebraska, New York, North Carolina, Ohio, Wisconsin or Wyoming.

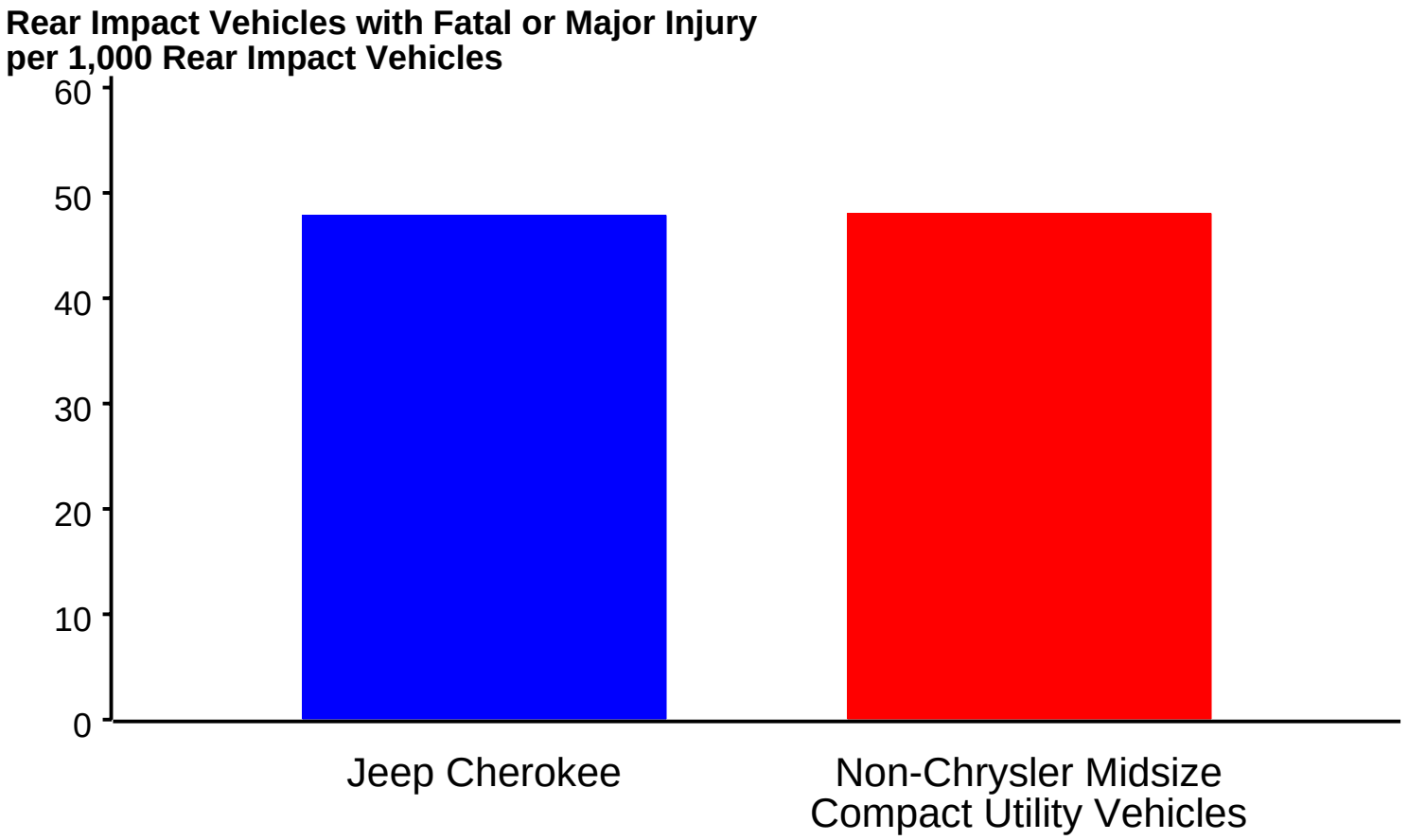
EA12-005- Chrysler -013278

Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.

Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

Rear Impact Fatal or Major Injury Rates

Midsize Compact Utility Vehicles in Injury Accidents



Model year 1984-2001 compact utility vehicles in police reported collisions in Alabama, Arkansas, Florida, Idaho, Maryland, Michigan, Nebraska, North Carolina or Wyoming.

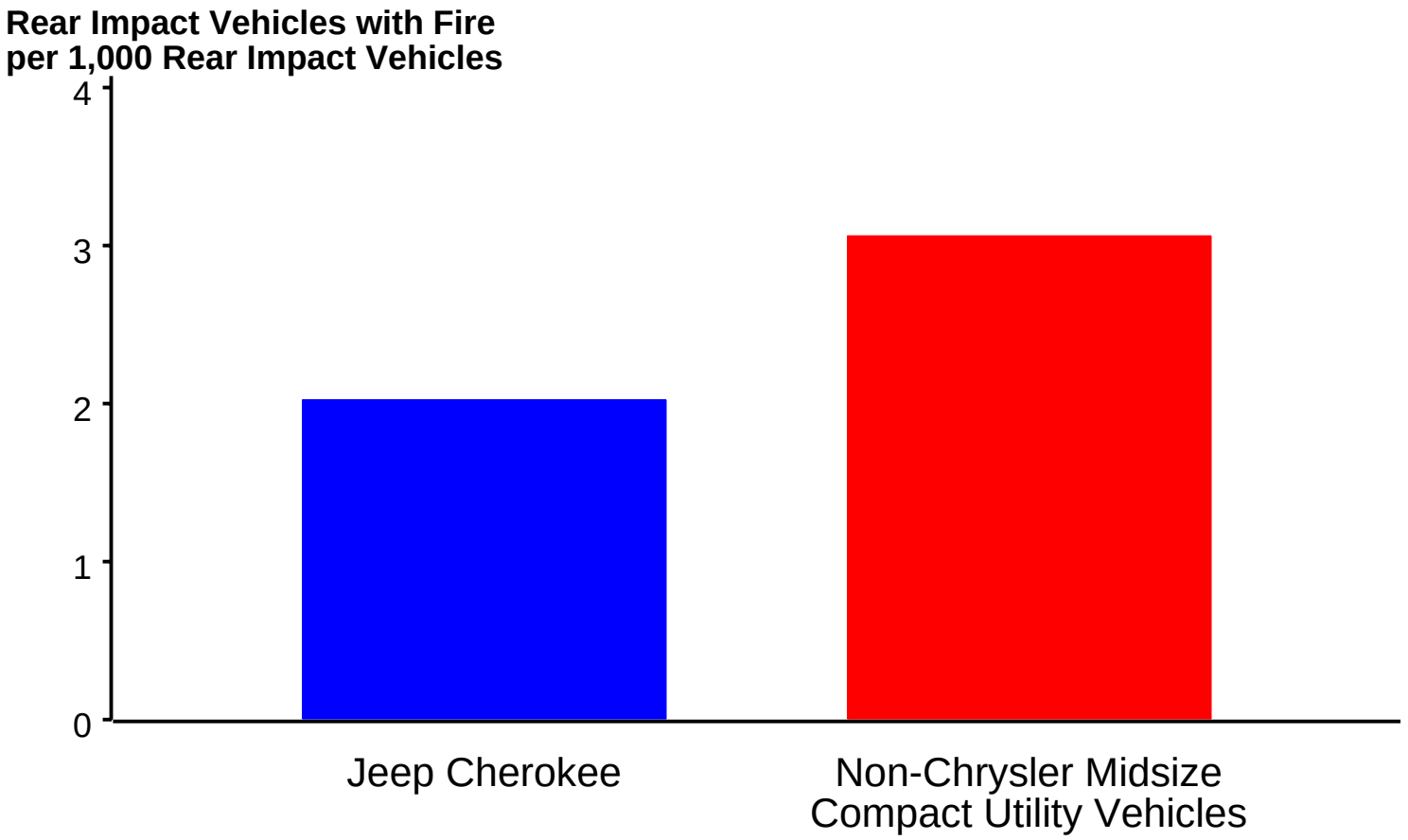
Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.

Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

EA12-005- Chrysler -013279

Rear Impact Post-Collision Fire Rates

Midsize Compact Utility Vehicles in Injury Accidents



Model year 1984-2001 compact utility vehicles in police reported collisions in Alabama, Arkansas, Florida, Idaho, Maryland, Michigan, Nebraska, North Carolina or Wyoming.

Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.

Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

EA12-005- Chrysler -013280

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
1	HYUNDAI SCOUPE	326.1	7.8	
2	CHEVROLET TRACKER	319.6	8.8	
3	CHEVROLET CAMARO	313.1	13.6	
4	CHEVROLET SPRINT	307.5	2.4	
5	FORD FESTIVA	286.6	3.9	
6	CHEVROLET CHEVETTE	284.3	8.4	
7	FORD MUSTANG	281.4	12.4	
8	PONTIAC T1000	279.0	7.8	
9	NISSAN 300 ZX	272.3	11.6	
10	CHEVROLET CORVETTE	271.0	32.9	
11	SUZUKI SWIFT/SA310	268.9	8.1	
12	PONTIAC FIREBIRD	267.2	13.4	
13	KIA SEPHIA	266.2	5.3	
14	CHEVROLET METRO	264.7	4.0	
15	ISUZU AMIGO	263.0	9.0	***
16	ISUZU HOMBRE	258.1	11.7	
17	HYUNDAI TIBURON	254.3	16.4	
18	FORD BRONCO II	251.8	11.5	***
19	DAIHATSU CHARADE	248.9	5.7	
20	PONTIAC LEMANS	248.5	10.3	
21	PONTIAC FIERO	248.1	12.0	
22	MERCURY CAPRI	241.6	5.0	
23	FORD ASPIRE	241.2	4.4	
24	SUBARU JUSTY	240.6	3.5	
25	MITSUBISHI 3000GT	236.5	12.4	
26	CHEVROLET SPECTRUM	236.5	2.5	
27	MITSUBISHI STARION	234.2	10.8	
28	CHEVROLET BERETTA	231.5	5.0	
29	TOYOTA ECHO	231.2	8.9	
30	CHEVROLET STORM	229.0	5.6	
31	HYUNDAI ACCENT	227.8	2.9	
32	CHEVROLET S/T PICKUP	226.4	10.1	
33	RENAULT ENCORE	224.2	3.2	
34	MERCURY TRACER	222.2	4.5	
35	MAZDA RX7	221.8	21.2	
36	GMC S/T PICKUP	221.6	14.2	
37	SUBARU BRAT	218.4	0.0	
38	MAZDA MX-3	216.9	8.0	
39	VOLKSWAGEN GTI	216.7	6.9	
40	MITSUBISHI PRECIS	216.4	5.3	
41	ISUZU I-MARK	215.0	5.5	
42	HYUNDAI EXCEL	214.5	8.6	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
43	YUGO GV	212.5	1.8	
44	NISSAN 200 SX	212.0	15.1	
45	BMW M3	211.9	14.8	
46	NISSAN PICKUP	211.9	5.1	
47	TOYOTA PICKUP	211.5	4.4	
48	MITSUBISHI CORDIA	211.5	2.5	
49	SUZUKI SAMURAI	210.6	3.7	
50	CHEVROLET CITATION	210.0	8.6	
51	FORD RANGER	209.6	7.7	
52	TOYOTA MR2	209.1	14.0	
53	GMC SONOMA	208.7	7.0	
54	FORD ESCORT	204.8	3.6	
55	VOLKSWAGEN SCIROCCO	202.7	11.2	
56	FORD PROBE	201.4	7.9	
57	HONDA PASSPORT	200.6	4.2	***
58	HYUNDAI ELANTRA	200.6	6.7	
59	CHEVROLET CAVALIER	200.3	5.6	
60	CHEVROLET PRIZM	199.8	3.7	
61	MITSUBISHI MIGHTY MAX	199.4	4.8	
62	MAZDA PROTEGE	198.7	3.0	
63	PONTIAC J2000/SUNBIRD	197.7	5.7	
64	TOYOTA SUPRA	197.5	8.2	
65	MITSUBISHI ECLIPSE	197.4	11.1	
66	ISUZU STYLUS	197.4	13.2	
67	ISUZU PICKUP	196.9	3.7	
68	RENAULT ALLIANCE	196.1	6.5	
69	MERCURY LYNX	195.0	4.4	
70	TOYOTA 4 RUNNER	192.7	2.9	***
71	ISUZU IMPULSE	190.7	19.3	
72	KIA SPORTAGE	189.9	4.3	***
73	VOLKSWAGEN CORRADO	189.6	0.0	
74	CHEVROLET TRACKER	189.3	0.0	***
75	ISUZU RODEO	188.9	6.3	***
76	SUZUKI SIDEKICK	188.0	5.6	
77	CHEVROLET MONTE CARLO	185.8	9.2	
78	MERCURY COUGAR FWD	180.3	0.0	
79	MAZDA GLC	180.0	10.1	
80	GMC S/T JIMMY	179.4	7.5	
81	GMC CABALLERO	178.3	14.9	
82	OLDSMOBILE OMEGA	178.2	3.8	
83	MERCURY TOPAZ	176.8	7.3	
84	CHEVROLET NOVA	176.5	4.4	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
85	MITSUBISHI MIRAGE	176.2	4.9	
86	HYUNDAI SONATA	175.9	5.7	
87	CHEVROLET S/T BLAZER	175.7	9.8	
88	FORD TEMPO	173.5	7.1	
89	OLDSMOBILE CALAIS	172.3	5.6	
90	BUICK SKYHAWK	172.2	4.1	
91	PONTIAC GRAND AM	171.0	5.1	
92	CHEVROLET CORSICA	170.5	4.0	
93	PONTIAC PHOENIX	170.4	0.0	
94	NISSAN PULSAR	169.7	4.4	
95	MERCURY MYSTIQUE	169.4	2.6	
96	NISSAN 200 SX/240 SX	169.0	8.4	
97	OLDSMOBILE FIRENZA	168.7	6.3	
98	TOYOTA TERCEL	168.1	4.5	
99	BUICK SKYLARK	167.9	4.3	
100	MITSUBISHI VAN	166.8	8.3	
101	TOYOTA PASEO	165.2	1.2	
102	TOYOTA TACOMA	165.1	4.2	
103	NISSAN SENTRA	163.6	3.4	
104	CHEVROLET CELEBRITY	163.4	4.8	
