NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, DC 20594

October 29, 2018

Bystander Video

Specialist's Factual Report
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EVENT

Location:	West Hollywood, California
Date:	June 15, 2018
Vehicle:	Tesla Model S
NTSB Number:	HWY18FH014

1. GROUP

No video group was convened.

2. SUMMARY

On Friday, June 15, 2018, about 5:30 p.m., Pacific daylight time, a 2012 Tesla Model S electric-powered passenger vehicle, occupied by a 44-year-old male driver, was traveling westbound on Santa Monica Blvd, in West Hollywood, Los Angeles County, California. Motorists flagged down the driver of the Tesla due to smoke emanating from the vehicle. The driver stopped the Tesla next to the north side curb in the 7800 block of Santa Monica Blvd and exited the vehicle. A nearby Los Angeles Police Department patrol car also stopped, and the officers directed traffic around the burning car. The Los Angeles County Fire Department responded to the vehicle fire, dispatching an engine unit from Station #8 located at 7643 Santa Monica Blvd. The fire was extinguished and there were no injuries. The vehicle was towed from the scene without incident.

3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) received six video files documenting the event. Five videos were obtained by Tesla from a bystander and provided to the NTSB. One video was obtained by Tesla from the driver and provided to the NTSB.

3.1. Video Files

3.1.1. Bystander Cell Phone Videos

The five bystander video files were taken from one witness cell phone, were in color, and were provided in .mov format with a frame size of 1920 by 1088 pixels at 30 frames per second (fps). Monaural audio was captured at a sampling rate of

44 kHz. The video files were arranged in chronological order and are referred to as the first through the fifth, and according to the file name as transferred to the NTSB.

3.1.2. Driver Cell Phone Video

The driver video was in color and was provided in .mov format with a frame size of 1920 by 1080 pixels at 29 fps. Monaural audio was captured at a sampling rate of 44 kHz.

3.2. Timing and Correlation

Timing of the transcript is expressed as Video Elapsed Time, which is time from the beginning of the recording for each of the individual videos.

3.3. Summary of Recording Contents

In agreement with the Investigator-In-Charge, a video group did not convene, and a summary report was prepared.

3.3.1. Bystander Video Recording One: F095C48A-6423-4565-9E0A-23777616FDB7

The first video file had a size of 72.5 MB and a duration of 1 minute 14 seconds. The bystander videos showed a view of the Tesla as filmed by approaching the driver's side of the vehicle from the parking lot south of the vehicle. The bystander stopped at a blue steel picket fence on the south side of Santa Monica Blvd. and filmed through the fence. The following events were observed at the indicated times as shown in Table 1 and Figures 1 to 3.

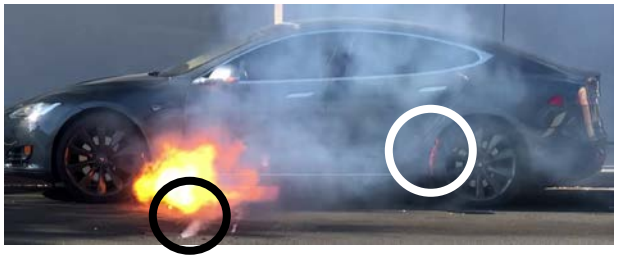
Table 1. Summary of events captured in Bystander Video Recording One.

Time (mm:ss)	Observations
00:01 to 00:05	Two uniformed officers walked from the west to the east of the vehicle.
00:04	The driver side of the Tesla was visible with orange/yellow flames emerging from the rocker panel just aft of the left front wheel. The flames covered the area approximately in the front half and lower half of the driver door. A cloud of white and light grey smoke was blowing to the east (towards the back) of the vehicle. See figure 1.
00:19	The bystander zoomed the recording to show a close up view of the vehicle. The flames were shooting laterally from the vehicle. The smoke emitted at this time was less dense, and the force of the flames and density of the smoke was variable. See figure 2.
00:26	A close up of the vehicle showed flames continuing to emanate from the left front wheel as previously observed, and additional flames visible at the forward portion of the left rear wheel well (see white circle in figure 3). A small piece of material was ejected laterally out of the front wheel well area of the vehicle, landed on the street, and emanated smoke. See black circle in figure 3.
00:32	A close up of the vehicle showed flames continuing to emanate from the front portion of the vehicle and also from the middle portion of the rocker panel beneath the driver's door.
01:14	The video ended with the fire progressing to the surrounding parts of the car and exhibiting similar behavior as previously noted.

Figure 1. Image from Bystander Recording One at four seconds.

Figure 2. Image from Bystander Recording One at 19 seconds.

Figure 3. Image from Bystander Recording One at 26 seconds with annotations.



