



Ohio Attorney General's Office Bureau of Criminal Investigation Investigative Report



2024-3954

Officer Involved Critical Incident - 3487 Belmont Avenue,
Youngstown, Ohio, 44505

Investigative Activity: OSHP Vehicle Event Data Report

Involves: Jason A. Cain (S)

Activity Date: 01/28/2025

Activity Location: BCI - Richfield

Authoring Agent: SA Joseph Goudy

Narrative:

On December 19, 2024, Ohio Bureau of Criminal Investigation (BCI) Special Agent Supervisor (SAS) Chuck Moran (Moran) and Special Agent (SA) Joseph Goudy (Goudy) requested the assistance of the Ohio State Highway Patrol (OSHP) regarding a vehicle event data analysis. The purpose of this request was to obtain the vehicle event data regarding the reported stolen 2021 Jeep Cherokee that was used during this incident. An analysis was completed on December 23, 2024, by OSHP Sergeant Brian Cannon (Cannon).

Attached to this report is the analysis of the event data report along with a supplemental report to discuss the findings.

References:

None

Attachments:

1. OSHP Vehicle Event Data report
2. OSP Event Vehicle Data

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Ohio State Highway Patrol – Crash Reconstruction and Analysis Unit

Warren and Cambridge District Reconstruction

3424 US Route 422
Southington, Ohio 44470
(330) 898-2311

Date: December 22, 2024
To: Ohio State Highway Patrol – Bureau of Criminal Investigations
From: Sergeant Brian Cannon - Ohio State Highway Patrol Eastern Ohio Reconstruction Supervisor
Subject: 2024-0954

On December 19, 2024 I was contacted by Lieutenant Morrison of the Warren Post (Ohio State Highway Patrol - OSHP). Lt. Morrison told me the Bureau of Criminal Investigations (BCI) was investigating an officer involved shooting which occurred in Liberty Township, in Trumbull County, Ohio and were requesting assistance from the OSHP Reconstruction Unit.

I contacted investigators from BCI and learned that data from a 2021 Jeep Grand Cherokee was being sought and the vehicle was held at Liberty Police Department. The purpose of the request was to use data stored by the vehicle in conjunction with available footage from the incident to establish a more complete understanding of the events as they unfolded.

A signed copy of consent to search was forwarded to me for recovery of the data from the vehicle. On December 23, 2024, I responded to Liberty Police Department to recover the data. I attempted a DLC (Diagnostic Link Connector) recovery via the OBDII port, however the connection was unsuccessful. I returned to Liberty Police Department on December 24, 2024 to physically remove the Airbag Control Module (ACM) and attempted recovering data via D2M (Direct To Module).

I accessed the ACM, which was located along the center tunnel aft of the shifter as determined via the Bosch Help Tool. The module was found to be undamaged and was removed from the vehicle for imaging. The ACM was clamped to a benchtop to prevent spoilage and the data was recovered from it. The recovered data was saved in its original CDRX format as well as a duplicate copy in a PDF format.

The module was returned to the vehicle and I notified Liberty Police Department that my efforts with the vehicle were complete. I then forwarded a PDF copy of the recovered data to BCI investigators via email. On January 8, 2024, I spoke to Special Agent Supervisor Moran and Special Agent Goudy of BCI who were seeking clarification on several items in the data. The following synopsis is to clarify the information obtained from the Jeep's Airbag Control Module.

CDR File Information	
User Entered VIN	1C4RJKAG1M8160830
User	Sgt. B.A. Cannon
Case Number	2024-3954
EDR Data Imaging Date	12/24/2024
Crash Date	12/18/2024
Filename	2024-3954_1C4RJKAG1M8160830_ACM_CDRX
Saved on	Tuesday, December 24, 2024 at 10:34:17
Imaged with CDR version	Crash Data Retrieval Tool 24.2.383
Imaged with Software Licensed to (Company Name)	Ohio DPS - Highway Patrol
Reported with CDR version	Crash Data Retrieval Tool 24.2.383
Reported with Software Licensed to (Company Name)	Ohio DPS - Highway Patrol
EDR Device Type	Airbag Control Module
Event(s) recovered	Most Recent Event (Deployment Event)

Comments
Sgt. B.A. Cannon
Consent signed 12/19/2024
265/60/18 equipped
265/60/18 OEM

The vehicle was equipped with the factory recommended tire size thus no adjustments are needed.
A single event was captured, and is designated as *Most Recent Event* by the ACM.

System Status at Retrieval

Original VIN	1C4RJKAG1M8160830
Ignition Cycle, Download	5,232
ACM Part Number	68518542AG
ACM Serial Number	T007P1971A09730
ACM Supplier	Veoneer
ACM Supply voltage at time of retrieval (V)	11.7

The ACM was imaged (aka “downloaded”) on Ignition Cycle 5,232.

System Status at Event (Most Recent Event - Deployment Event)

Complete File Recorded	Yes
Event Number	1
Total number of Events	1
Multi-Event, Number of Event	1
Time From Event 1 to 2 (sec)	>5
Safety Belt Status, Driver	Buckled
Safety Belt Status, Outboard Front Passenger	Buckled
Seat Track Position Switch, Foremost, Status, Driver	Not Frontal Zone
Seat Track Position Switch, Foremost, Status, Outboard Front Passenger	Not Frontal Zone
Occupant Size Classification, Outboard Front Passenger	Not Child
Maximum Delta-V, Longitudinal (MPH [km/h])	-13.0 [-21]
Time, Maximum Delta-V, Longitudinal (ms)	266
Maximum Delta-V, Lateral (MPH [km/h])	-1.2 [-2]
Time, Maximum Delta-V, Lateral (ms)	286
Frontal Airbag Warning Lamp	Off
Frontal Airbag Warning Lamp On Time (min)	4.0
Operation System Time (sec)	4,941,350
System Voltage At Event, Bused (Volts)	14.4
System Voltage at Event, ACM (V)	13.7
GPS Date and Time at Event	2021-01-01 00:00:00
Tire Pressure Indicator Lamp at Event	Off
Tire Pressure at Event, LF (PSI [Bar])	37 [2.6]
Tire Pressure at Event, LR (PSI [Bar])	36 [2.5]
Tire Pressure at Event, RF (PSI [Bar])	37 [2.6]
Tire Pressure at Event, RR (PSI [Bar])	37 [2.6]
Ignition Cycle, Crash	5,228
Odometer at Event (miles [km])	29197.6 [46,989.0]
VIN at Event	1C4RJKAG1M8160830
Operation via Energy Reserve at Event	No
Energy Reserve Voltage at Event (Volts)	30.0

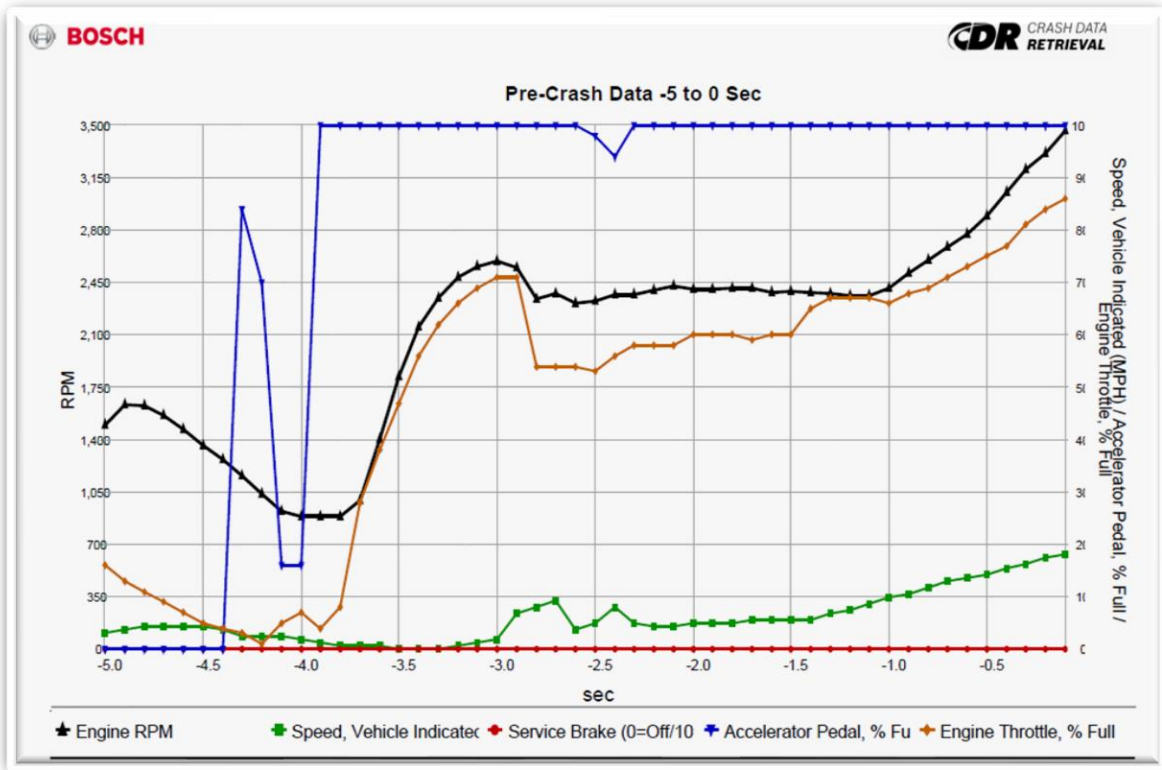
The Ignition Cycle at the time of the crash was 5,228.

There were 4 ignition cycles between the “Crash” and “Download.” The ignition cycles can be accounted for as loading/unloaded the vehicle onto a tow truck, and my initial attempt to recover data via DLC. Therefore, it can be concluded that the reported data is from the incident under investigation.

The seatbelt status for the driver and front passenger both show “buckled” although this does not indicate the belts were properly worn at the time of the crash. Both belts were buckled behind the seatback and across the seating surfaces during the ACM recovery. This indicated the occupants had buckled the belts to defeat the chime without being restrained by them, thus giving them free movement about the vehicle.

Five (5) seconds of pre-crash data were recorded and depicted in the following charts. The timestamps count down to the deployment event beginning at -5.0 seconds and decrease at 0.1 second intervals. Although the data is referred to as “pre-crash” data, it is not intended to imply that no other collisions had occurred prior to the event which triggered airbag deployment. A vehicle can strike (or be struck by) objects which may be discernable to the ACM but insufficient to trigger an airbag deployment. Thus, a “crash” or “crashes” can occur prior to the deployment event.

When interpreting this data along with video evidence, the time of “zero” should coincide with deployment of the Jeep’s airbag rather than any prior collisions.



A graphic representation of the data for visual reference.

Pre-Crash Data -5 to 0 Sec (Part II - 250 msec) (Most Recent Event - Deployment Event) - Table 1 of 2

Time (sec)	Vehicle Event Recorder Status	Cruise Control Status	Forward Collision Warning System Status	PCM MIL	ETC Lamp	Current Gear	Shift Selector Position
-5.00	Complete	Off	Off	Off	Off	D1	Drive
-4.75	Complete	Off	Off	Off	Off	D1	Drive
-4.50	Complete	Off	Off	Off	Off	D1	Drive
-4.25	Complete	Off	Off	Off	Off	D1	Drive
-4.00	Complete	Off	Off	Off	Off	D1	Drive
-3.75	Complete	Off	Off	Off	Off	D1	Drive
-3.50	Complete	Off	Off	Off	Off	D1	Drive
-3.25	Complete	Off	Off	Off	Off	D1	Drive
-3.00	Complete	Off	Off	Off	Off	D1	Drive
-2.75	Complete	Off	Off	Off	Off	D1	Drive
-2.50	Complete	Off	Off	Off	Off	D1	Drive
-2.25	Complete	Off	Off	Off	Off	D1	Drive
-2.00	Complete	Off	Off	Off	Off	D1	Drive
-1.75	Complete	Off	Off	Off	Off	D1	Drive
-1.50	Complete	Off	Off	Off	Off	D1	Drive
-1.25	Complete	Off	Off	Off	Off	D1	Drive
-1.00	Complete	Off	Off	Off	Off	D1	Drive
-0.75	Complete	Off	Off	Off	Off	D1	Drive
-0.50	Complete	Off	Off	Off	Off	D1	Drive
-0.25	Complete	Off	Off	Off	Off	D1	Drive

The Jeep was in 1st gear, with the shift selector in "Drive" for the duration of the recording.

Time (sec)	Vehicle Event Recorder Status	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % Full (%)	Service Brake	Engine RPM (RPM)	ABS Activity	Stability Control	Steering Input (deg)
-5.0	Complete	3 [5]	0	Off	1,501	Not active	On	522.2
-4.9	Complete	4 [6]	0	Off	1,633	Not active	On	522.3
-4.8	Complete	4 [7]	0	Off	1,627	Not active	On	522.4
-4.7	Complete	4 [7]	0	Off	1,560	Not active	On	522.3
-4.6	Complete	4 [7]	0	Off	1,468	Not active	On	522.2
-4.5	Complete	4 [7]	0	Off	1,360	Not active	On	522.0
-4.4	Complete	4 [6]	0	Off	1,266	Not active	On	521.6
-4.3	Complete	2 [4]	84	Off	1,158	Not active	On	517.0
-4.2	Complete	2 [4]	70	Off	1,034	Not active	On	516.0
-4.1	Complete	2 [4]	16	Off	924	Not active	On	513.2
-4.0	Complete	2 [3]	16	Off	883	Not active	On	511.2
-3.9	Complete	1 [2]	100	Off	886	Not active	On	511.9
-3.8	Complete	1 [1]	100	Off	888	Not active	On	507.9
-3.7	Complete	1 [1]	100	Off	996	Not active	On	502.1
-3.6	Complete	1 [1]	100	Off	1,401	Not active	On	500.6
-3.5	Complete	0 [0]	100	Off	1,823	Not active	On	500.4
-3.4	Complete	0 [0]	100	Off	2,153	Not active	On	493.9
-3.3	Complete	0 [0]	100	Off	2,351	Not active	On	480.8
-3.2	Complete	1 [1]	100	Off	2,485	Not active	On	474.5
-3.1	Complete	1 [2]	100	Off	2,556	Not active	On	481.7
-3.0	Complete	2 [3]	100	Off	2,589	Not active	On	490.4
-2.9	Complete	7 [11]	100	Off	2,547	Not active	On	494.4
-2.8	Complete	8 [13]	100	Off	2,338	Not active	Engaged	472.7
-2.7	Complete	9 [15]	100	Off	2,379	Not active	Engaged	413.7
-2.6	Complete	4 [6]	100	Off	2,311	Not active	Engaged	323.5
-2.5	Complete	5 [8]	98	Off	2,326	Not active	Engaged	225.9
-2.4	Complete	8 [13]	94	Off	2,370	Not active	Engaged	180.5
-2.3	Complete	5 [8]	100	Off	2,370	Not active	Engaged	171.1
-2.2	Complete	4 [7]	100	Off	2,395	Not active	Engaged	161.7
-2.1	Complete	4 [7]	100	Off	2,429	Not active	Engaged	174.4
-2.0	Complete	5 [8]	100	Off	2,404	Not active	Engaged	206.2
-1.9	Complete	5 [8]	100	Off	2,406	Not active	Engaged	195.3
-1.8	Complete	5 [8]	100	Off	2,414	Not active	On	147.4
-1.7	Complete	6 [9]	100	Off	2,409	Not active	On	101.6
-1.6	Complete	6 [9]	100	Off	2,387	Not active	On	85.9
-1.5	Complete	6 [9]	100	Off	2,389	Not active	On	83.0
-1.4	Complete	6 [9]	100	Off	2,381	Not active	On	90.3
-1.3	Complete	7 [11]	100	Off	2,377	Not active	On	82.2
-1.2	Complete	7 [12]	100	Off	2,363	Not active	On	68.3
-1.1	Complete	9 [14]	100	Off	2,365	Not active	On	59.3
-1.0	Complete	10 [16]	100	Off	2,416	Not active	On	55.7
-0.9	Complete	11 [17]	100	Off	2,512	Not active	On	55.5
-0.8	Complete	12 [19]	100	Off	2,602	Not active	On	61.7
-0.7	Complete	13 [21]	100	Off	2,688	Not active	On	78.0
-0.6	Complete	14 [22]	100	Off	2,775	Not active	On	84.5
-0.5	Complete	14 [23]	100	Off	2,895	Not active	On	82.0
-0.4	Complete	16 [25]	100	Off	3,053	Not active	On	66.2
-0.3	Complete	16 [26]	100	Off	3,205	Not active	On	43.5
-0.2	Complete	17 [28]	100	Off	3,315	Not active	On	26.3
-0.1	Complete	18 [29]	100	Off	3,462	Not active	On	17.4

Throughout the recording, the Service Brake (aka brake pedal) remains off. At no point does the driver attempt to stop or reduce speed by braking.

The accelerator pedal moves to 100% at the 3.9 second interval. It remains there for all but 0.2 seconds of the recording, with a brief drop to 94% at the 2.4 second interval. In the following chart, the Engine Throttle percentage is no greater than 86% for the duration of the recording, indicating the driver is demanding more power than the vehicle's traction and stability control features are permitting.

The Stability Control engages at 2.8 seconds through 1.9 seconds. This intervention by the vehicle's safety features is consistent with the drop in engine throttle percentage in that same time span as seen in the following chart. Therefore, observations of a video may imply the driver attempted to reduce power when the sound of the engine is heard. However, it is apparent from the vehicle's data that the reduction in power is a product of the vehicle's inputs rather than that of the driver.

Pre-Crash Data -5 to 0 Sec (Part II - 100 msec) (Most Recent Event - Deployment Event)
Table 2 of 2

Time (sec)	Wheel Speed, RF (MPH [km/h])	Wheel Speed, RR (MPH [km/h])	Brake Pedal Position (%)	Engine Throttle, % Full (%)	Closest In-Path Vehicle is Fused	Object of Interest Distance (m)	Brake Jerk Response
-5.0	4 [6]	4 [6]	0	16	No	No Object	No
-4.9	4 [7]	4 [6]	0	13	No	No Object	No
-4.8	5 [8]	4 [7]	0	11	No	No Object	No
-4.7	6 [9]	5 [8]	0	9	Yes	No Object	No
-4.6	6 [10]	5 [8]	0	7	Yes	No Object	No
-4.5	6 [10]	6 [9]	0	5	No	No Object	No
-4.4	4 [7]	4 [7]	0	4	No	No Object	No
-4.3	3 [5]	3 [5]	0	3	No	No Object	No
-4.2	4 [6]	3 [5]	0	1	No	No Object	No
-4.1	3 [5]	2 [4]	0	5	No	No Object	No
-4.0	2 [4]	2 [3]	0	7	No	No Object	No
-3.9	2 [3]	2 [3]	0	4	No	No Object	No
-3.8	1 [2]	1 [2]	0	8	No	No Object	No
-3.7	1 [1]	1 [1]	0	28	No	No Object	No
-3.6	1 [1]	1 [1]	0	38	No	No Object	No
-3.5	0 [0]	0 [0]	0	47	No	No Object	No
-3.4	0 [0]	0 [0]	0	56	No	No Object	No
-3.3	0 [0]	0 [0]	0	62	No	No Object	No
-3.2	0 [0]	1 [2]	0	66	No	No Object	No
-3.1	2 [3]	1 [2]	0	69	No	No Object	No
-3.0	2 [4]	2 [4]	0	71	No	No Object	No
-2.9	3 [5]	2 [4]	0	71	No	No Object	No
-2.8	3 [5]	3 [5]	0	54	No	No Object	No
-2.7	5 [8]	3 [5]	0	54	No	No Object	No
-2.6	4 [7]	4 [7]	0	54	No	No Object	No
-2.5	6 [9]	7 [11]	0	53	No	No Object	No
-2.4	2 [3]	11 [18]	0	56	No	No Object	No
-2.3	6 [9]	4 [7]	0	58	No	No Object	No
-2.2	5 [8]	5 [8]	0	58	No	No Object	No
-2.1	4 [7]	4 [7]	0	58	No	No Object	No
-2.0	5 [8]	5 [8]	0	60	No	No Object	No
-1.9	5 [8]	5 [8]	0	60	No	No Object	No
-1.8	5 [8]	5 [8]	0	60	No	No Object	No
-1.7	6 [9]	6 [9]	0	59	No	No Object	No
-1.6	6 [9]	6 [9]	0	60	No	No Object	No
-1.5	6 [9]	6 [9]	0	60	No	No Object	No
-1.4	6 [10]	6 [10]	0	65	No	No Object	No
-1.3	7 [12]	7 [11]	0	67	No	No Object	No
-1.2	8 [13]	8 [13]	0	67	No	No Object	No
-1.1	9 [14]	9 [15]	0	67	No	No Object	No
-1.0	10 [16]	10 [16]	0	66	No	No Object	No
-0.9	11 [18]	11 [18]	0	68	No	No Object	No
-0.8	12 [19]	12 [19]	0	69	No	No Object	No
-0.7	13 [21]	13 [21]	0	71	No	No Object	No
-0.6	14 [23]	14 [23]	0	73	No	No Object	No
-0.5	15 [24]	15 [24]	0	75	No	No Object	No
-0.4	16 [26]	16 [25]	0	77	No	No Object	No
-0.3	17 [27]	17 [27]	0	81	No	No Object	No
-0.2	17 [28]	17 [28]	0	84	No	No Object	No
-0.1	18 [29]	18 [29]	0	86	No	No Object	No

Effects of the vehicle's Stability Control can be seen in the reduction of engine throttle percentage.

Pre-Crash Data -5 to 0 Sec (Part II - 100 msec) (Most Recent Event - Deployment Event) - Table 1 of 2

Time (sec)	Vehicle Event Recorder Status	Braking System, Maximum Braking	Brake Torque (Nm)	Brake Torque, Driver (Nm)	ABS MIL	Yaw Rate (deg/sec)	Wheel Speed, LF (MPH [km/h])	Wheel Speed, LR (MPH [km/h])
-5.0	Complete	Not Active	0	0	Off	15.68	3 [5]	2 [4]
-4.9	Complete	Not Active	0	0	Off	18.08	4 [6]	3 [5]
-4.8	Complete	Not Active	0	0	Off	20.96	4 [6]	4 [7]
-4.7	Complete	Not Active	0	0	Off	23.52	4 [7]	3 [5]
-4.6	Complete	Not Active	0	0	Off	26.24	5 [8]	4 [6]
-4.5	Complete	Not Active	0	0	Off	28.00	5 [8]	4 [6]
-4.4	Complete	Not Active	0	0	Off	17.84	4 [6]	3 [5]
-4.3	Complete	Not Active	0	0	Off	11.68	2 [4]	2 [3]
-4.2	Complete	Not Active	0	0	Off	19.84	2 [4]	2 [3]
-4.1	Complete	Not Active	0	0	Off	13.60	2 [4]	2 [3]
-4.0	Complete	Not Active	0	0	Off	5.76	2 [3]	2 [3]
-3.9	Complete	Not Active	0	0	Off	5.68	1 [2]	1 [2]
-3.8	Complete	Not Active	0	0	Off	5.36	1 [1]	1 [1]
-3.7	Complete	Not Active	0	0	Off	-0.24	1 [1]	1 [1]
-3.6	Complete	Not Active	0	0	Off	-2.24	1 [1]	1 [1]
-3.5	Complete	Not Active	0	0	Off	1.04	0 [0]	0 [0]
-3.4	Complete	Not Active	0	0	Off	0.80	0 [0]	0 [0]
-3.3	Complete	Not Active	0	0	Off	0.88	0 [0]	0 [0]
-3.2	Complete	Not Active	0	0	Off	1.68	0 [0]	0 [0]
-3.1	Complete	Not Active	0	0	Off	6.08	1 [2]	1 [2]
-3.0	Complete	Not Active	0	0	Off	10.40	2 [3]	2 [3]
-2.9	Complete	Not Active	0	0	Off	12.40	6 [9]	11 [17]
-2.8	Complete	Not Active	141	0	Off	13.76	18 [29]	14 [23]
-2.7	Complete	Not Active	417	0	Off	14.48	4 [6]	14 [22]
-2.6	Complete	Not Active	21	0	Off	22.64	15 [24]	4 [6]
-2.5	Complete	Not Active	84	0	Off	18.56	5 [8]	4 [7]
-2.4	Complete	Not Active	72	0	Off	-1.36	6 [9]	5 [8]
-2.3	Complete	Not Active	150	0	Off	-5.68	10 [16]	4 [7]
-2.2	Complete	Not Active	45	0	Off	6.72	4 [7]	4 [7]
-2.1	Complete	Not Active	0	0	Off	5.04	4 [7]	4 [7]
-2.0	Complete	Not Active	0	0	Off	0.88	7 [12]	5 [8]
-1.9	Complete	Not Active	0	0	Off	4.40	6 [10]	5 [8]
-1.8	Complete	Not Active	0	0	Off	3.52	5 [8]	5 [8]
-1.7	Complete	Not Active	0	0	Off	4.96	5 [8]	5 [8]
-1.6	Complete	Not Active	0	0	Off	1.68	6 [9]	6 [9]
-1.5	Complete	Not Active	0	0	Off	0.48	6 [9]	6 [9]
-1.4	Complete	Not Active	0	0	Off	4.72	6 [10]	6 [9]
-1.3	Complete	Not Active	0	0	Off	9.84	6 [10]	7 [11]
-1.2	Complete	Not Active	0	0	Off	9.04	7 [12]	7 [12]
-1.1	Complete	Not Active	0	0	Off	2.80	9 [14]	9 [14]
-1.0	Complete	Not Active	0	0	Off	3.20	10 [16]	10 [16]
-0.9	Complete	Not Active	0	0	Off	6.80	11 [17]	11 [17]
-0.8	Complete	Not Active	0	0	Off	6.64	12 [19]	12 [19]
-0.7	Complete	Not Active	0	0	Off	6.56	12 [20]	12 [20]
-0.6	Complete	Not Active	0	0	Off	10.00	14 [22]	14 [22]
-0.5	Complete	Not Active	0	0	Off	12.16	14 [23]	14 [23]
-0.4	Complete	Not Active	0	0	Off	11.52	15 [24]	15 [24]
-0.3	Complete	Not Active	0	0	Off	8.16	16 [26]	16 [26]
-0.2	Complete	Not Active	0	0	Off	4.08	17 [27]	17 [27]
-0.1	Complete	Not Active	0	0	Off	2.96	18 [29]	18 [29]

Effects of the vehicle's Stability Control can also be seen in the form of Brake Torque, despite the absence any braking applied by the driver.

Among the data of the above chart are wheel speeds for the left side tires. When a vehicle is traveling in a straight line all four tires will rotate at a common speed. As a vehicle turns, the outer wheels will travel at a faster speed than the inside tires. However, the front and rear tires are typically similar to each other on a given side.

Factors that may cause a front or rear tire to change speed differently than its counterpart include but are not limited to, damage, slippage, stability control and/or impacts. In the above chart, the left front wheel drops from 18 MPH to 4 MPH and then promptly resumes speed. At this same time interval, the peak brake pressure is observed. Therefore, one could conclude the tire either responded to stability control, or seized briefly due to an impact. The contributing factor to the brief speed reduction cannot be determined from data alone, but may be discernable when compared to the videos.

This synopsis is intended to provide an understanding of the Jeep's data to investigators who are analyzing the related evidence from of the incident. Thus, no conclusions have been drawn in the report.

IMPORTANT NOTICE: Robert Bosch LLC and the manufacturers whose vehicles are accessible using the CDR System urge end users to use the latest production release of the Crash Data Retrieval system software when viewing, printing or exporting any retrieved data from within the CDR program. Using the latest version of the CDR software is the best way to ensure that retrieved data has been translated using the most current information provided by the manufacturers of the vehicles supported by this product.

CDR File Information

User Entered VIN	1C4RJKAG1M8160830
User	Sgt. B.A. Cannon
Case Number	2024-3954
EDR Data Imaging Date	12/24/2024
Crash Date	12/18/2024
Filename	2024-3954 1C4RJKAG1M8160830_ACM.CDRX
Saved on	Tuesday, December 24 2024 at 10:34:17
Imaged with CDR version	Crash Data Retrieval Tool 24.2.383
Imaged with Software Licensed to (Company Name)	Ohio DPS - Highway Patrol
Reported with CDR version	Crash Data Retrieval Tool 24.2.383
Reported with Software Licensed to (Company Name)	Ohio DPS - Highway Patrol
EDR Device Type	Airbag Control Module
Event(s) recovered	Most Recent Event (Deployment Event)

Comments

Sgt. B.A. Cannon
Consent signed 12/19/2024
265/60/18 equipped
265/60/18 OEM

Data Limitations

AIRBAG CONTROL MODULE (ACM) DATA LIMITATIONS:

GENERAL INFORMATION:

CAUTION: During direct-to-module imaging where the Airbag Control Module (ACM) is disconnected and removed from a vehicle, make sure the ACM is not moved, tilted or turned over while connected to and powered by the CDR Interface Module (with appropriate adaptors in place, where required). Also, after a CDR imaging process, wait 2 minutes after power is removed from the ACM before attempting to move the module. Not following these general ACM guidelines for direct-to-module imaging may cause new events to be recorded in the ACM.

