



SAN JOSE POLICE DEPARTMENT

TRAINING BULLETIN

TO: ALL DEPARTMENT PERSONNEL

FROM: Anthony Mata
Chief of Police

**SUBJECT: AUTONOMOUS VEHICLE
COLLISION DOCUMENTATION**

DATE: November 15, 2022

Bulletin #2022-037

With the increased use of autonomous vehicles on the roadway the Department recognizes the need for additional training on how to properly document a collision involving an autonomous vehicle. This training bulletin is intended to educate Department members of the multiple levels of automation and ensure proper documentation of autonomous vehicles involved in collisions.

Department of Transportation (DOT) and Society of Automotive Engineers (SAE) Autonomous Classifications

The DOT and SAE have agreed upon the following six classifications to determine the level of automation being used to operate a vehicle. The first three levels (SAE Level 0 – SAE Level 2) are generally monitored by humans while the vehicle is operating various driver assisting functions to operate the vehicle. The additional three levels (SAE Level 3 – SAE Level 5) are fully automated systems which are used to operate a vehicle without human operation.

Refer to the SAE levels below for additional information:

Human Monitored Driving Environment Classifications

- **SAE Level 0:** A vehicle operated manually by a driver. The vehicle does not have driving automation.
- **SAE Level 1:** A vehicle operating with driver assistance functions, but the functions operate separately and not in conjunction with one another. The vehicle has systems that allow the vehicle and driver to share control of the vehicle. (Example: Cruise Control and Lane Assist cannot function together).
- **SAE Level 2:** A vehicle with a combination of driver assistance functions that operate in conjunction with one another and the driver is expected to take control of the vehicle if needed, with or without warning. The driver is supervising the automation systems as they operate. (Example: A Tesla operating with a driver in the seat in “Autopilot” mode or with a combination of Adaptive Cruise Control and Lane Keep Assist).

Automated Systems Monitored Driving Environment Classifications

- SAE Level 3: A vehicle equipped with a self-driving system which operates within a predefined geographical area under limited environmental conditions and requires a human operator present to override or intervene. As of February 26, 2020, the Department of Motor Vehicles (DMV) has issued 64 Autonomous Vehicle Testing Permits. The majority of these permitted vehicles are currently operating in the Bay Area.
- SAE Level 4: A vehicle equipped with a self-driving system which operates within a predefined geographical area under limited environmental conditions but does not require a human operator present to override or intervene.
- SAE Level 5: A vehicle equipped with a self-driving system which does not have any geographic or environmental limitations and does not require a human operator. This vehicle and technology are theoretical and do not exist yet.

For additional information regarding different SAE classification levels refer to the [SAE Website](#).¹

California Highway Patrol (CHP) Definitions

Autonomous vehicles involved in a collision requiring a collision report must be documented on a CHP 555 form. The Department is in the process of updating the most current CHP 555 form to AFR/RMS database. The CHP currently defines the following:

Autonomous Vehicle: Any vehicle equipped with autonomous technology which has been integrated into that vehicle. An autonomous vehicle does not include a vehicle which is equipped with one or more crash avoidance systems, including but not limited to, electronic blind spot assistance, automated emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, traffic jam and queuing assist, or other similar systems which enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without active control or monitoring of a human operator.

Operator: In an autonomous vehicle only, this is the person who is seated on the driver's seat, or, if there is no person in the driver's seat, causes the autonomous technology to engage.

Driver: A driver is a person who is in actual physical control of a vehicle. For an out-of-control vehicle, the driver is the occupant who was in control until control was lost. A driver includes an operator who takes actual physical control of the dynamic driving task of an autonomous vehicle (which must be equipped with a steering wheel, a brake, and an accelerator) prior to the crash.

¹ <https://www.sae.org/blog/sae-j3016-update>

CHP 555 Forms and Proper Documentation

Officers will determine if an autonomous vehicle was being operated in autonomous mode or driven at the time of the collision. Once the autonomy level is determined, the officer will appropriately document the driver or operator in the Involved Party section on page 1 of the updated CHP 555 form (see below).

