Xprts

VIA ELECTRONIC MAIL
RETURN RECEIPT REQUESTED

January 15, 2015
DP14-001

Frank S. Borris II,
Director
Office of Defects Investigation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Re: Petition DP14-001, Supplement #4 and Response to GM

Dear Mr. Borris:

Supplement #4

We herewith submit an additional case of a 2006 Chevrolet Aveo in addition to the three previous examples of the 2008 Chevrolet Impala, 2010 Chevrolet Tahoe and 2004 Chevrolet Silverado pickup truck.

This submission for the 2006 Chevrolet Aveo is based on the attached police report (Attachment 1) and testimony by the expert for the plaintiff. On February 27, 2010, a collision occurred in Montebello, CA with a 2006 Chevrolet Aveo vehicle driven by a Ms. Cynthia Moreno with a right front passenger, Nikome Noelle Menchaca. Ms. Menchaca was fully restrained. According to the police report the vehicle approached an intersection while the driver was distracted, went across two lanes of traffic, jumped a curb and impacted a tree with the right front of the vehicle which sustained substantial damage. Indications are that the driver inadvertently stepped on the accelerator instead of the brakes and impacted the tree at a speed in excess of 40 mph (the speed limit). Ms. Menchaca sustained severe injuries including traumatic brain injuries.

In the collision the driver's airbag deployed, but the passenger's airbag did not. Ms. Menchaca was a young adult weighing approximately 105 lbs. Although not known at the time the case settled, plaintiff expert was unaware of the defective algorithm criteria and presumed that the airbag did not deploy because of a positional seating orientation. The trajectory of the vehicle, however, jumping the curb just prior to impacting the tree suggests that the occupant weight at the seat sensor during the last seconds dropped below 52 lbs suppressing the passenger airbag and resulting in a brain damage. The

vehicle was equipped with a Delphi PODS control module whose algorithm criteria defectively suppressed the passenger airbag as a result of the weight of the occupant in the last seconds prior to impact. For further information, plaintiff's attorney in this case is Richard Koskoff of Law Offices of Booth & Koskoff who can provide additional details. Phone number is 310-515-1361and email is rbkoskoff@gmail.com.

Response to GM

GM's response to NHTSA is a description of the AOS / PODS algorithm and analysis of the 2008 Chevrolet Impala. It is included as Attachment 2.

GM's description of the AOS / PODS algorithm, the occupant classification system (OCS) is correct. The recorded data was required by GM specifications and Delphi product definition documents. We agree with the description of how the classification algorithm works. The "adult-lock" was not described in those documents, but is not inconsistent with an appropriate AOS, OCS systems.

The purpose of the algorithm is to classify the size and weight of the occupant to help identify the timing and inflation level (or non-inflation) of the air bag. We are not aware of a requirement in FMVSS 208 to reclassify an adult occupant in the last few seconds before impact.

Petition DP14-001 claims there is a safety defect in the AOS algorithm criteria which reclassifies an adult occupant when the occupant is unweighted for more than 1.5 seconds and suppresses the airbag deployment. Instead of denying the safety defect claim GM argues that this is not a regulatory defect. Their justification for suppressing airbag deployment is that the belted, unweighted occupant is out of position and the 208 regulation require occupant protection only for properly seated occupants.

An effective belt system should keep the occupant essentially in position although unweighted. An effective supplemental air bag system should provide protection for unweighted occupants. There is no justification for an adult occupant to be reclassified and to suppress air bag deployment. A deploying air bag is unlikely to injure a belted adult occupant and is likely to limit head injuries.

There is no basis for reclassification in the last couple of seconds since the belts should be designed to keep the occupant reasonably in position. For GM to presume that a simple unweighting of the occupant or shifted position is less likely than a gross shift to a belted occupant is unfounded. GM claims that the definition of regulatory occupant protection is only associated with an in-position (not unweighted) occupant and therefore can argue that suppressing the airbag is justified and the algorithm criteria is not a regulatory defect.

The submitted 2008 Chevrolet Impala data downloaded by Delphi and included in the original submission, satisfied the requirement for non-deployment of the passenger airbag as identified by the downloaded data reproduced here in Tables 1 and 2.

Table 1 includes the following data:

Record 36-38 is the classification record of the passenger occupant identified by the event record starting at the impact event (current) then first previous classification, then second, third and fourth previous classification.

Data records 44-46 are the times before the event at which the classifications changed.

Table 1.
Changed classification and times before current

Events	Current	1st prior	2nd prior	3rd prior	4th prior
Changed*	Small	Large	Small	Small	Empty
Times**	1.2 sec	925.0 sec	0.2 sec	0.1 sec	28.2 sec

* Files #36-38 Changed classification
** Files #44-46 Times at which the classifications changed

Files #50-72 are relative, filtered and BTS seat pressures from current event to 18 seconds before event and are shown in Table 2.

Table 2.
Second by second measured passenger seat pressure (relative, filtered, BTS)

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Relative	49	58	117	122	122	121	122	121	121	121	121	121	?	121	121	121	121	121
Filtered	131	132	179	182	182	181	182	181	181	181	181	181	?	181	181	181	181	181
BTS	116	93	64	56	56	56	56	56	56	56	56	56	?	56	56	56	56	56

These tables show that the reclassification of 170 lb adult passenger occurred sometime less than 2 seconds prior to impact consistent with the requirement for 1.5 seconds of sensor detection of a small adult. GM suggests that a fully belted full size occupant could be out of position in such a way as to not benefit from the deployment of the airbag and therefore makes the AOS system non-defective.

To argue that a fully belted occupant is out of position would not benefit from the airbag deployment is to suggest that the airbag is ineffective unless the occupant is in position.

The driver in this 26 mph Delta V impact with a deployed airbag survived unscathed. In the crash without the passenger airbag, the passenger sustained internal head and thorax injuries which led to his death. GM's suggestion that his only injury was his right thumb is ludicrous. Their speculation that it occurred by reaching across to the steering wheel does not justify the non-deployment.

The corroborating data to the weight sensor described by GM of subtracting the tension in the belt (BTS) from the weight indicated on the sensor also makes it clear that the occupant could not be very far out of position or that the performance of the seat belt to keep the occupant in position was defectively designed.

In each of the other examples GM's explanation for non-deployment would most probably be that the passenger in the belts was out of position. They suggest a belted occupant can be so far out of position that a deploying airbag would not have helped and by definition the AOS system is not defective. Had there been no misclassification, the airbag would have deployed and the probability is that the passenger would be protected. If he was not protected, it shifts the defect to the inadequacy of the belts and/or the airbag. The petition demonstrates that the occupant classification system suppresses the airbag only when the occupant mass is unweighted in the last 1.5 seconds. Had the suppression criteria averaged the weight of the occupant over 5 seconds or more, the airbag would have deployed. The system provides classification for small adults and children whose weight is sustained over a multiple second time frame.

Perhaps we are identifying a defect in the airbag design by virtue of the misclassification. We can see how GM's justification here would be applicable to a situation in which the impact produces forces sensed by the SDM which are more than the regulatory requirement for the protection in frontal angled impacts plus/minus 10 degrees which thereby inhibit airbag deployment. In other words airbag deployment should be suppressed in any circumstances with significant variation from the regulatory tests. This position could account for the 12,000 fatalities in frontal collisions with only 2,500 people being saved by the airbag annually.