- For additional definitions, please refer to the CDR Help File Glossary.
- As the VIN may be used to determine the configuration of the restraint system, it is imperative that the correct VIN be entered into the CDR Tool during the imaging process.
- If a DLC adapter has to be used with the CDR Tool, the "Read VIN from Vehicle" feature in the CDR Tool will not work. The VIN will have to be manually entered.
- If a 2021 or later MY Dodge Durango was imaged with a CDR Tool version 19.4 or older, the ACM will need to be reimaged as not all the peripheral sensor data will have been retrieved.
- If a 2023 MY Jeep Grand Cherokee or Jeep Grand Cherokee L was imaged with a CDR Tool version 23.0.2 or older, the ACM will need to be reimaged as not all the data will have been retrieved.
- The 2019 MY RAM 1500 may take up to 30 minutes to retrieve the EDR data. The ignition will time out within 20 minutes so the vehicle flashers must be turned on within 20 minutes to keep the ignition and communication bus active.
- Lateral Delta V will not be displayed for the 2013 MY Jeep Compass and Patriot.
- Ignition Cycle, download/crash
 - For RAMs and Dodge Vipers, there are 2 internal ignition counters in the ACM. It is possible for the ignition cycles at download to be different than the ignition cycles at event due to the 2 different counters.
 - Note that the ignition cycle count in an ACM may differ from the ignition cycle count in a Pedestrian Protection Module (PPM) in the same vehicle due to the fact that the ACM has an energy reserve while the PPM does not.
- The following table provides an explanation of the sign notation for data elements that may be included in this CDR report. All directional references to sign notation are from the perspective of the driver when seated in the vehicle facing the direction of forward vehicle travel.

Data Element Name	Positive Sign Notation Indicates
Delta-V, Longitudinal	Forward
Maximum Delta-V, Longitudinal	Forward
Delta-V, Lateral	Left to Right
Maximum Delta-V, Lateral	Left to Right
Angular Rate	Clockwise rotation around the longitudinal axis
Peripheral Sensors, X and Y	Outside to Inside

Pressure Sensors	Compression of air
Internal Y Acceleration	Left to Right
Low-g Z Acceleration	Downward
Steering Input	Steering wheel turned counter clockwise
Yaw Rate	Counter clockwise rotation

CDR FILE INFORMATION:

- An event will be stored when the delta V is approximately 5 mph (8 km/h) or greater within a 150 ms interval or a non-reversible occupant restraint system is activated. For non-NAFTA ACMs that control pedestrian protection devices, a non-deployment event will be stored when the pedestrian protection devices are activated.
- A non-deployment event may be stored with activation of the Active Head Restraints. See AHR explanation under System Configuration at Retrieval/Event section.
- A deployment event may be stored in a 2019 MY+ Ram 3500 as the result of a rear impact, even though the Ram 3500 does not deploy any restraint system devices in a rear impact.

Event(s) Recovered definitions:

- None - There are no stored events in the ACM
- Not Retrievable - Event Data may be stored in the ACM but is not retrievable by the CDR Tool.
- Most Recent Event - Data of the most recent event is displayed in the report
- 1st Prior Event - Two events are stored in the ACM, Data displayed is of the first prior event.
- 2nd Prior Event - Three events are stored in the ACM, Data displayed is of the second prior event.
- For 2013 and 2014 MY Dodge Journey and Fiat Freemont:
 - Event Record 1 - Data from an event is stored in the ACM (not necessarily in chronological order)
 - Event Record 2 - Data from another event is stored in the ACM (not necessarily in chronological order)
- For TRW modules:
 - If there is a side impact, two EDR events may be stored for the one side impact event. The second event may be recorded due to the Lateral Delta V exceeding 5 mph (8 km/h) within a 150 ms interval after the side deployment occurred.
- For some Fiat vehicles:
 - Two EDR events may be stored for one impact event. The second event may be recorded due to the deployment of the frontal airbag, 3rd stage passenger.
- During an event, if power to the ACM is lost, all or part of the event data record may not be recorded. An indication may be observed in the recorded data under this condition: The restraint data is recorded first and then the vehicle data.
 - "None" may be displayed in the "Event(s) Recovered" section of the report indicating no pre-crash vehicle data.
 - An event may be displayed in the "Event(s) Recovered" section of the report and "Interrupted" will be displayed for Pre-Crash Recorder Status.
- For the 2021MY Jeep Grand Cherokee L, an event may be displayed in the "Event(s) Recovered" section of the report as "End of Line Test event - See Data Limitations". This event is an End of Line test event from the module manufacturing process which will be included in the count for the total number of events, but no data will be displayed in the CDR Report.

SYSTEM STATUS AT RETRIEVAL:

- Original VIN - The VIN is captured by the ACM when the vehicle was first manufactured. Once it has been recorded, this number cannot be changed.
- VIN, Current - reflects the Vehicle Identification Number of the vehicle on which the ACM is currently installed.
- Original TVV Data Identifier Number - captured by the ACM when the vehicle was first manufactured.
- Effective TVV Data Identifier Number - captured by the ACM if the vehicle has been modified by a multistage manufacturer

SYSTEM CONFIGURATION AT RETRIEVAL/EVENT:

- The System Configuration data tables indicate the components that the ACM for a particular vehicle monitors and/or controls.
- Active Head Restraint (AHR) - This refers to some active head restraint systems that are electronically controlled by the ACM. AHRs may activate but not store an EDR Record if the delta V does not exceed the minimum delta V threshold. It is possible that the AHRs may activate after the EDR record has been stored and written, based on achieving the minimum delta V. This condition will result in an EDR but no record of the AHR activation in the CDR report. Activation of only the AHRs, if stored, will be a non-deployment event.
- "System Configuration at Retrieval" table will not be displayed for 2024 MY Alfa Romeo Giulia and Stelvio.

SYSTEM STATUS AT EVENT:

- Accident Emergency Call System (AECS) Status - "Faulted" indicates a fault / failure in the AECS. "On but emergency call not automatically triggered" indicates that the system is functional, but the emergency call was not triggered by the ACM. "On - Emergency call automatically triggered" indicates that the emergency call was triggered by the ACM.
- Frontal Airbag Warning Lamp / Airbag Warning Lamp - In Veoneer modules, the airbag warning lamp may indicate ON at the time of a most recent event without any DTCs present if a deployment event has already occurred in the same ignition cycle. The ABWL will come on due to the deployment but, as there are still algorithms processing data, the actual faults will not be qualified yet and will not show up as DTCs.
- Number, Total Events / Total Number of Events - Cumulative number of events that the ACM has recorded, including those non-deployment

events that have been overwritten by a subsequent event.

- For the 2021MY Jeep Grand Cherokee L, the module will contain one, two, or three End of Line test events from the module manufacturing process which will be included in the count for the total number of events. However, the data from these End of Line test events will not be displayed in the CDR Report.
- Occupant Size Classification, Outboard Front Passenger - "Child" status may be used to indicate anything weighing less than a 5th percentile female adult crash dummy, including an empty seat; "Not Child" indicates anything weighing the same as or more than a 5th percentile female adult crash dummy. "SNA" indicates undetermined;
 - For some non-North American applications, "Empty" indicates an empty seat;
- Odometer at Event - Vehicle odometer at the time of the event
 - For 2014-2016 MY Fiat 500L, the odometer value in miles may be shown in the brackets, labeled as kilometers. If this is the case, the non-bracketed value is not valid.
- Operation via Energy Reserve Only / Operation via Energy Reserve - "Yes" indicates that the ACM had lost power at or before T0 and was only operating on energy reserve at T0.
- Safety Belt Status, Outboard Front Passenger - For pre-2024 MY vehicles sold outside of North America, which do not contain a buckle switch for the outboard front passenger, the safety belt status, outboard front passenger will default to "not buckled/unbuckled".
- System Voltage at Event, ACM / Supply Voltage at Event ACM (V) - Voltage at the ACM as measured by the ACM. This voltage may be approximately 0.7V (one diode drop) below the bused voltage.
- System Voltage at Event, Bused - Voltage of the vehicle system, communicated on the communication bus to other electronic modules in the vehicle.
- Temperature, Outside - Ambient Air Temperature.
- Time, Airbag Warning Lamp On - This is a cumulative time. It indicates the total amount of time that the ACM has requested the Airbag Warning Lamp be turned on.
 - This time does not include the warning lamp bulb check time, which occurs at every ignition cycle
 - For 2013 MY Minivans and new 2017+ MY Jeep Compass, this time is only cumulative for the past 10 ignition cycles.
- Time from event 1 to 2 -
 - If only one event is stored, either a value of 0 or >5 may be displayed for this data element.
 - For the 2018+ MY Promaster and 2019+ MY RAM 1500, a value of 0 may be displayed for the first event or for events >5 seconds apart.
 - If multiple events exist in the EDR, the time from event 1 to event 2 is defined as:
 - For Bosch and TRW modules, the time from the prior recorded event (even if it has been overwritten) to the current recorded event.
 - For Continental modules, the time from the prior existing recorded event (as long as it is still displayed in the CDR report) to the current recorded event. If the prior event in a multi-event condition is overwritten by a subsequent event, the multi-event status will no longer be displayed.
 - For the 2019+ MY RAM 1500, the time from event 1 to 2 may utilize a non-stored event as event 1. In this case, the total number of events and multi-event data elements will not include the non-stored event in the number of events. However, the time from event 1 to 2 will be shown as time from that non-stored event.
- Time, Operation System Time / Operation System Time - This is a cumulative lifetime timer for the ACM. It indicates the total amount of time the ACM has been powered up.
 - For 2019 and later MY RAMs, this time is only cumulative for the current ignition cycle.
- Current Ignition System Operation Time - This is the current ignition cycle timer for ACM. It indicates the total amount of time the ACM has been powered up in the current ignition cycle.
- Tire Pressure Indicator Lamp at Event / Tire Pressure Monitor Indicator Lamp / Tyre Pressure Monitoring System Warning Lamp Status - "On" indicates a tire with low pressure or a fault in the tire pressure monitoring system at the time of the event. The TPM module DTC's should be read and recorded for final system interpretation. "Flashing" indicates a recent fault in the tire pressure monitoring system. Note that if the TPMS is disabled, the Lamp is set to "OFF".
- Tire Pressure at Event / Tire Pressure Status, LF, LR, RF, RR - See "Tire Information" under Pre-Crash Data section for details.
- VIN at Event, Last 8 Digits- Last 8 digits of the VIN of the vehicle at the time the ACM records the event.

DEPLOYMENT COMMAND DATA:

- A "Yes" for a particular item indicates that the ACM commanded the deployment /activation of the associated device.
- The phrase "Exceeded Storage Range" for a particular time to deploy indicates that the deployment time is equal to or greater than the 255 milliseconds that can be stored.
- For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet and for the 2024MY Alfa Romeo Giulia and Stelvio "255" will be displayed for a particular time to deploy whenever the deployment time is equal to or greater than the 255 milliseconds that can be stored.
- If a device is not deployed, the "time to deploy" for that device will N/A.
- A time to deploy value of 0 is valid and indicates that the deployment of the device triggered the EDR t0.
- In vehicles with Bosch and Veoneer ACMs, once a device has been deployed in an ignition cycle, it is possible that the ACM will not attempt to re-deploy any already deployed device during subsequent events in that same ignition cycle.
 - For 2024 MY 500e, data associated to Delta-V Longitudinal and Delta-V Lateral return "Unobtainable value" from 30 ms after crash is ended.

DTCs PRESENT AT START OF EVENT:

- If any DTCs (diagnostic trouble codes) are present in the ACM at the start of the event, these will be listed in this section. A dealership service manual can be used to decode the DTCs.
 - DTCs Present at Start of Event are not present in the 2017-2023 MY Alfa Romeo Giulia, Fiat 500X, Fiat 2024 MY 500e and the Jeep Renegade.
- For the 2021 MY+ Jeep Grand Cherokee L, the DTCs will not be updated for the subsequent events within the same ignition cycle.

FITTED ACTIVE SAFETY AND ACCIDENT AVOIDANCE: (if displayed)

- "Fitted" indicates that the vehicle is equipped with the listed system.

SENSOR DATA:

- The design range for the angular rate data is:
 - +/- 240 deg/sec for Bosch ACMs unless specifically called out below
 - +/- 299.48 deg/sec for the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet and for 2024 MY Alfa Romeo Giulia and Stelvio
 - +/- 300 deg/sec for TRW ACMs, the 2019 MY RAM 1500, and the 2018+ MY Dodge Journey
 - +/- 290 deg/sec for 2008+ MY minivans and 2009-2017 MY Dodge Journey
 - +/- 340 deg/sec for 2017+ MY Chrysler Pacifica and new 2017+ MY Jeep Compass
 - -416.67 deg/sec to +413.41 deg/sec for 2014+ MY Jeep Cherokee
- +/- 300 deg/sec for vehicles with Veoneer ACMs
- For 2024 MY 500e, the design range for the vehicle roll angle data is:
 - +/- 1080 deg
- For 2024 MY RAM Promaster BEV Amazon, the Right Side Door Pressure Sensor is not present (as reported in System Configuration at Retrieval) and the default value 14.94140625 is displayed
- For vehicles that store peripheral sensor data:
 - The data is from remote or satellite impact sensors which are located at various locations in the vehicle
 - t0 for the peripheral sensors is the same as the t0 for the delta V.
- Internal y acceleration is stored prior to t0 so the internal y acceleration data will usually be zero unless the rollover sensing algorithm has triggered storage of the EDR event.
- The words "Sensor Design Range Exceeded" and a vertical line will be displayed on the Longitudinal and Lateral Delta-V graphs the first time the applicable sensor range is exceeded.
- For the 2010-2012 MY Chrysler Town and Country, Dodge Caravan, Dodge Grand Caravan, and Dodge Journey and the 2010-2011 MY Grand Voyager, the angular rate will only be displayed if it is non-zero.

PRE-CRASH DATA:

- The recorded Event may contain Pre-Crash data. Pre-Crash data from the various electronic control modules in the vehicle is transmitted to the Airbag Control Module via the vehicle's communication bus.
- In the Pre-Crash Data graph, data transmitted at a rate other than 0.1 seconds will be shown as dots for each available data point. Only data transmitted at a rate of 0.1 seconds will have the dots connected by a line.
- (if equip.) - If a parameter name is followed by the words (if equip.), then the parameter is only valid for vehicles equipped with the associated parameter/vehicle system.
- The MIL (Malfunction Indicator Lamp) Status for the various recorded systems indicates the requested state of the applicable malfunction indicator lamp at the time that the data was captured. Note: Some fault codes could be stored due to component/system damage from the accident. The appropriate diagnostic tool should be used to read any stored Diagnostic Trouble Codes (DTC's) in the various electronic modules (ACM, PCM, ABS, TCM, etc., where applicable) for use in interpretation of some vehicle specific recorded data.
- ABS Activity / Anti-lock braking system Activity- "Yes" / "Engaged" indicates an active ABS event in which the ABS is actively controlling the brakes.
- ABS MIL- This indicates the ABS fault indicator lamp status. It will only be "On" when there is a fault in the ABS system. The Electronic brake module DTC's should be read and recorded for final system interpretation.
- Accelerator Pedal, % Full - This indicates the actual position of the accelerator pedal. It will be "SNA" if the vehicle is in the power free mode which limits acceleration.
- Accelerator Pedal (Derived), % Full - This indicates the calculated value of the accelerator pedal for battery electric vehicles only (if equip.).
- Accelerator Pedal/Engine Throttle, % Full - This indicates the actual position of the accelerator pedal unless the cruise control is engaged. If the cruise control is engaged, this indicates the actual position of the engine throttle blade.
- AEB (Autonomous Emergency Braking) System Status - "On" / "On but Non-Engaged" indicates the AEB system is functional but not providing any warning or braking intervention. "Off" / "Deactivated" indicates the AEB system was either turned off by the driver or due to a fault/failure. "Warning, but non-engaged" indicates the AEB system is providing pre-intervention warning, but no braking. "Engaged" indicates that AEB system is actively providing the braking.
- AEB Type - This indicates the type of braking intervention in which the vehicle is engaged.
 - AEB-P standard / CMS Braking- The limited autonomous brake request at low vehicle speeds
 - AEB-P extended / CMS Extended Braking- The limited autonomous brake request at extended vehicle speeds
 - ABA/EBA Braking - The advanced brake assist to provide additional braking during an emergency braking event
 - AEB-L Braking - The full autonomous brake request at low vehicle speeds
 - PEB Braking - The brake request by the Pedestrian Emergency Brake system
 - ICA-L / R Braking - The brake request by the Intersection Collision Assist system
- AEBS Limit Fail - This indicates the AEB is operating with limited functionality as camera is unavailable or is in an irregular operation state due to a fault and service is required.
- AEBS Limited - This indicates the AEB is operating with limited functionality as camera is blind / blocked OR video image is reported as degraded by the camera.
- AEB Blind - This indicates the AEB is unavailable due to blocked radar sensor.
- AEB Fault Status - This indicates the AEB is unavailable due to fault / failure and service is required.
- Automatically Commanded Steering Function Category A Status - This indicates the status of park assist system. "Active" indicates the system is actively controlling the steering to provide park assist. "Stand-by" indicates the system is available but not actively controlling the steering. "Off" indicates the system is turned off by the customer. "Faulted" indicates a fault/ failure in the park assist system.
- Automatically Commanded Steering Function Category B1 Status - This indicates the status of Highway Assist System (HAS) / Lane Centering System (LCS). "Active" indicates the system is actively controlling the steering to provide highway assist / lane centering. "Stand-by" indicates the system is available but not actively controlling the steering. "Off" indicates the system is turned off by the customer. "Faulted" indicates a

- fault/ failure in the HAS/ LCS.
- Brake Intervention Status/ Brake Intervention Enabled Status - This indicates if ESC can perform brake interventions. "Active Brake Intervention" indicates the brake interventions by ESC are enabled, and "No Active Brake Intervention" indicates the brake interventions by ESC are not enabled.
 - Brake Pedal Position - This indicates the percentage of brake pedal depression by the driver.
 - Brake Torque - This indicates the calculated amount of brake torque the system is producing at the wheels.
 - Brake Torque Driver - This indicates the calculated amount of brake torque that the driver is requesting.
 - Braking System, Maximum Braking -- "Yes" indicates that ABS is active on all 4 wheels at the same time.
 - For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet and for 2024 MY Alfa Romeo Giulia and Stelvio, "Braking System, Maximum Braking" indicates the status (active/not active) of the Hydraulic Brake Assist (HBA).
 - Cruise Control:
 - Note that the following two Cruise Control data elements are only valid for vehicles not equipped with Adaptive Cruise Control (ACC). For vehicles equipped with ACC, the ACC data elements are used for both regular Cruise Control and ACC.
 - Cruise Control System/Lamp Status - "On" indicates that the Cruise Control system is turned on.
 - Cruise Control Status - "Off" indicates that all cruise control functionality is disabled; "NCC_On" indicates that the Normal Cruise Control system is turned on; "NCC_Engaged" indicates the Normal Cruise Control is actively controlling vehicle speed; "ACC_On" indicates that ACC is turned on; "ACC_Engaged" indicates that the ACC is actively controlling vehicle speed.
 - For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet and 2024 MY Alfa Romeo Giulia and Stelvio "Fail Present" is set if the CC-related steering wheel commands "Speed Rocker", "Resume" and "Resume/Cancel" fail the plausibility check; otherwise, the signal is set to "Fail Not Present".
 - Cruise Control Engaged Status/Active / Cruise Control Engaged - "Engaged"/ "Yes"/ "Active" indicates the Cruise Control system is actively controlling vehicle speed. "Not Engaged"/ "No"/ "Not Active" indicates the system is NOT controlling vehicle speed.
 - Cruise Control Override - "Active" indicates that the driver has overridden the set speed. "Not Active" indicates that the cruise control is either not turned on or is not being overridden.
 - Adaptive Cruise Control (ACC) Status / System Status (if equip.) - "Off" indicates that all cruise control functionality is disabled. "NCC_On" indicates that the Normal Cruise Control system is turned on. "NCC_Set" indicates the Normal Cruise Control is actively controlling vehicle speed. "ACC_On" indicates that ACC is turned on. "ACC_Set" indicates that the ACC is actively controlling vehicle speed. If the value is SNA for all time stamps, then the vehicle is not equipped with ACC.
 - For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet, for 2024MY 500e and for 2024 MY Alfa Romeo Giulia and Stelvio, "Off" indicates that system has been disabled by the user; "Enabled" indicates that the system has been enabled by the user, but is not engaged; "Engaged" indicates that the system is actively controlling and regulating the cruise speed; "Engaged Brake Only" indicates that the system is actively controlling only the braking portion; "Override" indicates that the system engagement is suspended to allow the driver manual takeover; "Cancel" indicates that the system has been disengaged by the driver or due to other reasons.
 - For 2024 MY Alfa Romeo Giulia and Stelvio, "Suggestion Engaged" indicates that the iACC ("Intelligent Adaptive Cruise Control") system is regulating the cruise speed according to Traffic Sign Recognition (TSR); "Suggestion Override" indicates that the iACC system engagement is suspended to allow the driver manual takeover.
 - Set Speed / Adaptive Cruise Control Set Speed (if equip.) - This indicates the desired speed in mph that was input by the driver for the cruise control system.
 - ACC Faulted / Adaptive Cruise Control System Fail Status - "Yes" / "Fail Present" indicates that the ACC system will not function and the ACC warning lamp is lit; "No" / "Fail Not Present" indicates that the ACC system is functional and the ACC warning lamp is off;
 - For new 2017+MY Jeep Compass, cruise control data elements are only available for vehicles NOT equipped with ACC.
 - Corrective Steering Function (LKA) Status / Emergency Steering Function Status - This indicates the status of Lane Keep Assist system. "Engaged" indicates the system is actively controlling the steering. "On but not engaged" indicates the system is available but not actively controlling the steering. "Off" indicates the system is turned off by the customer. "Faulted" indicates a fault/ failure in the lane keep assist system.
 - Corrective Steering Function (DST) Status - This indicates the status of Dynamic Steering Torque system. "Engaged" indicates the system is actively controlling the steering. "On but not engaged" indicates the system is available but not actively controlling the steering. "Off" indicates the system is turned off by the customer. "Faulted" indicates a fault/ failure in the DST system.
 - Drive Mode - This indicates the driver selected mode of operation (e.g. normal, sport, track, ...)
 - EBD (Electronic Brake Distribution) failure status - This indicates a fault/ failure in the Electronic Brake Distribution system.
 - Electric Steering failure status - This indicates a fault/ failure in the electric steering system
 - Electric Steering Status - This indicates the Electric power steering warning display request.
 - "OK" indicates no active warning
 - "Faulted/ SERV_HI" indicates service required (EPS ASSIST OFF)
 - "Faulted/ ERR" indicates service required (EPS WARNING LAMP ON)
 - "Warning/ ERR2" indicates power steering-over temp (EPS TOO HOT)
 - SNA: EPS WARNING LAMP ON
 - Electronic Brake/Stability Control information:
 - Stability Control - This is the status of the ESC symbol - "car with squiggly lines" indicator lamp. "On" indicates that the ESC system is functional. "Off" indicates that the ESC system was turned off either by the driver or due to a fault or thermal mode shutdown. "Engaged" indicates an active ESC/TCS event. "Partial Off" indicates that engine management has been turned off but brake traction control is still functional.
 - For the Jeep Renegade, if the Stability Control is "Off", the ESC Button Status is "Disabled", and the vehicle speed exceeds 40 mph, the stability control system will operate in a reduced functionality mode with traction control turned off ("partial off" mode) even though the user disabled it. For all other conditions, when the Stability Control is "Off", the stability control system will be off.
 - For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet stability control will not be displayed.
 - ESC Button Status - This indicates the driver selected mode for the ESC system. "Disabled"/ "Not Active" indicates that the driver pressed the ESC Button to disable engine management. "Enabled"/ "Active" is the default state for the ESC system.
 - SRT and some Fiat products have the ability to fully disable the ESC system if the ESC button has been pressed and held for a specific amount of time. Additional system analysis is required.
 - ESP Feature is Completely Disabled - This indicates that the stability control system has turned off engine management, traction

- control, and stability control.
- ESC/ESP MIL - This indicates the ESC/ESP fault indication lamp status. It will only be "On" when there is a fault or thermal mode shutdown in the ESC/ESP system. The ESC/ESP module DTC's should be read and recorded for final system interpretation.
- Brake Intervention by ESP - "Yes" indicates that the stability control system has engaged the brakes.
- Engine Torque Applied - "No" indicates no engine torque output was applied (as in Park/Neutral for Automatic transmissions or clutch depressed on manual or during an ESP/Traction Control event). If "Yes", then engine torque output was applied.
- Traction Control Active - "Yes" indicates that the traction control system is actively controlling the vehicle's wheels.
- Electronic Park Brake (EPB): Park Brake Engaged - "Yes" indicates that the park brake is applied.
- EPB MIL - "On" indicates that there is a fault in the Electronic Park Brake System.
- Engine RPM - For the RAM ProMaster City, the minimum resolution for Engine RPM is 32 rpm. Engine Throttle, % Full - This indicates the actual position of the Engine Throttle blade. This data element is not supported by vehicles with diesel engines. Thus a value of "SNA" will be displayed if the vehicle has a diesel engine.
- EPB lamp status: Electronic Park Brake warning lamp status.
 - "Off" indicates no warning,
 - "On" indicates faulted, and
 - "Flashing" indicates EPB Service Mode.
- EPB hold status: This indicates the current Electronic Park Brake Hold Status.
 - "Brakes Released" indicates EPB is released (this is a static state),
 - "Brakes Applied" indicates EPB is applied i.e. engaged/closed (this is a static state),
 - "Applying" indicates EPB is applying (the motor is moving) (this is a dynamic state),
 - "Releasing" indicates EPB is releasing (the motor is moving) (this is a dynamic state),
 - "Dynamic Control" indicates the EPB Dynamic Park Brake function is activated (When the driver uses the EPB switch to apply the park brakes if the vehicle is in dynamic mode),
 - "Undetermined" indicates the EPB motors are moving before they reach the stable state or lost power when motor is moving.
- ETC Lamp - Lamp "ON"/"On, Fail" indicates there is an active Electronic Throttle DTC.
- ETC Lamp Flashing - "Yes"/"Flashing, Fail" indicates that the ETC is in the limp-in mode.
- ETC Lamp: Flash on service -- indicates that service is necessary on the ETC module.
- Forward Collision Warning (FCW) (if equip.):
 - Object of Interest Distance - If the FCW system is acting on the object, this indicates the actual forward distance to the main object being tracked by the FCW system. "No Object" indicates that the FCW system is not currently acting on an object. If the value is SNA for all time stamps, then the vehicle is not equipped with FCW.
 - FCW System Operating State - "Off" indicates that the FCW system is off and the FCW Warning Lamp will be "On"; "On" indicates that the FCW system is on with the audible and visual warnings enabled.
 - FCW System Status - "Off" indicates that the FCW system is off and the FCW Warning Lamp will be "On". "On-warning" / "On, only Warning" indicates that the FCW system is on but active braking is disabled. In an FCW event, the driver will only receive FCW audible and visual warnings. "On-full" / "On, Full" indicates that the FCW system is fully on with active braking enabled as well as the audible and visual warnings enabled. SNA indicates that the vehicle is not equipped with FCW.
 - For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet, 2024 MY Alfa Romeo Giulia and Stelvio and 2024 MY 500e "On-braking" / "On, only Braking" indicates that the system is engaged and ready to brake autonomously without providing a collision warning before braking occurs.
 - FCW Braking Enabled - "Yes" indicates that the FCW system has active braking enabled; "No" indicates that the FCW system does not have active braking enabled.
 - Fused Vehicle - "Yes" indicates that the FCW system has detected a vehicle of interest, but it does not indicate if the FCW system is acting on the object.
- Gear Position/Current Gear - For all vehicles except the RAM ProMaster City and the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet, this indicates the current transmission gear.
 - For the RAM ProMaster City, the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet and the 2024 MY Alfa Romeo Giulia and Stelvio, this indicates the status of the gear shift lever.
- Gear Status - This indicates what gear the Gearbox (TCM) has currently engaged.
- Estimate Regenerative Braking Axle Torque - (HEV only) This indicates the calculated braking torque applied by the HEV system to the drive axles in Nm.
- Driver Intended Axle Torque - (HEV only) This indicates the calculated value of torque in Nm being applied to the drive axles based on accelerator pedal position.
- Trans torque request - (HEV only) "Yes" indicates that the transmission controller has requested a torque reduction when shifting from one gear to another.
- Static Axle Torque - (HEV only) This indicates the torque in Nm at the axle when the speed of the axle is constant.
- HEV Battery Pack Contactor State - (HEV only) "Closed" indicates that the HEV battery pack is connected to the vehicle's electrical system. "Open" indicates that the HEV battery pack is disconnected from the vehicle's electrical system. "Pre-Charging" indicates that the inverter internal capacitor is charging. "Pre-Charge Failed" indicates that the attempt to charge an internal capacitor failed. "Pre-Charge Inhibited" indicates that an attempt to charge an internal capacitor was not made.
- HEV Lamp Request - (HEV only) This indicates the HEV indicator lamp status. It will only be "On" when there is a fault in the HEV system. The vehicle DTC's should be read and recorded for final system interpretation.
- Lane Departure Warning System (LDWS) Status - "Faulted" indicates a fault / failure in the LDWS. "Off" indicates the system is turned off by the customer. "On but not warning" indicates the LDWS is functional but not providing any warnings. "On - Warning Left" indicates the system is warning the driver when the vehicle is approaching or crossing the left lane marking without the turn signal active. "On - Warning Right" indicates the system is warning the driver when the vehicle is approaching or crossing the right lane marking without the turn signal active.
- Lateral acceleration (pre - crash): This stores the lateral acceleration data used by the ESC system.
- Longitudinal acceleration (pre - crash): This stores the longitudinal acceleration data used by the ESC system.
- Master Cylinder Pressure - This indicates the brake pressure applied to the brakes through the brake pedal.
- Motor X RPM - This indicates the Revolutions Per Minute (RPM) of applicable electrical motor.
- OCM (Occupant Classification Module) status / occupant size classification, passenger - This indicates the occupant size classification, outboard front passenger. "EMPTY_RFIS" indicates either a rear facing infant seat or an empty seat. "OC_5TH_UP" indicates anything weighing the same as or more than a 5th percentile female adult crash dummy. "OC_UNDETERMINED" indicates undetermined. "Child" indicates a 6 year old HII US ATD or Q6 ATD or smaller. "Not Child" indicates larger than a 6 year old HIII US ATD or Q6 ATD.