105	MAZDA MX-6	162.2	6.5	
106	CHEVROLET IMPALA	162.1	6.6	
107	ACURA INTEGRA	162.1	4.5	
108	FORD CONTOUR	162.0	2.2	
109	CHEVROLET BLAZER	161.4	6.9	
110	PONTIAC GRAND PRIX	160.7	8.7	
111	SUBARU XT6	159.7	7.3	
112	BUICK CENTURY	159.7	3.6	
113	FORD THUNDERBIRD	159.5	6.4	
114	CHEVROLET S/T BLAZER	159.4	8.6	***
115	MITSUBISHI MONTERO	158.8	3.7	***
116	SUZUKI ESTEEM	157.8	0.0	
117	MAZDA 323	157.7	4.6	
118	VOLKSWAGEN RABBIT	157.6	4.8	
119	OLDSMOBILE BRAVADA	157.6	10.2	
120	OLDSMOBILE ACHIEVA	157.5	4.1	
121	MERCURY COUGAR	156.1	6.5	
122	NISSAN PATHFINDER	155.9	5.1	***
123	MAZDA B-SERIES PICKUP	155.8	3.6	
124	HONDA PRELUDE	155.0	3.6	
125	NISSAN NX	154.4	4.7	
126	TOYOTA VAN WAGON	153.9	4.4	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
127	OLDSMOBILE CUTLASS CIERA	152.7	3.6	
128	PORSCHE 924	152.5	0.0	
129	FORD LTD	152.0	4.8	
130	HONDA CIVIC	151.2	3.6	
131	GMC JIMMY	150.7	4.3	
132	CHEVROLET C/K PICKUP	150.5	8.4	
133	BUICK SOMERSET	150.2	3.7	
134	FORD ESCAPE	149.4	0.0	***
135	SUBARU	149.3	2.0	
136	BMW 325	148.9	11.3	
137	PONTIAC 6000	148.9	5.2	
138	MERKUR XR4TI	146.3	2.3	
139	CHEVROLET LUMINA	145.6	5.8	
140	MAZDA NAVAJO	145.0	6.6	***
141	CADILLAC CIMARRON	143.0	3.7	
142	LAND ROVER DISCOVERY	142.8	8.1	***
143	MAZDA 929	142.1	4.5	
144	NISSAN STANZA	141.7	3.3	
145	NISSAN AXXESS	141.7	0.0	
146	LINCOLN MARK VIII	140.8	7.8	
147	PORSCHE 928	140.8	5.9	
148	PORSCHE 944	140.6	8.5	
149	MITSUBISHI TREDIA	140.0	4.5	
150	GMC C/K PICKUP	139.4	7.3	
151	TOYOTA CELICA	139.3	4.5	
152	STERLING 825	139.1	3.6	
153	OLDSMOBILE SUPREME	139.0	4.9	
154	LINCOLN MARK VII	138.1	8.9	
155	TOYOTA COROLLA	137.9	2.6	
156	SUBARU LOYALE	137.7	1.8	
157	OLDSMOBILE OLDS 98	137.4	5.3	
158	AUDI 4000	137.1	1.1	
159	CHEVROLET EL CAMINO	136.8	6.1	
160	FORD EXCURSION	136.0	0.0	
161	MITSUBISHI EXPO	135.6	2.7	
162	BUICK REGAL	135.3	5.9	
163	TOYOTA T100	135.0	4.9	
164	FORD FOCUS	134.6	3.0	
165	BMW 318	132.6	7.0	
166	GMC S/T JIMMY	131.4	9.5	***
167	OLDSMOBILE DELTA 88	131.0	4.5	
168	CHEVROLET R/V PICKUP	130.9	10.3	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
169	OLDSMOBILE ALERO	130.8	4.8	
170	FORD CROWN VICTORIA	130.6	4.9	
171	SUBARU XT	130.2	9.5	
172	OLDSMOBILE TORONADO	130.0	13.0	
173	MERKUR SCORPIO	129.5	8.4	
174	FORD EXPLORER	128.9	3.7	***
175	VOLKSWAGEN GOLF	128.9	3.2	
176	BUICK LESABRE	128.2	3.9	
177	AUDI 80	128.2	0.0	
178	NISSAN FRONTIER	128.1	3.0	
179	SATURN SC	128.1	1.6	
180	VOLKSWAGEN QUANTUM	127.8	3.1	
181	CHEVROLET CAPRICE	127.5	6.1	
182	VOLKSWAGEN FOX	127.3	2.6	
183	MITSUBISHI GALANT	126.5	6.1	
184	BUICK ELECTRA	126.1	4.8	
185	INFINITI G20	125.6	1.2	
186	OLDSMOBILE SILHOUETTE	125.6	6.3	
187	CHEVROLET LUMINA APV	124.1	7.6	
188	SUBARU IMPREZA	123.7	3.3	
189	MERCURY MARQUIS	122.9	3.1	
190	MAZDA 626	122.4	3.8	
191	SUBARU LEGACY	122.1	3.5	
192	BUICK SOMERSET REGAL	120.8	4.8	
193	BMW 635	120.6	6.7	
194	SATURN SL	119.2	1.9	
195	NISSAN MAXIMA	118.9	3.6	
196	FERRARI	117.9	45.4	
197	FORD F-SERIES PICKUP	116.6	7.2	
198	HONDA ACCORD	116.4	3.1	
199	FORD TAURUS	115.4	3.7	
200	SUZUKI GRAND VITARA	115.1	14.4	***
201	PONTIAC BONNEVILLE	114.6	4.2	
202	BUICK PARK AVENUE	114.4	4.4	
203	MERCURY SABLE	114.4	2.5	
204	GMC YUKON/DENALI	112.7	3.7	
205	FORD AEROSTAR	112.4	3.8	
206	CADILLAC ALLANTE	112.3	4.9	
207	BUICK ROADMASTER	112.0	2.6	
208	CADILLAC FLEETWOOD/LIMO	111.7	2.7	
209	NISSAN VAN	111.6	15.9	
210	PORSCHE 911	110.8	16.4	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
211	PONTIAC PARISIENNE	110.3	6.1	
212	MAZDA MPV	109.8	3.8	
213	CHEVROLET MALIBU LS	109.6	2.1	
214	OLDSMOBILE CUTLASS	109.4	6.8	
215	FORD BRONCO (FULL SIZE)	109.4	8.5	
216	PONTIAC TRANS SPORT	108.9	5.3	
217	TOYOTA CRESSIDA	108.6	4.2	
218	CHEVROLET ASTRO	108.3	2.5	
219	OLDSMOBILE INTRIGUE	107.8	4.0	
220	VOLKSWAGEN JETTA	107.1	2.4	
221	MAZDA MILLENIA	106.8	10.5	