Sincerely,

Donald Friedman

Encl.
Attachment 1: Police Report - 2006 Chevrolet Aveo case
Attachment 2: Section from GM response

CC: Peter Ong, Office of Defects Investigation
Clarence Ditlow, Center for Auto Safety
Michal Freedhoff, Senator Markey
Nick Choate, Senator McCaskill
Joel Kelsey, Senator Blumenthal
Tom Krisher, Associated Press
Vanessa O'Connell, Wall Street Journal
Richard Gardella, NBC News

Attachment #1

KOSK-MEN-0311

#1

STATE OF CALIFORNIA
TRAFFIC COLLISION REPORT
CHP 555 CARS Page 1 (Rev 1-03) OPI 061   30.02-02

SPECIAL CONDITIONS	NUMBER INJURED	HIT & RUN FELONY	CITY	JUDICIAL DISTRICT	LOCAL REPORT NUMBER
MAJOR INJURY 42 09-01	3		MONTEBELLO	EAST LOS ANGELES	10-1555
	NUMBER KILLED: 0	HIT & RUN MISDEMEANOR	COUNTY: LOS ANGELES	REPORTING DISTRICT / BEAT: TRAFFIC	

LOCATION

COLLISION OCCURRED ON:	MO DAY YEAR	TIME (2400)	NCIC #	OFFICER I.D.
GARFIELD AVENUE	2/27/2010	2244	1947	1263

MILEPOST INFORMATION: LATITUDE:34.020205 LONGITUDE:118.133618
DAY OF WEEK: SATURDAY
TOW AWAY: X YES NO
PHOTOGRAPHS BY: CISNEROS, G # 1263   NONE
AT INTERSECTION WITH: X OR: 367 FEET NORTH OF HAY AVENUE
STATE HWY REL: YES X NO

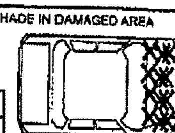
PARTY 1

DRIVER'S LICENSE NUMBER	STATE	CLASS	AIR BAG	SAFETY EQUIP	VEH. YEAR	MAKE / MODEL / COLOR	LICENSE NUMBER	STATE
E2339227	CA	C	L	G	2006	CFS AVEO SIL	5SFK134	CA

DRIVER: X
NAME (FIRST, MIDDLE, LAST): CYNTHIA NMN MORENO
OWNER'S NAME: CECILIO MORENO   SAME AS DRIVER
STREET ADDRESS: 117 SOUTH DIKERSON AVENUE
OWNER'S ADDRESS: X SAME AS DRIVER
CITY / STATE / ZIP: LOS ANGELES CA 90063
DISPOSITION OF VEHICLE ON ORDERS OF: X OFFICER DRIVER OTHER
IMPOUNDED FOR INVESTIGATION.

SEX	HAIR	EYES	HEIGHT	WEIGHT	BIRTHDATE	RACE
F	BRN	BRN	5-6	175	3/12/1991	H

PRIOR MECH. DEFECTS: X NONE APP. REFER TO NARRATIVE
HOME PHONE: (323)261-0133   BUSINESS PHONE: (323)203-4932
VEHICLE IDENTIFICATION NUMBER: KLITD56686B650161
INSURANCE CARRIER: MET LIFE 9513663822   POLICY NUMBER: 323-203-4932
VEHICLE TYPE: 01 01
DESCRIBE VEHICLE DAMAGE: UNK NONE MINOR MOD X MAJOR ROLL-OVER
SHADE IN DAMAGED AREA



DIR OF TRAVEL: N   ON STREET OR HIGHWAY: GARFIELD AVENUE   SPEED LIMIT: 40
CA ___ DOT ___ CAL-T ___ TCP/PSC ___ MC/MX ___

PARTY 2

DRIVER'S LICENSE NUMBER | STATE | CLASS | AIR BAG | SAFETY EQUIP. | VEH. YEAR | MAKE / MODEL / COLOR | LICENSE NUMBER | STATE
DRIVER NAME (FIRST, MIDDLE, LAST)   OWNER'S NAME   SAME AS DRIVER
PEDESTRIAN STREET ADDRESS   OWNER'S ADDRESS   SAME AS DRIVER
PARKED VEHICLE CITY / STATE / ZIP   DISPOSITION OF VEHICLE ON ORDERS OF: OFFICER DRIVER OTHER
BICYCLIST SEX | HAIR | EYES | HEIGHT | WEIGHT | BIRTHDATE Mo Day Year | RACE
PRIOR MECHANICAL DEFECTS NONE APP. REFER TO NARRATIVE
OTHER HOME PHONE   BUSINESS PHONE   VEHICLE IDENTIFICATION NUMBER:
INSURANCE CARRIER   POLICY NUMBER   VEHICLE TYPE   DESCRIBE VEHICLE DAMAGE: UNK NONE MINOR MOD MAJOR ROLL-OVER   SHADE IN DAMAGED AREA
DIR OF TRAVEL   ON STREET OR HIGHWAY   SPEED LIMIT
CA ___ DOT ___ CAL-T ___ TCP/PSC ___ MC/MX ___

PARTY 3

DRIVER'S LICENSE NUMBER | STATE | CLASS | AIR BAG | SAFETY EQUIP. | VEH. YEAR | MAKE / MODEL / COLOR | LICENSE NUMBER | STATE
DRIVER NAME (FIRST, MIDDLE, LAST)   OWNER'S NAME   SAME AS DRIVER

OFFICIAL USE ONLY
unauthorized use of this information
... 13302-... 309 and may subject violators
to criminal charges.
RELEASED TO: Ustey & Bamberger
L.D
Rames # [illegible]   5/13

PEDESTRIAN STREET ADDRESS   OWNER'S ADDRESS   SAME AS DRIVER
PARKED VEHICLE CITY / STATE / ZIP   DISPOSITION OF VEHICLE ON ORDERS OF: OFFICER DRIVER OTHER
BICYCLIST SEX | HAIR | EYES | HEIGHT | WEIGHT | BIRTHDATE Mo Day Year | RACE
PRIOR MECHANICAL DEFECTS NONE APP. REFER TO NARRATIVE
OTHER HOME PHONE   BUSINESS PHONE   VEHICLE IDENTIFICATION NUMBER:
INSURANCE CARRIER   POLICY NUMBER   VEHICLE TYPE   DESCRIBE VEHICLE DAMAGE: UNK NONE MINOR MOD MAJOR ROLL-OVER   SHADE IN DAMAGED AREA
DIR OF TRAVEL   ON STREET OR HIGHWAY   SPEED LIMIT
CA ___ DOT ___ CAL-T ___ TCP/PSC ___ MC/MX ___

PREPARER'S NAME	DISPATCH NOTIFIED	REVIEWER'S NAME	DATE REVIEWED
G. J. CISNEROS 1263	X YES NO N/A	[signature] #[illegible]	[illegible]

STATE OF CALIFORNIA

TRAFFIC COLLISION CODING

CHP 556 CARS Page2 (Rev. 1-03) OPI 061

DATE OF COLLISION (MO. DAY YEAR)	TIME(2400)	NCIC #	OFFICER I.D.	NUMBER
2/27/2010	2244	1947	1263	10-1555

PROPERTY DAMAGE

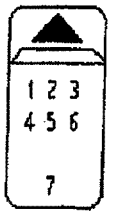
OWNER: CITY OF MONTEBELLO

OWNER ADDRESS: 1600 WEST BEVERLY BLVD. MONTEBELLO,CA 90640

NOTIFIED: X YES NO

DESCRIPTION OF DAMAGE: BARK DAMAGED ON CITY MAINTAINED TREE LOCATED ON PARKWAY.

SEATING POSITION



1 - DRIVER
2 TO 5 - PASSENGERS
7 - STA. WGN REAR
8 - RR. OCC TRK. OR VAN
9 - POSITION UNKNOWN
0 - OTHER

SAFETY EQUIPMENT

OCCUPANTS
A - NONE IN VEHICLE
B - UNKNOWN
C - LAP BELT USED
D - LAP BELT NOT USED
E - SHOULDER HARNESS USED
F - SHOULDER HARNESS NOT USED
G - LAP/SHOULDER HARNESS USED
H - LAP/SHOULDER HARNESS NOT USED
J - PASSIVE RESTRAINT USED
K - PASSIVE RESTRAINT NOT USED

L - AIR BAG DEPLOYED
M - AIR BAG NOT DEPLOYED
N - OTHER
P - NOT REQUIRED

CHILD RESTRAINT
Q - IN VEHICLE USED
R - IN VEHICLE NOT USED
S - IN VEHICLE USE UNKNOWN
T - IN VEHICLE IMPROPER USE
U - NONE IN VEHICLE

M/C BICYCLE - HELMET
DRIVER: V - NO, W - YES
PASSENGER: X - NO, Y - YES

EJECTED FROM VEHICLE
0 - NOT EJECTED
1 - FULLY EJECTED
2 - PARTIALLY EJECTED
3 - UNKNOWN

INATTENTION CODES

A - CELL PHONE HANDHELD
B - CELL PHONE HANDSFREE
C - ELECTRONIC EQUIPMENT
D - RADIO / CD
E - SMOKING
F - EATING
G - CHILDREN
H - ANIMALS
I - PERSONNEL HYGIENE
J - READING
K - OTHER

ITEMS MARKED BELOW FOLLOWED BY AN ASTERISK (*) SHOULD BE EXPLAINED IN THE NARRATIVE.