- OCM (Occupant Classification Module) Fault Status - This indicates if there is a fault in the OCM.
- PCM MIL - This indicates the PCM fault indicator lamp status. It will only be "On" / "Fail, Fix Light Indication" when there is a fault in the PCM.
- "Flashing" / "Fail, Flash Light Indication" indicates misfire detection. The Powertrain Control Module DTC's should be read and recorded for final system interpretation.
 - For the 2023-2024 MY Alfa Romeo Tonale and Dodge Hornet and for the 2024 MY Alfa Romeo Giulia and Stelvio and, 2024 MY500e with ETC (Electric Throttle Control), "Fail, Flash for service" indicates that service is necessary on the ETC module or the ECM (Engine Control Module); while for the versions without ETC service is necessary on the diesel or gasoline ECM system.
 - For 2024 MY 500e, "Fail Not Present" indicates that the lamp is Off and there are no faults on PCM.
- Pre-Crash Recorder Complete / Pre-Crash Recorder Status - Due to the interruption of data recording in one section, this data element may display "Interrupted" for all sections when some data sections are actually complete.
 - For the 2014 MY Jeep Grand Cherokee and Dodge Durango, if recording of angular rate data is interrupted, the entire EDR record will display "Interrupted" even though the rest of the data may be complete.
- PRND/PRNDL/PRNDS Status - This indicates the status of the Shifter Position.
- Raw Manifold Pressure - This indicates engine load in kPa.
- Reverse Gear - For manual transmission vehicles only, "Yes" indicates the transmission is in the reverse gear.
 - For 2024 MY500e, the status for the reverse gear are:
 - "Not Inserted", indicates position R (Reverse) is not pressed.
 - "Inserted" indicates position R is pressed and the position N (neutral) is not pressed.
 - "Not used" is when position R and N are pressed.
- Service Brake - "On"/ "Active" indicates that the brake pedal is physically depressed. Braking from the ABS or FCW systems will not be reported in this data element.
- Shift Selector Position - This indicates the status of the gear shift selector.
- Speed, Vehicle Indicated - This indicates the average of the wheel speeds of the drive wheels.
 - The reporting resolution for Speed, Vehicle Indicated is 1 km/h.
 - To display this data element in mph, the CDR Tool converts the km/h to mph and reports a rounded value in mph.
 - The accuracy of the recorded Speed, Vehicle Indicated may be affected by a significant change of the tire size for the drive wheels or the final drive axle ratio of the transmission from the factory build specifications, wheel lockup, wheel slip, or wheel spin.
 - On some vehicles capable of speeds in excess of 255km/h (about 158 mph), the actual vehicle speed may have exceeded the reporting range. It is always prudent to check the reported wheel speeds and other parameters to confirm the Speed, Vehicle Indicated value(s).
- Tire Information:
 - XX where LF = Left Front Tire, RF = Right Front Tire, LR = Left Rear Tire, and RR = Right Rear Tire.
 - Tire X Location - This indicates the location of the tire pressure sensor data being displayed for that time stamp. Default is used to indicate that the location of the tire pressure sensor is unknown or there is no tire pressure sensor in that wheel. Vehicles with Base Tire Pressure Monitoring systems will display N/A or SNA for both Tire Locations as these vehicles do not send actual pressure values across the communication bus.
 - Tire X Pressure/Tire Pressure Status, XX - This indicates the actual pressure status of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Possible values are Significantly Under Inflated (TPM lamp will be on), LOW/Under/Under Inflated, NORMAL, HIGH/Over/Over Inflated, or SNA for this parameter. Vehicles with Base Tire Pressure Monitoring systems may display NORMAL even though these vehicles do not send actual pressure values across the communication bus.
 - Tire X Pressure/Tire Pressure Value, XX (psi) - This indicates the actual tire pressure value of the Tire Location defined in the previous column (Tire X Location) or by the values for XX. Vehicles with Base Tire Pressure Monitoring systems will display N/A for this parameter as these vehicles do not send actual pressure values across the communication bus.
- For the following vehicles, the tire location, if displayed, may not be accurate if the tires have been rotated:
 - 2013 MY Ram
 - 2013-2017 MY Jeep Patriot
 - 2013-2014 MY Chrysler 200
 - 2013-2017 MY Jeep Compass
 - 2013-2016 MY Dodge Dart
 - For the 2013 MY Ram, if the values for tire pressure status and the tire pressure are SNA, the EDR does not store tire pressure monitoring data.
 - Tire pressure is not stored in the EDR for the following vehicles:
 - 2014-2018 MY RAM 1500
 - 2014+ MY RAM (all but 1500)
 - 2013+ MY Jeep Wrangler
 - 2013 MY Jeep Grand Cherokee
 - 2013 MY Dodge Durango
 - 2013-2014 MY Dodge Challenger
 - 2013-2016 MY Chrysler Town and Country
 - 2013+ MY Dodge Grand Caravan
 - 2015+ MY Fiat 500
- Wheel Speed, XX - This indicates the speed value of a particular tire as denoted by XX.
- Tire Pressure Monitor Indicator Lamp/Faults - "On" indicates a tire with low pressure or a fault in the tire pressure monitoring system. The TPM module DTC's should be read and recorded for final system interpretation. "Flashing" indicates a recent fault in the tire pressure monitoring system.
- "T0" ("Time zero" where '0' is seen as subscript) is defined as "beginning of the crash event". T0 is the time at which the ACM algorithm is activated, a specific Delta-V is exceeded, or a non-reversible restraint device is deployed. T0 may be defined differently for front, side, rear and roll-over events.
 - If multiple algorithm decisions (i.e.: frontal, side, rear and/or rollover) are made before the first recorded event ends, all of those events are part of the same event record and "T0" is defined as the "T0" from the first recorded event.
 - In the Pre-Crash data tables, the relative time marker "-0.1s" or "-0.25s" respectively represents the last set of data captured in the buffer prior to "T0."
- Torque Information:
 - Axle Torque - This indicates the E-Motor Torque multiplied by the gear ratio for battery electric vehicles only.
 - E-Motor Torque - This indicates the calculated torque from the output shaft of the electric motor in battery electric vehicles only.

- Traction Control Status - "Engaged" indicates the system is actively controlling the vehicle through either engine torque management or brake pressure modulation. "On" indicates that the TCS system is functional but not actively controlling the engine torque or brake pressure. "Off" indicates that the TCS system was turned off by the driver. "Faulted" indicates a fault / failure in the TCS system.
- Traction Control Intervention Active - "Active" indicates wheel slippage was occurring during vehicle acceleration.

APPLICATION INFORMATION:

- Alfa Romeo Giulia, Alfa Romeo Stelvio, Fiat 500L, Fiat 500X, and Jeep Renegade are only CDR supported in the United States, Canada, and Saudi Arabia markets.
- Alfa Romeo Tonale is only CDR supported in the United States, Canada, Mexico and Saudi Arabia markets.
- Dodge Hornet is only CDR supported in the United States and Canada markets.
- Fiat 500/500e is only CDR supported in the United States, Canada, Mexico, and Brazil markets.

03002_Chrysler_r052

System Status at Retrieval

Original VIN	1C4RJKAG1M8160830
Ignition Cycle, Download	5,232
ACM Part Number	68518542AG
ACM Serial Number	T007P1971A09730
ACM Supplier	Veoneer
ACM Supply voltage at time of retrieval (V)	11.7

System Configuration at Retrieval

Configured for Frontal Airbag, Driver	Yes
Configured for Front Knee Airbag, Driver	Yes
Configured for Retractor Pretensioner, Driver	Yes
Configured for Anchor Pretensioner, Driver	Yes
Configured for Adaptive Load Limiter, Driver	Yes
Configured for Seat Track Position Switch, Driver	Yes
Configured for Safety Belt Status, Driver	Yes
Configured for Side Curtain Airbag, Left	Yes
Configured for Side Curtain Airbag, Right	Yes
Configured for Seat Side Airbag, Front Left	Yes
Configured for Seat Side Airbag, Front Right	Yes
Configured for Buckle Pretensioner, 2nd Row Left	No
Configured for Buckle Pretensioner, 2nd Row Right	No
Configured for Occupant Classification	Yes
Configured for Passenger Airbag Disable	No
Configured for Frontal Airbag, Outboard Front Passenger	Yes
Configured for Front Knee Airbag, Outboard Front Passenger	Yes
Configured for Retractor Pretensioner, Outboard Front Passenger	Yes
Configured for Anchor Pretensioner, Outboard Front Passenger	Yes
Configured for Adaptive Load Limiter, Outboard Front Passenger	Yes
Configured for Seat Track Position Switch, Outboard Front Passenger	Yes
Configured for Safety Belt Status, Outboard Front Passenger	Yes
Configured for Occupant Detection, Outboard Front Passenger	No

System Configuration at Event (Most Recent Event - Deployment Event)

Configured for Frontal Airbag, Driver	Yes
Configured for Frontal Knee Airbag, Driver	Yes
Configured for Retractor Pretensioner, Driver	Yes
Configured for Anchor Pretensioner, Driver	Yes
Configured for Adaptive Load Limiter, Driver	Yes
Configured for Seat Track Position Switch, Driver	Yes
Configured for Safety Belt Status, Driver	Yes
Configured for Frontal Airbag, Outboard Front Passenger	Yes
Configured for Frontal Knee Airbag, Outboard Front Passenger	Yes
Configured for Retractor Pretensioner, Outboard Front Passenger	Yes
Configured for Anchor Pretensioner, Outboard Front Passenger	Yes
Configured for Adaptive Load Limiter, Outboard Front Passenger	Yes
Configured for Seat Track Position Sensor, Outboard Front Passenger	Yes
Configured for Safety Belt Status, Outboard Front Passenger	Yes
Configured for Side Curtain Airbag, Left	Yes
Configured for Side Curtain Airbag, Right	Yes
Configured for Seat Side Airbag, Front Left	Yes
Configured for Seat Side Airbag, Front Right	Yes
Configured for Seatbelt Pretensioner, 2nd Row Left	No
Configured for Seatbelt Pretensioner, 2nd Row Right	No
Configured for Occupant Classification	Yes
Configured for Passenger Airbag Disable	No
Configured for Passenger Occupant Detection Sensor	No

System Status at Event (Most Recent Event - Deployment Event)

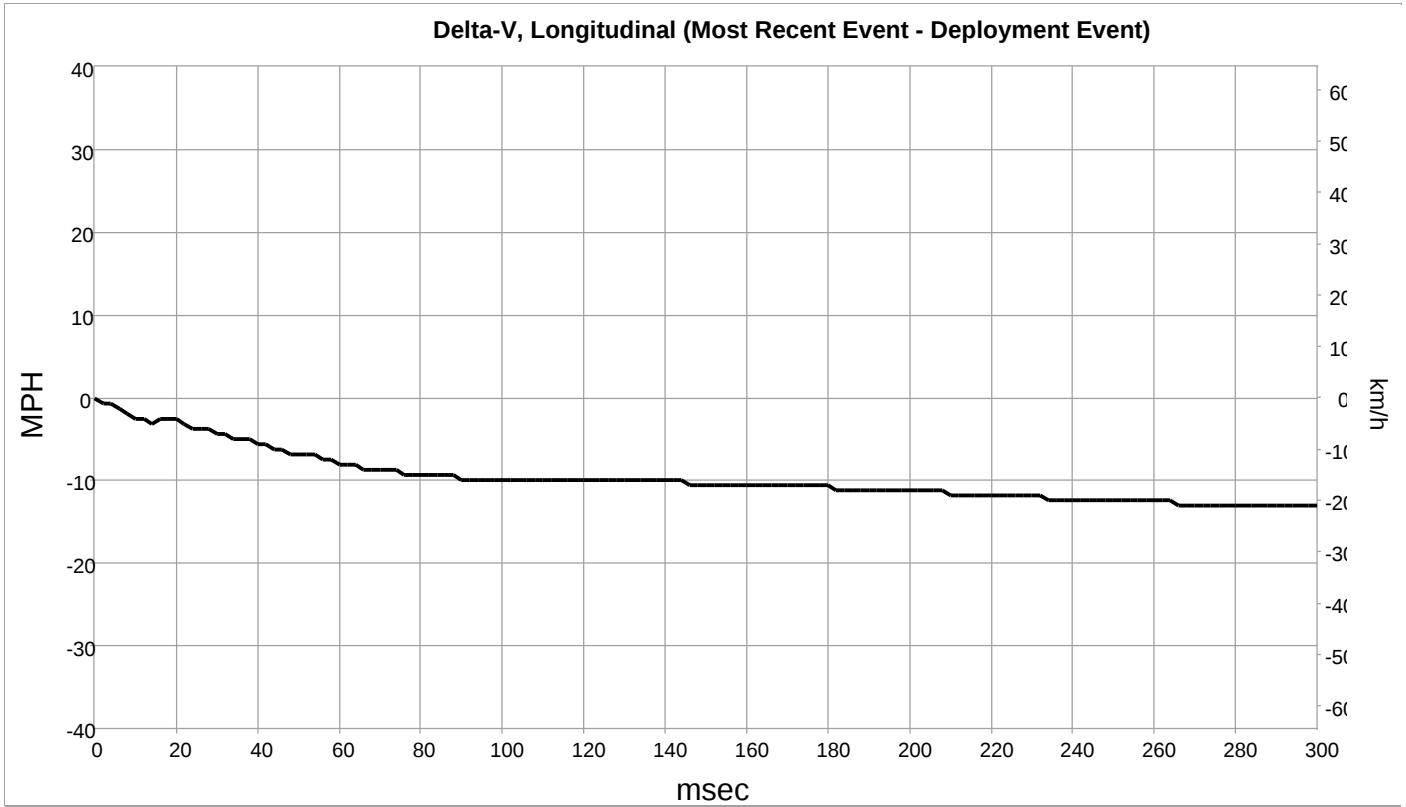
Complete File Recorded	Yes
Event Number	1
Total number of Events	1
Multi-Event, Number of Event	1
Time From Event 1 to 2 (sec)	>5
Safety Belt Status, Driver	Buckled
Safety Belt Status, Outboard Front Passenger	Buckled
Seat Track Position Switch, Foremost, Status, Driver	Not Frontal Zone
Seat Track Position Switch, Foremost, Status, Outboard Front Passenger	Not Frontal Zone
Occupant Size Classification, Outboard Front Passenger	Not Child
Maximum Delta-V, Longitudinal (MPH [km/h])	-13.0 [-21]
Time, Maximum Delta-V, Longitudinal (ms)	266
Maximum Delta-V, Lateral (MPH [km/h])	-1.2 [-2]
Time, Maximum Delta-V, Lateral (ms)	286
Frontal Airbag Warning Lamp	Off
Frontal Airbag Warning Lamp On Time (min)	4.0
Operation System Time (sec)	4,941,350
System Voltage At Event, Bused (Volts)	14.4
System Voltage at Event, ACM (V)	13.7
GPS Date and Time at Event	2021-01-01 00:00:00
Tire Pressure Indicator Lamp at Event	Off
Tire Pressure at Event, LF (PSI [Bar])	37 [2.6]
Tire Pressure at Event, LR (PSI [Bar])	36 [2.5]
Tire Pressure at Event, RF (PSI [Bar])	37 [2.6]
Tire Pressure at Event, RR (PSI [Bar])	37 [2.6]
Ignition Cycle, Crash	5,228
Odometer at Event (miles [km])	29197.6 [46,989.0]
VIN at Event	1C4RJKAG1M8160830
Operation via Energy Reserve at Event	No
Energy Reserve Voltage at Event (Volts)	30.0

Deployment Command Data (Most Recent Event - Deployment Event)

Frontal Airbag Deployment, 1st Stage, Driver	Yes
Frontal Airbag Deployment, Time to Deploy 1st Stage, Driver (ms)	7
Frontal Airbag Deployment, 2nd Stage, Driver	Yes
Frontal Airbag Deployment, Time to Deploy 2nd Stage, Driver (ms)	157
Frontal Airbag Deployment, 3rd Squib, Driver	Yes
Frontal Airbag Deployment, Time to Deploy 3rd Squib, Driver (ms)	157
Frontal Airbag Deployment, 1st stage, Outboard Front Passenger	Yes
Frontal Airbag Deployment, Time to Deploy 1st Stage, Outboard Front Passenger (ms)	7
Frontal Airbag Deployment, 2nd Stage, Outboard Front Passenger	Yes
Frontal Airbag Deployment, Time to Deploy 2nd Stage, Outboard Front Passenger (ms)	157
Frontal Airbag deployment, 3rd Squib, Outboard Front Passenger	Yes
Frontal Airbag Deployment, Time to Deploy 3rd Squib, Outboard Front Passenger (ms)	157
Knee Airbag Deployment, Driver	Yes
Knee Airbag Deployment, Time to Deploy, Driver (ms)	7
Knee Airbag Deployment, Outboard Front Passenger	Yes
Knee Airbag Deployment, Time to Deploy, Outboard Front Passenger (ms)	7
Retractor Pretensioner Deployment, Driver	Yes
Retractor Pretensioner Deployment, Time to Deploy, Driver (ms)	7
Anchor Pretensioner Deployment, Driver	Yes
Anchor Pretensioner Deployment, Time to Deploy, Driver (ms)	13
Adaptive Load Limiter Deployment, Driver	Yes
Adaptive Load Limiter Deployment, Time to Deploy, Driver (ms)	47
Retractor Pretensioner Deployment, Outboard Front Passenger	Yes
Retractor Pretensioner Deployment, Time to Deploy, Outboard Front Passenger (ms)	7
Anchor Pretensioner Deployment, Outboard Front Passenger	Yes
Anchor Pretensioner Deployment, Time to Deploy, Outboard Front Passenger (ms)	13
Adaptive Load Limiter Deployment, Outboard Front Passenger	Yes
Adaptive Load Limiter, Time to Deploy, Outboard Front Passenger (ms)	47
Seat Side Airbag Deployment, Front Left	No
Seat Side Airbag Time to Deploy, Front Left (ms)	N/A
Seat Side Airbag Deployment, Front Right	No
Seat Side Airbag Time to Deploy, Front Right (ms)	N/A
Side Curtain Airbag Deployment, Left	No
Seat Curtain Airbag, Time to Deploy, Left (ms)	N/A
Side Curtain Airbag Deployment, Right	No
Seat Curtain Airbag, Time to Deploy, Right (ms)	N/A

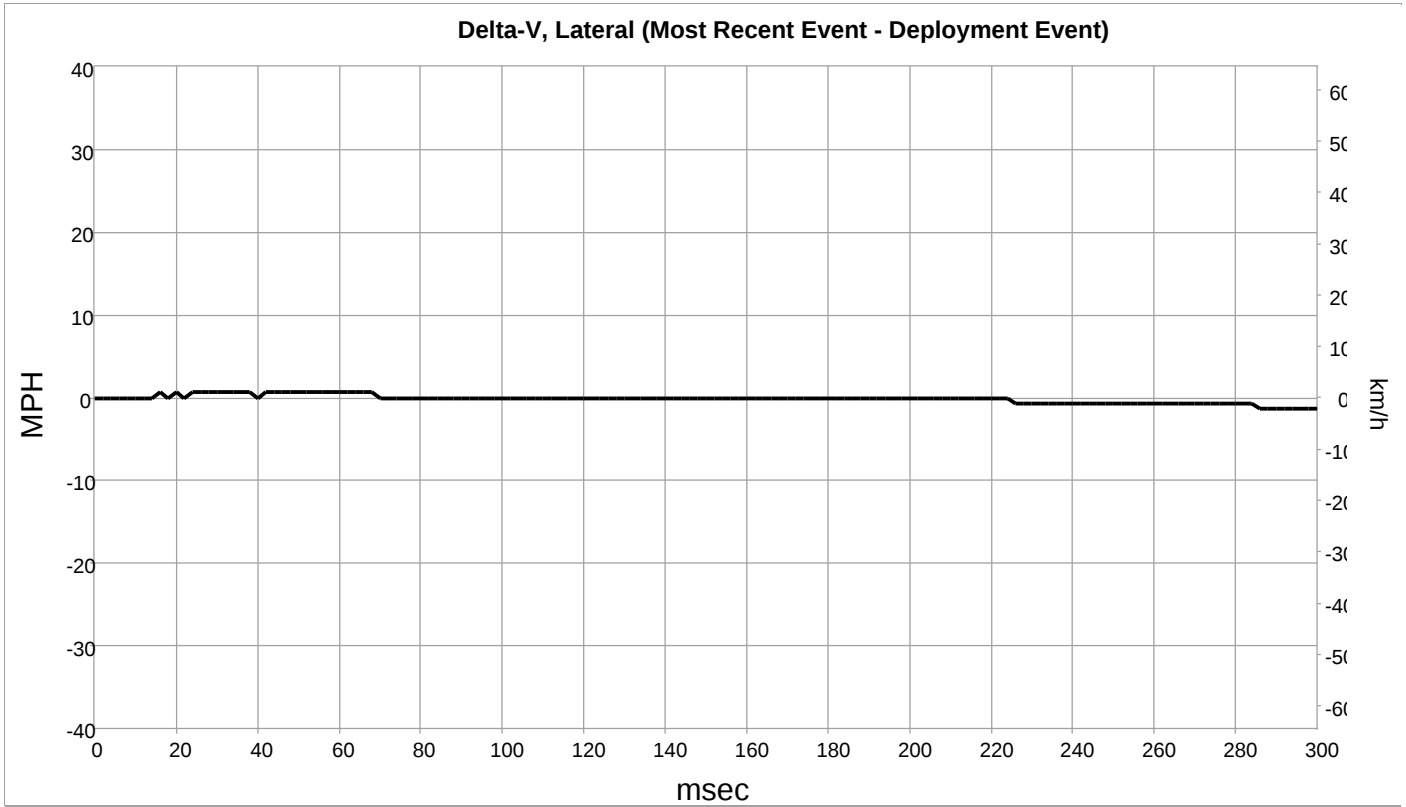
DTCs Present at Start of Event (Most Recent Event - Deployment Event)

DTCs not Present.



Longitudinal Crash Pulse (Most Recent Event - Deployment Event)

Time (msec)	Delta-V, Longitudinal (MPH [km/h])	Time (msec)	Delta-V, Longitudinal (MPH [km/h])	Time (msec)	Delta-V, Longitudinal (MPH [km/h])
0	0 [0]	100	-10 [-16]	200	-11 [-18]
2	-1 [-1]	102	-10 [-16]	202	-11 [-18]
4	-1 [-1]	104	-10 [-16]	204	-11 [-18]
6	-1 [-2]	106	-10 [-16]	206	-11 [-18]
8	-2 [-3]	108	-10 [-16]	208	-11 [-18]
10	-2 [-4]	110	-10 [-16]	210	-12 [-19]
12	-2 [-4]	112	-10 [-16]	212	-12 [-19]
14	-3 [-5]	114	-10 [-16]	214	-12 [-19]
16	-2 [-4]	116	-10 [-16]	216	-12 [-19]
18	-2 [-4]	118	-10 [-16]	218	-12 [-19]
20	-2 [-4]	120	-10 [-16]	220	-12 [-19]
22	-3 [-5]	122	-10 [-16]	222	-12 [-19]
24	-4 [-6]	124	-10 [-16]	224	-12 [-19]
26	-4 [-6]	126	-10 [-16]	226	-12 [-19]
28	-4 [-6]	128	-10 [-16]	228	-12 [-19]
30	-4 [-7]	130	-10 [-16]	230	-12 [-19]
32	-4 [-7]	132	-10 [-16]	232	-12 [-19]
34	-5 [-8]	134	-10 [-16]	234	-12 [-20]
36	-5 [-8]	136	-10 [-16]	236	-12 [-20]
38	-5 [-8]	138	-10 [-16]	238	-12 [-20]
40	-6 [-9]	140	-10 [-16]	240	-12 [-20]
42	-6 [-9]	142	-10 [-16]	242	-12 [-20]
44	-6 [-10]	144	-10 [-16]	244	-12 [-20]
46	-6 [-10]	146	-11 [-17]	246	-12 [-20]
48	-7 [-11]	148	-11 [-17]	248	-12 [-20]
50	-7 [-11]	150	-11 [-17]	250	-12 [-20]
52	-7 [-11]	152	-11 [-17]	252	-12 [-20]
54	-7 [-11]	154	-11 [-17]	254	-12 [-20]
56	-7 [-12]	156	-11 [-17]	256	-12 [-20]
58	-7 [-12]	158	-11 [-17]	258	-12 [-20]
60	-8 [-13]	160	-11 [-17]	260	-12 [-20]
62	-8 [-13]	162	-11 [-17]	262	-12 [-20]
64	-8 [-13]	164	-11 [-17]	264	-12 [-20]
66	-9 [-14]	166	-11 [-17]	266	-13 [-21]
68	-9 [-14]	168	-11 [-17]	268	-13 [-21]
70	-9 [-14]	170	-11 [-17]	270	-13 [-21]
72	-9 [-14]	172	-11 [-17]	272	-13 [-21]
74	-9 [-14]	174	-11 [-17]	274	-13 [-21]
76	-9 [-15]	176	-11 [-17]	276	-13 [-21]
78	-9 [-15]	178	-11 [-17]	278	-13 [-21]
80	-9 [-15]	180	-11 [-17]	280	-13 [-21]
82	-9 [-15]	182	-11 [-18]	282	-13 [-21]
84	-9 [-15]	184	-11 [-18]	284	-13 [-21]
86	-9 [-15]	186	-11 [-18]	286	-13 [-21]
88	-9 [-15]	188	-11 [-18]	288	-13 [-21]
90	-10 [-16]	190	-11 [-18]	290	-13 [-21]
92	-10 [-16]	192	-11 [-18]	292	-13 [-21]
94	-10 [-16]	194	-11 [-18]	294	-13 [-21]
96	-10 [-16]	196	-11 [-18]	296	-13 [-21]
98	-10 [-16]	198	-11 [-18]	298	-13 [-21]
				300	-13 [-21]



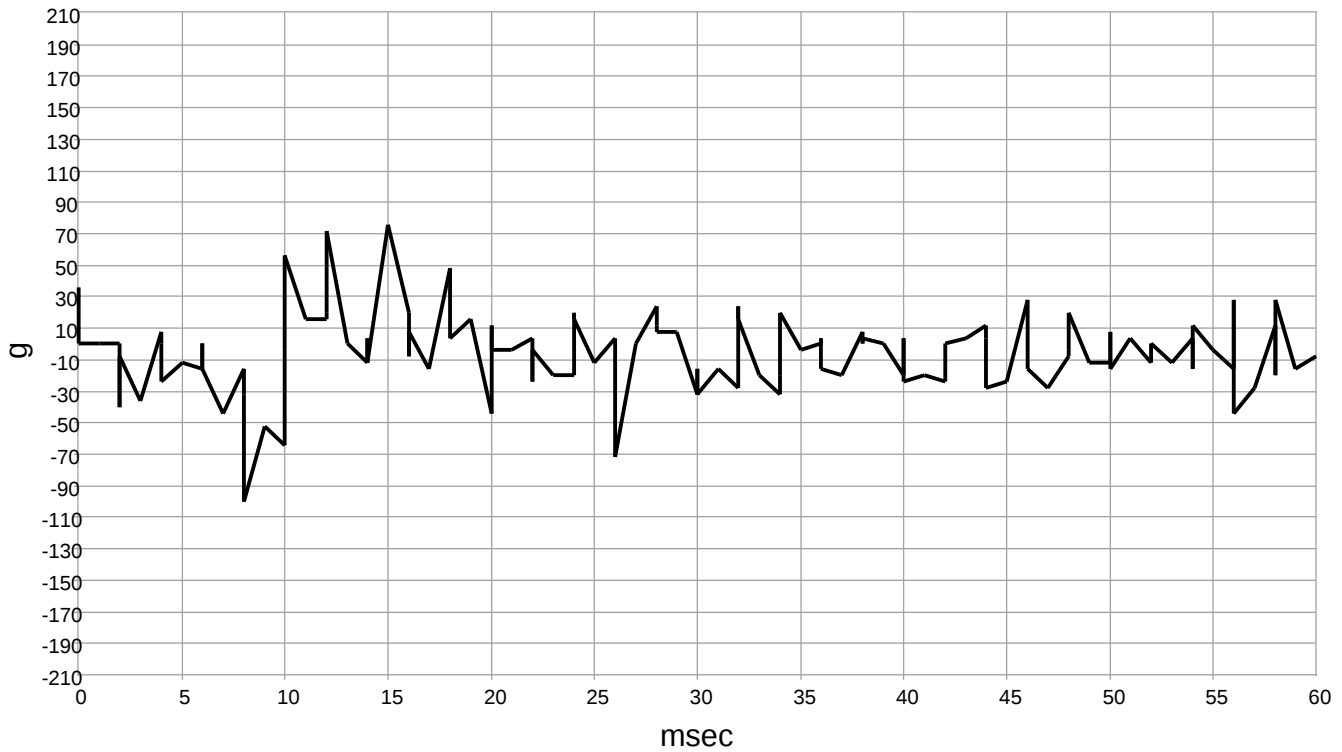
Lateral Crash Pulse (Most Recent Event - Deployment Event)