3.3.2. Bystander Video Recording Two: A49AACA5-AD5F-4809-BE1F-A9202331D565

The second video file had a size of 132 MB and a duration of 2 minute 17 seconds. The following events were observed at the indicated times as shown in Table 2.

Table 2. Summary of events captured in Bystander Video Recording Two.

Time (mm:ss)	Observations
00:01 to 00:30	The second video appeared to begin immediately after the first video. The first 30 seconds showed the fire progressing to the left front tire and the driver door. The smoke was not as dense as it was in the first video and was light grey in color.
00:44	A fire truck siren became audible.
01:06 to 01:11	Los Angeles Fire Department (LAFD) Engine 8 came into view approaching from the east and passed in front of the Tesla. The fire truck drove past the video frame, but the shadow was visible as the fire truck stopped to the west of the Tesla at 01:11.
01:15	The lateral thrust of the flames dwindled and appeared to have no lateral thrust at about this point in time. The left front tire and lower rocker panel had visible flames, and white smoke was emanating from between the hood and windshield.
01:27 to 01:30	A city bus entered the frame from the west and obscured the view of the vehicle.
01:31	The bus passed out of the frame and a fire fighter (FF) wearing a self-contained breathing apparatus (SCBA) was visible next to the vehicle on the south side. The FF was dragging a fire hose.
01:42	A second FF, also wearing a SCBA, was visible in the frame on the west side of the vehicle.
01:46	A third FF, not wearing a SCBA, was briefly visible to the west of the vehicle.
02:03	The third FF walked to the north of the Tesla to observe the vehicle.
02:17	The video recording ended.

3.3.3. Bystander Video Recording 3: ED1F847E-4A1E-41D2-A192-D51BFA99C0F0

The third video file had a size of 39.3 MB and a duration of 39 seconds. The following events were observed at the indicated times as shown in Table 3.

Table 3. Summary of events captured in Bystander Video Recording 3.

Time (mm:ss)	Observations
00:00 to 00:01	The third video appeared to begin immediately after the second video. The FF not wearing the SCBA was moving back to the west of the Tesla from the previous position observing the vehicle from the north. At 1 second into the video, a stream of water and foam came from behind the Tesla, and the FF was not in the frame.
00:02 to 00:05	The water immediately suppressed flames at the rocker panel. At 5 seconds a FF entered the frame from the east and was directing the other FF operating the hose from behind the vehicle.
00:09 to 00:12	The FF operating the hose transferred it to the other FF, and the stream was directed into the left front wheel well. The flames appeared to be suppressed by 12 seconds, although the view was partially obscured by other vehicles passing between the camera viewpoint and the Tesla.
00:21	The FF stopped applying the stream of water and foam to the vehicle. No flames were visible emanating from the vehicle. White smoke was emanating from the left front wheel well.
00:32	The FF moved to the passenger side of the vehicle. The FF applied a stream of water and foam to the right front side of the Tesla.
00:34	The FF stopped applying the stream to the passenger side of the vehicle.
00:39	The video recording ended.

3.3.4. Bystander Video Recording 4: 6E012D22-F2CB-4F32-98C3-6352ED18B869

The fourth video file had a size of 31.2 MB and a duration of 32 seconds. The following events were observed at the indicated times as shown in Table 4.

Table 4. Summary of events captured in Bystander Video Recording 4.

Time (mm:ss)	Observations
00:01 to 00:03	An unknown amount of time passed between the end of the third video and the beginning of the fourth. The rear trunk lid was open. A FF approached the Tesla and opened the driver door.
00:08 to 00:09	A FF observed the interior through the driver door and then opened the left rear passenger door. There was sparse white and light grey smoke emanating from the interior of the vehicle.
00:14	The fire Captain entered the frame from the west of the vehicle.
00:23	The volume of smoke emanating from the front wheel wells increased.
00:30	A FF moved in to position and began applying a stream to the right front of the vehicle.
00:32	The video recording ended.

3.3.5. Bystander Video Recording 5: 59196E2C-4640-4866-BDA4-59B49321FB53

The fifth video file had a size of 38.8 MB and a duration of 39 seconds. The following events were observed at the indicated times as shown in Table 5.

Table 5. Summary of events captured in Bystander Video Recording 5.

Time (mm:ss)	Observations
00:01	An unknown amount of time passed between the end of the fourth video and the beginning of the fifth. The viewpoint of the video was now from the sidewalk south of the vehicle.
00:08	LAFD Engine 8 was visible at its parked location approximately 15 or 20 feet to the west and roughly 10 feet south of the Tesla. The front hood of the Tesla was open and the 3 FF and Captain were at the front of the vehicle.
00:16 to 00:25	The camera focused on the street and the water and foam runoff in the curb to the south of the Tesla.
00:34	A FF was probing the left front wheel well with a Halligan bar and partially pulled off the fender.
00:39	The video recording ended.