222	SATURN SW	106.7	0.0	
223	NISSAN ALTIMA	106.2	2.4	
224	MITSUBISHI DIAMANTE	105.6	1.2	
225	TOYOTA TUNDRA	105.4	0.0	
226	ACURA VIGOR	105.2	2.7	
227	GMC R/V PICKUP	105.2	5.8	
228	LAND ROVER RANGE ROVER	104.8	9.7	
229	LINCOLN TOWN CAR	103.4	3.5	
230	CADILLAC DEVILLE	102.7	2.8	
231	ACURA LEGEND	102.4	4.3	
232	MAZDA MIATA	102.3	1.6	
233	GMC SAFARI	102.2	2.9	
234	CADILLAC FLEETWOOD	101.5	2.9	
235	VOLKSWAGEN CABRIOLET	101.3	3.0	
236	BUICK RIVIERA	99.6	6.2	
237	MERCURY MOUNTAINEER	99.4	3.2	***
238	BUICK REATTA	99.2	8.6	
239	ACURA CL	97.5	0.0	
240	CHEVROLET TAHOE	97.4	4.7	
241	ISUZU TROOPER	96.3	2.7	***
242	AUDI 5000	96.0	5.7	
243	BMW Z3	95.7	3.5	
244	TOYOTA CAMRY	95.0	2.5	
245	FORD EXPEDITION	94.2	3.7	
246	GMC SUBURBAN	93.3	3.0	
247	JEEP CHEROKEE	92.7	4.4	
248	LINCOLN NAVIGATOR	92.3	5.1	
249	OLDSMOBILE LSS	91.9	0.0	
250	PONTIAC SAFARI	91.8	3.8	
251	ISUZU TROOPER	91.5	3.0	
252	BMW 750	91.3	13.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
253	CADILLAC ELDORADO	91.2	2.9	
254	JAGUAR XJS/XK8	90.2	4.9	
255	PONTIAC MONTANA	89.0	10.3	
256	CHEVROLET SUBURBAN	88.9	3.4	
257	CADILLAC SEVILLE	87.3	2.7	
258	OLDSMOBILE BRAVADA	87.0	7.5	***
259	LINCOLN CONTINENTAL	87.0	3.3	
260	BMW 540	86.6	0.0	
261	BMW 535	85.9	3.5	
262	TOYOTA RAV4	85.7	1.0	***
263	SAAB 900	85.2	5.8	
264	SUBARU SVX	85.1	9.5	
265	BMW 735	84.3	3.0	
266	CHEVROLET VENTURE	84.0	6.7	
267	LEXUS SC300/400	83.8	3.3	
268	PEUGEOT 505	83.6	2.6	
269	INFINITI Q45	83.2	1.3	
270	MERCEDES BENZ 190	80.9	0.9	
271	AUDI 90	79.5	0.0	
272	FORD E-SERIES VAN	79.5	3.7	
273	VOLKSWAGEN PASSAT	78.7	3.2	
274	GMC SAVANA	78.1	2.2	
275	CHEVROLET G-SERIES VAN	76.7	3.4	
276	LEXUS GS300/400	76.4	3.6	
277	OLDSMOBILE AURORA	75.4	1.4	
278	BMW 733	74.3	6.8	
279	CADILLAC CATERA	74.3	3.7	
280	TOYOTA LAND CRUISER	74.2	3.0	
281	NISSAN XTERRA	74.2	4.1	***
282	AUDI 100	72.4	4.8	
283	VOLKSWAGEN VANAGON	72.2	2.8	
284	MERCURY VILLAGER	72.0	3.1	
285	SATURN LS	71.9	0.0	
286	TOYOTA PREVIA	71.9	3.0	
287	TOYOTA AVALON	69.6	2.8	
288	INFINITI M30	69.6	0.0	
289	BMW 328	68.7	4.6	
290	INFINITI J30	67.9	0.0	
291	MERCEDES BENZ 560	67.8	13.9	
292	GMC G-SERIES VAN	67.6	2.6	
293	MERCEDES BENZ SL	67.4	4.5	
294	SAAB 9000	67.1	1.9	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
295	GMC P-SERIES VAN	66.1	0.0	
296	MERCEDES BENZ 500	65.6	0.0	
297	BMW 528	65.4	4.3	
298	BMW 525	64.2	3.4	
299	FORD WINDSTAR	64.2	1.3	
300	SUBARU FORESTER	63.5	2.6	***
301	AUDI	63.4	0.0	
302	VOLVO 244	62.1	3.1	
303	LEXUS ES250/300	62.1	4.5	
304	VOLKSWAGEN NEW BEETLE	62.0	3.8	
305	NISSAN QUEST	61.4	2.9	
306	JAGUAR XJ	61.0	2.9	
307	MITSUBISHI SIGMA	60.7	15.2	
308	MERCEDES BENZ CLK	59.5	0.0	
309	VOLVO 760/780	59.3	1.0	
310	HONDA CR-V	58.8	1.9	***
311	MERCEDES BENZ 400/500E	58.5	0.0	
312	MERCEDES BENZ 300	58.4	2.6	
313	MERCEDES BENZ 260	58.4	0.0	
314	INFINITI I30	58.0	1.7	
315	VOLVO 960	57.9	4.5	
316	BMW 740	56.3	9.7	
317	ACURA TL	55.8	1.5	
318	LEXUS LS400	54.7	3.1	
319	AUDI A4	53.9	2.4	
320	BMW 323	53.8	4.1	
321	VOLVO 940	53.2	1.3	
322	VOLKSWAGEN CABRIO	51.4	0.0	
323	PORSCHE BOXSTER	50.1	0.0	
324	MERCEDES BENZ M-SERIES	49.9	2.6	***
325	CHEVROLET P-SERIES VAN	49.1	3.4	
326	VOLVO 740	48.2	1.6	
327	MERCEDES BENZ 420	48.0	4.0	
328	ALFA ROMEO VELOCE	48.0	8.0	
329	MERCEDES BENZ C	47.1	1.1	
330	MERCEDES BENZ E	45.8	0.9	
331	LEXUS RX300	45.7	0.0	***
332	MERCEDES BENZ SLK	45.4	0.0	
333	MERCEDES BENZ 380	43.0	1.8	
334	TOYOTA SIENNA	42.8	1.3	
335	MERCEDES BENZ S	41.9	3.5	
336	VOLVO 240	40.8	1.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in All Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
337	TOYOTA SOLARA	40.6	3.7	
338	VOLVO 80 SERIES	39.4	13.1	
339	VOLVO 245	39.2	0.6	
340	VOLVO 850	36.8	0.0	
341	INFINITI QX4	36.4	0.0	***
342	HONDA ODYSSEY	36.3	1.2	
343	ALFA ROMEO SPIDER	35.1	0.0	
344	AUDI A6	34.3	6.2	