Time (msec)	Delta-V, Lateral (MPH [km/h])
0	0 [0]
2	0 [0]
4	0 [0]
6	0 [0]
8	0 [0]
10	0 [0]
12	0 [0]
14	0 [0]
16	1 [1]
18	0 [0]
20	1 [1]
22	0 [0]
24	1 [1]
26	1 [1]
28	1 [1]
30	1 [1]
32	1 [1]
34	1 [1]
36	1 [1]
38	1 [1]
40	0 [0]
42	1 [1]
44	1 [1]
46	1 [1]
48	1 [1]
50	1 [1]
52	1 [1]
54	1 [1]
56	1 [1]
58	1 [1]
60	1 [1]
62	1 [1]
64	1 [1]
66	1 [1]
68	1 [1]
70	0 [0]
72	0 [0]
74	0 [0]
76	0 [0]
78	0 [0]
80	0 [0]
82	0 [0]
84	0 [0]
86	0 [0]
88	0 [0]
90	0 [0]
92	0 [0]
94	0 [0]
96	0 [0]
98	0 [0]

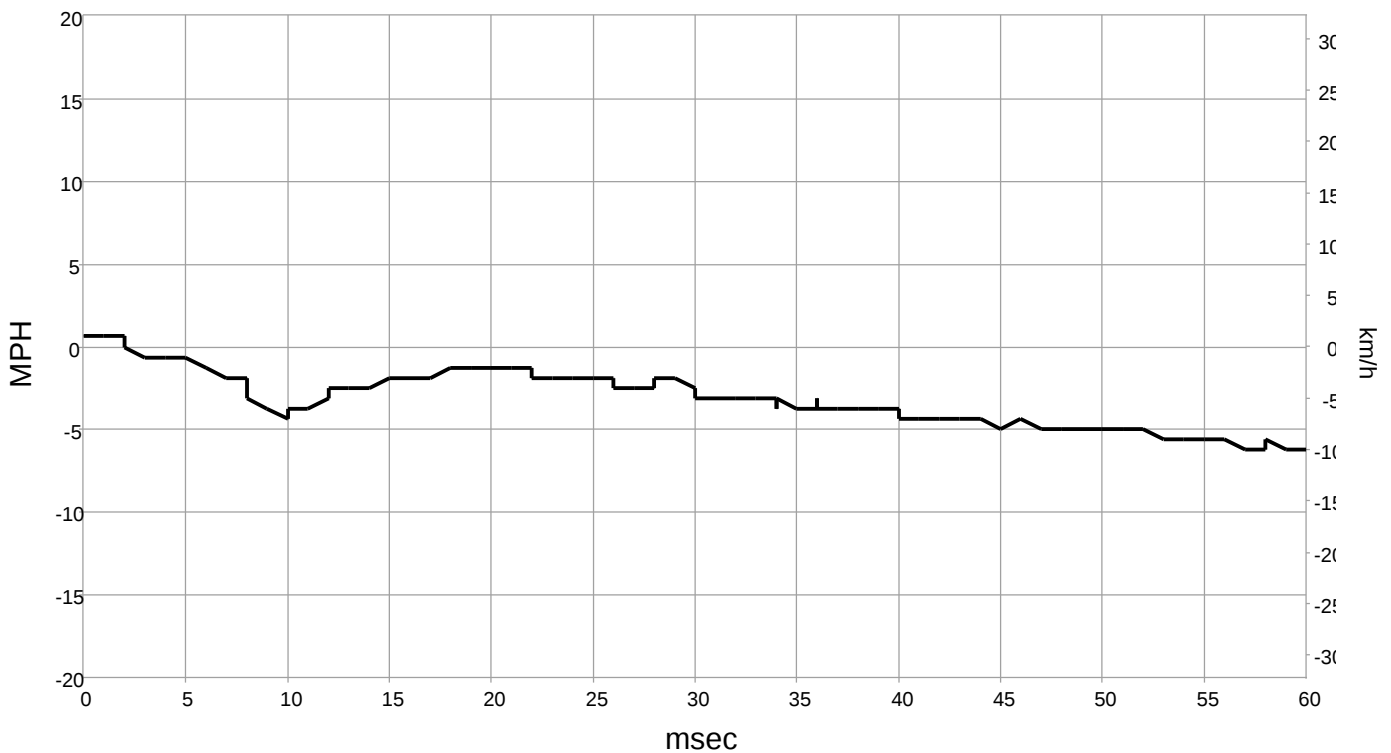
Time (msec)	Delta-V, Lateral (MPH [km/h])
100	0 [0]
102	0 [0]
104	0 [0]
106	0 [0]
108	0 [0]
110	0 [0]
112	0 [0]
114	0 [0]
116	0 [0]
118	0 [0]
120	0 [0]
122	0 [0]
124	0 [0]
126	0 [0]
128	0 [0]
130	0 [0]
132	0 [0]
134	0 [0]
136	0 [0]
138	0 [0]
140	0 [0]
142	0 [0]
144	0 [0]
146	0 [0]
148	0 [0]
150	0 [0]
152	0 [0]
154	0 [0]
156	0 [0]
158	0 [0]
160	0 [0]
162	0 [0]
164	0 [0]
166	0 [0]
168	0 [0]
170	0 [0]
172	0 [0]
174	0 [0]
176	0 [0]
178	0 [0]
180	0 [0]
182	0 [0]
184	0 [0]
186	0 [0]
188	0 [0]
190	0 [0]
192	0 [0]
194	0 [0]
196	0 [0]
198	0 [0]

Time (msec)	Delta-V, Lateral (MPH [km/h])
200	0 [0]
202	0 [0]
204	0 [0]
206	0 [0]
208	0 [0]
210	0 [0]
212	0 [0]
214	0 [0]
216	0 [0]
218	0 [0]
220	0 [0]
222	0 [0]
224	0 [0]
226	-1 [-1]
228	-1 [-1]
230	-1 [-1]
232	-1 [-1]
234	-1 [-1]
236	-1 [-1]
238	-1 [-1]
240	-1 [-1]
242	-1 [-1]
244	-1 [-1]
246	-1 [-1]
248	-1 [-1]
250	-1 [-1]
252	-1 [-1]
254	-1 [-1]
256	-1 [-1]
258	-1 [-1]
260	-1 [-1]
262	-1 [-1]
264	-1 [-1]
266	-1 [-1]
268	-1 [-1]
270	-1 [-1]
272	-1 [-1]
274	-1 [-1]
276	-1 [-1]
278	-1 [-1]
280	-1 [-1]
282	-1 [-1]
284	-1 [-1]
286	-1 [-2]
288	-1 [-2]
290	-1 [-2]
292	-1 [-2]
294	-1 [-2]
296	-1 [-2]
298	-1 [-2]
300	-1 [-2]

Left Frontal Peripheral Sensor X (Most Recent Event - Deployment Event)



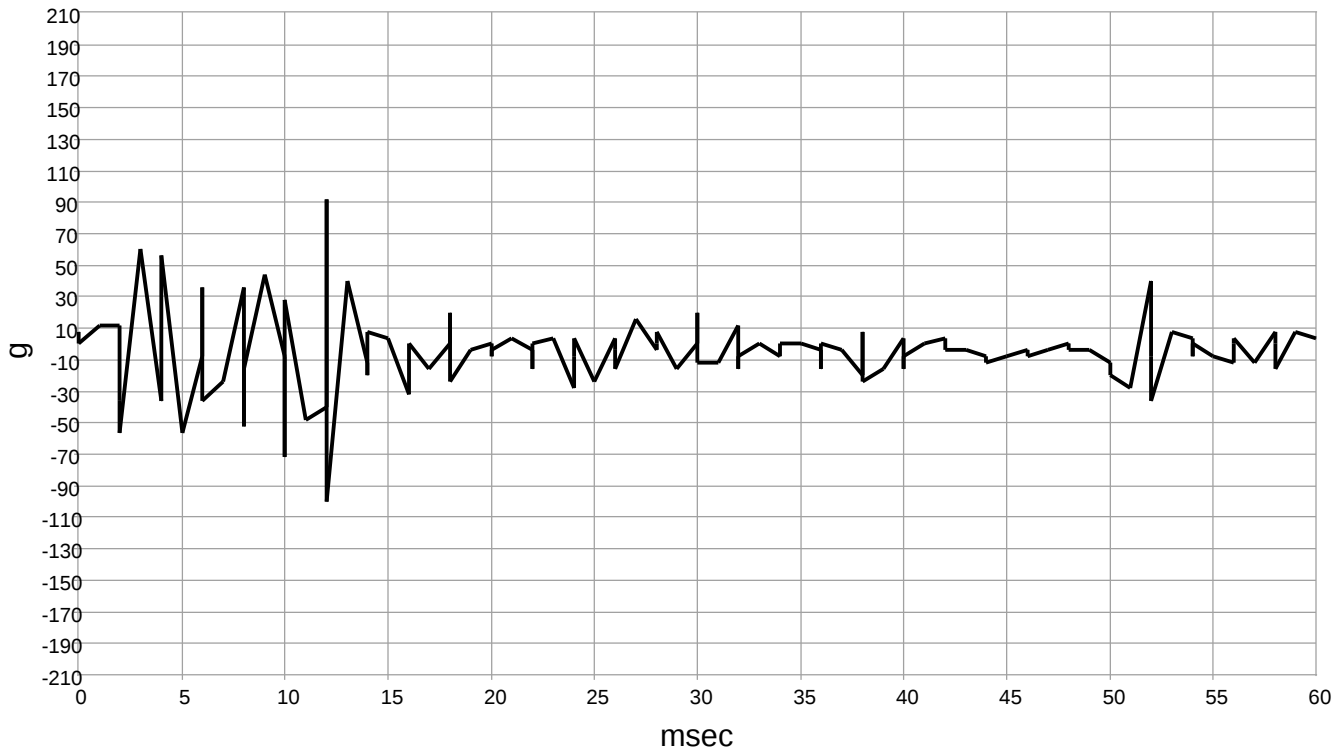
Left Frontal Peripheral Sensor X Delta-V (Most Recent Event - Deployment Event)



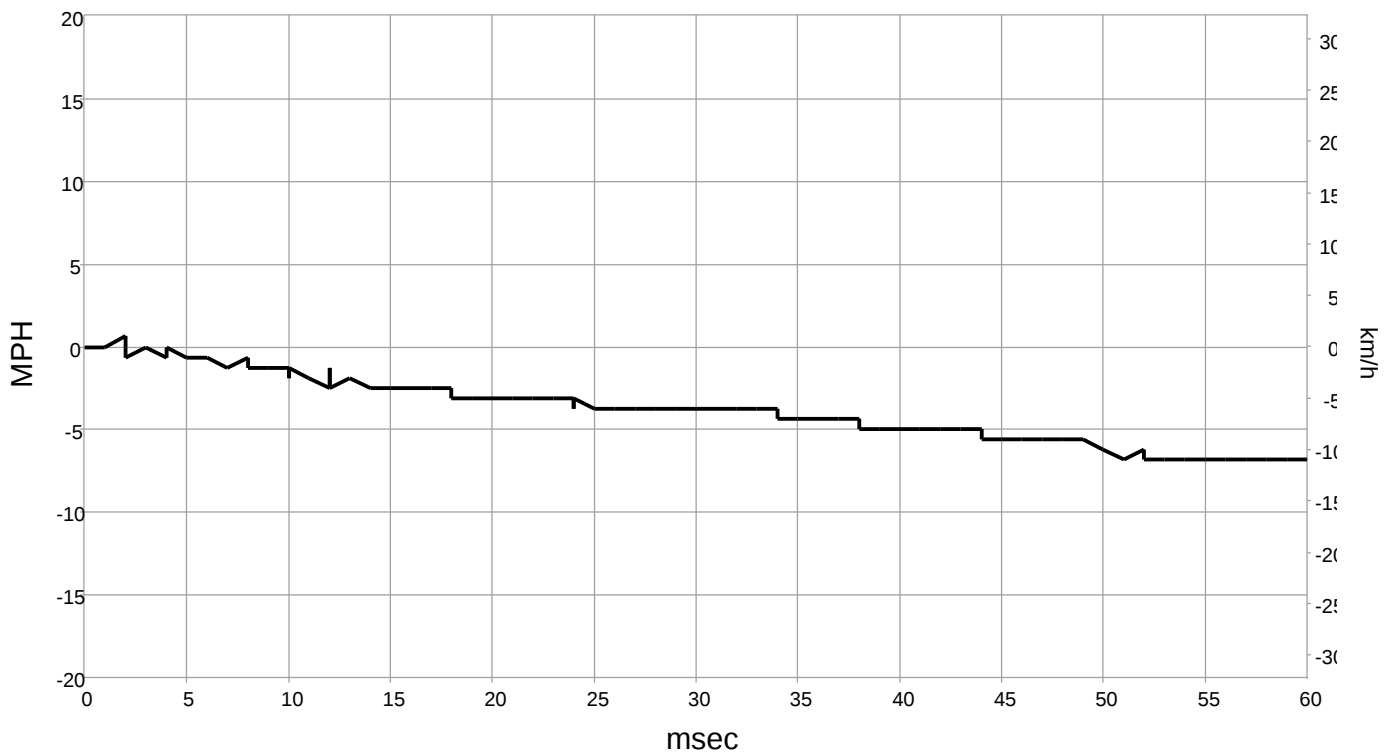
Left Frontal Peripheral Sensor X (Most Recent Event - Deployment Event)

Time (msec)	Left Frontal Peripheral Sensor X (g)	Left Frontal Peripheral Sensor X Delta-V (MPH [km/h])	Time (msec)	Left Frontal Peripheral Sensor X (g)	Left Frontal Peripheral Sensor X Delta-V (MPH [km/h])	Time (msec)	Left Frontal Peripheral Sensor X (g)	Left Frontal Peripheral Sensor X Delta-V (MPH [km/h])
0	36.00	1 [1]	25	-12.00	-2 [-3]	50	8.00	-5 [-8]
0.5	0.00	1 [1]	25.5	4.00	-2 [-3]	50.5	-16.00	-5 [-8]
1	0.00	1 [1]	26	4.00	-2 [-3]	51	4.00	-5 [-8]
1.5	0.00	1 [1]	26.5	-72.00	-2 [-4]	51.5	-12.00	-5 [-8]
2	-40.00	0 [0]	27	0.00	-2 [-4]	52	0.00	-5 [-8]
2.5	-8.00	0 [0]	27.5	24.00	-2 [-4]	52.5	0.00	-5 [-8]
3	-36.00	-1 [-1]	28	12.00	-2 [-4]	53	-12.00	-6 [-9]
3.5	8.00	-1 [-1]	28.5	8.00	-2 [-3]	53.5	4.00	-6 [-9]
4	0.00	-1 [-1]	29	8.00	-2 [-3]	54	-16.00	-6 [-9]
4.5	-24.00	-1 [-1]	29.5	-32.00	-2 [-4]	54.5	12.00	-6 [-9]
5	-12.00	-1 [-1]	30	-16.00	-2 [-4]	55	-4.00	-6 [-9]
5.5	-16.00	-1 [-2]	30.5	-32.00	-3 [-5]	55.5	-16.00	-6 [-9]
6	0.00	-1 [-2]	31	-16.00	-3 [-5]	56	28.00	-6 [-9]
6.5	-16.00	-1 [-2]	31.5	-28.00	-3 [-5]	56.5	-44.00	-6 [-9]
7	-44.00	-2 [-3]	32	24.00	-3 [-5]	57	-28.00	-6 [-10]
7.5	-16.00	-2 [-3]	32.5	16.00	-3 [-5]	57.5	12.00	-6 [-10]
8	-32.00	-2 [-3]	33	-20.00	-3 [-5]	58	-20.00	-6 [-10]
8.5	-100.00	-3 [-5]	33.5	-32.00	-3 [-5]	58.5	28.00	-6 [-9]
9	-52.00	-4 [-6]	34	-20.00	-4 [-6]	59	-16.00	-6 [-10]
9.5	-64.00	-4 [-7]	34.5	20.00	-3 [-5]	59.5	-8.00	-6 [-10]
10	-4.00	-4 [-7]	35	-4.00	-4 [-6]			
10.5	56.00	-4 [-6]	35.5	0.00	-4 [-6]			
11	16.00	-4 [-6]	36	4.00	-3 [-5]			
11.5	16.00	-3 [-5]	36.5	-16.00	-4 [-6]			
12	20.00	-3 [-5]	37	-20.00	-4 [-6]			
12.5	72.00	-2 [-4]	37.5	8.00	-4 [-6]			
13	0.00	-2 [-4]	38	0.00	-4 [-6]			
13.5	-12.00	-2 [-4]	38.5	4.00	-4 [-6]			
14	4.00	-2 [-4]	39	0.00	-4 [-6]			
14.5	-12.00	-2 [-4]	39.5	-20.00	-4 [-6]			
15	76.00	-2 [-3]	40	4.00	-4 [-6]			
15.5	20.00	-2 [-3]	40.5	-24.00	-4 [-7]			
16	-8.00	-2 [-3]	41	-20.00	-4 [-7]			
16.5	8.00	-2 [-3]	41.5	-24.00	-4 [-7]			
17	-16.00	-2 [-3]	42	0.00	-4 [-7]			
17.5	48.00	-1 [-2]	42.5	0.00	-4 [-7]			
18	8.00	-1 [-2]	43	4.00	-4 [-7]			
18.5	4.00	-1 [-2]	43.5	12.00	-4 [-7]			
19	16.00	-1 [-2]	44	4.00	-4 [-7]			
19.5	-44.00	-1 [-2]	44.5	-28.00	-4 [-7]			
20	12.00	-1 [-2]	45	-24.00	-5 [-8]			
20.5	-4.00	-1 [-2]	45.5	28.00	-4 [-7]			
21	-4.00	-1 [-2]	46	8.00	-4 [-7]			
21.5	4.00	-1 [-2]	46.5	-16.00	-4 [-7]			
22	-24.00	-2 [-3]	47	-28.00	-5 [-8]			
22.5	-4.00	-2 [-3]	47.5	-8.00	-5 [-8]			
23	-20.00	-2 [-3]	48	-4.00	-5 [-8]			
23.5	-20.00	-2 [-3]	48.5	20.00	-5 [-8]			
24	20.00	-2 [-3]	49	-12.00	-5 [-8]			
24.5	16.00	-2 [-3]	49.5	-12.00	-5 [-8]			

Right Frontal Peripheral Sensor X (Most Recent Event - Deployment Event)



Right Frontal Peripheral Sensor X Delta-V (Most Recent Event - Deployment Event)

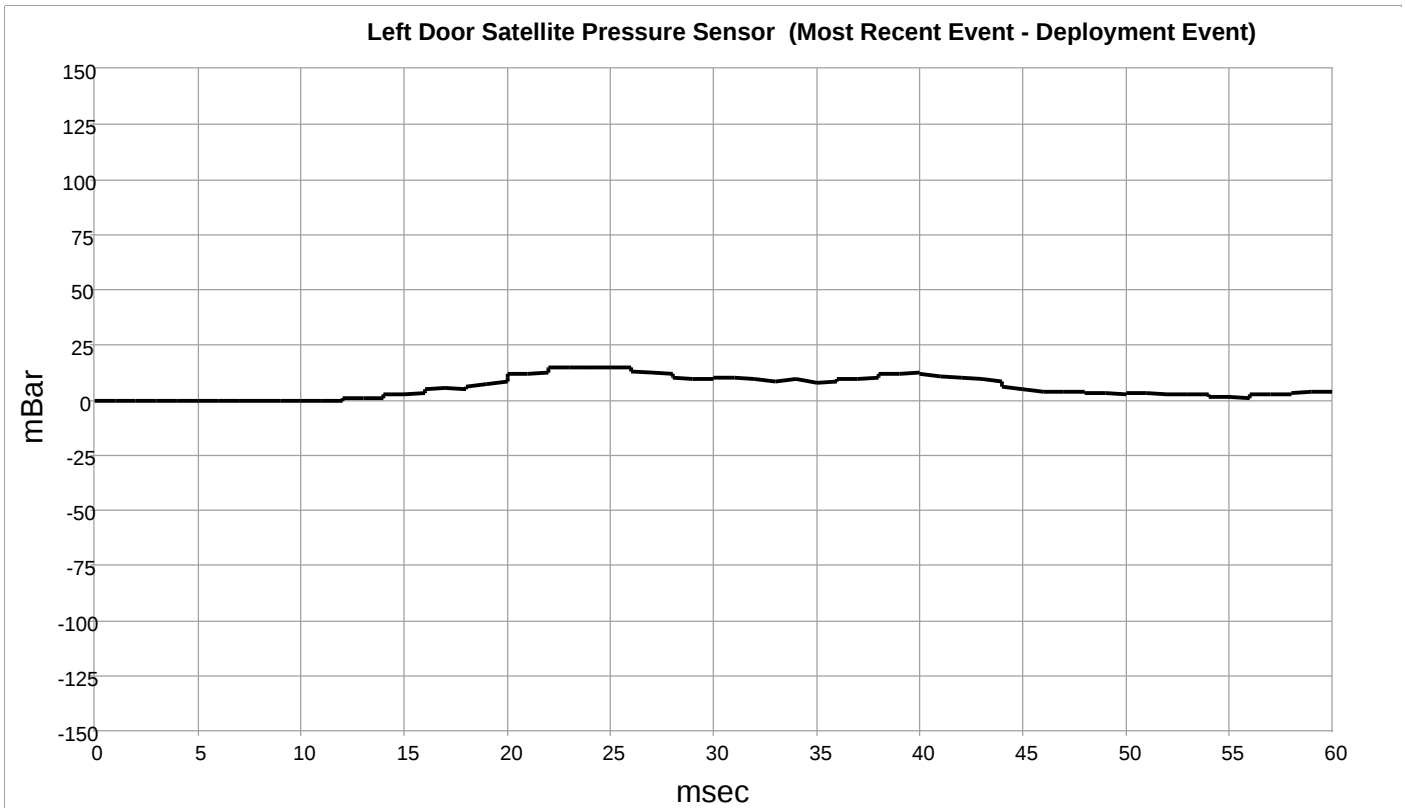


Right Frontal Peripheral Sensor X (Most Recent Event - Deployment Event)

Time (msec)	Right Frontal Peripheral Sensor X (g)	Right Frontal Peripheral Sensor X Delta-V (MPH [km/h])
0	8.00	0 [0]
0.5	0.00	0 [0]
1	12.00	0 [0]
1.5	12.00	1 [1]
2	-36.00	0 [0]
2.5	-56.00	-1 [-1]
3	60.00	0 [0]
3.5	-36.00	-1 [-1]
4	-36.00	-1 [-1]
4.5	56.00	0 [0]
5	-56.00	-1 [-1]
5.5	-8.00	-1 [-1]
6	36.00	-1 [-1]
6.5	-36.00	-1 [-1]
7	-24.00	-1 [-2]
7.5	36.00	-1 [-1]
8	-52.00	-1 [-2]
8.5	-16.00	-1 [-2]
9	44.00	-1 [-2]
9.5	-8.00	-1 [-2]
10	-72.00	-2 [-3]
10.5	28.00	-1 [-2]
11	-48.00	-2 [-3]
11.5	-40.00	-2 [-4]
12	92.00	-1 [-2]
12.5	-100.00	-2 [-4]
13	40.00	-2 [-3]
13.5	-12.00	-2 [-4]
14	-20.00	-2 [-4]
14.5	8.00	-2 [-4]
15	4.00	-2 [-4]
15.5	-32.00	-2 [-4]
16	0.00	-2 [-4]
16.5	0.00	-2 [-4]
17	-16.00	-2 [-4]
17.5	0.00	-2 [-4]
18	20.00	-2 [-4]
18.5	-24.00	-3 [-5]
19	-4.00	-3 [-5]
19.5	0.00	-3 [-5]
20	-8.00	-3 [-5]
20.5	-4.00	-3 [-5]
21	4.00	-3 [-5]
21.5	-4.00	-3 [-5]
22	-16.00	-3 [-5]
22.5	0.00	-3 [-5]
23	4.00	-3 [-5]
23.5	-28.00	-3 [-5]
24	-8.00	-4 [-6]
24.5	4.00	-3 [-5]

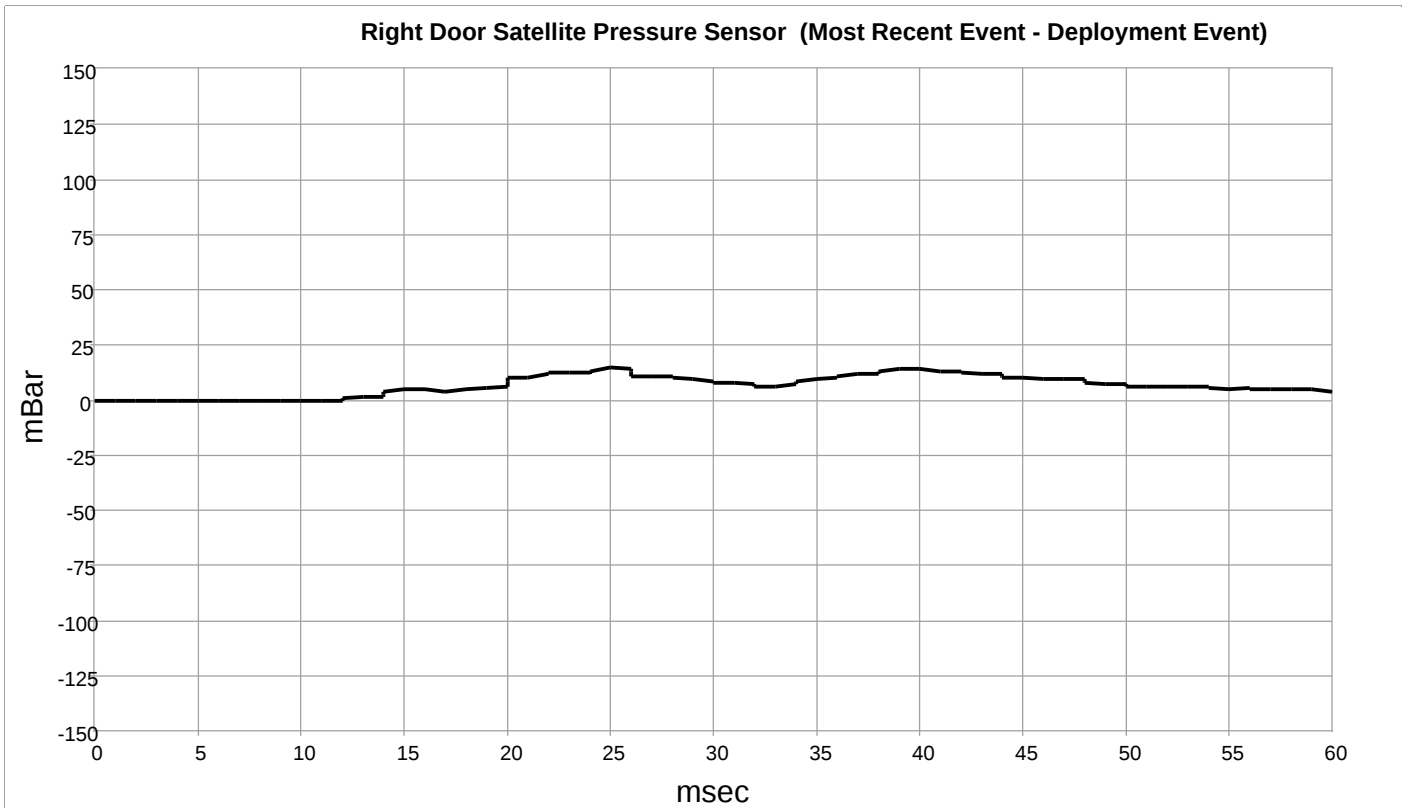
Time (msec)	Right Frontal Peripheral Sensor X (g)	Right Frontal Peripheral Sensor X Delta-V (MPH [km/h])
25	-24.00	-4 [-6]
25.5	4.00	-4 [-6]
26	-4.00	-4 [-6]
26.5	-16.00	-4 [-6]
27	16.00	-4 [-6]
27.5	-4.00	-4 [-6]
28	0.00	-4 [-6]
28.5	8.00	-4 [-6]
29	-16.00	-4 [-6]
29.5	0.00	-4 [-6]
30	20.00	-4 [-6]
30.5	-12.00	-4 [-6]
31	-12.00	-4 [-6]
31.5	12.00	-4 [-6]
32	-16.00	-4 [-6]
32.5	-8.00	-4 [-6]
33	0.00	-4 [-6]
33.5	-8.00	-4 [-6]
34	-8.00	-4 [-7]
34.5	0.00	-4 [-7]
35	0.00	-4 [-7]
35.5	-4.00	-4 [-7]
36	-16.00	-4 [-7]
36.5	0.00	-4 [-7]
37	-4.00	-4 [-7]
37.5	-20.00	-4 [-7]
38	8.00	-4 [-7]
38.5	-24.00	-5 [-8]
39	-16.00	-5 [-8]
39.5	4.00	-5 [-8]
40	-16.00	-5 [-8]
40.5	-8.00	-5 [-8]
41	0.00	-5 [-8]
41.5	4.00	-5 [-8]
42	-4.00	-5 [-8]
42.5	-4.00	-5 [-8]
43	-4.00	-5 [-8]
43.5	-8.00	-5 [-8]
44	-8.00	-6 [-9]
44.5	-12.00	-6 [-9]
45	-8.00	-6 [-9]
45.5	-4.00	-6 [-9]
46	-8.00	-6 [-9]
46.5	-8.00	-6 [-9]
47	-4.00	-6 [-9]
47.5	0.00	-6 [-9]
48	0.00	-6 [-9]
48.5	-4.00	-6 [-9]
49	-4.00	-6 [-9]
49.5	-12.00	-6 [-10]