PRIMARY COLLISION FACTOR (LIST NUMBER (#) OF PARTY AT FAULT)

1 | A VC SECTION VIOLATED: CITED 22350 — YES / X NO
B OTHER IMPROPER DRIVING*
C OTHER THAN DRIVER*
D UNKNOWN*

WEATHER (MARK 1 TO 2 ITEMS)

X A CLEAR
B CLOUDY
C RAINING
D SNOWING
E FOG / VISIBILITY FT.
F OTHER:*
G WIND

LIGHTING

A DAYLIGHT
B DUSK - DAWN
X C DARK - STREET LIGHTS
D DARK - NO STREET LIGHTS
E DARK - STREET LIGHTS NOT FUNCTIONING*

ROADWAY SURFACE

X A DRY
B WET
C SNOWY - ICY
D SLIPPERY (MUDDY, OILY, ETC.)

ROADWAY CONDITION(S) (MARK 1 TO 2 ITEMS)

A HOLES, DEEP RUT*
B LOOSE MATERIAL ON ROADWAY*
C OBSTRUCTION ON ROADWAY*
D CONSTRUCTION - REPAIR ZONE
E REDUCED ROADWAY WIDTH
F FLOODED*
G OTHER*:
X H NO UNUSUAL CONDITIONS

TRAFFIC CONTROL DEVICES

A CONTROLS FUNCTIONING
B CONTROLS NOT FUNCTIONING*
C CONTROLS OBSCURED
X D NO CONTROLS PRESENT / FACTOR*

TYPE OF COLLISION

X A HEAD - ON
B SIDE SWIPE
C REAR END
D BROADSIDE
E HIT OBJECT
F OVERTURNED
G VEHICLE / PEDESTRIAN
H OTHER*:

MOTOR VEHICLE INVOLVED WITH

A NON - COLLISION
B PEDESTRIAN
C OTHER MOTOR VEHICLE
D MOTOR VEHICLE ON OTHER ROADWAY
E PARKED MOTOR VEHICLE
F TRAIN
G BICYCLE
H ANIMAL:
X I FIXED OBJECT: MATURE TREE
J OTHER OBJECT:

PEDESTRIAN'S ACTIONS

X A NO PEDESTRIANS INVOLVED
B CROSSING IN CROSSWALK AT INTERSECTION
C CROSSING IN CROSSWALK - NOT AT INTERSECTION
D CROSSING - NOT IN CROSSWALK
E IN ROAD - INCLUDES SHOULDER
F NOT IN ROAD
G APPROACHING / LEAVING SCHOOL BUS

1	2	3	SPECIAL INFORMATION
			A HAZARDOUS MATERIAL
			B CELL PHONE HANDHELD IN USE
			C CELL PHONE HANDSFREE IN USE
X			D CELL PHONE NOT IN USE
			E SCHOOL BUS RELATED
			F 75 FT MOTORTRUCK COMBO
			G 32 FT TRAILER COMBO
			H
			I
			J
			K
			L
			M
			N
			O
			P
			Q

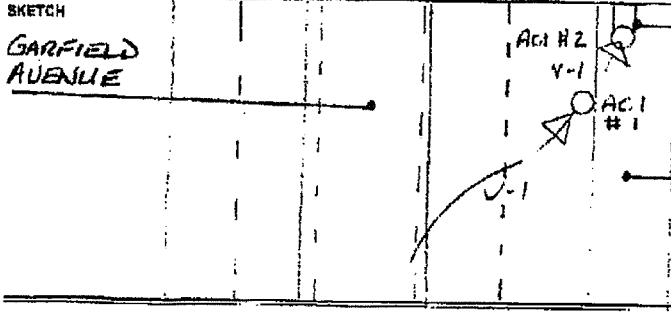
OTHER ASSOCIATED FACTORS (MARK 1 TO 2 ITEMS)

1	2	3	
			A VC SECTION VIOLATED: CITED — YES / NO
			B VC SECTION VIOLATED: CITED — YES / NO
			C VC SECTION VIOLATED*: CITED — YES / NO
			D
			E VISION OBSCUREMENT:
X			F INATTENTION*: D-RADIO/CD
			G STOP & GO TRAFFIC
			H ENTERING / LEAVING RAMP
			I PREVIOUS COLLISION
			J UNFAMILIAR WITH ROAD
			K DEFECTIVE VEH. EQUIP.: CITED — YES / NO
			L UNINVOLVED VEHICLE
			M OTHER*:
			N NONE APPARENT
			O RUNAWAY VEHICLE

1	2	3	MOVEMENT PRECEDING COLLISION
			A STOPPED
X			B PROCEEDING STRAIGHT
			C RAN OFF ROAD
			D MAKING RIGHT TURN
			E MAKING LEFT TURN
			F MAKING U TURN
			G BACKING
			H SLOWING / STOPPING
			I PASSING OTHER VEHICLE
			J CHANGING LANES
			K PARKING MANEUVER
			L ENTERING TRAFFIC
			M OTHER UNSAFE TURNING
			N XING INTO OPPOSING LANE
			O PARKED
			P MERGING
			Q TRAVELING WRONG WAY
			R OTHER*:

1	2	3	SOBRIETY - DRUG PHYSICAL (MARK 1 TO 2 ITEMS)
			A HAD NOT BEEN DRINKING
			B HBD - UNDER INFLUENCE
			C HBD - NOT UNDER INFLUENCE*
			D HBD - IMPAIRMENT UNKNOWN*
			E UNDER DRUG INFLUENCE*
			F IMPAIRMENT - PHYSICAL*
			G IMPAIRMENT NOT KNOWN
			H NOT APPLICABLE
			I SLEEPY / FATIGUED

SKETCH



MISCELLANEOUS

STATE OF CALIFORNIA

INJURED / WITNESSES / PASSENGERS

CHP 555 CARS Page 3 (Rev 1-03) OPI 061

DATE OF COLLISION (MO. DAY YEAR)	TIME(2400)	NCIC #	OFFICER I.D.	NUMBER
2/27/2010	2244	1947	1263	10-1555

WITNESS ONLY	PASSENGER ONLY	AGE	SEX	EXTENT OF INJURY ('X' ONE): FATAL INJURY	SEVERE INJURY	OTHER VISIBLE INJURY	COMPLAINT OF PAIN	INJURED WAS ('X' ONE): DRIVER	PASS.	PED.	BICYCLIST	OTHER	PARTY NUMBER	SEAT POS.	AIR BAG	SAFETY EQUIP.	EJECTED
#		19	F		X				X				1	3	M	G	0

NAME / D.O.B. / ADDRESS: NIKOME NOELLE MENCHACA (12/26/1980) 204 EAST ALHAMBRA ROAD ALHAMBRA CA 91801

TELEPHONE: (626)282-8180

(INJURED ONLY) TRANSPORTED BY: CARE AMBULANCE SERVICE

TAKEN TO: LOS ANGELES COUNTY MEDICAL CENTER

DESCRIBE INJURIES: LOWER NECK INJURY, RIGHT LEG FEMUR FRACTURE, BRUISED LOWER RIGHT ARM, CHIN LACERATIONS, NUMEROUS ABRASIONS TO THE RIGHT LEG; SUBDURAL HEMATOMA, VICTIM CAN NOT TALK. PER NURSE M. AGUILAR # 513788 LACMC

VICTIM OF VIOLENT CRIME NOTIFIED

WITNESS ONLY	PASSENGER ONLY	AGE	SEX	FATAL INJURY	SEVERE INJURY	OTHER VISIBLE INJURY	COMPLAINT OF PAIN	DRIVER	PASS.	PED.	BICYCLIST	OTHER	PARTY NUMBER	SEAT POS.	AIR BAG	SAFETY EQUIP.	EJECTED
#		13	F				X		X				1	6	P	G	0

NAME / D.O.B. / ADDRESS: LAUREN ELIZABETH NATIVIDAD (04/26/1996) 1309 AMALIA AVENUE LOS ANGELES CA 90022

TELEPHONE: (323)822-8481

(INJURED ONLY) TRANSPORTED BY: CARE AMBULANCE SERVICE

TAKEN TO: LOS ANGELES COUNTY MEDICAL CENTER

DESCRIBE INJURIES: ABRASION TO CHEST. CHEST PAINS.

VICTIM OF VIOLENT CRIME NOTIFIED

WITNESS ONLY	PASSENGER ONLY	AGE	SEX	FATAL INJURY	SEVERE INJURY	OTHER VISIBLE INJURY	COMPLAINT OF PAIN	DRIVER	PASS.	PED.	BICYCLIST	OTHER	PARTY NUMBER	SEAT POS.	AIR BAG	SAFETY EQUIP.	EJECTED
#		18	F				X	X					1	1	L	G	0

NAME / D.O.B. / ADDRESS: CYNTHIA NMN MORENO (03/12/1991) 117 SOUTH DIKERSON AVENUE LOS ANGELES CA 90063

TELEPHONE: (323)261-0133

(INJURED ONLY) TRANSPORTED BY: CARE AMBULANCE SERVICE

TAKEN TO: LOS ANGELES COUNTY MEDICAL CENTER

DESCRIBE INJURIES: COMPLAINT OF PAIN TO LEFT AND RIGHT LEGS. LOWER BACK PAIN.