3.3.6. Driver Video Recording: IMG_0265

The driver video file had a size of 1.63 GB and a duration of 14 minutes 34 seconds. The following events were observed at the indicated times as shown in Table 6.

Table 6. Summary of events recorded in the Driver's Video Recording.

Time (mm:ss)	Observations
00:00	The viewpoint of the video is from the sidewalk to the northwest of the Tesla looking at the front of the car on the passenger's side, and a sheriff's vehicle is stopped to the southeast of the Tesla, blocking the westbound travel lane of Santa Monica Blvd. and the intersection at N. Ogden St. The Tesla had a sparse, white smoke emanating from under the vehicle on both the left and right sides.
00:09	The density and force of the smoke thrusting laterally from the vehicle intensified and a hissing sound became audible. See figure 4.
00:14	The density of the smoke and the sound of the hissing intensified. The smoke was mostly visible on the left side of the Tesla. Smoke was venting approximately 10 ft laterally from the vehicle.
00:32	The density of the smoke reduced and red and orange flames became visible on the left side of the visible.
00:35	Flames became visible on the right side of the vehicle. See figure 5.
00:37 to 01:08	Two Sheriff's deputies were visible walking from southwest of the Tesla towards the vehicle. One officer directed traffic and the other moved the Sherriff's vehicle and blocked both westbound lanes at 01:08
01:11	The smoke reduced and the flames shot laterally with more force from the left side. The flames grew larger on the right side, but do not have as much lateral thrust as the flames on the left. See figure 6.
02:36	A fire truck siren became audible. A fire truck approached and stopped southwest of the Tesla at 03:04.
04:29	The FF began applying water and foam to the left side of the Tesla. The FF then moved to the right side of the Tesla.
04:38	The FF applied a stream of foam and water to the right front wheel well of the Tesla. He stopped at 04:45 and no more flames were visible.
04:57	The fire captain approached the driver and asked whose car it was, and if it was unlocked. The driver responded to the negative and said he will unlock it.
05:38	Smoke stopped emanating from the right side of the car but continued on the left.

Time (mm:ss)	Observations
06:04	The driver unlatched the hood using the remote and a FF opened the hood. The FF removed some personal articles for the driver.
06:41	The siren from another fire truck became audible.
06:50 to 07:57	The camera was put down but continued to record. Nothing was visible, but another approaching fire truck was audible.
08:00 to 08:39	The view of the camera was generally down at the ground. The car was briefly visible. No smoke appeared to be emanating from the car. A fire fighter asked the driver if he knew where the batteries reside in the car. The driver responded that the main batteries are the whole floor of the car. The fire fighter asked about a power disconnect. The driver responded that he placed a call into Tesla.
08:47	The car was again briefly visible, and smoke was emanating from the vehicle, but not in a forceful manner.
09:00	The car returned to view. Light smoke was emanating from under the front of the car.
9:06	FFs removed panels from under the hood and applied a brief stream to the base of the windshield at 09:28.
09:31 to 09:44	FFs applied a constant stream of water and foam to the base of the windshield.
09:45 to 10:12	The driver engaged in a telephone call and recounted his sequence of events. In summary, the driver stated that someone pointed at him to pull over, he did and smelled something burning and there was smoke coming from beneath the car. He said he grabbed a couple of things, got out to the sidewalk, and saw flames coming 15 feet out of the vehicle. He stated that the car was on fire with firemen putting it out and police stopping traffic.
10:24 to 10:33	Another stream was applied at the base of the windshield. There was smoke emanating from under the car that was sometimes light and sometimes a forceful generation of new smoke.
10:51 to 11:55	FFs applied more streams to the front and back areas under the hood. Then a stream was applied to the left side and in the wheel well. At 11:25, the driver was speaking on the phone and stated that there was no alert to a problem with the car.
12:17	A FF approached the left front of the vehicle with a Halligan bar and removed a portion of the left front fender. The view was partially obscured due to the camera angle.
12:48 to 13:16	A stream was applied to the left front in the area of the removed fender. Another FF began to remove more of the left front fender. The driver then moved the camera to view the fire truck.

Time (mm:ss)	Observations
13:49	The driver pointed the camera back to the Tesla and FF were continuing to remove portions of the fender and apply streams of water and foam. Wisps of smoke continued to emanate through the end of the video.
14:34	The video recording ended. See figure 7.

Figure 4. Image from Driver Video at 9 seconds.

Figure 5. Image from Driver Video at 35 seconds.

Figure 6.Image from Driver Video at 01:11.

Figure 7. Image from Driver Video at 14:34.