345	VOLVO 70 SERIES	30.9	1.3	
346	BMW 530	28.1	0.0	
347	VOLKSWAGEN EUROVAN	27.5	0.0	
348	SAAB 9-3	27.4	0.0	
349	ACURA RL	15.4	3.8	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
1	FORD ESCAPE	16.6	0.0	***
2	HYUNDAI TIBURON	16.4	0.0	
3	MAZDA RX7	15.4	3.1	
4	CHEVROLET SPRINT	14.7	0.0	
5	MAZDA GLC	14.3	2.5	
6	MITSUBISHI 3000GT	14.2	5.3	
7	CHEVROLET CORVETTE	13.2	1.3	
8	ISUZU STYLUS	13.2	0.0	
9	TOYOTA PASEO	12.9	0.0	
10	HYUNDAI SCOUPE	12.5	0.0	
11	ISUZU IMPULSE	12.4	4.1	
12	VOLKSWAGEN CABRIOLET	11.9	1.0	
13	CHEVROLET CAMARO	11.9	0.8	
14	PORSCHE 928	11.7	0.0	
15	PONTIAC T1000	11.7	1.3	
16	CHEVROLET TRACKER	11.5	0.0	***
17	HYUNDAI ELANTRA	11.4	1.6	
18	CHEVROLET METRO	10.9	0.2	
19	MITSUBISHI STARION	10.8	0.0	
20	NISSAN 300 ZX	10.6	0.5	
21	KIA SEPHIA	10.5	0.0	
22	SUBARU JUSTY	10.4	0.0	
23	FORD MUSTANG	9.8	1.5	
24	CHEVROLET CHEVETTE	9.4	1.9	
25	BMW 530	9.4	0.0	
26	SUZUKI SIDEKICK	9.3	2.8	
27	PONTIAC FIREBIRD	9.1	0.9	
28	INFINITI QX4	9.1	0.0	***
29	TOYOTA ECHO	8.9	0.0	
30	FORD FESTIVA	8.8	0.3	
31	MITSUBISHI ECLIPSE	8.7	1.6	
32	HYUNDAI ACCENT	8.6	0.0	
33	DAIHATSU CHARADE	8.5	0.0	
34	NISSAN 200 SX/240 SX	8.4	1.7	
35	OLDSMOBILE LSS	8.4	0.0	
36	MITSUBISHI VAN	8.3	0.0	
37	VOLKSWAGEN GTI	8.3	0.0	
38	MAZDA MX-3	8.0	0.0	
39	ALFA ROMEO VELOCE	8.0	8.0	
40	VOLKSWAGEN SCIROCCO	8.0	0.0	
41	NISSAN VAN	8.0	4.0	
42	SUZUKI SAMURAI	8.0	0.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
43	CHEVROLET TRACKER	7.9	1.8	
44	RENAULT ALLIANCE	7.7	1.2	
45	MERCURY MYSTIQUE	7.7	0.0	
46	LINCOLN MARK VII	7.6	0.9	
47	OLDSMOBILE OMEGA	7.6	0.0	
48	GMC CABALLERO	7.4	0.0	
49	CADILLAC CATERA	7.4	0.0	
50	NISSAN 200 SX	7.3	1.8	
51	BUICK SOMERSET REGAL	7.2	0.0	
52	NISSAN SENTRA	7.2	0.4	
53	SUZUKI GRAND VITARA	7.2	7.2	***
54	CHEVROLET STORM	7.2	0.0	
55	CHEVROLET SPECTRUM	7.1	0.3	
56	BMW Z3	7.1	0.0	
57	MAZDA PROTEGE	7.0	0.0	
58	ACURA INTEGRA	7.0	0.5	
59	MERCURY CAPRI	7.0	0.0	
60	MAZDA MILLENIA	7.0	0.0	
61	CHEVROLET CITATION	6.8	0.0	
62	VOLKSWAGEN CORRADO	6.8	0.0	
63	MERCURY TRACER	6.6	0.0	
64	BUICK CENTURY	6.6	0.3	
65	JAGUAR XJS/XK8	6.6	1.6	
66	HONDA PRELUDE	6.6	0.6	
67	AUDI 4000	6.5	0.0	
68	INFINITI J30	6.5	0.0	
69	BUICK SKYLARK	6.4	0.4	
70	FORD PROBE	6.4	0.5	
71	OLDSMOBILE ALERO	6.4	0.0	
72	AUDI	6.3	0.0	
73	TOYOTA MR2	6.3	2.1	
74	MERCURY TOPAZ	6.3	0.2	
75	MERCURY LYNX	6.3	0.0	
76	CHEVROLET PRIZM	6.3	0.3	
77	OLDSMOBILE FIRENZA	6.3	0.0	
78	HONDA CIVIC	6.3	0.3	
79	MERCURY COUGAR FWD	6.2	0.0	
80	FORD ESCORT	6.2	0.1	
81	CHEVROLET NOVA	6.1	0.0	
82	CHEVROLET CAVALIER	6.1	0.2	
83	TOYOTA SUPRA	5.9	0.9	
84	SUBARU BRAT	5.9	0.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
85	PONTIAC J2000/SUNBIRD	5.9	0.5	
86	PONTIAC PHOENIX	5.9	0.0	
87	ISUZU HOMBRE	5.9	0.0	
88	MITSUBISHI MIRAGE	5.8	1.2	
89	TOYOTA VAN WAGON	5.8	0.4	
90	MAZDA 323	5.8	0.0	
91	FORD CROWN VICTORIA	5.8	1.2	
92	CHEVROLET BERETTA	5.8	0.1	
93	PONTIAC GRAND AM	5.8	0.3	
94	HYUNDAI SONATA	5.7	0.6	
95	VOLKSWAGEN FOX	5.7	0.0	
96	CHEVROLET CELEBRITY	5.6	0.5	
97	HONDA CR-V	5.6	0.9	***
98	CADILLAC CIMARRON	5.5	0.9	
99	OLDSMOBILE SILHOUETTE	5.5	0.0	
100	RENAULT ENCORE	5.5	1.6	
101	PONTIAC FIERO	5.5	0.8	
102	FORD ASPIRE	5.5	0.0	
103	PONTIAC 6000	5.4	0.4	
104	BUICK SOMERSET	5.4	0.3	
105	MITSUBISHI PRECIS	5.3	0.0	
106	MAZDA MIATA	5.3	0.0	
107	HYUNDAI EXCEL	5.3	0.4	
108	ACURA CL	5.3	0.0	
109	YUGO GV	5.3	0.0	
110	SUZUKI ESTEEM	5.3	0.0	
111	FORD CONTOUR	5.2	0.0	
112	FORD THUNDERBIRD	5.2	0.9	
113	OLDSMOBILE CALAIS	5.2	0.2	
114	LINCOLN NAVIGATOR	5.1	2.6	
115	TOYOTA TERCEL	5.1	0.2	
116	OLDSMOBILE CUTLASS CIERA	5.0	0.3	
117	MAZDA MPV	5.0	0.4	
118	CHEVROLET MALIBU LS	5.0	0.4	
119	FORD TEMPO	5.0	0.2	
120	OLDSMOBILE OLDS 98	5.0	0.1	
121	TOYOTA CELICA	5.0	0.2	
122	MITSUBISHI CORDIA	5.0	2.5	
123	NISSAN PULSAR	5.0	0.3	
124	BUICK LESABRE	5.0	0.4	
125	SATURN SL	4.9	0.2	