VICTIM OF VIOLENT CRIME NOTIFIED

WITNESS ONLY	PASSENGER ONLY	AGE	SEX	FATAL INJURY	SEVERE INJURY	OTHER VISIBLE INJURY	COMPLAINT OF PAIN	DRIVER	PASS.	PED.	BICYCLIST	OTHER	PARTY NUMBER	SEAT POS.	AIR BAG	SAFETY EQUIP.	EJECTED
#																	

NAME / D.O.B. / ADDRESS:

TELEPHONE:

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

DESCRIBE INJURIES:

VICTIM OF VIOLENT CRIME NOTIFIED

WITNESS ONLY	PASSENGER ONLY	AGE	SEX	FATAL INJURY	SEVERE INJURY	OTHER VISIBLE INJURY	COMPLAINT OF PAIN	DRIVER	PASS.	PED.	BICYCLIST	OTHER	PARTY NUMBER	SEAT POS.	AIR BAG	SAFETY EQUIP.	EJECTED
#																	

NAME / D.O.B. / ADDRESS:

TELEPHONE:

(INJURED ONLY) TRANSPORTED BY:

TAKEN TO:

DESCRIBE INJURIES:

VICTIM OF VIOLENT CRIME NOTIFIED

PREPARER'S NAME	I.D. NUMBER	MO. DAY YEAR	REVIEWER'S NAME	MO. DAY YEAR
G. J. CISNEROS	1263	2/27/2010		

STATE OF CALIFORNIA

NARRATIVE/SUPPLEMENTAL

DATE OF INCIDENT / OCCURRENCE	TIME	NCIC NUMBER	OFFICER I.D.	NUMBER	PAGE
02/27/10	2244	1947	1263	10-1555	

"X" ONE	"X" ONE	TYPE SUPPLEMENTAL ("X" APPLICABLE)		
[X] Narrative	[X] Collision report	[ ] BA update	[ ] Fatal	[ ] Hit & run update
[ ] Supplemental	[ ] Other	[ ] Hazardous materials	[ ] School bus	[X] Injury

CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
Montebello / Los Angeles / East Los Angeles	Traffic	

LOCATION / SUBJECT	STATE HIGHWAY RELATED
400 Block North Garfield Avenue	[ ] Yes [X] No

FACTS:

Notification:

On February 27, 2010 at approximately 2244 hours, I received a telephone call at my residence from the Montebello Police Department Communications Center. I was informed of a traffic collision involving a solo vehicle and a tree. The collision had occurred on Garfield Avenue in the 400 block. The vehicle had struck a large tree head on and sustained major front-end collision damage. A driver and two passengers occupied the vehicle. The driver and right rear passenger sustained non-life threatening injuries however the right front passenger sustained trauma, which was suspected to be fatal. Care ambulance service transported the driver and passengers to the Los Angeles County Medical Center for further medical treatment. Corporal R. Yap was contacted at his residence and informed of the circumstances of this collision. He responded to assist me in this investigation.

The following Montebello Police Officers responded to the scene to assist in the investigation:

Officer: Ruben Ramirez
Officer: Mark Ryan
Officer: Kenny Benitez
Officer: Richard Money
Sgt.: David Kim.

Montebello Fire Department personnel who responded at the scene include:

Engine 57

Firefighter: Mark Valentine
Firefighter: Gene Unrich.
Firefighter: James Dollar.
Firefighter: Dipaoloa Drew

Truck 55:

Firefighter: Richard Zuniga
Firefighter: Craig Barker
Firefighter: Joel Bonilla

Engine 55:

Firefighter: Henry Aguilar
Firefighter: Steven Cox
Firefighter: Federico Jimenez
Firefighter: Randy Sehick

PREPARER'S NAME	I.D. NUMBER	MONTH / DAY / YEAR	REVIEWER'S NAME	MONTH / DAY / YEAR
Cpl. G. Cisneros	1263	02-27-10		

STATE OF CALIFORNIA

NARRATIVE/SUPPLEMENTAL

DATE OF INCIDENT / OCCURRENCE	TIME	NCIC NUMBER	OFFICER I.D.	NUMBER	PAGE
02/27/10	2244	1947	1263	10-1555	

"X" ONE	"X" ONE	TYPE SUPPLEMENTAL ("X" APPLICABLE)		
[X] Narrative	[X] Collision report	[ ] BA update	[ ] Fatal	[ ] Hit & run update
[ ] Supplemental	[ ] Other	[ ] Hazardous materials	[ ] School bus	[X] Injury

CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
Montebello / Los Angeles / East Los Angeles	Traffic	

LOCATION / SUBJECT	STATE HIGHWAY RELATED
400 Block North Garfield Avenue	[ ] Yes [X] No

Scene:

This collision occurred on February 27, 2010, at approximately 2244 hours in the 400 block of Garfield Ave. The collision occurred on a major designated city maintained street and parkway. The street surface is composed primarily of black asphalt and is bordered to the east and west by Portland cement curbs. A grass parkway lined with mature trees run parallel with the street. The roadway has two northbound and two southbound traffic lanes separated by white broken lines. A center median separates the northbound and southbound lanes. The center median consist of two separated solid yellow lines with the inside yellow line broken. The area is located in a residential and commercial zone with a public park located north of the scene of the collision. The roadway design is of a gradual curve with no traffic control signals present or a factor in this collision. All roadway paint markings at the scene were in good condition. See factual diagram for details. The secondary collision (area of impact # 2) occurred on a grass parkway maintained by the City of Montebello. It is boarded on the west by a cement curb and the shoulder of the # 2 northbound lane. A public cement sidewalk borders the parkway on the east. The incident occurred during darkness with the area being illuminated with overhead streetlights that run parallel to the street. At the time of this investigation the streetlights worked properly. Garfield Ave. is a posted 40-mph. major street.

Weather:

Accu Weather forecast for the City of Montebello for Sunday, February 28, 2010 at 12:27 AM. The following weather information was provided.

Cloud coverage: Clear with humidity at 76%, Pressure at 29.76 in. Dew Point at 45°, Visibility at 10 statute miles. Temperature at 52°, Sunrise at 6:22 AM, Sunset at 5:47 PM.

The north and southbound lanes were dry at the time of my arrival to the scene. The center median was lightly wet due to earlier rainfall.

Physical Evidence:

No associated pre-impact or post-impact tire friction marks were found or located at the scene of the collision or in the area south of the collision. Debris from V-1 was located scattered in the immediate area of impact. V-1 fluids were located on the E/C/L rain gutter, parkway, sidewalk and tree.

Corp. G. Cisneros # 1263 took photographs of the collision scene as found at the time of this investigation. The flash card was taken to the Montebello Police Department and submitted as evidence.

Camera: Cannon EOS digital rebel XT/ 350D digital 18-55mm.

Flash card: 1GB Kingston Technology digital.

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CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
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LOCATION / SUBJECT	STATE HIGHWAY RELATED
400 Block North Garfield Avenue	[ ] Yes [X] No

Involved Party:

V-1 was a located at its point of rest disabled and facing eastbound. It rested on its tires with the front end resting on the shoulder of the road and the rear end resting across the northbound number two lane of Garfield Avenue. V-1 sustained major front-end collision damage, which was induced primarily on the right side. The force of the front-end collision activated and deploying the driver's side airbag. V-1 was equipped with a right front passenger seat airbag located on the dashboard. This airbag did not deploy at impact.

P-1 (Cynthia Moreno) was placed as the driver by the following facts:

1. P-1 (Cynthia Moreno) statement.
2. First responder Officer Ruben Ramirez statements.
3. Passenger Natividad statement.

Statements:

Party One (P-1 Moreno)

P-1 sustained minor injuries as a result of the collision. She was transported to Los Angeles County Medical. Center for treatment. Due to P-1 receiving medical attention I was not given the opportunity to interview her. An interview appointment was scheduled for 03/04/10 at the Montebello Police Department.

P-1 arrived to the Montebello Police Department on 03/04/10 at approx. 1215 hours. She gave the following statement. She said that on 02/27/10 at approx.1800 she picked up her best friend (Nikome Menchaca) and the cousin of Nikome (Lauren Natividad) at Nikome's home in the city of Alhambra. They went to an outdoor mall in the City of Pico Rivera where they shopped. She realized it was time to drive her friends home and used the surface streets through the City of Montebello.