Time (msec)	Right Frontal Peripheral Sensor X (g)	Right Frontal Peripheral Sensor X Delta-V (MPH [km/h])
50	-12.00	-6 [-10]
50.5	-20.00	-6 [-10]
51	-28.00	-7 [-11]
51.5	40.00	-6 [-10]
52	-8.00	-6 [-10]
52.5	-36.00	-7 [-11]
53	8.00	-7 [-11]
53.5	4.00	-7 [-11]
54	-8.00	-7 [-11]
54.5	0.00	-7 [-11]
55	-8.00	-7 [-11]
55.5	-12.00	-7 [-11]
56	0.00	-7 [-11]
56.5	4.00	-7 [-11]
57	-12.00	-7 [-11]
57.5	8.00	-7 [-11]
58	0.00	-7 [-11]
58.5	-16.00	-7 [-11]
59	8.00	-7 [-11]
59.5	4.00	-7 [-11]



Left Door Satellite Pressure Sensor (Most Recent Event - Deployment Event)

Time (msec)	Left Door Satellite Pressure Sensor (mBar)	Time (msec)	Left Door Satellite Pressure Sensor (mBar)	Time (msec)	Left Door Satellite Pressure Sensor (mBar)
0	0.0000	25	14.8438	50	2.3438
0.5	0.0000	25.5	14.8438	50.5	3.1250
1	0.0000	26	14.8438	51	3.1250
1.5	0.0000	26.5	13.2813	51.5	2.3438
2	0.0000	27	12.5000	52	2.3438
2.5	0.0000	27.5	11.7188	52.5	2.3438
3	0.0000	28	10.9375	53	2.3438
3.5	0.0000	28.5	10.1563	53.5	2.3438
4	0.0000	29	9.3750	54	1.5625
4.5	0.0000	29.5	9.3750	54.5	1.5625
5	0.0000	30	9.3750	55	1.5625
5.5	0.0000	30.5	10.1563	55.5	0.7813
6	0.0000	31	10.1563	56	1.5625
6.5	0.0000	31.5	9.3750	56.5	2.3438
7	0.0000	32	9.3750	57	2.3438
7.5	0.0000	32.5	9.3750	57.5	2.3438
8	0.0000	33	8.5938	58	3.1250
8.5	0.0000	33.5	9.3750	58.5	3.1250
9	0.0000	34	9.3750	59	3.9063
9.5	0.0000	34.5	9.3750	59.5	3.9063
10	0.0000	35	7.8125		
10.5	0.0000	35.5	8.5938		
11	0.0000	36	9.3750		
11.5	0.0000	36.5	9.3750		
12	0.0000	37	9.3750		
12.5	0.7813	37.5	10.1563		
13	0.7813	38	10.9375		
13.5	0.7813	38.5	11.7188		
14	1.5625	39	11.7188		
14.5	2.3438	39.5	12.5000		
15	2.3438	40	12.5000		
15.5	3.1250	40.5	11.7188		
16	3.9063	41	10.9375		
16.5	4.6875	41.5	10.1563		
17	5.4688	42	10.1563		
17.5	4.6875	42.5	10.1563		
18	6.2500	43	9.3750		
18.5	6.2500	43.5	8.5938		
19	7.0313	44	7.0313		
19.5	8.5938	44.5	6.2500		
20	10.1563	45	4.6875		
20.5	11.7188	45.5	3.9063		
21	11.7188	46	3.9063		
21.5	12.5000	46.5	3.9063		
22	14.0625	47	3.9063		
22.5	14.8438	47.5	3.9063		
23	14.8438	48	3.1250		
23.5	14.8438	48.5	3.1250		
24	14.0625	49	3.1250		
24.5	14.8438	49.5	2.3438		



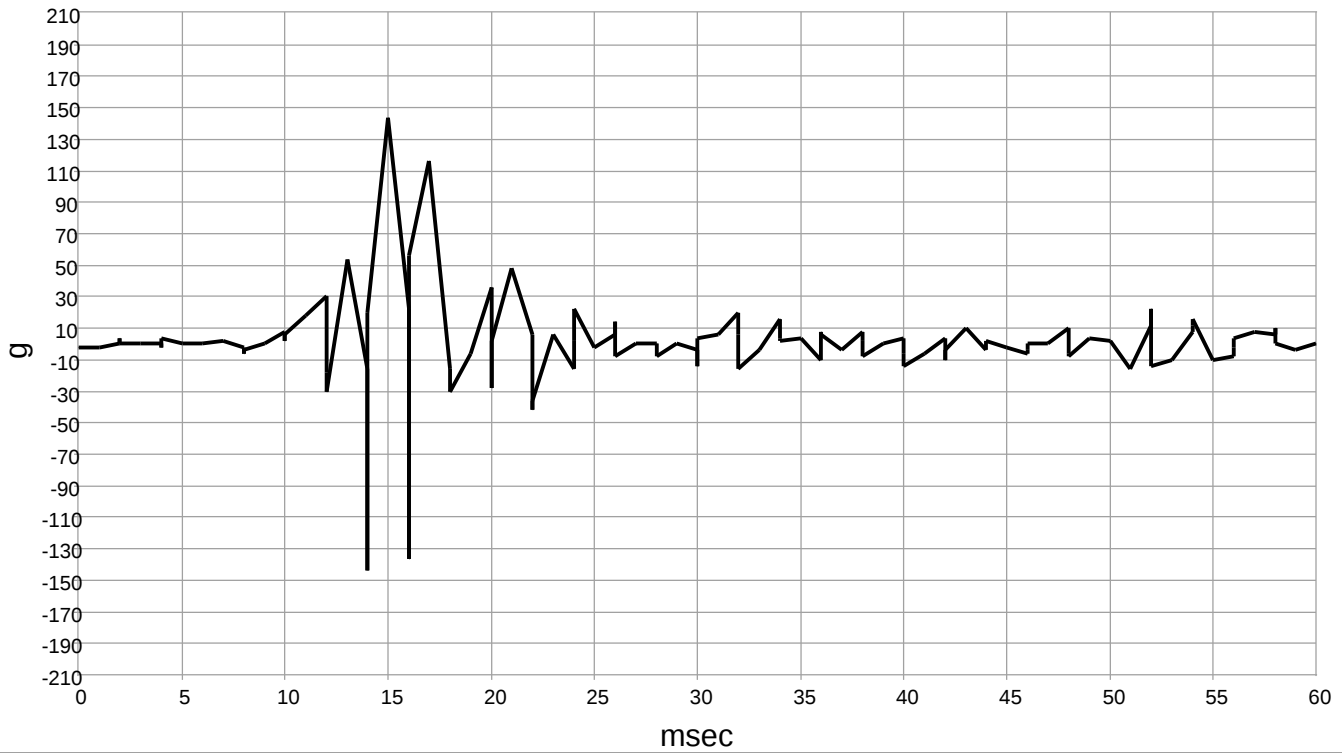
Right Door Satellite Pressure Sensor (Most Recent Event - Deployment Event)

Time (msec)	Right Door Satellite Pressure Sensor (mBar)
0	0.0000
0.5	0.0000
1	0.0000
1.5	0.0000
2	0.0000
2.5	0.0000
3	0.0000
3.5	0.0000
4	0.0000
4.5	0.0000
5	0.0000
5.5	0.0000
6	0.0000
6.5	0.0000
7	0.0000
7.5	0.0000
8	0.0000
8.5	0.0000
9	0.0000
9.5	0.0000
10	0.0000
10.5	0.0000
11	0.0000
11.5	0.0000
12	0.7813
12.5	0.7813
13	1.5625
13.5	1.5625
14	2.3438
14.5	3.9063
15	4.6875
15.5	4.6875
16	4.6875
16.5	4.6875
17	3.9063
17.5	4.6875
18	4.6875
18.5	4.6875
19	5.4688
19.5	6.2500
20	8.5938
20.5	10.1563
21	10.1563
21.5	11.7188
22	11.7188
22.5	12.5000
23	12.5000
23.5	12.5000
24	11.7188
24.5	13.2813

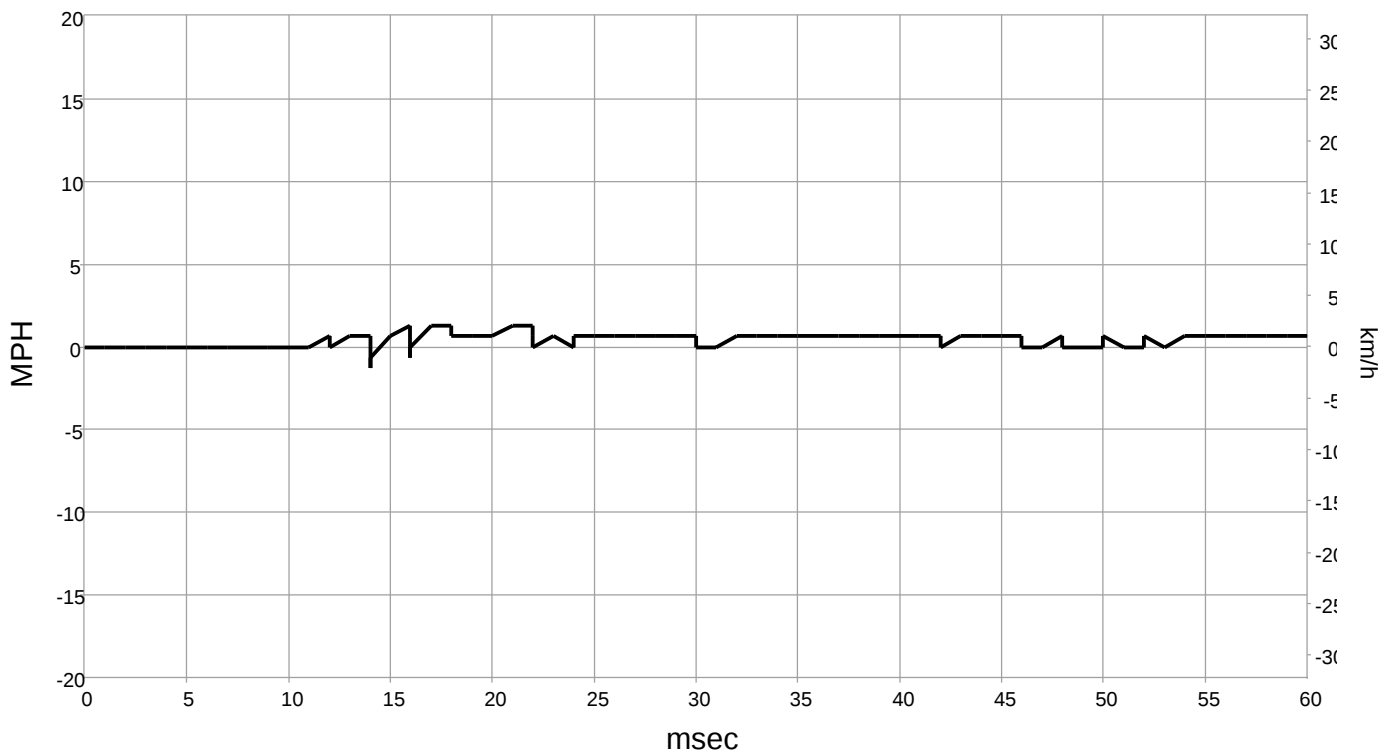
Time (msec)	Right Door Satellite Pressure Sensor (mBar)
25	14.8438
25.5	14.0625
26	13.2813
26.5	10.9375
27	10.9375
27.5	10.9375
28	10.9375
28.5	10.1563
29	9.3750
29.5	8.5938
30	7.8125
30.5	7.8125
31	7.8125
31.5	7.0313
32	7.0313
32.5	6.2500
33	6.2500
33.5	7.0313
34	7.8125
34.5	8.5938
35	9.3750
35.5	10.1563
36	10.9375
36.5	10.9375
37	11.7188
37.5	11.7188
38	12.5000
38.5	13.2813
39	14.0625
39.5	14.0625
40	14.0625
40.5	14.0625
41	13.2813
41.5	13.2813
42	13.2813
42.5	12.5000
43	11.7188
43.5	11.7188
44	10.9375
44.5	10.1563
45	10.1563
45.5	9.3750
46	9.3750
46.5	9.3750
47	9.3750
47.5	9.3750
48	8.5938
48.5	7.8125
49	7.0313
49.5	7.0313

Time (msec)	Right Door Satellite Pressure Sensor (mBar)
50	7.0313
50.5	6.2500
51	6.2500
51.5	6.2500
52	6.2500
52.5	6.2500
53	6.2500
53.5	6.2500
54	5.4688
54.5	5.4688
55	4.6875
55.5	5.4688
56	4.6875
56.5	4.6875
57	4.6875
57.5	4.6875
58	4.6875
58.5	4.6875
59	4.6875
59.5	3.9063

Left B-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)



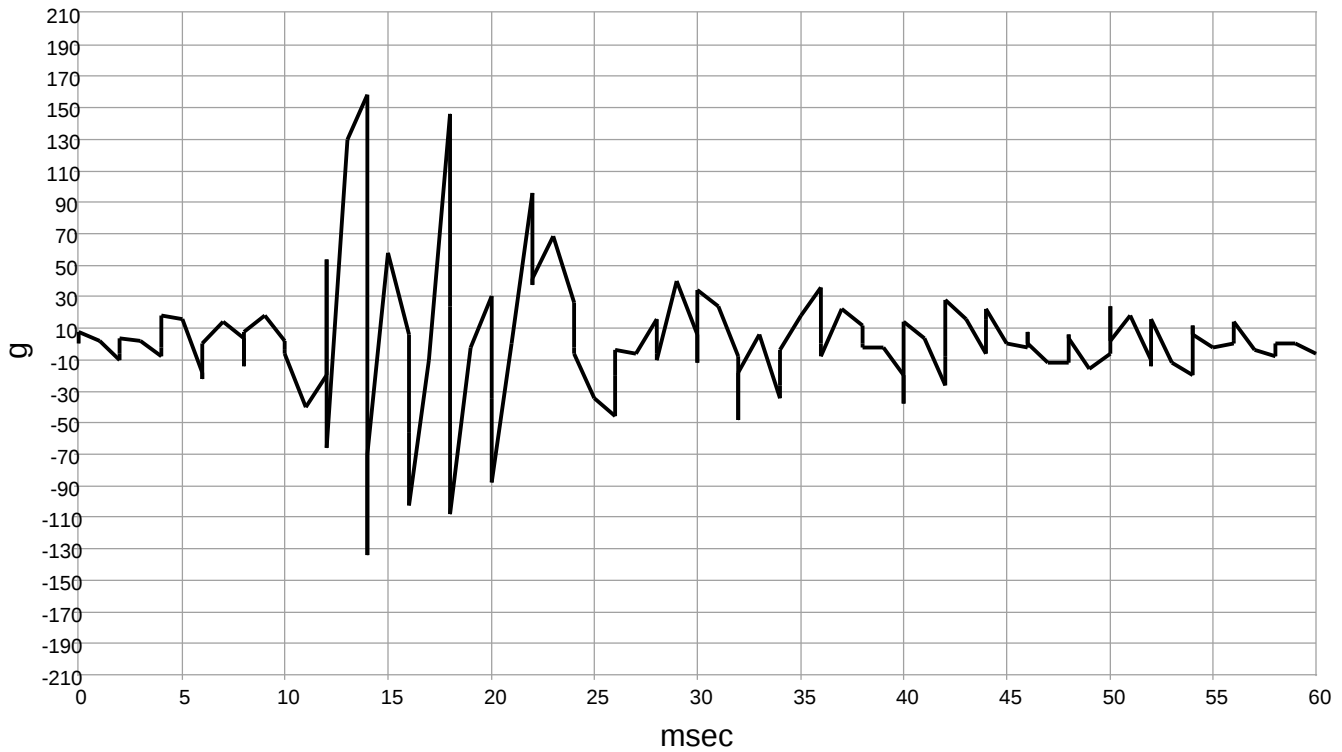
Left B-Pillar Impact Peripheral Sensor Y Delta-V (Most Recent Event - Deployment Event)



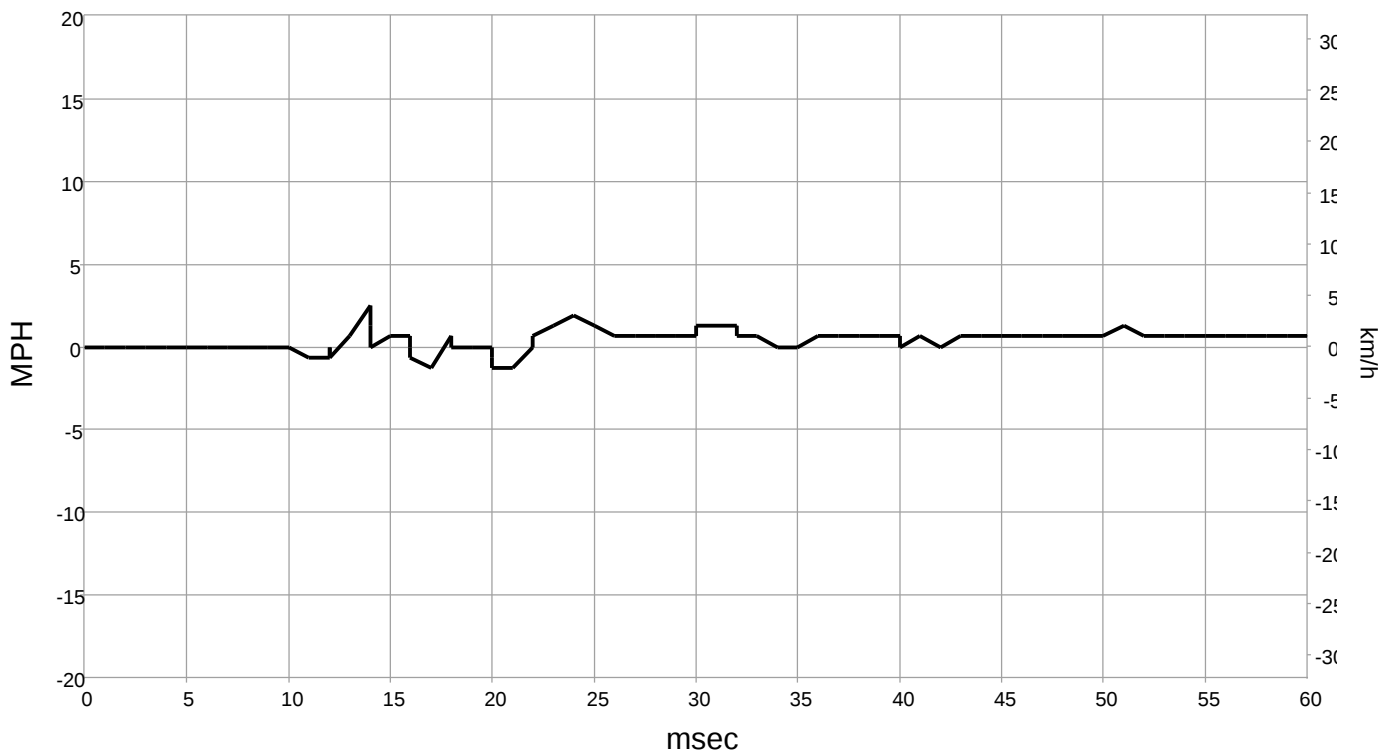
Left B-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)

Time (msec)	Left B-Pillar Impact Peripheral Sensor Y (g)	Left B-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Left B-Pillar Impact Peripheral Sensor Y (g)	Left B-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Left B-Pillar Impact Peripheral Sensor Y (g)	Left B-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])
0	-2	0 [0]	25	-2	1 [1]	50	2	1 [1]
0.5	-2	0 [0]	25.5	6	1 [1]	50.5	2	1 [1]
1	-2	0 [0]	26	14	1 [1]	51	-16	0 [0]
1.5	0	0 [0]	26.5	-8	1 [1]	51.5	12	0 [0]
2	4	0 [0]	27	0	1 [1]	52	22	1 [1]
2.5	0	0 [0]	27.5	0	1 [1]	52.5	-14	1 [1]
3	0	0 [0]	28	-8	1 [1]	53	-10	0 [0]
3.5	0	0 [0]	28.5	-8	1 [1]	53.5	8	1 [1]
4	-2	0 [0]	29	0	1 [1]	54	12	1 [1]
4.5	4	0 [0]	29.5	-4	1 [1]	54.5	16	1 [1]
5	0	0 [0]	30	-14	0 [0]	55	-10	1 [1]
5.5	0	0 [0]	30.5	4	0 [0]	55.5	-8	1 [1]
6	0	0 [0]	31	6	0 [0]	56	-2	1 [1]
6.5	0	0 [0]	31.5	20	1 [1]	56.5	4	1 [1]
7	2	0 [0]	32	6	1 [1]	57	8	1 [1]
7.5	-2	0 [0]	32.5	-16	1 [1]	57.5	6	1 [1]
8	-6	0 [0]	33	-4	1 [1]	58	10	1 [1]
8.5	-4	0 [0]	33.5	16	1 [1]	58.5	0	1 [1]
9	0	0 [0]	34	4	1 [1]	59	-4	1 [1]
9.5	8	0 [0]	34.5	2	1 [1]	59.5	0	1 [1]
10	2	0 [0]	35	4	1 [1]			
10.5	6	0 [0]	35.5	-10	1 [1]			
11	18	0 [0]	36	8	1 [1]			
11.5	30	1 [1]	36.5	6	1 [1]			
12	-18	1 [1]	37	-4	1 [1]			
12.5	-30	0 [0]	37.5	8	1 [1]			
13	54	1 [1]	38	2	1 [1]			
13.5	-16	1 [1]	38.5	-8	1 [1]			
14	-144	-1 [-2]	39	0	1 [1]			
14.5	20	-1 [-1]	39.5	4	1 [1]			
15	144	1 [1]	40	-6	1 [1]			
15.5	22	1 [2]	40.5	-14	1 [1]			
16	-136	-1 [-1]	41	-6	1 [1]			
16.5	56	0 [0]	41.5	4	1 [1]			
17	116	1 [2]	42	-10	1 [1]			
17.5	-16	1 [2]	42.5	-4	0 [0]			
18	-30	1 [1]	43	10	1 [1]			
18.5	-30	1 [1]	43.5	-4	1 [1]			
19	-6	1 [1]	44	2	1 [1]			
19.5	36	1 [1]	44.5	2	1 [1]			
20	-28	1 [1]	45	-2	1 [1]			
20.5	2	1 [1]	45.5	-6	1 [1]			
21	48	1 [2]	46	-4	0 [0]			
21.5	6	1 [2]	46.5	0	0 [0]			
22	-42	1 [1]	47	0	0 [0]			
22.5	-36	0 [0]	47.5	10	1 [1]			
23	6	1 [1]	48	-6	1 [1]			
23.5	-16	0 [0]	48.5	-8	0 [0]			
24	2	0 [0]	49	4	0 [0]			
24.5	22	1 [1]	49.5	2	0 [0]			

Right B-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)



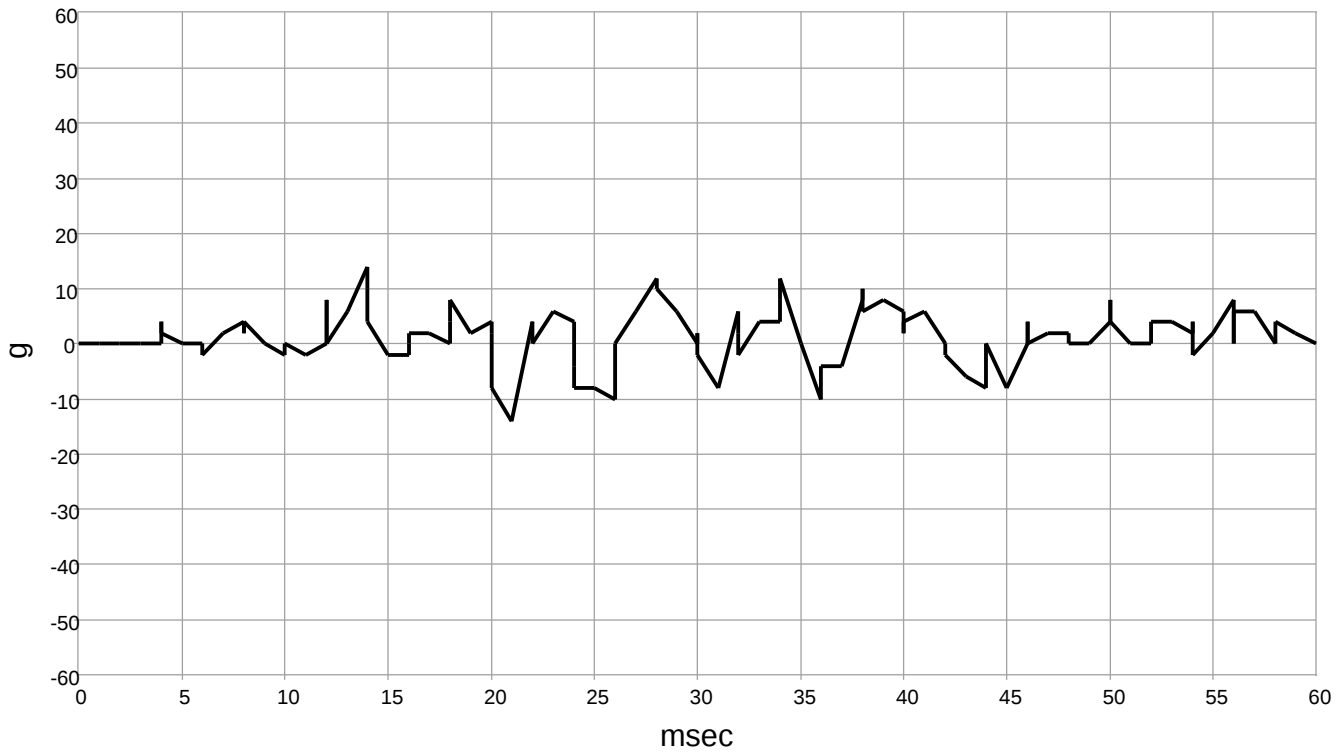
Right B-Pillar Impact Peripheral Sensor Y Delta-V (Most Recent Event - Deployment Event)



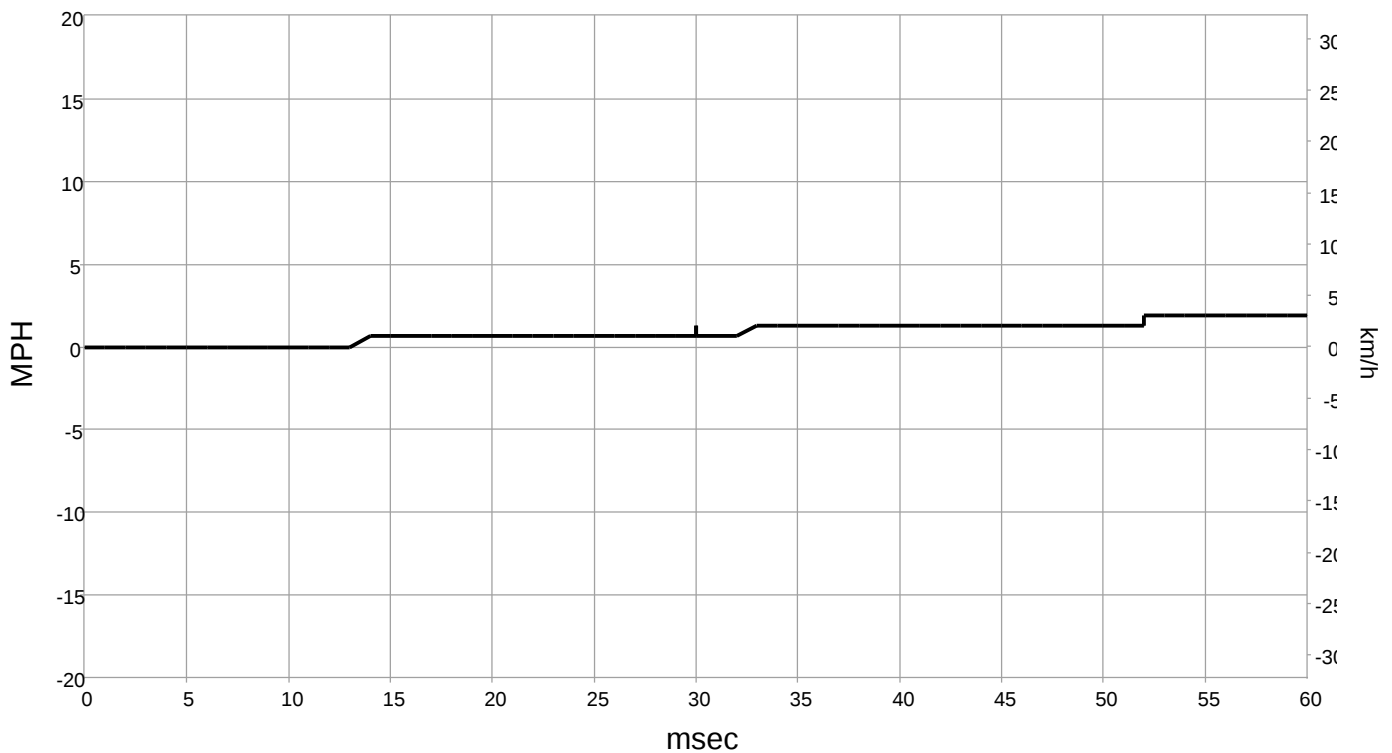
Right B-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)