126	LEXUS SC300/400	4.9	0.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
127	AUDI 100	4.8	0.0	
128	SATURN LS	4.8	0.0	
129	CHEVROLET VENTURE	4.8	0.0	
130	VOLKSWAGEN RABBIT	4.8	0.0	
131	MAZDA MX-6	4.8	0.4	
132	TOYOTA COROLLA	4.8	0.1	
133	VOLKSWAGEN VANAGON	4.7	0.0	
134	PONTIAC PARISIENNE	4.7	0.4	
135	CHEVROLET CORSICA	4.7	0.1	
136	BUICK REGAL	4.7	0.1	
137	CHEVROLET LUMINA	4.6	0.3	
138	OLDSMOBILE DELTA 88	4.6	0.4	
139	ISUZU I-MARK	4.6	0.0	
140	MERCEDES BENZ 500	4.5	0.0	
141	MITSUBISHI TREDIA	4.5	0.0	
142	MERKUR XR4TI	4.5	0.0	
143	PONTIAC GRAND PRIX	4.5	0.4	
144	PONTIAC LEMANS	4.5	0.4	
145	SUBARU LOYALE	4.5	0.0	
146	MAZDA 626	4.4	0.4	
147	SUBARU IMPREZA	4.3	0.0	
148	BUICK REATTA	4.3	0.0	
149	FORD LTD	4.3	0.7	
150	KIA SPORTAGE	4.3	0.0	***
151	PORSCHE 944	4.2	0.0	
152	BMW 323	4.1	4.1	
153	MERCURY COUGAR	4.1	0.3	
154	VOLKSWAGEN GOLF	4.1	0.3	
155	CHEVROLET CAPRICE	4.1	0.7	
156	CADILLAC FLEETWOOD/LIMO	4.1	0.0	
157	CHEVROLET MONTE CARLO	4.1	0.1	
158	OLDSMOBILE INTRIGUE	4.0	0.0	
159	NISSAN QUEST	4.0	0.0	
160	TOYOTA SIENNA	4.0	0.0	
161	PONTIAC BONNEVILLE	4.0	0.8	
162	MITSUBISHI MIGHTY MAX	4.0	0.0	
163	BUICK ROADMASTER	3.9	0.7	
164	BMW 325	3.9	0.0	
165	LINCOLN MARK VIII	3.9	0.0	
166	NISSAN MAXIMA	3.9	0.1	
167	TOYOTA TUNDRA	3.9	0.0	
168	VOLVO 940	3.9	0.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
169	VOLVO 70 SERIES	3.9	0.0	
170	MERCURY MARQUIS	3.9	0.4	
171	BUICK RIVIERA	3.8	0.6	
172	GMC SONOMA	3.8	0.3	
173	PONTIAC SAFARI	3.8	0.0	
174	HONDA ACCORD	3.8	0.3	
175	BMW 318	3.8	0.0	
176	CADILLAC FLEETWOOD	3.8	0.0	
177	MAZDA 929	3.8	0.0	
178	SUBARU	3.7	0.3	
179	PONTIAC TRANS SPORT	3.7	0.0	
180	INFINITI G20	3.7	0.0	
181	OLDSMOBILE ACHIEVA	3.7	0.9	
182	BUICK SKYHAWK	3.7	0.7	
183	ISUZU PICKUP	3.7	0.2	
184	FORD WINDSTAR	3.6	0.4	
185	TOYOTA CAMRY	3.6	0.1	
186	OLDSMOBILE SUPREME	3.6	0.3	
187	MERCEDES BENZ 300	3.6	0.8	
188	FORD TAURUS	3.6	0.2	
189	MITSUBISHI DIAMANTE	3.6	0.0	
190	MITSUBISHI GALANT	3.5	0.3	
191	LINCOLN TOWN CAR	3.5	0.6	
192	NISSAN PATHFINDER	3.5	0.7	***
193	CHEVROLET EL CAMINO	3.5	0.0	
194	MERCEDES BENZ S	3.5	0.0	
195	GMC P-SERIES VAN	3.5	0.0	
196	BUICK ELECTRA	3.4	0.4	
197	TOYOTA AVALON	3.4	0.0	
198	CADILLAC SEVILLE	3.4	0.0	
199	OLDSMOBILE TORONADO	3.4	0.0	
200	MERCEDES BENZ C	3.4	0.0	
201	SATURN SC	3.2	0.0	
202	NISSAN ALTIMA	3.2	0.2	
203	GMC S/T JIMMY	3.2	0.0	
204	MERCURY SABLE	3.2	0.2	
205	ACURA LEGEND	3.2	0.2	
206	NISSAN PICKUP	3.2	0.0	
207	TOYOTA CRESSIDA	3.1	0.0	
208	AUDI A6	3.1	0.0	
209	CHEVROLET S/T PICKUP	3.1	0.2	
210	BUICK PARK AVENUE	3.1	0.3	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
211	VOLVO 244	3.1	0.3	
212	MERCURY VILLAGER	3.1	0.9	
213	TOYOTA RAV4	3.0	0.0	***
214	FORD FOCUS	3.0	0.0	
215	FORD AEROSTAR	3.0	0.2	
216	VOLVO 760/780	3.0	0.0	
217	VOLKSWAGEN JETTA	3.0	0.3	
218	BMW 735	3.0	0.0	
219	CHEVROLET IMPALA	3.0	0.0	
220	MAZDA B-SERIES PICKUP	2.9	0.0	
221	SAAB 900	2.9	0.3	
222	SUBARU LEGACY	2.9	0.0	
223	SAAB 9000	2.9	0.0	
224	GMC SAFARI	2.9	0.2	
225	OLDSMOBILE AURORA	2.8	0.0	
226	CADILLAC DEVILLE	2.7	0.1	
227	LAND ROVER DISCOVERY	2.7	0.0	***
228	SUZUKI SWIFT/SA310	2.7	0.0	
229	MITSUBISHI EXPO	2.7	0.0	
230	SUBARU FORESTER	2.6	0.0	***
231	MERCEDES BENZ E	2.6	0.0	
232	FORD BRONCO II	2.6	0.3	***
233	NISSAN STANZA	2.6	0.5	
234	TOYOTA 4 RUNNER	2.6	0.2	***
235	MERCEDES BENZ M-SERIES	2.6	0.0	***
236	AUDI 5000	2.6	0.4	
237	PEUGEOT 505	2.6	1.3	
238	CHEVROLET S/T BLAZER	2.6	0.4	
239	TOYOTA PICKUP	2.6	0.2	
240	OLDSMOBILE BRAVADA	2.5	0.0	
241	CHEVROLET P-SERIES VAN	2.5	0.8	
242	PORSCHE 911	2.5	2.5	
243	TOYOTA PREVIA	2.4	0.0	
244	CHEVROLET ASTRO	2.4	0.1	
245	JAGUAR XJ	2.4	0.0	
246	CHEVROLET TAHOE	2.4	0.0	
247	HONDA ODYSSEY	2.3	0.0	
248	MERCEDES BENZ 190	2.3	0.0	
249	VOLVO 245	2.3	0.0	
250	FORD RANGER	2.3	0.1	
251	OLDSMOBILE CUTLASS	2.3	0.0	
252	ISUZU AMIGO	2.2	0.0	***