She was driving her vehicle (CA Lic. # 5SFK134) northbound in the number two lane of Garfield Ave. She estimated her speed to be approx. 35-38 miles per hour. As she approached the intersection with Hay Ave. she looked at her car radio and began to search for a radio station. She steered with her left hand and focused her attention on the radio. She said, " I stopped looking at the roadway in front of me and paid more attention to the radio". She continued to change radio stations while maintaining the speed of V-1.

Her peripheral vision made her aware that she had exited the intersection and now continued northbound in the number two lane of Garfield Ave. She continued to change radio stations and not look in front of her when she heard a passenger scream out loud, "Watch out your going to crash"! P-1 immediately looked up in front of her and immediately realized that she had inadvertently veered to the shoulder of the roadway. Several feet in front of her was the rear end of a parked vehicle. She described it as a full size Ford Excursion NFD. It was parked next to the east curb line facing northbound.

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CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
Montebello / Los Angeles / East Los Angeles	Traffic	

LOCATION / SUBJECT	STATE HIGHWAY RELATED
400 Block North Garfield Avenue	☐ Yes ☒ No

Statements Continued:

She panicked when she realized that she was going to rear end the vehicle. She immediately turned the steering wheel to the left (Counter clockwise) hoping to avoid a collision. She also wanted to apply the brakes and stop the vehicle. She said to me "When I missed hitting the parked car I stepped hard on what I thought were the brakes". In advertently, she said she had stepped on the accelerator. She said that V-1 accelerated and crossed the northbound number one and two lanes quickly. She did not realize that she was stepping on the accelerator as she entered the center island.

P-1 said that she knew that if she continued in the direction she was heading at she would enter the southbound lanes of Garfield Ave. and would hit oncoming traffic. She immediately turned the steering wheel to the right (Clock wise) and changed the vehicles direction. She traveled in a northeasterly direction crossing the northbound number one and two lanes. She felt her vehicle sped out of control and did not realize she was stepping on the accelerator. She told me " At that moment I was scared and confused". She said that she saw the tree in front of her but could not stop or control the car. P-1 estimated that she struck the east cement curb at approx. 40-45 miles per hour. V-1 struck the curb and went over it. It then struck a tree head on approx. one foot east of the curb.

P-1 said that after the crash she realized that she had actually stepped on the accelerator because she did not have any brake problems prior to the collision. I asked P-1 if the parked vehicle was properly parked? She answered, "Yes". I asked her if she was text messaging or making any cell phone calls at the time or prior to the vehicle collision. She said "No".

At a later day P-1 voluntarily brought me a detail list of all on coming phone calls and text messaging that her cell phone received or sent on the day of the crash. Her provider was T- mobile. We went on the cell phones web site to check her outgoing calls and incoming calls. Her records indicate that her last cell phone transmission was on 02-27-10 at 2138 hours. The next transmission was on 02-27-10 at 2321 hours.

I spoke with passenger Nativitad at LACMC on 02-27-10 at approx. 0315 hours. She said that she was the right rear passenger of V-1 and recalled the following. She remembers driving northbound on Garfield Ave. She was looking down at her phone and text messaging. She was not paying attention to the roadway in front of V-1 nor did she look up to see what P-1 was doing prior to the crash. She said that she was focused on her texting. She kept looking down when her cousin Nikome yelled out, "Your going to crash'! V-1 turned and accelerated. She looked up and saw that V-1 was heading towards a tree. She said that she did not know why but P-1 did not stop and struck the tree head on.

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CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
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LOCATION / SUBJECT	STATE HIGHWAY RELATED
400 Block North Garfield Avenue	☐ Yes ☒ No

Opinions and Conclusions:

Summary:

This summary is based on the following facts.

1. Driver Statement.
2. Physical evidence.
3. Vehicle Damage.

Opinions and Conclusions:

P-1 Moreno, (V-1, Chevrolet Aveo) was traveling northbound in the number two lane of Garfield Ave. V-1 entered the intersection with Hay Ave. and proceeded through the intersection. Upon exiting the intersection V-1 continued in the number two lane and entered the 400 block of Garfield Ave. Ave. V-1 veered to the shoulder of the roadway. P-1 avoided a collision with a parked vehicle however she stepped on the vehicles accelerator thinking it was the vehicles brakes. V-1 accelerated at an excessive speed causing P-1 to lose control. V-1 struck a curb and a tree in the 400 block of Garfield Ave head on.

Cause:

The cause of this traffic collision is 22350 of the CVC. It states tha no person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property.

Additional Information:

During my interview of P-1, she said that two weeks prior to the collision she noticed that a signal for the passenger airbag illuminated on the dashboard. She believes the signal was for the right front passenger. She said that she did not have it checked out by a technician.

The right front air bag of V-1 did not deploy. This particular make and model does not have an airbag shut off switch.

I asked P-1 if the parked vehicle she almost struck was properly parked? She answered, "Yes".

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LOCATION / SUBJECT	STATE HIGHWAY RELATED
400 Block North Garfield Avenue	☐ Yes ☒ No

Area of Impact:

Area of impact number 1.

At the east curb line of Garfield Ave.
367 feet north of the north curb line of Hay Ave.

Area of Impact Number 2.

1 foot 6 inches east of the east curb line of Garfield Ave.
370 feet north of the north curb line of Hay Ave.

Diagram:

See Corporal Yaps factual diagram report attached to this report for details.

Measurements were taken with the use of a Sokkia series 30R reflector less total station. Serial number 171995.

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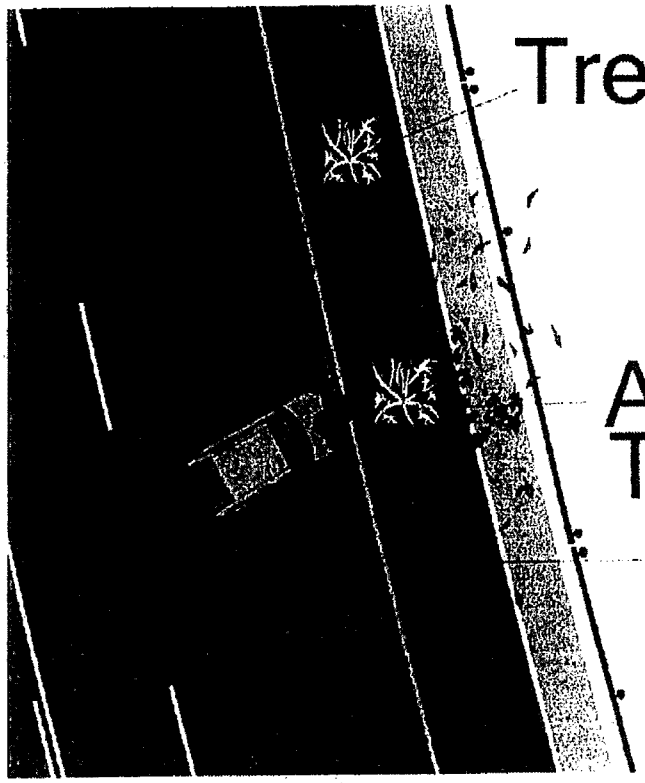
FACTUAL DIAGRAM CHP 555
Page 4(Rev. 8-97) OPI 042

DATE OF COLLISION (MO DAY YEAR)	TIME (2400)	NCIC #	OFFICER I.D.	NUMBER
2/27/2010	2244	1947	1328	10-1555

ALL MEASUREMENTS ARE APPROXIMATE AND NOT TO SCALE UNLESS STATED(SCALE = Not to scale)