Time (msec)	Right B-Pillar Impact Peripheral Sensor Y (g)	Right B-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Right B-Pillar Impact Peripheral Sensor Y (g)	Right B-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Right B-Pillar Impact Peripheral Sensor Y (g)	Right B-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])
0	0	0 [0]	25	-34	1 [2]	50	24	1 [1]
0.5	8	0 [0]	25.5	-46	1 [1]	50.5	2	1 [1]
1	2	0 [0]	26	-20	1 [1]	51	18	1 [2]
1.5	-10	0 [0]	26.5	-4	1 [1]	51.5	-10	1 [1]
2	-6	0 [0]	27	-6	1 [1]	52	-14	1 [1]
2.5	4	0 [0]	27.5	16	1 [1]	52.5	16	1 [1]
3	2	0 [0]	28	-6	1 [1]	53	-12	1 [1]
3.5	-8	0 [0]	28.5	-10	1 [1]	53.5	-20	1 [1]
4	-2	0 [0]	29	40	1 [1]	54	12	1 [1]
4.5	18	0 [0]	29.5	6	1 [1]	54.5	6	1 [1]
5	16	0 [0]	30	-12	1 [1]	55	-2	1 [1]
5.5	-18	0 [0]	30.5	34	1 [2]	55.5	0	1 [1]
6	-22	0 [0]	31	24	1 [2]	56	2	1 [1]
6.5	0	0 [0]	31.5	-8	1 [2]	56.5	14	1 [1]
7	14	0 [0]	32	-48	1 [1]	57	-4	1 [1]
7.5	4	0 [0]	32.5	-18	1 [1]	57.5	-8	1 [1]
8	-14	0 [0]	33	6	1 [1]	58	0	1 [1]
8.5	8	0 [0]	33.5	-34	0 [0]	58.5	0	1 [1]
9	18	0 [0]	34	-26	0 [0]	59	0	1 [1]
9.5	2	0 [0]	34.5	-4	0 [0]	59.5	-6	1 [1]
10	-4	0 [0]	35	18	0 [0]			
10.5	-6	0 [0]	35.5	36	1 [1]			
11	-40	-1 [-1]	36	0	1 [1]			
11.5	-20	-1 [-1]	36.5	-8	1 [1]			
12	54	0 [0]	37	22	1 [1]			
12.5	-66	-1 [-1]	37.5	12	1 [1]			
13	130	1 [1]	38	0	1 [1]			
13.5	158	2 [4]	38.5	-2	1 [1]			
14	-134	1 [2]	39	-2	1 [1]			
14.5	-70	0 [0]	39.5	-20	1 [1]			
15	58	1 [1]	40	-38	0 [0]			
15.5	6	1 [1]	40.5	14	0 [0]			
16	-56	0 [0]	41	4	1 [1]			
16.5	-102	-1 [-1]	41.5	-26	0 [0]			
17	-10	-1 [-2]	42	-8	0 [0]			
17.5	146	1 [1]	42.5	28	0 [0]			
18	24	1 [1]	43	16	1 [1]			
18.5	-108	0 [0]	43.5	-6	1 [1]			
19	-2	0 [0]	44	16	1 [1]			
19.5	30	0 [0]	44.5	22	1 [1]			
20	-34	-1 [-1]	45	0	1 [1]			
20.5	-88	-1 [-2]	45.5	-2	1 [1]			
21	0	-1 [-2]	46	8	1 [1]			
21.5	96	0 [0]	46.5	0	1 [1]			
22	38	0 [0]	47	-12	1 [1]			
22.5	42	1 [1]	47.5	-12	1 [1]			
23	68	1 [2]	48	6	1 [1]			
23.5	26	2 [3]	48.5	4	1 [1]			
24	-2	2 [3]	49	-16	1 [1]			
24.5	-6	2 [3]	49.5	-6	1 [1]			

Left C-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)



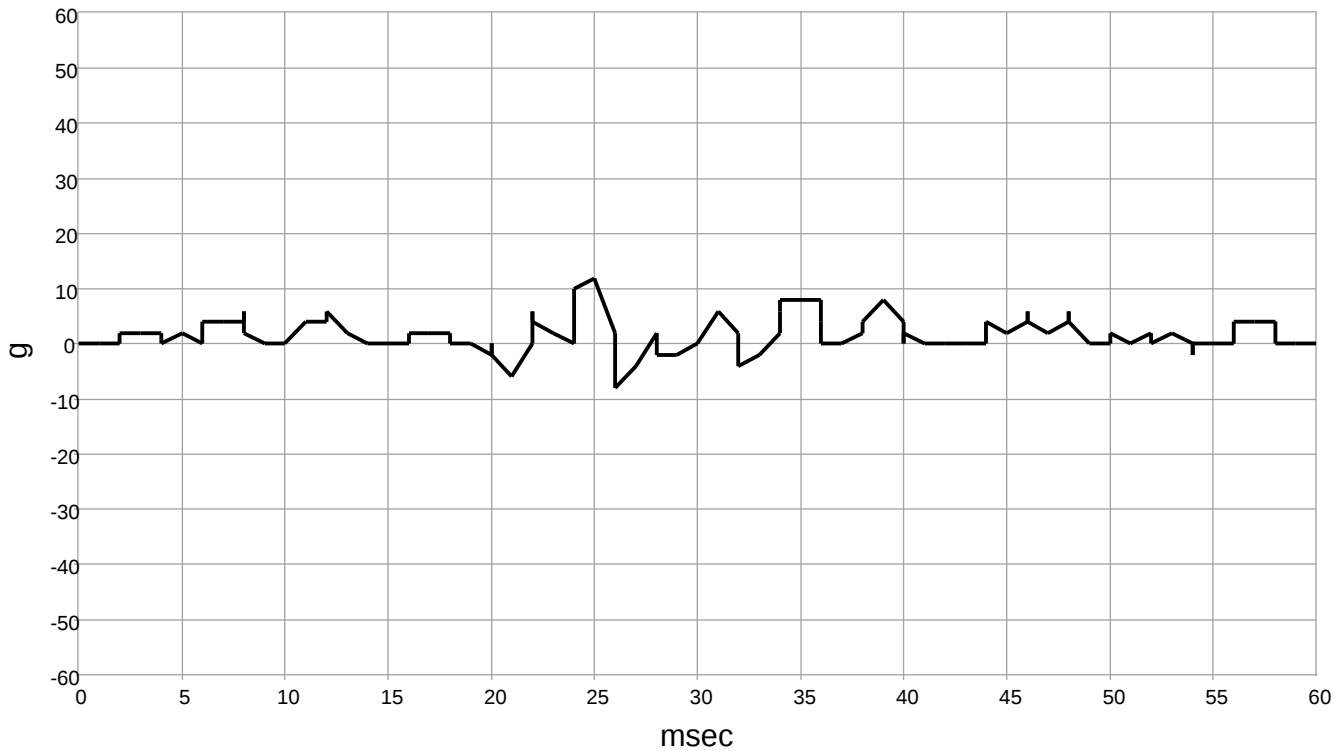
Left C-Pillar Impact Peripheral Sensor Y Delta-V (Most Recent Event - Deployment Event)



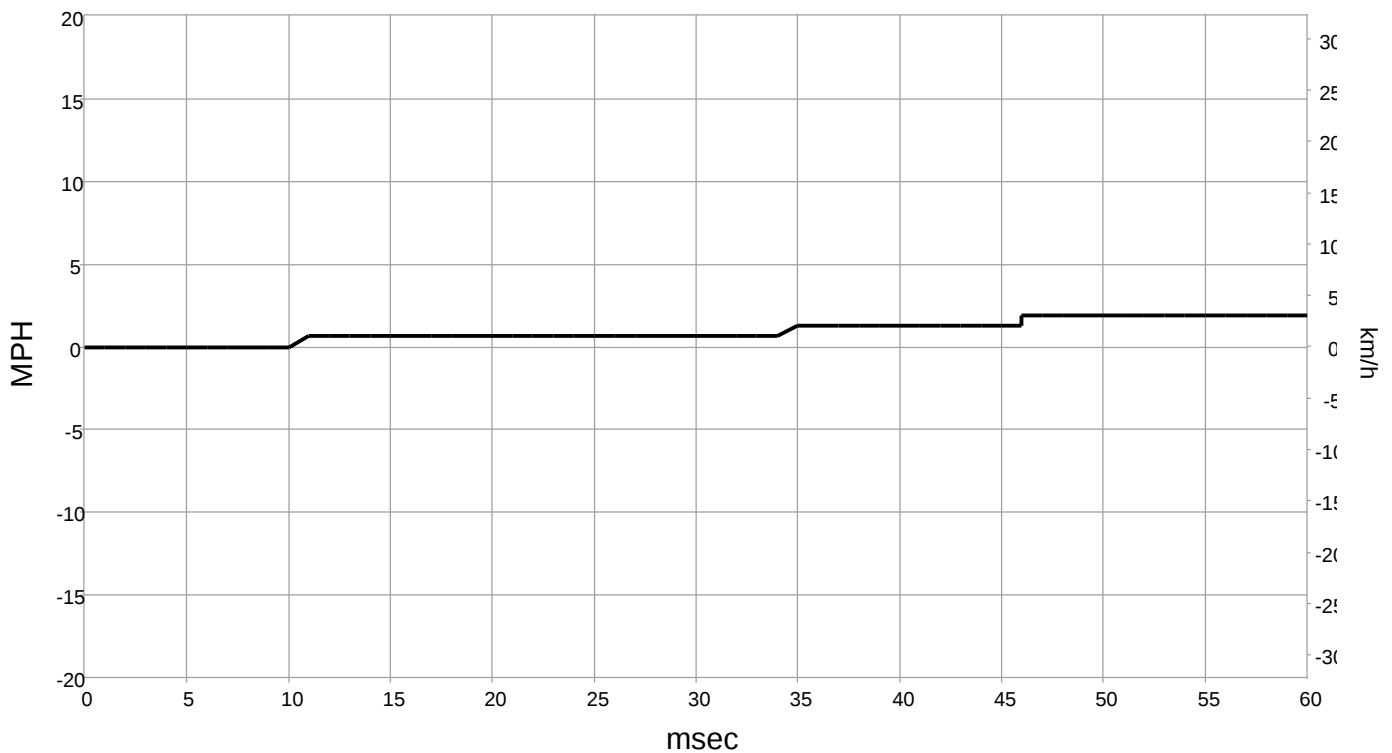
Left C-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)

Time (msec)	Left C-Pillar Impact Peripheral Sensor Y (g)	Left C-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Left C-Pillar Impact Peripheral Sensor Y (g)	Left C-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Left C-Pillar Impact Peripheral Sensor Y (g)	Left C-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])
0	0	0 [0]	25	-8	1 [1]	50	8	1 [2]
0.5	0	0 [0]	25.5	-10	1 [1]	50.5	4	1 [2]
1	0	0 [0]	26	0	1 [1]	51	0	1 [2]
1.5	0	0 [0]	26.5	0	1 [1]	51.5	0	1 [2]
2	0	0 [0]	27	6	1 [1]	52	0	1 [2]
2.5	0	0 [0]	27.5	12	1 [1]	52.5	4	2 [3]
3	0	0 [0]	28	12	1 [1]	53	4	2 [3]
3.5	0	0 [0]	28.5	10	1 [1]	53.5	2	2 [3]
4	4	0 [0]	29	6	1 [1]	54	4	2 [3]
4.5	2	0 [0]	29.5	0	1 [1]	54.5	-2	2 [3]
5	0	0 [0]	30	2	1 [2]	55	2	2 [3]
5.5	0	0 [0]	30.5	-2	1 [1]	55.5	8	2 [3]
6	-2	0 [0]	31	-8	1 [1]	56	0	2 [3]
6.5	-2	0 [0]	31.5	6	1 [1]	56.5	6	2 [3]
7	2	0 [0]	32	2	1 [1]	57	6	2 [3]
7.5	4	0 [0]	32.5	-2	1 [1]	57.5	0	2 [3]
8	2	0 [0]	33	4	1 [2]	58	0	2 [3]
8.5	4	0 [0]	33.5	4	1 [2]	58.5	4	2 [3]
9	0	0 [0]	34	8	1 [2]	59	2	2 [3]
9.5	-2	0 [0]	34.5	12	1 [2]	59.5	0	2 [3]
10	0	0 [0]	35	0	1 [2]			
10.5	0	0 [0]	35.5	-10	1 [2]			
11	-2	0 [0]	36	-4	1 [2]			
11.5	0	0 [0]	36.5	-4	1 [2]			
12	8	0 [0]	37	-4	1 [2]			
12.5	0	0 [0]	37.5	8	1 [2]			
13	6	0 [0]	38	10	1 [2]			
13.5	14	1 [1]	38.5	6	1 [2]			
14	10	1 [1]	39	8	1 [2]			
14.5	4	1 [1]	39.5	6	1 [2]			
15	-2	1 [1]	40	2	1 [2]			
15.5	-2	1 [1]	40.5	4	1 [2]			
16	0	1 [1]	41	6	1 [2]			
16.5	2	1 [1]	41.5	0	1 [2]			
17	2	1 [1]	42	0	1 [2]			
17.5	0	1 [1]	42.5	-2	1 [2]			
18	4	1 [1]	43	-6	1 [2]			
18.5	8	1 [1]	43.5	-8	1 [2]			
19	2	1 [1]	44	0	1 [2]			
19.5	4	1 [1]	44.5	0	1 [2]			
20	2	1 [1]	45	-8	1 [2]			
20.5	-8	1 [1]	45.5	0	1 [2]			
21	-14	1 [1]	46	4	1 [2]			
21.5	4	1 [1]	46.5	0	1 [2]			
22	4	1 [1]	47	2	1 [2]			
22.5	0	1 [1]	47.5	2	1 [2]			
23	6	1 [1]	48	0	1 [2]			
23.5	4	1 [1]	48.5	0	1 [2]			
24	-4	1 [1]	49	0	1 [2]			
24.5	-8	1 [1]	49.5	4	1 [2]			

Right C-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)



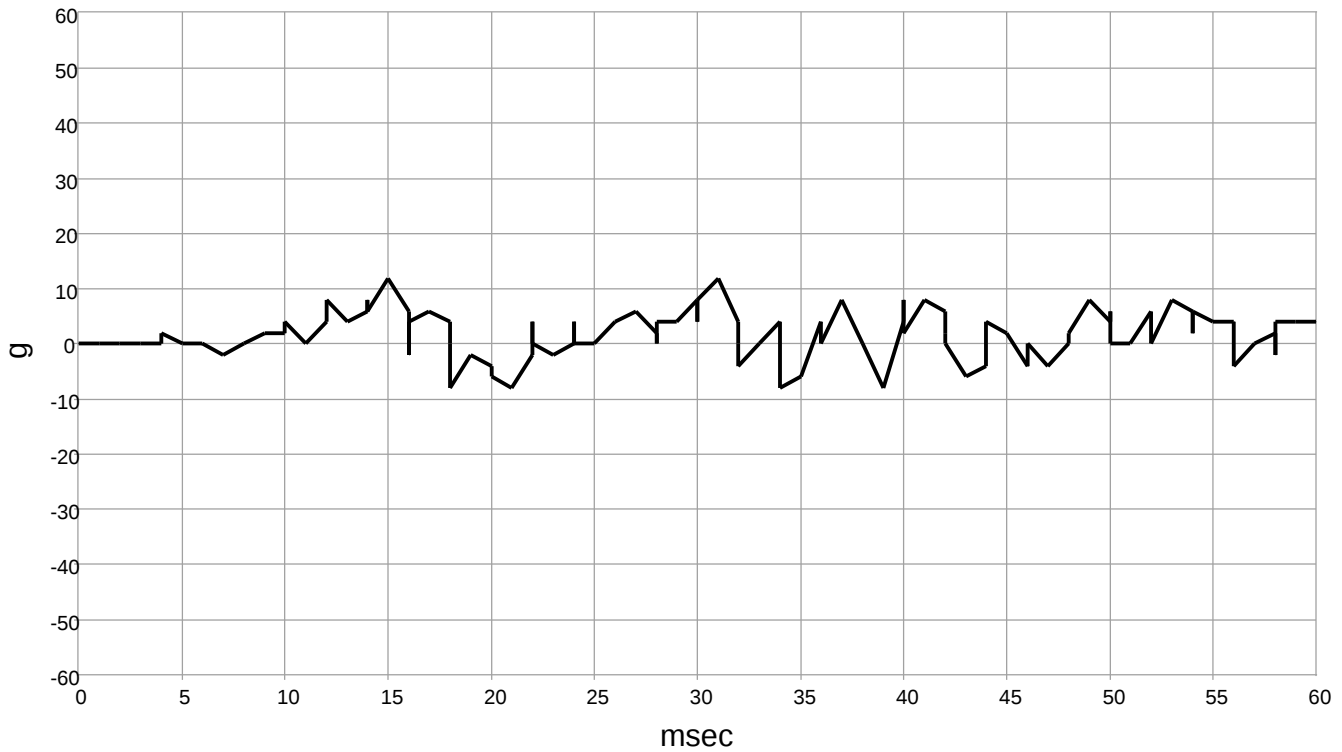
Right C-Pillar Impact Peripheral Sensor Y Delta-V (Most Recent Event - Deployment Event)



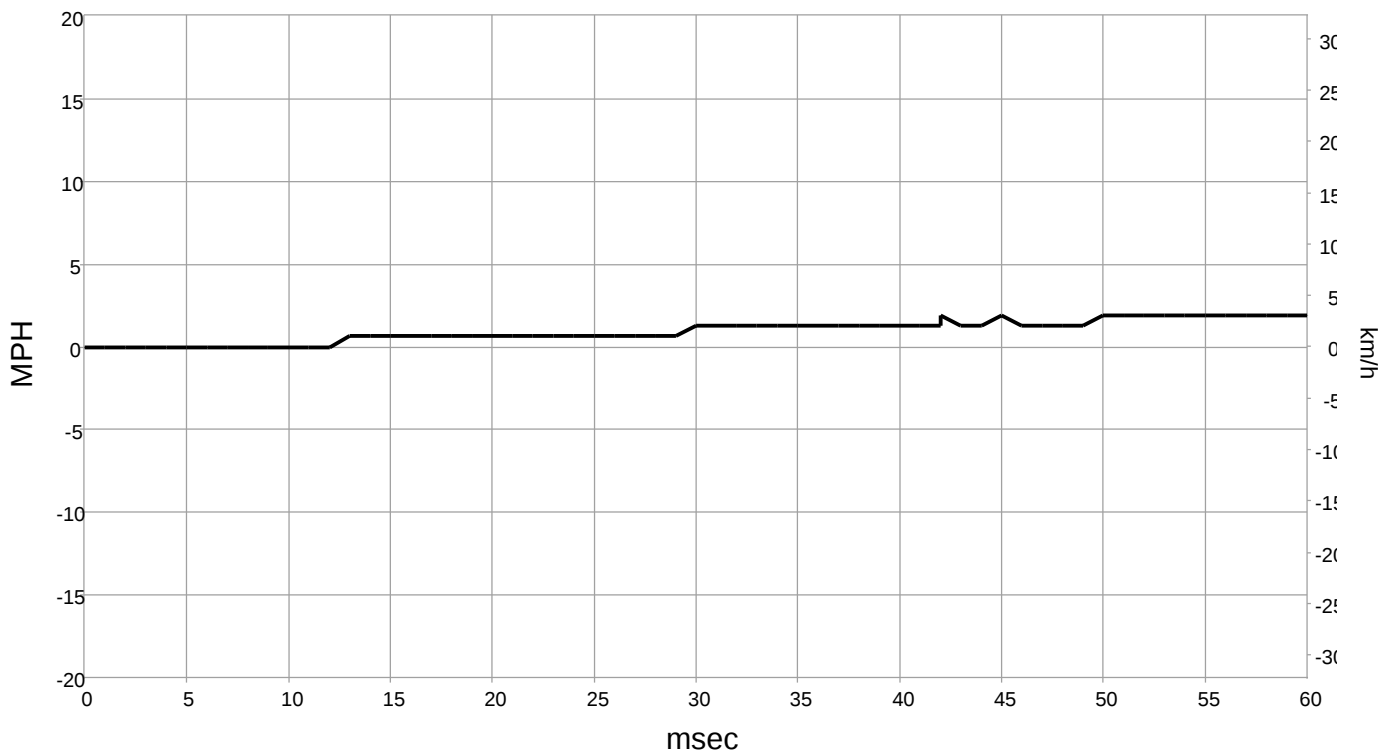
Right C-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)

Time (msec)	Right C-Pillar Impact Peripheral Sensor Y (g)	Right C-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Right C-Pillar Impact Peripheral Sensor Y (g)	Right C-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Right C-Pillar Impact Peripheral Sensor Y (g)	Right C-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])
0	0	0 [0]	25	12	1 [1]	50	2	2 [3]
0.5	0	0 [0]	25.5	2	1 [1]	50.5	2	2 [3]
1	0	0 [0]	26	-2	1 [1]	51	0	2 [3]
1.5	0	0 [0]	26.5	-8	1 [1]	51.5	2	2 [3]
2	0	0 [0]	27	-4	1 [1]	52	0	2 [3]
2.5	2	0 [0]	27.5	2	1 [1]	52.5	0	2 [3]
3	2	0 [0]	28	2	1 [1]	53	2	2 [3]
3.5	2	0 [0]	28.5	-2	1 [1]	53.5	0	2 [3]
4	0	0 [0]	29	-2	1 [1]	54	-2	2 [3]
4.5	0	0 [0]	29.5	0	1 [1]	54.5	0	2 [3]
5	2	0 [0]	30	0	1 [1]	55	0	2 [3]
5.5	0	0 [0]	30.5	0	1 [1]	55.5	0	2 [3]
6	0	0 [0]	31	6	1 [1]	56	0	2 [3]
6.5	4	0 [0]	31.5	2	1 [1]	56.5	4	2 [3]
7	4	0 [0]	32	-2	1 [1]	57	4	2 [3]
7.5	4	0 [0]	32.5	-4	1 [1]	57.5	4	2 [3]
8	6	0 [0]	33	-2	1 [1]	58	4	2 [3]
8.5	2	0 [0]	33.5	2	1 [1]	58.5	0	2 [3]
9	0	0 [0]	34	6	1 [1]	59	0	2 [3]
9.5	0	0 [0]	34.5	8	1 [1]	59.5	0	2 [3]
10	0	0 [0]	35	8	1 [2]			
10.5	0	0 [0]	35.5	8	1 [2]			
11	4	1 [1]	36	4	1 [2]			
11.5	4	1 [1]	36.5	0	1 [2]			
12	4	1 [1]	37	0	1 [2]			
12.5	6	1 [1]	37.5	2	1 [2]			
13	2	1 [1]	38	4	1 [2]			
13.5	0	1 [1]	38.5	4	1 [2]			
14	0	1 [1]	39	8	1 [2]			
14.5	0	1 [1]	39.5	4	1 [2]			
15	0	1 [1]	40	0	1 [2]			
15.5	0	1 [1]	40.5	2	1 [2]			
16	2	1 [1]	41	0	1 [2]			
16.5	2	1 [1]	41.5	0	1 [2]			
17	2	1 [1]	42	0	1 [2]			
17.5	2	1 [1]	42.5	0	1 [2]			
18	0	1 [1]	43	0	1 [2]			
18.5	0	1 [1]	43.5	0	1 [2]			
19	0	1 [1]	44	0	1 [2]			
19.5	-2	1 [1]	44.5	4	1 [2]			
20	0	1 [1]	45	2	1 [2]			
20.5	-2	1 [1]	45.5	4	1 [2]			
21	-6	1 [1]	46	6	2 [3]			
21.5	0	1 [1]	46.5	4	2 [3]			
22	6	1 [1]	47	2	2 [3]			
22.5	4	1 [1]	47.5	4	2 [3]			
23	2	1 [1]	48	6	2 [3]			
23.5	0	1 [1]	48.5	4	2 [3]			
24	0	1 [1]	49	0	2 [3]			
24.5	10	1 [1]	49.5	0	2 [3]			

Left D-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)



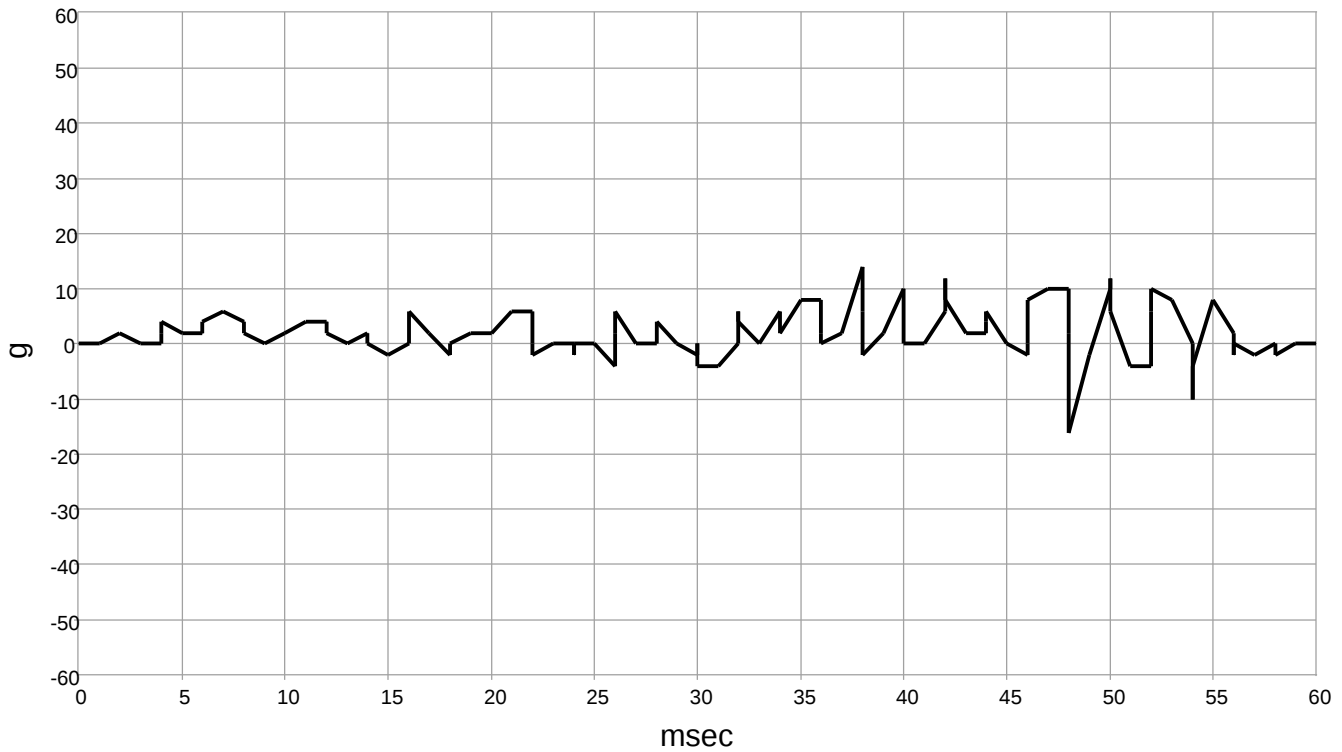
Left D-Pillar Impact Peripheral Sensor Y Delta-V (Most Recent Event - Deployment Event)