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
253	GMC SAVANA	2.2	0.0	
254	FORD EXPLORER	2.2	0.0	***
255	TOYOTA TACOMA	2.1	0.3	
256	CHEVROLET C/K PICKUP	2.1	0.1	
257	VOLVO 240	2.0	1.0	
258	LEXUS ES250/300	2.0	0.4	
259	VOLVO 850	2.0	0.0	
260	CHEVROLET LUMINA APV	2.0	0.0	
261	GMC S/T PICKUP	1.9	0.3	
262	VOLKSWAGEN NEW BEETLE	1.9	0.0	
263	FORD E-SERIES VAN	1.9	0.1	
264	CADILLAC ELDORADO	1.9	0.4	
265	GMC YUKON/DENALI	1.9	0.0	
266	JEEP CHEROKEE	1.9	0.3	
267	VOLVO 740	1.8	0.0	
268	GMC C/K PICKUP	1.8	0.1	
269	FORD F-SERIES PICKUP	1.8	0.2	
270	BMW 535	1.8	0.0	
271	ISUZU TROOPER	1.7	0.4	
272	BMW 528	1.7	0.0	
273	INFINITI I30	1.7	0.0	
274	VOLKSWAGEN PASSAT	1.6	0.0	
275	CHEVROLET BLAZER	1.6	0.0	
276	MERCURY MOUNTAINEER	1.6	0.0	***
277	VOLKSWAGEN QUANTUM	1.5	0.0	
278	GMC G-SERIES VAN	1.5	0.0	
279	ACURA TL	1.5	0.0	
280	SATURN SW	1.4	0.0	
281	GMC JIMMY	1.4	0.0	
282	CHEVROLET G-SERIES VAN	1.4	0.2	
283	ISUZU TROOPER	1.4	0.0	***
284	SUBARU XT	1.4	0.0	
285	INFINITI Q45	1.3	0.0	
286	MERCEDES BENZ 420	1.3	0.0	
287	CHEVROLET R/V PICKUP	1.3	0.0	
288	LINCOLN CONTINENTAL	1.2	0.0	
289	BMW 525	1.1	0.0	
290	GMC S/T JIMMY	1.1	1.1	***
291	ISUZU RODEO	1.1	0.4	***
292	CHEVROLET SUBURBAN	1.1	0.0	
293	TOYOTA LAND CRUISER	1.0	1.0	
294	GMC SUBURBAN	0.9	0.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
295	MERCEDES BENZ 560	0.9	0.0	
296	FORD BRONCO (FULL SIZE)	0.7	0.0	
297	MITSUBISHI MONTERO	0.6	0.0	***
298	LEXUS LS400	0.5	0.5	
299	CHEVROLET S/T BLAZER	0.4	0.0	***
300	PORSCHE 924	0.0	0.0	
301	SUBARU SVX	0.0	0.0	
302	VOLKSWAGEN EUROVAN	0.0	0.0	
303	SAAB 9-3	0.0	0.0	
304	MERCEDES BENZ SLK	0.0	0.0	
305	FERRARI	0.0	0.0	
306	ALFA ROMEO SPIDER	0.0	0.0	
307	MERCEDES BENZ CLK	0.0	0.0	
308	FORD EXCURSION	0.0	0.0	
309	PORSCHE BOXSTER	0.0	0.0	
310	MITSUBISHI SIGMA	0.0	0.0	
311	SUBARU XT6	0.0	0.0	
312	BMW 733	0.0	0.0	
313	BMW 635	0.0	0.0	
314	VOLVO 80 SERIES	0.0	0.0	
315	BMW 750	0.0	0.0	
316	MERCEDES BENZ 400/500E	0.0	0.0	
317	INFINITI M30	0.0	0.0	
318	BMW 540	0.0	0.0	
319	NISSAN AXXESS	0.0	0.0	
320	AUDI 80	0.0	0.0	
321	BMW M3	0.0	0.0	
322	CADILLAC ALLANTE	0.0	0.0	
323	NISSAN NX	0.0	0.0	
324	MERCEDES BENZ SL	0.0	0.0	
325	MERCEDES BENZ 260	0.0	0.0	
326	VOLKSWAGEN CABRIO	0.0	0.0	
327	MERKUR SCORPIO	0.0	0.0	
328	NISSAN XTERRA	0.0	0.0	***
329	ACURA RL	0.0	0.0	
330	TOYOTA SOLARA	0.0	0.0	
331	STERLING 825	0.0	0.0	
332	AUDI 90	0.0	0.0	
333	PONTIAC MONTANA	0.0	0.0	
334	MAZDA NAVAJO	0.0	0.0	***
335	ACURA VIGOR	0.0	0.0	
336	OLDSMOBILE BRAVADA	0.0	0.0	***