PREPARED BY	I.D. NUMBER	MO DAY YEAR	REVIEWER'S NAME	MO DAY YEAR
Cpl. Yap	1328	3/2/2010		3/2/2010

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FACTUAL DIAGRAM CHP 555
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DATE OF COLLISION (MO. DAY YEAR)	TIME (2400)	NCIC #	OFFICER I.D.	NUMBER
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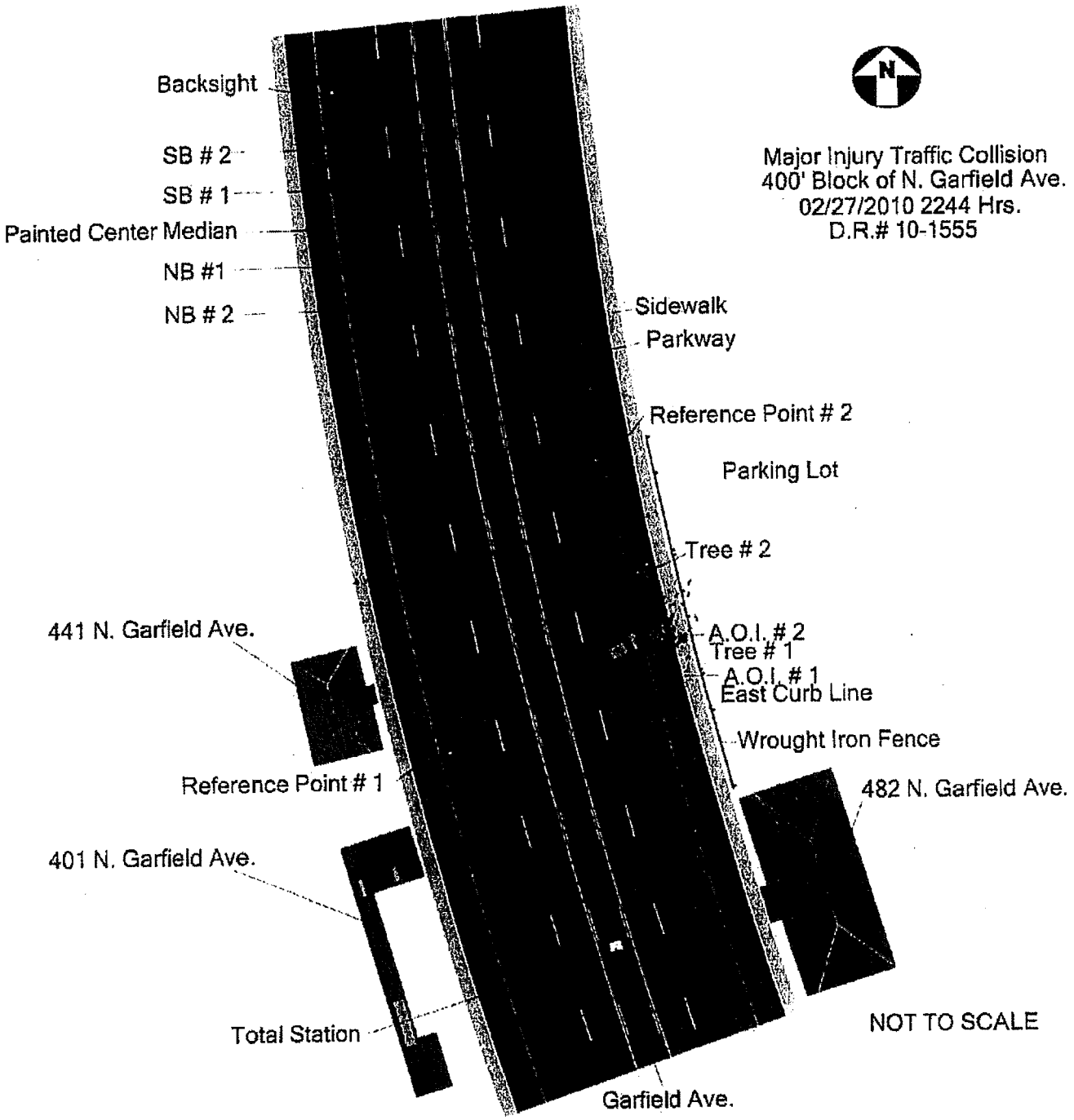

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LOCATION / SUBJECT	STATE HIGHWAY RELATED
400' Block of N. Garfield Ave.	☐ Yes ☒ No

The physical evidence described in this section corresponds with the numbered items in the Measurement Data Log.

Item # 1:

Sokkia Total Station Set Up (Start of Mapping: 0.00)

Item # 2:

(Back Sight: START) Street Light on W/CL

Item # 3:

(Reference Point #1) Street Light on W/CL

Item # 4:

(Reference Point #2) Street Light on E/CL

Item # 5:

A.O.I. # 1 (East Curb Line) Raised Cement Curb

Item # 6:

A.O.I. # 2 (Tree #1) East Curb Line

Item # 7:

Front End of V-1

Item # 8:

Right Front Tire of V-1

Item # 9:

Right Rear Tire of V-1

Item # 10:

Rear End of V-1

Item # 11:

Left Rear Tire of V-1

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CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
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LOCATION / SUBJECT	STATE HIGHWAY RELATED
400' Block of N. Garfield Ave.	☐ Yes ☒ No

Physical Evidence: (continued)

Item # 12:

Left Front Tire of V-1

Item # 13:

Field Debris

Item # 14:

Field Debris

Item # 15:

Tree # 1

Item # 16:

Tree # 2

Item # 17:

E/CL (Start of cone markers)

Item # 18:

E/CL

Item # 19:

E/CL

Item # 20:

E/CL

Item # 21:

E/CL

Item # 22

E/CL

Item # 23

E/CL

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CITY / COUNTY / JUDICIAL DISTRICT	REPORTING DISTRICT / BEAT	CITATION NUMBER
Montebello / Los Angeles / East Los Angeles	Traffic	

LOCATION / SUBJECT	STATE HIGHWAY RELATED
400' Block of N. Garfield Ave.	☐ Yes ☒ No

Physical Evidence: (continued)

Item # 24

E/CL

Item # 25

E/CL

Item # 26

E/CL

Item # 27

E/CL (End of cone markers)

Item # 28

Back Sight (FINAL)

Item # 29

End of Mapping: 0.00

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a. **The date or approximate date on which the modification or change was incorporated into vehicle production;**
b. **A detailed description of the modification or change and its effect (if any) on the alleged defect condition;**
c. **The reason(s) for the modification or change;**
d. **The part number(s) (service and engineering) of the original component;**
e. **The part number(s) (service and engineering) of the modified component;**
f. **Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;**
g. **When the modified component was made available as a service component; and**
h. **Whether the modified component can be interchanged with earlier production components.**

Also, provide the above information for any modification or change that GM is aware of which may be incorporated into vehicle production within the next 120 days.

GM has provided a summary table of the changes and associated Engineering Work Orders (EWOs) pertaining to the subject component provided on the ATT_1_GM disk; folder labeled "Q_06." Refer to the EXCEL file labeled "Q_06_Modifications_AOS 2006-2008 Impala FINAL." The subject vehicles are no longer being produced, so there are no production changes planned for the next 120 days.

7. **Furnish GM's assessment of the alleged defect in the subject vehicles, including:**

a. **The causal or contributory factor(s);**
b. **The failure mechanism(s);**
c. **The failure mode(s);**
d. **The risk to motor vehicle safety that it poses;**
e. **What warnings (both visually and audibly), if any, the operator would have that the alleged defect was occurring or subject component was malfunctioning; and**
f. **The included report and its related incident.**

GM has investigated the allegations contained in the November 14, 2013 Petition for Defect and Recall (the "Petition") submitted by David Friedman to the National Highway Traffic Safety Administration ("NHTSA"). GM's investigation and analysis demonstrates that the occupant classification system, or automatic occupant suppression ("AOS") system, in the subject vehicles: (i) does not contain a defect, as that term is defined in 49 U.S.C. § 30102(a); (ii) meets or exceeds the requirements of Federal Motor Vehicle Safety Standard ("FMVSS") 208; (iii) poses no additional risk to motor vehicle safety as compared to any other AOS system in a vehicle that satisfies FMVSS 208 with airbag suppression for 3yo and 6yo requirements; (iv) has been proven through extensive

testing and peer comparisons to accurately classify passenger-side occupants, even in extreme driving conditions, and to contain robust safeguards that prevent inadvertent reclassification; and (v) functioned as designed and in a safe manner during the incident identified in the Petition.

A. The AOS system classifies occupants based on estimated occupant weight

GM designed the AOS system in the subject vehicles to enable the front passenger airbag for adult passengers and suppress the front passenger airbag for child passengers. To classify the occupant, the AOS system estimates the weight of the seat occupant by subtracting: (i) the tension on the seat belt; from (ii) the pressure on the front passenger seat, which is measured by a pressure sensor located under the passenger seat foam.[1] If the estimated weight in the seat is greater than the vehicle's adult classification threshold, the AOS system sends a message to the vehicle's sensing and diagnostic module ("SDM") to enable the front passenger airbag. Conversely, if the estimated weight is less than the adult classification threshold, the AOS system sends a message to the SDM to suppress the front passenger airbag.