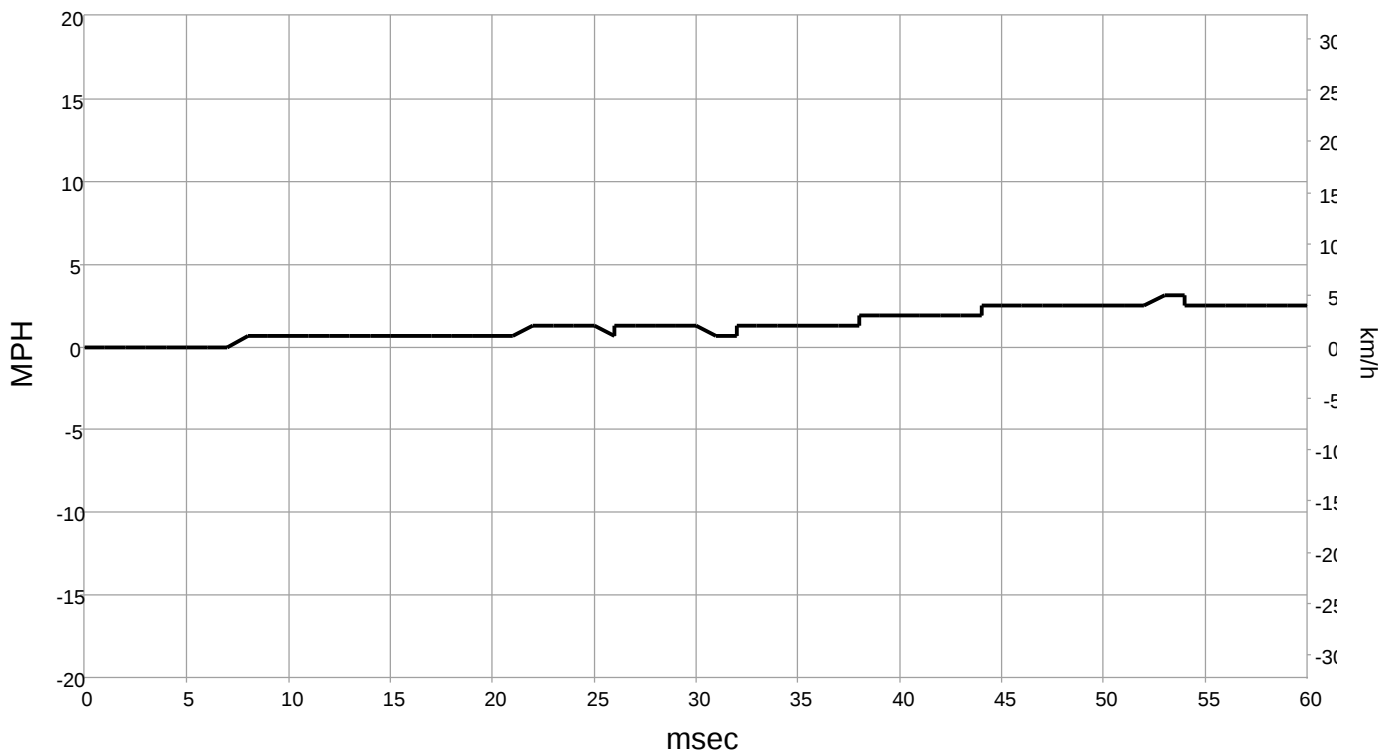
Left D-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)

Time (msec)	Left D-Pillar Impact Peripheral Sensor Y (g)	Left D-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Left D-Pillar Impact Peripheral Sensor Y (g)	Left D-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Left D-Pillar Impact Peripheral Sensor Y (g)	Left D-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])
0	0	0 [0]	25	0	1 [1]	50	6	2 [3]
0.5	0	0 [0]	25.5	4	1 [1]	50.5	0	2 [3]
1	0	0 [0]	26	4	1 [1]	51	0	2 [3]
1.5	0	0 [0]	26.5	4	1 [1]	51.5	6	2 [3]
2	0	0 [0]	27	6	1 [1]	52	0	2 [3]
2.5	0	0 [0]	27.5	2	1 [1]	52.5	0	2 [3]
3	0	0 [0]	28	0	1 [1]	53	8	2 [3]
3.5	0	0 [0]	28.5	4	1 [1]	53.5	6	2 [3]
4	0	0 [0]	29	4	1 [1]	54	2	2 [3]
4.5	2	0 [0]	29.5	8	1 [2]	54.5	6	2 [3]
5	0	0 [0]	30	4	1 [2]	55	4	2 [3]
5.5	0	0 [0]	30.5	8	1 [2]	55.5	4	2 [3]
6	0	0 [0]	31	12	1 [2]	56	4	2 [3]
6.5	0	0 [0]	31.5	4	1 [2]	56.5	-4	2 [3]
7	-2	0 [0]	32	0	1 [2]	57	0	2 [3]
7.5	0	0 [0]	32.5	-4	1 [2]	57.5	2	2 [3]
8	0	0 [0]	33	0	1 [2]	58	-2	2 [3]
8.5	0	0 [0]	33.5	4	1 [2]	58.5	4	2 [3]
9	2	0 [0]	34	4	1 [2]	59	4	2 [3]
9.5	2	0 [0]	34.5	-8	1 [2]	59.5	4	2 [3]
10	4	0 [0]	35	-6	1 [2]			
10.5	4	0 [0]	35.5	4	1 [2]			
11	0	0 [0]	36	0	1 [2]			
11.5	4	0 [0]	36.5	0	1 [2]			
12	4	0 [0]	37	8	1 [2]			
12.5	8	0 [0]	37.5	0	1 [2]			
13	4	1 [1]	38	0	1 [2]			
13.5	6	1 [1]	38.5	0	1 [2]			
14	8	1 [1]	39	-8	1 [2]			
14.5	6	1 [1]	39.5	4	1 [2]			
15	12	1 [1]	40	8	1 [2]			
15.5	6	1 [1]	40.5	2	1 [2]			
16	-2	1 [1]	41	8	1 [2]			
16.5	4	1 [1]	41.5	6	1 [2]			
17	6	1 [1]	42	2	2 [3]			
17.5	4	1 [1]	42.5	0	2 [3]			
18	0	1 [1]	43	-6	1 [2]			
18.5	-8	1 [1]	43.5	-4	1 [2]			
19	-2	1 [1]	44	4	1 [2]			
19.5	-4	1 [1]	44.5	4	1 [2]			
20	-4	1 [1]	45	2	2 [3]			
20.5	-6	1 [1]	45.5	-4	1 [2]			
21	-8	1 [1]	46	-4	1 [2]			
21.5	-2	1 [1]	46.5	0	1 [2]			
22	4	1 [1]	47	-4	1 [2]			
22.5	0	1 [1]	47.5	0	1 [2]			
23	-2	1 [1]	48	0	1 [2]			
23.5	0	1 [1]	48.5	2	1 [2]			
24	4	1 [1]	49	8	1 [2]			
24.5	0	1 [1]	49.5	4	2 [3]			

Right D-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)



Right D-Pillar Impact Peripheral Sensor Y Delta-V (Most Recent Event - Deployment Event)



Right D-Pillar Impact Peripheral Sensor Y (Most Recent Event - Deployment Event)

Time (msec)	Right D-Pillar Impact Peripheral Sensor Y (g)	Right D-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Right D-Pillar Impact Peripheral Sensor Y (g)	Right D-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])	Time (msec)	Right D-Pillar Impact Peripheral Sensor Y (g)	Right D-Pillar Impact Peripheral Sensor Y Delta-V (MPH [km/h])
0	0	0 [0]	25	0	1 [2]	50	12	2 [4]
0.5	0	0 [0]	25.5	-4	1 [1]	50.5	6	2 [4]
1	0	0 [0]	26	2	1 [1]	51	-4	2 [4]
1.5	2	0 [0]	26.5	6	1 [2]	51.5	-4	2 [4]
2	2	0 [0]	27	0	1 [2]	52	6	2 [4]
2.5	2	0 [0]	27.5	0	1 [2]	52.5	10	2 [4]
3	0	0 [0]	28	0	1 [2]	53	8	3 [5]
3.5	0	0 [0]	28.5	4	1 [2]	53.5	0	3 [5]
4	2	0 [0]	29	0	1 [2]	54	-10	2 [4]
4.5	4	0 [0]	29.5	-2	1 [2]	54.5	-4	2 [4]
5	2	0 [0]	30	0	1 [2]	55	8	2 [4]
5.5	2	0 [0]	30.5	-4	1 [2]	55.5	2	2 [4]
6	2	0 [0]	31	-4	1 [1]	56	-2	2 [4]
6.5	4	0 [0]	31.5	0	1 [1]	56.5	0	2 [4]
7	6	0 [0]	32	6	1 [2]	57	-2	2 [4]
7.5	4	1 [1]	32.5	4	1 [2]	57.5	0	2 [4]
8	4	1 [1]	33	0	1 [2]	58	-2	2 [4]
8.5	2	1 [1]	33.5	6	1 [2]	58.5	-2	2 [4]
9	0	1 [1]	34	2	1 [2]	59	0	2 [4]
9.5	2	1 [1]	34.5	2	1 [2]	59.5	0	2 [4]
10	2	1 [1]	35	8	1 [2]			
10.5	2	1 [1]	35.5	8	1 [2]			
11	4	1 [1]	36	2	1 [2]			
11.5	4	1 [1]	36.5	0	1 [2]			
12	2	1 [1]	37	2	1 [2]			
12.5	2	1 [1]	37.5	14	1 [2]			
13	0	1 [1]	38	6	2 [3]			
13.5	2	1 [1]	38.5	-2	2 [3]			
14	2	1 [1]	39	2	2 [3]			
14.5	0	1 [1]	39.5	10	2 [3]			
15	-2	1 [1]	40	10	2 [3]			
15.5	0	1 [1]	40.5	0	2 [3]			
16	6	1 [1]	41	0	2 [3]			
16.5	6	1 [1]	41.5	6	2 [3]			
17	2	1 [1]	42	12	2 [3]			
17.5	-2	1 [1]	42.5	8	2 [3]			
18	0	1 [1]	43	2	2 [3]			
18.5	0	1 [1]	43.5	2	2 [3]			
19	2	1 [1]	44	4	2 [3]			
19.5	2	1 [1]	44.5	6	2 [4]			
20	2	1 [1]	45	0	2 [4]			
20.5	2	1 [1]	45.5	-2	2 [4]			
21	6	1 [1]	46	0	2 [4]			
21.5	6	1 [2]	46.5	8	2 [4]			
22	0	1 [2]	47	10	2 [4]			
22.5	-2	1 [2]	47.5	10	2 [4]			
23	0	1 [2]	48	2	2 [4]			
23.5	0	1 [2]	48.5	-16	2 [4]			
24	-2	1 [2]	49	-2	2 [4]			
24.5	0	1 [2]	49.5	10	2 [4]			



Angular Rate (Most Recent Event - Deployment Event)

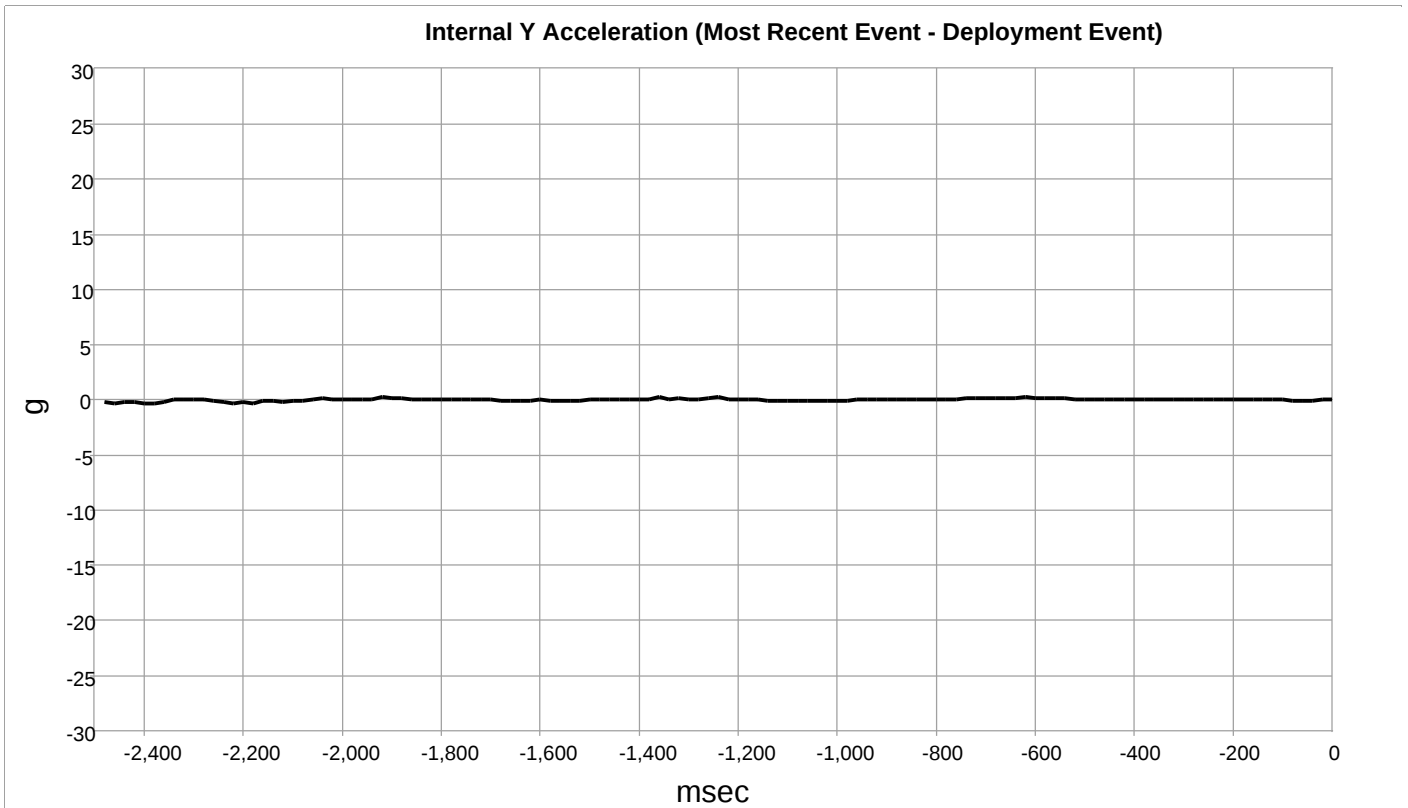
Time (msec)	Angular Rate Sensor (deg/sec)
-2500	9.7
-2480	13.0
-2460	13.0
-2440	9.7
-2420	6.5
-2400	3.2
-2380	0.0
-2360	-3.2
-2340	-3.2
-2320	-3.2
-2300	-3.2
-2280	0.0
-2260	0.0
-2240	0.0
-2220	0.0
-2200	0.0
-2180	0.0
-2160	0.0
-2140	-3.2
-2120	-6.5
-2100	-6.5
-2080	-9.7
-2060	-9.7
-2040	-6.5
-2020	-6.5
-2000	-3.2
-1980	-3.2
-1960	0.0
-1940	0.0
-1920	0.0
-1900	0.0
-1880	0.0
-1860	3.2
-1840	3.2
-1820	3.2
-1800	3.2
-1780	0.0
-1760	0.0
-1740	0.0
-1720	0.0
-1700	0.0
-1680	0.0
-1660	0.0
-1640	0.0
-1620	0.0
-1600	0.0
-1580	0.0
-1560	0.0
-1540	0.0
-1520	0.0

Time (msec)	Angular Rate Sensor (deg/sec)
-1500	0.0
-1480	0.0
-1460	0.0
-1440	0.0
-1420	0.0
-1400	0.0
-1380	0.0
-1360	0.0
-1340	3.2
-1320	0.0
-1300	0.0
-1280	0.0
-1260	3.2
-1240	0.0
-1220	3.2
-1200	3.2
-1180	3.2
-1160	3.2
-1140	3.2
-1120	0.0
-1100	0.0
-1080	0.0
-1060	0.0
-1040	0.0
-1020	0.0
-1000	-3.2
-980	-3.2
-960	-3.2
-940	-3.2
-920	-3.2
-900	-3.2
-880	-3.2
-860	-3.2
-840	-3.2
-820	-3.2
-800	-3.2
-780	-3.2
-760	-3.2
-740	0.0
-720	0.0
-700	0.0
-680	0.0
-660	0.0
-640	0.0
-620	0.0
-600	0.0
-580	0.0
-560	0.0
-540	0.0
-520	0.0

Time (msec)	Angular Rate Sensor (deg/sec)
-500	0.0
-480	0.0
-460	0.0
-440	0.0
-420	0.0
-400	0.0
-380	0.0
-360	0.0
-340	0.0
-320	0.0
-300	0.0
-280	3.2
-260	3.2
-240	3.2
-220	3.2
-200	3.2
-180	3.2
-160	3.2
-140	0.0
-120	0.0
-100	0.0
-80	0.0
-60	0.0
-40	0.0
-20	0.0
0	0.0
20	6.5
40	-9.7
60	-19.5
80	-19.5
100	-22.7
120	-48.8
140	-48.8
160	-42.3
180	-45.5
200	-35.8
220	-16.2
240	0.0
260	29.3
280	45.5
300	55.3
320	58.5
340	55.3
360	55.3
380	52.0
400	48.8
420	48.8
440	42.3
460	35.8
480	32.5

Angular Rate (Most Recent Event - Deployment Event)

Time (msec)	Angular Rate Sensor (deg/sec)	Time (msec)	Angular Rate Sensor (deg/sec)
500	26.0	1500	0.0
520	22.7	1520	0.0
540	16.2	1540	0.0
560	3.2	1560	0.0
580	0.0	1580	0.0
600	-9.7	1600	0.0
620	-19.5	1620	0.0
640	-29.3	1640	0.0
660	-35.8	1660	0.0
680	-39.0	1680	0.0
700	-42.3	1700	0.0
720	-45.5	1720	0.0
740	-35.8	1740	0.0
760	-29.3	1760	0.0
780	-16.2	1780	0.0
800	-9.7	1800	0.0
820	-6.5	1820	0.0
840	-9.7	1840	0.0
860	-13.0	1860	0.0
880	-19.5	1880	0.0
900	-19.5	1900	0.0
920	-19.5	1920	0.0
940	-16.2	1940	0.0
960	-9.7	1960	0.0
980	-3.2	1980	0.0
1000	0.0	2000	0.0
1020	3.2	2020	0.0
1040	3.2	2040	0.0
1060	3.2	2060	0.0
1080	3.2	2080	0.0
1100	0.0	2100	0.0
1120	0.0	2120	0.0
1140	-3.2	2140	0.0
1160	-3.2	2160	0.0
1180	-3.2	2180	0.0
1200	0.0	2200	0.0
1220	0.0	2220	0.0
1240	0.0	2240	0.0
1260	3.2	2260	0.0
1280	6.5	2280	0.0
1300	6.5	2300	0.0
1320	6.5	2320	0.0
1340	3.2	2340	0.0
1360	3.2	2360	0.0
1380	3.2	2380	0.0
1400	3.2	2400	0.0
1420	3.2	2420	0.0
1440	3.2	2440	0.0
1460	3.2	2460	0.0
1480	3.2	2480	0.0
		2500	0.0

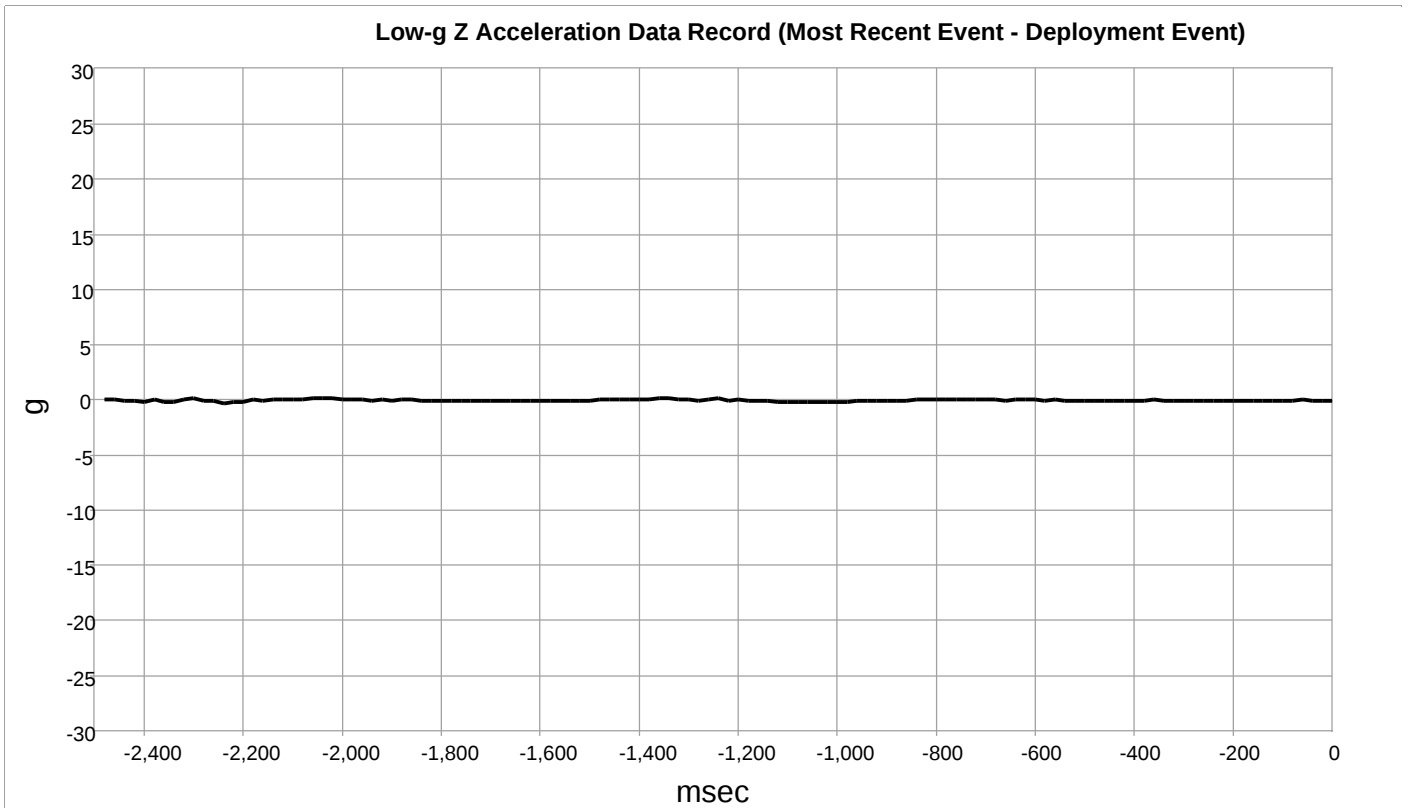


Internal Y Acceleration (Most Recent Event - Deployment Event)

Time (msec)	Internal Y Acceleration (g)
-2480	-0.14648
-2460	-0.34179
-2440	-0.14648
-2420	-0.19531
-2400	-0.34179
-2380	-0.24414
-2360	-0.19531
-2340	0.00000
-2320	0.00000
-2300	0.04882
-2280	0.00000
-2260	-0.04882
-2240	-0.14648
-2220	-0.29296
-2200	-0.19531
-2180	-0.24414
-2160	-0.09765
-2140	-0.04882
-2120	-0.19531
-2100	-0.04882
-2080	-0.04882
-2060	0.00000
-2040	0.14648
-2020	0.04882
-2000	0.04882
-1980	0.09765
-1960	0.09765
-1940	0.09765
-1920	0.24414
-1900	0.19531
-1880	0.14648
-1860	0.09765
-1840	0.04882
-1820	0.00000
-1800	0.04882
-1780	0.00000
-1760	0.00000
-1740	0.00000
-1720	0.00000
-1700	0.00000
-1680	-0.04882
-1660	-0.09765
-1640	-0.04882
-1620	-0.09765
-1600	0.00000
-1580	-0.04882
-1560	-0.04882
-1540	-0.04882
-1520	-0.04882
-1500	0.00000

Time (msec)	Internal Y Acceleration (g)
-1480	0.00000
-1460	0.00000
-1440	0.04882
-1420	0.04882
-1400	0.04882
-1380	0.04882
-1360	0.29296
-1340	0.00000
-1320	0.14648
-1300	0.04882
-1280	0.09765
-1260	0.19531
-1240	0.29296
-1220	0.00000
-1200	0.00000
-1180	0.00000
-1160	0.00000
-1140	-0.09765
-1120	-0.04882
-1100	-0.04882
-1080	-0.04882
-1060	-0.04882
-1040	-0.04882
-1020	-0.04882
-1000	-0.04882
-980	-0.04882
-960	0.00000
-940	0.00000
-920	0.00000
-900	0.00000
-880	0.00000
-860	0.04882
-840	0.04882
-820	0.09765
-800	0.09765
-780	0.09765
-760	0.09765
-740	0.14648
-720	0.14648
-700	0.14648
-680	0.19531
-660	0.19531
-640	0.19531
-620	0.24414
-600	0.19531
-580	0.19531
-560	0.19531
-540	0.14648
-520	0.09765
-500	0.04882

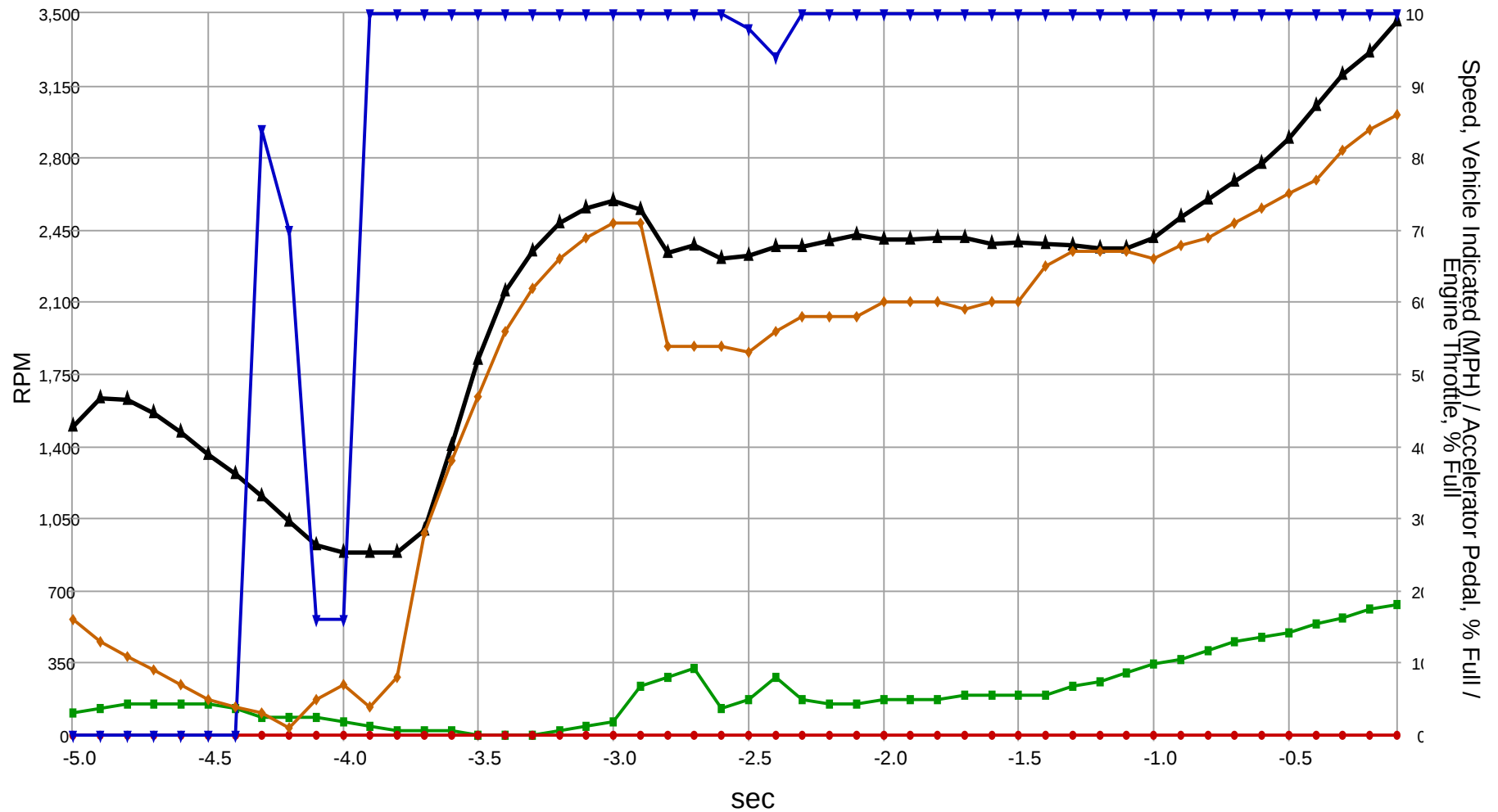
Time (msec)	Internal Y Acceleration (g)
-480	0.09765
-460	0.09765
-440	0.04882
-420	0.09765
-400	0.09765
-380	0.09765
-360	0.09765
-340	0.09765
-320	0.04882
-300	0.04882
-280	0.00000
-260	0.00000
-240	0.00000
-220	0.00000
-200	0.00000
-180	0.00000
-160	0.00000
-140	0.00000
-120	0.00000
-100	0.00000
-80	-0.04882
-60	-0.04882
-40	-0.04882
-20	0.00000
0	0.00000



Low-g Z Acceleration Data Record (Most Recent Event - Deployment Event)