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal Vehicle Rates in Rear Impacts
Model Year 1984-2001 Jeep Cherokee and Non-Chrysler Passenger Cars and Light Trucks in Fatal Collisions in FARS 1984-2001
with 100,000 or more Registered Years from POLK NVPP 1984-2001

Obs	Vehicle	Fatal Vehicle Rate	Fatal Vehicle Rate with Fire	
337	AUDI A4	0.0	0.0	
338	LAND ROVER RANGE ROVER	0.0	0.0	
339	BMW 328	0.0	0.0	
340	LEXUS RX300	0.0	0.0	***
341	VOLVO 960	0.0	0.0	
342	BMW 740	0.0	0.0	
343	LEXUS GS300/400	0.0	0.0	
344	MERCEDES BENZ 380	0.0	0.0	
345	NISSAN FRONTIER	0.0	0.0	
346	HONDA PASSPORT	0.0	0.0	***
347	TOYOTA T100	0.0	0.0	
348	GMC R/V PICKUP	0.0	0.0	
349	FORD EXPEDITION	0.0	0.0	

Note 1: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee
Note 2: Non-Chrysler Passenger Cars and Light Trucks do not include Chrysler, Dodge, Jeep, Plymouth, Eagle or AMC
Note 3: *** = Non-Chrysler Midsize Compact Utility Vehicles

Fatal or Major Injury Rates
Model Year 1984-2001 Midsize Compact Utility Vehicles in Injury Accidents and Police Reported Collisions in Alabama, Arkansas, Florida, Idaho, Illinois, Iowa, Maryland, Michigan, Nebraska, New York, North Carolina, Ohio, Wisconsin or Wyoming

Vehicle	Vehicles with Fatal or Major Injury per 1,000 Vehicles
Non-Chrysler Midsize Compact Utility Vehicles	79.0
Jeep Cherokee	68.0

Note: Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.
Note: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

Post-Collision Fire Rates
Model Year 1984-2001 Midsize Compact Utility Vehicles in Injury Accidents and Police Reported Collisions in Alabama, Arkansas, Florida, Idaho, Illinois, Iowa, Maryland, Michigan, Nebraska, New York, North Carolina, Ohio, Wisconsin or Wyoming

Vehicle	Vehicles with Fire per 1,000 Vehicles
Non-Chrysler Midsize Compact Utility Vehicles	2.0
Jeep Cherokee	1.7

Note: Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.
Note: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

Rear Impact Fatal or Major Injury Rates
Model Year 1984-2001 Midsize Compact Utility Vehicles in Injury Accidents Police Reported Collisions in Alabama, Arkansas, Florida, Idaho, Maryland, Michigan, Nebraska, North Carolina or Wyoming

Vehicle	Vehicles with Fatal or Major Injury per 1,000 Vehicles
Non-Chrysler Midsize Compact Utility Vehicles	48.0
Jeep Cherokee	47.9

Note: Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.
Note: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.

Rear Impact Post-Collision Fire Rates
Model Year 1984-2001 Midsize Compact Utility Vehicles in Injury Accidents Police Reported Collisions in Alabama, Arkansas, Florida, Idaho, Maryland, Michigan, Nebraska, North Carolina or Wyoming

Vehicle	Vehicles with Fire per 1,000 Vehicles
Non-Chrysler Midsize Compact Utility Vehicles	3.1
Jeep Cherokee	2.0

Note: Non-Chrysler midsize compact utility vehicles do not include Dodge or Jeep vehicles.
Note: Jeep Cherokee includes Jeep Cherokee and Jeep Grand Cherokee.