The adult classification threshold in the subject vehicles is 61 pounds. GM extensively tested this adult classification threshold, and determined that it would correctly classify adults and children:

[1] Seat-belt tension creates downward pressure on the seat, which can improperly influence occupant classification. For this reason, the AOS system subtracts any detected pre-crash seat-belt tension from the weight detected on the front passenger seat.

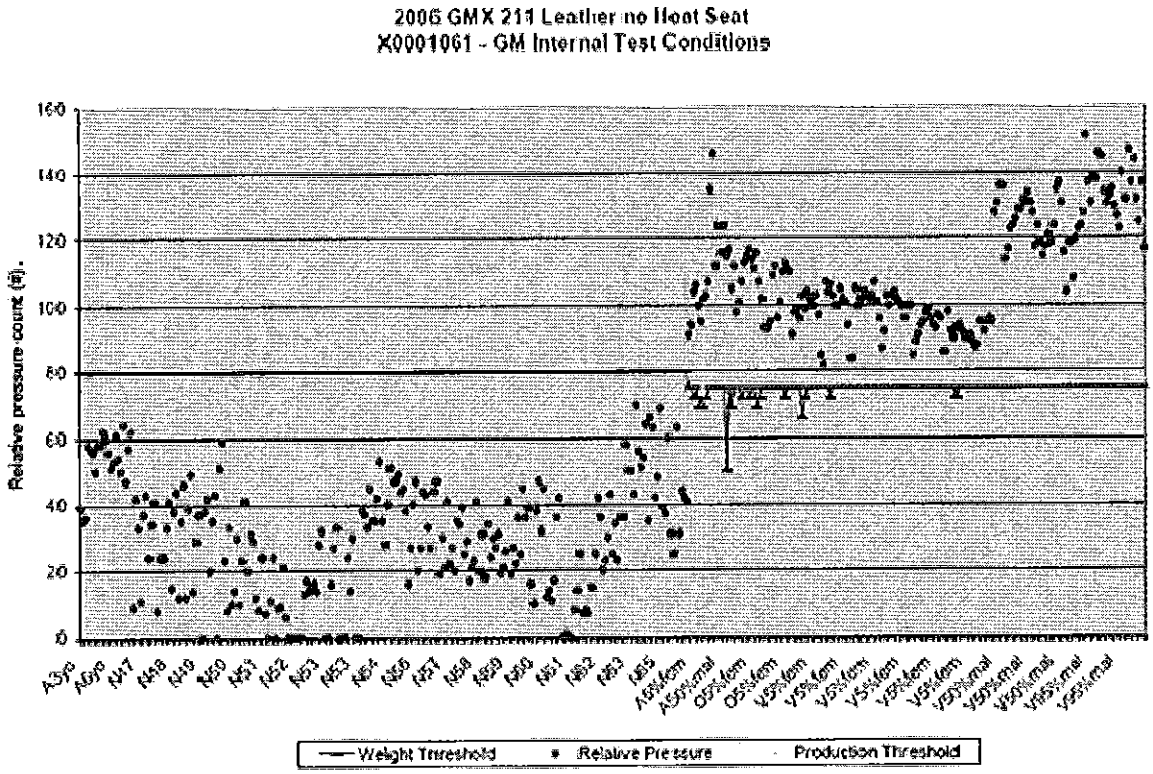


Figure 7.1. This figure displays adult classification threshold test results for a typical leather trimmed seat in the subject vehicles. The detected pressure on the front passenger seat is reflected on the vertical axis. The 61-pound adult-classification threshold is shown as a blue line on the chart; any test results above the blue line would cause the AOS system to send a message to the vehicle's SDM to enable the front passenger airbag. The type of test subject is reflected on the horizontal axis. Children are reflected on the chart as "A3yo" (a small child) on the far left of the axis and move left to right to "N65" (a large child). Adults begin at "A5%fem" (a small adult) and move left to right to "V95%mal" (a large adult). The tests with 50% male volunteers (170 pound weights, +/- 20 pounds) are denoted with "V50%mal." The chart indicates that the system correctly classifies adults and children, with a significant design margin.

B. <u>The AOS system stabilizes occupant classification using an "adult lock" system</u>

To help prevent certain out-of-position conditions (e.g., reclining the seat, inboard and outboard seating, or slouching) or vehicle maneuvering from causing the AOS to improperly reclassify occupants, the AOS system in the subject vehicles uses an "adult

lock" system. If the occupant satisfies the adult classification threshold for 60 seconds or more, the AOS system automatically lowers the adult classification threshold to 41 pounds. So once the system has classified the occupant as an adult for 60 seconds, the occupant's estimated weight must fall substantially before the AOS system will reclassify the occupant as a child and send a message to the SDM to suppress the front passenger airbag.

The natural latency of the AOS system in the subject vehicles reinforces the effectiveness of the adult-lock feature. In the subject vehicles, a weight reduction must be held for approximately 1.5 seconds before it will even register on the AOS's measurement systems. This natural latency helps prevent momentary weight reductions—even dramatic weight reductions—from temporarily reclassifying the occupant.

The effectiveness of the adult-lock feature in stabilizing occupant classification is documented in General Motors' static, dynamic, durability, environmental, and passenger-clinic testing. The subject vehicles were extensively tested in dynamic situations to verify that vehicle maneuvering would not cause a change in occupant classification. This testing included panic brakes, hard acceleration, lateral input through hard turns, lateral inputs from twist ditches, and driving over extremely rough roads. The clinic testing included testing with adults of various sizes in "normal" and "comfortable" positions. The testing demonstrated that the AOS system in the subject vehicles correctly classifies adult passengers, and is highly resistant to vehicle maneuvering, with a significant design margin.

C. The AOS system locks occupant classification once it detects a potential crash event

Additionally, to prevent crash forces from causing the AOS to improperly reclassify occupants, the SDM in the subject vehicles automatically locks the classification of the front occupant once it detects a potential crash event, and ignores any classification changes until the event is over. The event starts when the acceleration from any of the SDM accelerometers transition to a value exceeding 1.5 G's (plus or minus 0.4 G's) for a minimum of two milliseconds.

D. Airbag split-deployment events involving the subject vehicles and peer vehicles are extremely rare

The subject vehicles and the peer vehicles contain similar AOS systems. Like the subject vehicles, the AOS systems on the DTS and Lucerne use an adult-lock system and approximately 1.5 second natural measurement latency. The XLR and Cobalt's AOS system uses a similar adult-lock and natural measurement latency, but also has a two-second classification filter—i.e., a requirement that an estimated weight be held for an additional two seconds before it will cause a change to occupant classification.

GM's analysis of field and warranty data associated with the subject vehicles and the peer vehicles demonstrates that crash events in which the passenger seat was occupied, the driver airbag deployed, and the passenger airbag did not deploy (an airbag split-deployment event, or "ABSD") are extremely rare. And despite the slight design differences between the Cobalt and the other subject and peer vehicles, there is not a statistically significant difference between the rate of ABSD events among the subject and peer vehicles:

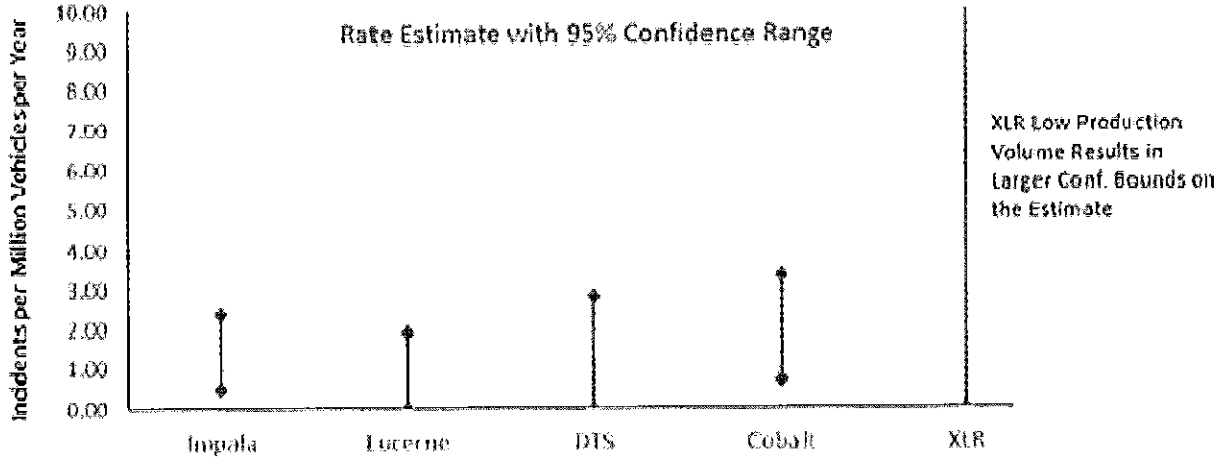


Figure 7.2. Plot of the range of the estimated rate of occurrence of ABSD events. There are no known incidents of ABSD for XLR. The low XLR volume results in large confidence bounds for this vehicle.