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
TRAFFIC CRASH REPORT
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SPECIAL CONDITIONS		NUMBER INJURED	HT & RN FELLOW	CITY	JUDICIAL DISTRICT	LOCAL REPORT NUMBER	
		NUMBER KILLED	HT & RN INFORMATION	COUNTY	REPORTING DISTRICT	BEAT	DAY OF WEEK
							TOW AWAY ☐ YES ☐ NO
LOCATION	CRASH OCCURRED ON				MO.	DAY	YEAR
	MILEPOST INFORMATION				TIME (24HR)		NOTE #
	FEET/MILES OF				GPS COORDINATES		OFFICER ID
	LATITUDE				LONGITUDE		PHOTOGRAPHS BY: ☐ NONE
☐ AT INTERSECTION WITH		STATE HWY REL		☐ YES ☐ NO			
☐ OR		FEET/MILES OF					
PARTY 1	DRIVER'S LICENSE NUMBER		STATE	CLASS	AIR BAG	SAFETY EQUIP.	VEH. YEAR
	NAME (FIRST, MIDDLE, LAST)						MAKE/MODEL/COLOR
	STREET ADDRESS						LICENSE NUMBER
	CITY/STATE/ZIP						STATE
	SEX	HAIR	EYES	HEIGHT	WEIGHT	Mo. BIRTHDATE Day Year	RACE
	HOME PHONE		BUSINESS PHONE		VEH. IDENTIFICATION NUMBER		
	INSURANCE CARRIER		POLICY NUMBER		VEHICLE TYPE		
	OR OF TRAVEL		LANE	THRU LANES	TOTAL LANES	SPEED LIMIT	DESCRIBE VEHICLE DAMAGE
PARTY 2	DRIVER'S LICENSE NUMBER		STATE	CLASS	AIR BAG	SAFETY EQUIP.	VEH. YEAR
	NAME (FIRST, MIDDLE, LAST)						MAKE/MODEL/COLOR
	STREET ADDRESS						LICENSE NUMBER
	CITY/STATE/ZIP						STATE
	SEX	HAIR	EYES	HEIGHT	WEIGHT	Mo. BIRTHDATE Day Year	RACE
	HOME PHONE		BUSINESS PHONE		VEH. IDENTIFICATION NUMBER		
	INSURANCE CARRIER		POLICY NUMBER		VEHICLE TYPE		
	OR OF TRAVEL		LANE	THRU LANES	TOTAL LANES	SPEED LIMIT	DESCRIBE VEHICLE DAMAGE
PARTY 3	DRIVER'S LICENSE NUMBER		STATE	CLASS	AIR BAG	SAFETY EQUIP.	VEH. YEAR
	NAME (FIRST, MIDDLE, LAST)						MAKE/MODEL/COLOR
	STREET ADDRESS						LICENSE NUMBER
	CITY/STATE/ZIP						STATE
	SEX	HAIR	EYES	HEIGHT	WEIGHT	Mo. BIRTHDATE Day Year	RACE
	HOME PHONE		BUSINESS PHONE		VEH. IDENTIFICATION NUMBER		
	INSURANCE CARRIER		POLICY NUMBER		VEHICLE TYPE		
	OR OF TRAVEL		LANE	THRU LANES	TOTAL LANES	SPEED LIMIT	DESCRIBE VEHICLE DAMAGE
PREPARED BY NAME				DISPATCH NOTIFIED		REVIEWER'S NAME	
				☐ YES ☐ NO ☐ N/A		DATE REVIEWED	

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Once the level of autonomy is determined, an officer will mark the Vehicle Automation Level and Automation Engaged box on page 2 of the updated CHP 555 form (see below).

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DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
TRAFFIC CRASH CODING
CHP 555 Page 2 (Rev. 3-20) OPI 060