Time (msec)	Low-g Z Acceleration Data Record (g)	Time (msec)	Low-g Z Acceleration Data Record (g)	Time (msec)	Low-g Z Acceleration Data Record (g)
-2480	0.03123	-1480	0.00000	-480	-0.03503
-2460	0.07807	-1460	0.03123	-460	-0.06246
-2440	-0.01561	-1440	0.07406	-440	-0.04684
-2420	-0.08187	-1420	0.07406	-420	-0.02342
-2400	-0.15234	-1400	0.08588	-400	-0.01161
-2380	0.00000	-1380	0.08968	-380	-0.01161
-2360	-0.19518	-1360	0.12090	-360	0.00000
-2340	-0.16015	-1340	0.14432	-340	-0.01161
-2320	0.09748	-1320	0.05064	-320	-0.02342
-2300	0.15614	-1300	0.10930	-300	-0.01161
-2280	-0.07026	-1280	-0.01161	-280	-0.00380
-2260	-0.08588	-1260	0.02722	-260	-0.01941
-2240	-0.23421	-1240	0.20699	-240	-0.02342
-2220	-0.16015	-1220	-0.08588	-220	-0.04283
-2200	-0.18357	-1200	0.03904	-200	-0.00380
-2180	0.04684	-1180	-0.05064	-180	-0.05064
-2160	-0.04283	-1160	-0.10149	-160	-0.02342
-2140	0.11310	-1140	-0.08968	-140	-0.04283
-2120	0.03904	-1120	-0.16395	-120	-0.00781
-2100	0.10529	-1100	-0.14432	-100	-0.01561
-2080	0.08588	-1080	-0.15614	-80	-0.09368
-2060	0.14833	-1060	-0.15234	-60	0.01561
-2040	0.17175	-1040	-0.14053	-40	-0.09368
-2020	0.11711	-1020	-0.16796	-20	-0.03904
-2000	0.11310	-1000	-0.14053	0	-0.03123
-1980	0.03123	-980	-0.12871		
-1960	0.00000	-960	-0.10149		
-1940	-0.04684	-940	-0.07807		
-1920	0.01561	-920	-0.07406		
-1900	-0.01941	-900	-0.07807		
-1880	0.03904	-880	-0.01561		
-1860	0.01561	-860	-0.00380		
-1840	-0.00781	-840	0.00380		
-1820	-0.05845	-820	0.01161		
-1800	-0.01561	-800	0.04283		
-1780	-0.06625	-780	0.06246		
-1760	-0.04283	-760	0.06625		
-1740	-0.03123	-740	0.07406		
-1720	-0.02722	-720	0.04283		
-1700	-0.00380	-700	0.06625		
-1680	-0.00781	-680	0.04684		
-1660	-0.04283	-660	-0.00380		
-1640	-0.04283	-640	0.03123		
-1620	-0.05064	-620	0.00380		
-1600	-0.02342	-600	0.03123		
-1580	-0.04283	-580	-0.01941		
-1560	-0.01561	-560	0.02342		
-1540	-0.01561	-540	-0.01561		
-1520	-0.04283	-520	-0.00380		
-1500	-0.01941	-500	-0.04283		

Pre-Crash Data -5 to 0 Sec



▲ Engine RPM ■ Speed, Vehicle Indicated ● Service Brake (0=Off/10=Full) ▼ Accelerator Pedal, % Full ◆ Engine Throttle, % Full

Pre-Crash Data -5 to 0 Sec (Part I - 100 msec) (Most Recent Event - Deployment Event)

Time (sec)	Vehicle Event Recorder Status	Speed, Vehicle Indicated (MPH [km/h])	Accelerator Pedal, % Full (%)	Service Brake	Engine RPM (RPM)	ABS Activity	Stability Control	Steering Input (deg)
-5.0	Complete	3 [5]	0	Off	1,501	Not active	On	522.2
-4.9	Complete	4 [6]	0	Off	1,633	Not active	On	522.3
-4.8	Complete	4 [7]	0	Off	1,627	Not active	On	522.4
-4.7	Complete	4 [7]	0	Off	1,560	Not active	On	522.3
-4.6	Complete	4 [7]	0	Off	1,468	Not active	On	522.2
-4.5	Complete	4 [7]	0	Off	1,360	Not active	On	522.0
-4.4	Complete	4 [6]	0	Off	1,266	Not active	On	521.6
-4.3	Complete	2 [4]	84	Off	1,158	Not active	On	517.0
-4.2	Complete	2 [4]	70	Off	1,034	Not active	On	516.0
-4.1	Complete	2 [4]	16	Off	924	Not active	On	513.2
-4.0	Complete	2 [3]	16	Off	883	Not active	On	511.2
-3.9	Complete	1 [2]	100	Off	886	Not active	On	511.9
-3.8	Complete	1 [1]	100	Off	888	Not active	On	507.9
-3.7	Complete	1 [1]	100	Off	996	Not active	On	502.1
-3.6	Complete	1 [1]	100	Off	1,401	Not active	On	500.6
-3.5	Complete	0 [0]	100	Off	1,823	Not active	On	500.4
-3.4	Complete	0 [0]	100	Off	2,153	Not active	On	493.9
-3.3	Complete	0 [0]	100	Off	2,351	Not active	On	480.8
-3.2	Complete	1 [1]	100	Off	2,485	Not active	On	474.5
-3.1	Complete	1 [2]	100	Off	2,556	Not active	On	481.7
-3.0	Complete	2 [3]	100	Off	2,589	Not active	On	490.4
-2.9	Complete	7 [11]	100	Off	2,547	Not active	On	494.4
-2.8	Complete	8 [13]	100	Off	2,338	Not active	Engaged	472.7
-2.7	Complete	9 [15]	100	Off	2,379	Not active	Engaged	413.7
-2.6	Complete	4 [6]	100	Off	2,311	Not active	Engaged	323.5
-2.5	Complete	5 [8]	98	Off	2,326	Not active	Engaged	225.9
-2.4	Complete	8 [13]	94	Off	2,370	Not active	Engaged	180.5
-2.3	Complete	5 [8]	100	Off	2,370	Not active	Engaged	171.1
-2.2	Complete	4 [7]	100	Off	2,395	Not active	Engaged	161.7
-2.1	Complete	4 [7]	100	Off	2,429	Not active	Engaged	174.4
-2.0	Complete	5 [8]	100	Off	2,404	Not active	Engaged	206.2
-1.9	Complete	5 [8]	100	Off	2,406	Not active	Engaged	195.3
-1.8	Complete	5 [8]	100	Off	2,414	Not active	On	147.4
-1.7	Complete	6 [9]	100	Off	2,409	Not active	On	101.6
-1.6	Complete	6 [9]	100	Off	2,387	Not active	On	85.9
-1.5	Complete	6 [9]	100	Off	2,389	Not active	On	83.0
-1.4	Complete	6 [9]	100	Off	2,381	Not active	On	90.3
-1.3	Complete	7 [11]	100	Off	2,377	Not active	On	82.2
-1.2	Complete	7 [12]	100	Off	2,363	Not active	On	68.3
-1.1	Complete	9 [14]	100	Off	2,365	Not active	On	59.3
-1.0	Complete	10 [16]	100	Off	2,416	Not active	On	55.7
-0.9	Complete	11 [17]	100	Off	2,512	Not active	On	55.5
-0.8	Complete	12 [19]	100	Off	2,602	Not active	On	61.7
-0.7	Complete	13 [21]	100	Off	2,688	Not active	On	78.0
-0.6	Complete	14 [22]	100	Off	2,775	Not active	On	84.5
-0.5	Complete	14 [23]	100	Off	2,895	Not active	On	82.0
-0.4	Complete	16 [25]	100	Off	3,053	Not active	On	66.2
-0.3	Complete	16 [26]	100	Off	3,205	Not active	On	43.5
-0.2	Complete	17 [28]	100	Off	3,315	Not active	On	26.3
-0.1	Complete	18 [29]	100	Off	3,462	Not active	On	17.4

**Pre-Crash Data -5 to 0 Sec (Part II - 100 msec) (Most Recent Event - Deployment Event) -
Table 1 of 2**

Time (sec)	Vehicle Event Recorder Status	Braking System, Maximum Braking	Brake Torque (Nm)	Brake Torque, Driver (Nm)	ABS MIL	Yaw Rate (deg/sec)	Wheel Speed, LF (MPH [km/h])	Wheel Speed, LR (MPH [km/h])
-5.0	Complete	Not Active	0	0	Off	15.68	3 [5]	2 [4]
-4.9	Complete	Not Active	0	0	Off	18.08	4 [6]	3 [5]
-4.8	Complete	Not Active	0	0	Off	20.96	4 [6]	4 [7]
-4.7	Complete	Not Active	0	0	Off	23.52	4 [7]	3 [5]
-4.6	Complete	Not Active	0	0	Off	26.24	5 [8]	4 [6]
-4.5	Complete	Not Active	0	0	Off	28.00	5 [8]	4 [6]
-4.4	Complete	Not Active	0	0	Off	17.84	4 [6]	3 [5]
-4.3	Complete	Not Active	0	0	Off	11.68	2 [4]	2 [3]
-4.2	Complete	Not Active	0	0	Off	19.84	2 [4]	2 [3]
-4.1	Complete	Not Active	0	0	Off	13.60	2 [4]	2 [3]
-4.0	Complete	Not Active	0	0	Off	5.76	2 [3]	2 [3]
-3.9	Complete	Not Active	0	0	Off	5.68	1 [2]	1 [2]
-3.8	Complete	Not Active	0	0	Off	5.36	1 [1]	1 [1]
-3.7	Complete	Not Active	0	0	Off	-0.24	1 [1]	1 [1]
-3.6	Complete	Not Active	0	0	Off	-2.24	1 [1]	1 [1]
-3.5	Complete	Not Active	0	0	Off	1.04	0 [0]	0 [0]
-3.4	Complete	Not Active	0	0	Off	0.80	0 [0]	0 [0]
-3.3	Complete	Not Active	0	0	Off	0.88	0 [0]	0 [0]
-3.2	Complete	Not Active	0	0	Off	1.68	0 [0]	0 [0]
-3.1	Complete	Not Active	0	0	Off	6.08	1 [2]	1 [2]
-3.0	Complete	Not Active	0	0	Off	10.40	2 [3]	2 [3]
-2.9	Complete	Not Active	0	0	Off	12.40	6 [9]	11 [17]
-2.8	Complete	Not Active	141	0	Off	13.76	18 [29]	14 [23]
-2.7	Complete	Not Active	417	0	Off	14.48	4 [6]	14 [22]
-2.6	Complete	Not Active	21	0	Off	22.64	15 [24]	4 [6]
-2.5	Complete	Not Active	84	0	Off	18.56	5 [8]	4 [7]
-2.4	Complete	Not Active	72	0	Off	-1.36	6 [9]	5 [8]
-2.3	Complete	Not Active	150	0	Off	-5.68	10 [16]	4 [7]
-2.2	Complete	Not Active	45	0	Off	6.72	4 [7]	4 [7]
-2.1	Complete	Not Active	0	0	Off	5.04	4 [7]	4 [7]
-2.0	Complete	Not Active	0	0	Off	0.88	7 [12]	5 [8]
-1.9	Complete	Not Active	0	0	Off	4.40	6 [10]	5 [8]
-1.8	Complete	Not Active	0	0	Off	3.52	5 [8]	5 [8]
-1.7	Complete	Not Active	0	0	Off	4.96	5 [8]	5 [8]
-1.6	Complete	Not Active	0	0	Off	1.68	6 [9]	6 [9]
-1.5	Complete	Not Active	0	0	Off	0.48	6 [9]	6 [9]
-1.4	Complete	Not Active	0	0	Off	4.72	6 [10]	6 [9]
-1.3	Complete	Not Active	0	0	Off	9.84	6 [10]	7 [11]
-1.2	Complete	Not Active	0	0	Off	9.04	7 [12]	7 [12]
-1.1	Complete	Not Active	0	0	Off	2.80	9 [14]	9 [14]
-1.0	Complete	Not Active	0	0	Off	3.20	10 [16]	10 [16]
-0.9	Complete	Not Active	0	0	Off	6.80	11 [17]	11 [17]
-0.8	Complete	Not Active	0	0	Off	6.64	12 [19]	12 [19]
-0.7	Complete	Not Active	0	0	Off	6.56	12 [20]	12 [20]
-0.6	Complete	Not Active	0	0	Off	10.00	14 [22]	14 [22]
-0.5	Complete	Not Active	0	0	Off	12.16	14 [23]	14 [23]
-0.4	Complete	Not Active	0	0	Off	11.52	15 [24]	15 [24]
-0.3	Complete	Not Active	0	0	Off	8.16	16 [26]	16 [26]
-0.2	Complete	Not Active	0	0	Off	4.08	17 [27]	17 [27]
-0.1	Complete	Not Active	0	0	Off	2.96	18 [29]	18 [29]

Pre-Crash Data -5 to 0 Sec (Part II - 100 msec) (Most Recent Event - Deployment Event) - Table 2 of 2

Time (sec)	Wheel Speed, RF (MPH [km/h])	Wheel Speed, RR (MPH [km/h])	Brake Pedal Position (%)	Engine Throttle, % Full (%)	Closest In- Path Vehicle is Fused	Object of Interest Distance (m)	Brake Jerk Response
-5.0	4 [6]	4 [6]	0	16	No	No Object	No
-4.9	4 [7]	4 [6]	0	13	No	No Object	No
-4.8	5 [8]	4 [7]	0	11	No	No Object	No
-4.7	6 [9]	5 [8]	0	9	Yes	No Object	No
-4.6	6 [10]	5 [8]	0	7	Yes	No Object	No
-4.5	6 [10]	6 [9]	0	5	No	No Object	No
-4.4	4 [7]	4 [7]	0	4	No	No Object	No
-4.3	3 [5]	3 [5]	0	3	No	No Object	No
-4.2	4 [6]	3 [5]	0	1	No	No Object	No
-4.1	3 [5]	2 [4]	0	5	No	No Object	No
-4.0	2 [4]	2 [3]	0	7	No	No Object	No
-3.9	2 [3]	2 [3]	0	4	No	No Object	No
-3.8	1 [2]	1 [2]	0	8	No	No Object	No
-3.7	1 [1]	1 [1]	0	28	No	No Object	No
-3.6	1 [1]	1 [1]	0	38	No	No Object	No
-3.5	0 [0]	0 [0]	0	47	No	No Object	No
-3.4	0 [0]	0 [0]	0	56	No	No Object	No
-3.3	0 [0]	0 [0]	0	62	No	No Object	No
-3.2	0 [0]	1 [2]	0	66	No	No Object	No
-3.1	2 [3]	1 [2]	0	69	No	No Object	No
-3.0	2 [4]	2 [4]	0	71	No	No Object	No
-2.9	3 [5]	2 [4]	0	71	No	No Object	No
-2.8	3 [5]	3 [5]	0	54	No	No Object	No
-2.7	5 [8]	3 [5]	0	54	No	No Object	No
-2.6	4 [7]	4 [7]	0	54	No	No Object	No
-2.5	6 [9]	7 [11]	0	53	No	No Object	No
-2.4	2 [3]	11 [18]	0	56	No	No Object	No
-2.3	6 [9]	4 [7]	0	58	No	No Object	No
-2.2	5 [8]	5 [8]	0	58	No	No Object	No
-2.1	4 [7]	4 [7]	0	58	No	No Object	No
-2.0	5 [8]	5 [8]	0	60	No	No Object	No
-1.9	5 [8]	5 [8]	0	60	No	No Object	No
-1.8	5 [8]	5 [8]	0	60	No	No Object	No
-1.7	6 [9]	6 [9]	0	59	No	No Object	No
-1.6	6 [9]	6 [9]	0	60	No	No Object	No
-1.5	6 [9]	6 [9]	0	60	No	No Object	No
-1.4	6 [10]	6 [10]	0	65	No	No Object	No
-1.3	7 [12]	7 [11]	0	67	No	No Object	No
-1.2	8 [13]	8 [13]	0	67	No	No Object	No
-1.1	9 [14]	9 [15]	0	67	No	No Object	No
-1.0	10 [16]	10 [16]	0	66	No	No Object	No
-0.9	11 [18]	11 [18]	0	68	No	No Object	No
-0.8	12 [19]	12 [19]	0	69	No	No Object	No
-0.7	13 [21]	13 [21]	0	71	No	No Object	No
-0.6	14 [23]	14 [23]	0	73	No	No Object	No
-0.5	15 [24]	15 [24]	0	75	No	No Object	No
-0.4	16 [26]	16 [25]	0	77	No	No Object	No
-0.3	17 [27]	17 [27]	0	81	No	No Object	No
-0.2	17 [28]	17 [28]	0	84	No	No Object	No
-0.1	18 [29]	18 [29]	0	86	No	No Object	No

**Pre-Crash Data -5 to 0 Sec (Part II - 250 msec) (Most Recent Event - Deployment Event) -
Table 1 of 2**

Time (sec)	Vehicle Event Recorder Status	Cruise Control Status	Forward Collision Warning System Status	PCM MIL	ETC Lamp	Current Gear	Shift Selector Position
-5.00	Complete	Off	Off	Off	Off	D1	Drive
-4.75	Complete	Off	Off	Off	Off	D1	Drive
-4.50	Complete	Off	Off	Off	Off	D1	Drive
-4.25	Complete	Off	Off	Off	Off	D1	Drive
-4.00	Complete	Off	Off	Off	Off	D1	Drive
-3.75	Complete	Off	Off	Off	Off	D1	Drive
-3.50	Complete	Off	Off	Off	Off	D1	Drive
-3.25	Complete	Off	Off	Off	Off	D1	Drive
-3.00	Complete	Off	Off	Off	Off	D1	Drive
-2.75	Complete	Off	Off	Off	Off	D1	Drive
-2.50	Complete	Off	Off	Off	Off	D1	Drive
-2.25	Complete	Off	Off	Off	Off	D1	Drive
-2.00	Complete	Off	Off	Off	Off	D1	Drive
-1.75	Complete	Off	Off	Off	Off	D1	Drive
-1.50	Complete	Off	Off	Off	Off	D1	Drive
-1.25	Complete	Off	Off	Off	Off	D1	Drive
-1.00	Complete	Off	Off	Off	Off	D1	Drive
-0.75	Complete	Off	Off	Off	Off	D1	Drive
-0.50	Complete	Off	Off	Off	Off	D1	Drive
-0.25	Complete	Off	Off	Off	Off	D1	Drive

**Pre-Crash Data -5 to 0 Sec (Part II - 250 msec) (Most Recent Event - Deployment Event) -
Table 2 of 2**

Time (sec)	Raw Manifold Pressure (kPa)
-5.00	80.8
-4.75	69.6
-4.50	60.0
-4.25	43.2
-4.00	47.2
-3.75	68.0
-3.50	96.0
-3.25	96.0
-3.00	96.0
-2.75	96.0
-2.50	96.0
-2.25	96.0
-2.00	96.0
-1.75	96.0
-1.50	96.0
-1.25	96.0
-1.00	96.0
-0.75	96.0
-0.50	96.0
-0.25	96.0

Pre-Crash Data -5 to 0 Sec (Part II - 500 msec) (Most Recent Event - Deployment Event)

Time (sec)	Vehicle Event Recorder Status	ACC Set Speed (MPH [km/h])	ACC Faulted	Cruise Control Override
-5.0	Complete	0 [0]	No	Not Active
-4.5	Complete	0 [0]	No	Not Active
-4.0	Complete	0 [0]	No	Not Active
-3.5	Complete	0 [0]	No	Not Active
-3.0	Complete	0 [0]	No	Not Active
-2.5	Complete	0 [0]	No	Not Active
-2.0	Complete	0 [0]	No	Not Active
-1.5	Complete	0 [0]	No	Not Active
-1.0	Complete	0 [0]	No	Not Active
-0.5	Complete	0 [0]	No	Not Active

Hexadecimal Data

Data that the vehicle manufacturer has specified for data retrieval is shown in the hexadecimal data section of the CDR report. The hexadecimal data section of the CDR report may contain data that is not translated by the CDR program. The control module contains additional data that is not retrievable by the CDR system.

62 01 02 37 0A 00 03 FF 3F 78 00 FF 03 41 31

62 01 E9 14 70 00 4B 68 6E 01 00 00 00 00

62 02 B6 01 7F 00 00 00 00

71 01 03 01 01 00 CC 00 00 00 01 D2 0D 86 FA 1C CE 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 01 CC 00 00 00 01 B9 0C F3 FA 1D 27 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 02 CC 00 00 00 01 A1 0C 85 FA 1D D3 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 03 CC 00 00 00 01 8C 0B ED FA 1E B6 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 04 CC 00 00 00 01 76 0B 4F FA 1F 54 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 05 CC 00 00 00 01 61 0A D7 FA 1F 6D 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 06 CC 00 00 00 01 48 0A 80 FA 1F 2C 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 07 CC 00 00 00 01 2F 0A 2A FA 1E 89 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 08 CC 00 00 00 01 14 09 D0 FA 1E 4B 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 09 CC 00 00 00 00 FB 09 70 FA 1E 4D 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 0A CC 00 00 00 00 E3 09 3D FA 1E 71 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 0B CC 00 00 00 00 C5 09 3B FA 1E CB 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 0C CC 00 00 00 00 A9 09 49 FA 1F 56 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 0D CC 00 00 00 00 95 09 4D FA 1F A7 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 0E CC 00 00 00 00 8C 09 55 FA 1F 5E 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 0F CC 00 00 00 00 8E 09 53 FA 1F 7B 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 10 CC 00 00 00 00 89 09 69 FA 20 18 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 11 CC 00 00 00 00 80 09 6E FA 21 E2 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

71 01 03 01 01 12 CC 00 00 00 00 82 09 66 FA 23 C1 00 FF FF FF FF FF FF FF FF FF FF FF FF
FF

71 01 03 01 01 13 CC 00 00 00 00 79 09 64 FA 24 2E 00 FF FF FF FF FF FF FF FF FF FF FF FF
FF

71 01 03 01 01 14 CC 00 00 00 00 75 09 7D FA 22 F0 00 FF FF FF FF FF FF FF FF FF FF FF FF
FF

71 01 03 01 01 15 CC 00 00 00 00 75 09 5B FA 22 71 00 FF FF FF FF FF FF FF FF FF FF FF FF
FF

71 01 03 01 01 16 CC 00 00 00 00 82 09 42 FA 22 CF 00 FF FF FF FF FF FF FF FF FF FF FF FF
FF

71 01 03 01 01 17 CC 00 00 00 00 D1 09 42 EB 23 2D 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 18 CC 00 00 00 00 83 09 16 F5 24 F3 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 19 CC 00 00 00 00 64 09 07 F9 28 C3 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 1A CC 00 00 00 00 EC 09 4B FA 2C 49 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 1B CC 00 00 00 00 D3 09 22 FA 2E 97 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 1C CC 00 00 00 00 B0 09 F3 FA 2F 70 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 1D CC 00 00 00 00 2F 0A 1D FA 2F 48 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 1E CC 00 00 00 00 22 09 FC FA 2E F1 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 1F CC 00 00 00 00 0B 09 B5 FA 2E A9 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 20 CC 00 00 00 00 00 09 2F FA 2E E8 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 21 CC 00 00 00 00 06 08 69 FA 2F 6B 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 22 CC 00 00 00 00 07 07 1F FA 2F AC 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 23 CC 00 00 00 00 09 05 79 FA 2F AE 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 24 CC 00 00 00 00 0E 03 E4 FA 2F BD 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 25 CC 00 00 00 00 14 03 78 FA 2F F7 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 26 CC 00 00 00 00 25 03 76 FA 30 1F 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 27 CC 00 00 00 00 33 03 73 28 30 18 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 28 CC 00 00 00 00 3C 03 9C 28 30 2C 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 01 29 CC 00 00 00 00 3D 04 0A AF 30 48 00 FF FF FF FF FF FF FF FF FF FF FF FF
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71 01 03 01 FF
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71 01 03 03 FF
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71 01 03 04 01 CC 00 FD FC FC FD FE FF 00 01 01 01 01 00 00 00 00 00 00 00 00 01 02 02 03 03 02 02
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FF 00 03 06 09 0B 0C 0D 0E 0B 09 05 03 02 03 04 06 06 06 05 03 01 00 FF FF FF FF 00 00 01 01 01
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71 01 03 04 FF
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71 01 03 04 FF
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71 01 03 05 01 02 CC 00 FE 07 CF 00 31 00 00 00 00 08 66 00 01 9D 01 9D 01 A8 01 AE 00 00 04 00
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08 0E 08 D4 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 03 CC 00 FE 07 CF 00 2E 00 00 00 00 08 90 00 01 85 01 86 01 9B 01 97 00 00 04 00
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08 33 08 C0 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

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08 31 08 B5 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 05 CC 00 FE 07 CF 00 28 00 00 00 00 08 7D 00 01 58 01 5C 01 6B 01 6B 00 00 04 00
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08 57 08 C0 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 06 CC 00 FE 07 CF 00 25 00 00 00 00 08 52 00 01 42 01 45 01 50 01 51 00 00 04 00
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07 E2 09 06 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

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07 F6 09 12 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

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01 00 00 00 00 00 00 00 00 00 00 01 71 8D 98 ED 00 33 00 03 CF 00 0F FF 0C 37 03 1B 03 0D 08 18
08 08 08 3B 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 0F CC 00 FE 07 CF 00 0D 00 00 00 00 08 15 00 00 8D 00 8F 00 8B 00 8D 00 02 04 00
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07 EF 08 0C 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

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07 C8 08 27 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

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01 00 00 00 00 00 00 00 00 00 00 01 71 8E 99 ED 76 33 00 03 DA 00 0F FF 0C 29 03 1A 03 0A 08 3A
08 0B 08 65 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 12 CC 00 FE 07 CF 00 0A 00 00 00 00 08 37 00 00 9B 00 80 00 78 00 82 00 02 04 00
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08 38 08 0A 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 13 CC 00 FE 07 CF 00 09 00 00 00 00 08 0B 00 00 BF 00 7A 00 78 00 7A 00 02 04 00
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08 4C 08 5C 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 14 CC 00 FE 07 CF 00 08 00 00 00 00 08 3F 00 00 77 00 72 00 75 00 77 00 02 04 00
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08 35 07 D9 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 15 CC 00 FE 07 CF 00 07 00 0F 00 00 08 54 00 00 6F 00 6F 00 7E 00 7A 00 02 04 00
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07 C9 08 5D 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 16 CC 00 FE 07 CF 00 06 00 32 00 00 07 B9 01 01 07 00 6D 00 96 00 73 00 02 04 00
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07 A2 08 18 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 17 CC 00 FE 07 CF 00 05 00 18 00 00 07 EF 01 00 8B 00 79 00 2A 01 20 00 02 04 00
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07 D0 07 99 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF

71 01 03 05 01 18 CC 00 FE 07 CF 00 03 00 1C 00 00 08 E8 01 00 7E 00 69 00 8D 00 B1 00 02 04 00
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08 0E 08 D7 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 1A CC 00 FE 07 CF 00 04 00 8B 00 00 08 B5 01 00 60 01 62 00 78 00 56 00 02 04 00
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08 6D 08 9F 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

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08 32 08 27 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 1C CC 00 FE 07 CF 00 03 00 00 00 00 08 9B 00 00 92 01 15 00 56 00 3C 00 02 04 00
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08 52 08 3D 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 1D CC 00 FE 07 CF 00 02 00 00 00 00 08 82 00 00 32 00 2D 00 43 00 38 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 5C A3 B4 ED 76 33 00 03 86 00 0F FF 0C 47 03 1C 03 11 08 95
08 48 08 8F 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 1E CC 00 FE 07 CF 00 01 00 00 00 00 08 4C 00 00 22 00 20 00 2A 00 26 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 5F A0 B0 ED 76 33 00 03 91 00 0F FF 0C 45 03 1C 03 11 08 63
08 2B 08 75 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 1F CC 00 FE 07 CF 00 00 00 00 00 00 08 15 00 00 00 00 00 00 00 00 00 00 1A 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 64 9A A9 ED 00 33 00 03 B5 00 0F FF 0C 5F 03 1E 03 17 08 29
08 2B 08 50 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 20 CC 00 FE 07 CF 00 00 00 00 00 00 08 0B 00 00 00 00 00 00 00 00 00 00 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 6C 92 9F ED 76 33 00 03 FF 00 0F FF 0C 57 03 1F 03 15 08 14
08 26 08 77 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 21 CC 00 FE 07 CF 00 00 00 00 00 00 08 0A 00 00 00 00 00 00 00 00 00 00 06 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 79 86 8E ED 77 33 00 04 12 00 0F FF 0B E4 03 2B 02 F9 08 0E
08 39 08 5E 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 22 CC 00 FE 07 CF 00 00 00 00 00 00 08 0D 00 00 07 00 06 00 07 00 07 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 8A 74 78 ED 77 33 00 03 F2 00 0F FF 0B 86 03 29 02 E1 08 1B
08 19 08 6E 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 23 CC 00 FE 07 CF 00 01 00 00 00 00 07 E4 00 00 09 00 08 00 0A 00 09 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 9A 64 62 ED 77 33 00 03 E0 00 0F FF 0B 1F 02 D6 02 C7 07 F3
08 07 07 CD 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 24 CC 00 FE 07 CF 00 02 00 00 00 00 07 FD 00 00 0E 00 0C 00 10 00 0E 00 00 04 00
01 00 00 00 00 00 00 00 00 00 00 01 AD 51 47 ED 77 33 00 03 E7 00 0F FF 0A 8E 02 BA 02 A3 07 F5
07 D9 07 BF 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

71 01 03 05 01 25 CC 00 FE 07 CF 00 03 00 00 00 00 08 43 00 00 14 00 10 00 18 00 18 00 00 04 00
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07 F6 07 68 00 00 00 00 08 08 00 00 FF FF FF FF FF FF FF FF FF FF

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