E. <u>The AOS system worked safely and as designed during the incident identified in the Petition</u>

The Petition alleged, among other things, that an AOS system in a subject vehicle improperly "inhibited airbag deployment of a properly belted front passenger seat passenger" during an accident that occurred on April 9, 2011 (the "Accident"). The Petition alleged that the AOS system at issue "used instantaneous weight to determine whether to inhibit the airbag deployment." The Petition further argued that the airbag's failure to deploy during the Accident, "resulted in severe injury and death."

GM has reviewed these claims and determined that they are without merit. The police report associated with the Accident states that the vehicle in question (a 2008 Chevrolet Impala) was traveling in the left lane of a smooth divided roadway when another vehicle merged into the lane and contacted the Impala's right front fender. This impact caused minor damage to the Impala. Shortly thereafter, the Impala made contact with the roadway center divider causing significant frontal damage. The rear of the Impala also hit the divider as it rebounded back into the roadway.

The data recorded by the Impala's AOS demonstrates that, for approximately 15 minutes before the Accident, the passenger seat occupant sensor detected an occupant with an estimated weight of 160 pounds. As shown in Figure 7.3, the passenger-seat occupant began moving off of the seat and straining against the seat belt about four seconds before the driver's-side airbag deployed. As seat belt tension increased, the detected weight on the seat—both actual and as adjusted by the seat-belt tension—fell precipitously. Approximately 2.3 seconds before the driver's-side airbag deployed, the passenger-seat sensor detected less than 61 pounds of adjusted weight on the seat. And 1.1 seconds later or about 1.2 seconds before the driver's-side airbag deployed, the weight on the seat was approximately 55 pounds, and the occupant was pulling away from the seat with about 13 pounds of tension on the seat belt. The compensated weight in the seat then went below the 41 pound adult-lock threshold and the AOS sent a message to the SDM to suppress the airbag.

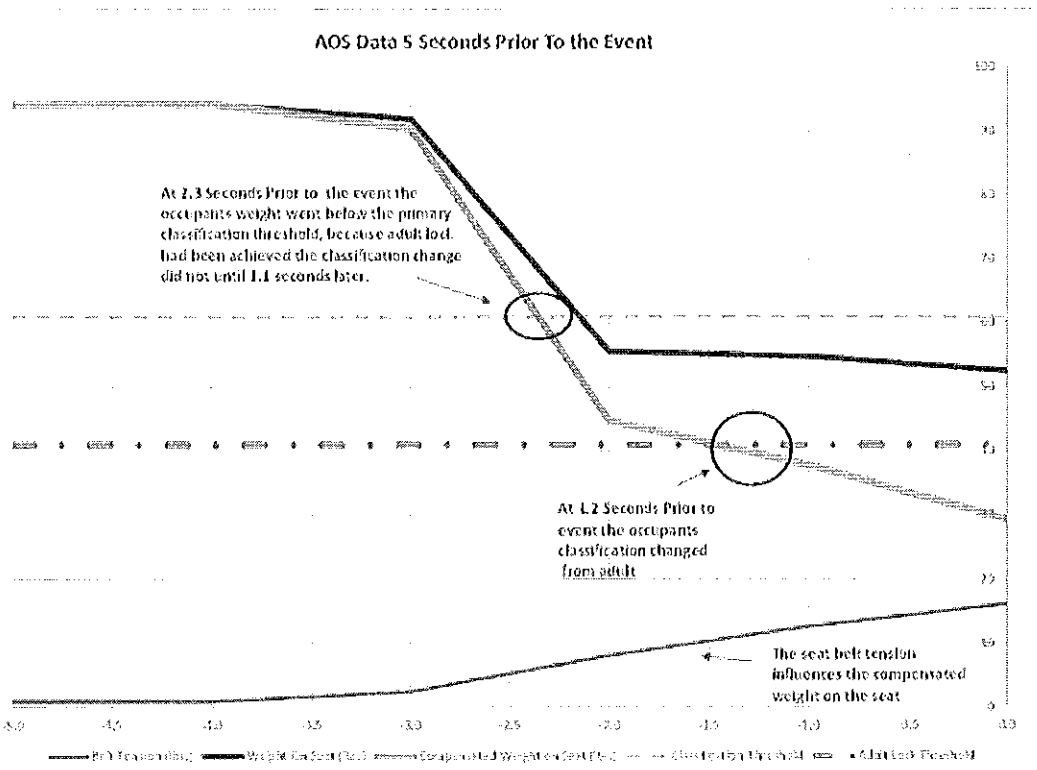


Figure 7.3. The AOS EDR shows the last 5 seconds of data from the system before the driver's side airbag deployed. The adult lock kept the airbag enabled approximately 1.1 seconds longer until the adult-lock threshold was crossed, which occurred approximately 2.8 seconds from the initial unloading of the seat and about 1.2 seconds before the driver's side airbag deployed.

At 1.5 seconds prior to deployment, there was a momentary change in the rate of deceleration recorded by the vehicle's SDM, which may indicate contact with the vehicle that caused the right-front damage. After the crash, the passenger had a severed right thumb. Post-crash photographs do not show visible blood on the passenger side. The only significant blood is on the driver airbag. The driver reported a sore neck and no lacerations.

Based on the recorded data and the physical evidence in GM's possession, GM concludes that the occupant of the front passenger seat had moved almost completely off of the seat well in advance of the crash event, and was actively straining against the seat belt, possibly in an attempt to steer the vehicle. This passenger was therefore likely not in normal passenger position when the driver's side airbag deployed, and the vehicle's AOS system worked as designed in suppressing the airbag. When the driver's airbag deployed, the passenger's right thumb sustained an injury that caused the blood stains on the driver's side airbag and headliner.

The petitioner's suggestion that the occupant would have benefited from passenger airbag deployment is not supported in the Petition and is pure speculation. The petitioner has not supplied—and GM is not aware of—any evidence or argument that supports the conclusion that a passenger side airbag should deploy in the conditions recorded by the vehicle's AOS, or that the full deployment of the passenger-side airbag would have mitigated—and not exacerbated—the injuries allegedly sustained by the occupant during the Accident.

F. The AOS system on the subject and peer vehicles is safe

To summarize, the AOS system used in the 2006 - 2008 Impala and in the peer vehicles:

- does not contain a defect, as that term is defined in 49 U.S.C. § 30102(a);
- meets or exceeds FMVSS 208 requirements, and poses no additional risk to motor vehicle safety as compared to any other AOS system in a vehicle that satisfies FMVSS 208 with airbag suppression for 3yo and 6yo requirements;
- has been proven through extensive testing and peer comparisons to accurately classify passenger-side occupants, even in extreme driving conditions, and to contain robust safeguards that prevent inadvertent reclassification; and
- worked safely and as designed during the Accident.

* * *

GM requested assistance and documents from supplier(s) in responding to item 5. The responsive supplier documents are being submitted directly by said suppliers to the NHTSA in a letter to the Office of Chief Counsel requesting confidential treatment.

GM claims that certain information, in documents that are part of lawsuit and claims files maintained by the GM Legal Staff, is attorney work product and/or privileged. That information includes notes, memos, reports, photographs, and evaluations by attorneys (and by consultants, claims analysts, investigators, and engineers working at the request of attorneys). GM is producing responsive documents from claims files that are neither attorney work product nor privileged, and withholding those that are attorney work product and/or privileged.

This response is based on searches of GM locations where documents determined to be responsive to your request would ordinarily be found. As a result, the scope of this search did not include, nor could it reasonably include, "including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of GM (including all business units and persons previously referred to), who are or, in or after January 1, 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

a. Design, engineering, analysis, modification or production (e.g. quality control);

b. Testing, assessment or evaluation;

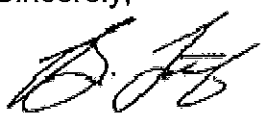
b. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or

d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers."

This response was compiled and prepared by this office upon review of the documents produced by various GM locations, and does not include documents generated or received at those GM locations subsequent to their searches.

Please contact me if you require further information about this response or the nature or scope of our searches.

Sincerely,



Brian Latouf, Director
Field Product Investigations & Evaluations

Attachments