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DATE OF CRASH (MO, DAY YEAR)		TIME (2400)	NCIC #	OFFICER ID	NUMBER
PROPERTY DAMAGE		OWNER'S NAME		OWNER'S ADDRESS	
PERSON NOTIFIED		SAME AS OWNER ☐		TELEPHONE NUMBER	METHOD OF NOTIFICATION (MARK ALL THAT APPLY) ☐ IN PERSON ☐ PHONE ☐ DISPATCH ☐ CHP 422
LOG / INCIDENT NUMBER					
DESCRIPTION OF DAMAGE					
SEATING POSITION		SAFETY EQUIPMENT		AIR BAG	
1 TO 9 - STANDARD SEATING POSITION 10 - REAR OCC. TRK, VAN, STATION WAGON, ETC.* 11 - POSITION UNKNOWN* 0 - OTHER*		OCCUPANTS A - NONE IN VEHICLE B - UNKNOWN C - LAP BELT USED D - LAP BELT NOT USED E - SHOULDER HARNESS USED F - SHOULDER HARNESS NOT USED G - LAP / SHOULDER HARNESS USED H - LAP / SHOULDER HARNESS NOT USED J - PASSIVE RESTRAINT USED K - PASSIVE RESTRAINT NOT USED P - NOT REQUIRED CHILD RESTRAINT Q - IN VEHICLE USED R - IN VEHICLE NOT USED S - IN VEHICLE USE UNKNOWN T - IN VEHICLE IMPROPER USE U - NONE IN VEHICLE MC / BICYCLE - HELMET DRIVER PASSENGER V - NO X - NO W - YES Y - YES		B - UNKNOWN L - AIR BAG DEPLOYED M - AIR BAG NOT DEPLOYED N - OTHER P - NOT REQUIRED EJECTED FROM VEHICLE 0 - NOT EJECTED 1 - FULLY EJECTED 2 - PARTIALLY EJECTED 3 - UNKNOWN	
INATTENTION CODES A - CELL PHONE HANDHELD B - CELL PHONE HANDSFREE C - ELECTRONIC EQUIPMENT D - RADIO / CD E - SMOKING F - EATING G - CHILDREN H - ANIMALS I - PERSONAL HYGIENE J - READING K - OTHER					
ITEMS MARKED BELOW FOLLOWED BY AN ASSESSMENT OF THE CRASH.					
PRIMARY CRASH FACTOR LIST NUMBER (#) OF PARTY AT FAULT		TRAFFIC CONTROL DEVICES		VEHICLE AUTOMATION LEVEL	
A CVC SECTION VIOLATED: CITED ☐ YES ☐ NO B OTHER IMPROPER DRIVING* C OTHER THAN DRIVER* D UNKNOWN*		A CONTROLS FUNCTIONING B CONTROLS NOT FUNCTIONING* C CONTROLS OBSCURED D NO CONTROLS PRESENT / FACTOR*		A SAE LEVEL - 0 B SAE LEVEL - 1 C SAE LEVEL - 2 D SAE LEVEL - 3 E SAE LEVEL - 4 F SAE LEVEL - 5 G UNKNOWN*	
WEATHER (MARK 1 TO 2 ITEMS)		TYPE OF CRASH		VEHICLE AUTOMATION ENGAGED	
A CLEAR B CLOUDY C RAINING D SNOWING E FOG / VISIBILITY FT. F OTHER* G WIND		A HEAD - ON B SIDE SWIPE C REAR END D BROADSIDE E HIT OBJECT F OVERTURNED G VEHICLE / PEDESTRIAN H OTHER*		A NO AUTOMATION B DRIVER ASSISTANCE C PARTIAL AUTOMATION D CONDITIONAL AUTOMATION E HIGH AUTOMATION F FULL AUTOMATION G UNKNOWN*	
LIGHTING		MOTOR VEHICLE INVOLVED WITH (MARK 1 TO 2 ITEMS)		OTHER ASSOCIATED FACTOR(S) (MARK 1 TO 2 ITEMS)	
A DAYLIGHT B DUSK - DAWN C DARK - STREET LIGHTS D DARK - NO STREET LIGHTS		A NONCOLLISION B PEDESTRIAN C OTHER MOTOR VEHICLE D MOTOR VEHICLE ON OTHER ROADWAY E PARKED MOTOR VEHICLE F TRAIN		A CVC SECTION VIOLATION: CITED ☐ YES ☐ NO	
				SOBRIETY - DRUG - PHYSICAL (MARK ALL THAT APPLY)	
				A STOPPED B PROCEEDING STRAIGHT C RAN OFF ROAD D MAKING RIGHT TURN E MAKING LEFT TURN F MAKING U TURN G BACKING H SLOWING / STOPPING I PASSING OTHER VEHICLE J CHANGING LANES K PARKING MANEUVER L ENTERING TRAFFIC M OTHER UNSAFE TURNING N XING INTO OPPOSING LANE O PARKED P MERGING Q TRAVELING WRONG WAY R OTHER* S LANE SPLITTING	

CHP 555 - Vehicle Automation Level and Vehicle Automation Engaged (added)

If the operator is injured during the collision, an officer should also list the operator on page three of the updated CHP 555 form and check the Operator box. (See below)

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
INJURED / WITNESS / PASSENGERS
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DATE OF CRASH (MO, DAY YEAR)		TIME (2400)	NCIC #	OFFICER ID	NUMBER
WITNESS ONLY	PASSENGER ONLY	AGE	SEX	EXTENT OF INJURY ("X" ONE)	
				FATAL INJURY	SUSPECTED SERIOUS INJURY
				SUSPECTED MINOR INJURY	POSSIBLE INJURY
				INJURED WAS ("X" ONE)	
				DRIVER	PASS.
				PED.	BICYCLIST
				OTHER	OPER.
				PARTY NUMBER	SEAT POS.
				AIR BAG	SAFETY EQUIP.
				EJECTED	
NAME / D.O.B. / ADDRESS					
(INJURED ONLY) TRANSPORTED BY:			EMS RUN NUMBER	TAKEN TO:	
DESCRIBE INJURIES					
☐ VICTIM OF VIOLENT CRIME NOTIFIED					

CHP 555 – Injured /Witness / Passengers – Operator (added)

CHP 555 Traffic Crash Report

The Department plans to update the current CHP 555 forms in the AFR/RMS database soon. Until the AFR/RMS database is updated, officers should document any autonomous vehicles involved in a collision on a printed hard copy of the updated CHP 555 form obtained from Central Supply. The CHP555 form must be submitted to OSSD, who will scan and upload the form to the AFR/RMS database for report completion.

For proper documentation of autonomous vehicles involved in collisions, add an Additional Information section in the Narrative of the report and identify the person who engaged the autonomous vehicle technology as the operator. Some autonomous vehicles are deployed by third party subjects at an off-site deployment facility. If an autonomous vehicle is operating in autonomous mode without a driver in the vehicle, the third-party subject who deployed the vehicle from the deployment facility will be considered the operator of the vehicle.

A handwritten signature in black ink, appearing to read 'A. Mata', is positioned above the printed name and title.

Anthony Mata
Chief of Police

AM:SD:JP