# CHAPTER 5

# REPORT FORMAT AND COMPOSITION

## REVISED JULY 2025

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ANNEXES

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## CHAPTER 5

## REPORT FORMAT AND COMPOSITION

1. PURPOSE. The purpose of this chapter is to outline the format to be used in the composition of Multidisciplinary Accident Investigation Team (MAIT) investigation reports. All investigation reports shall conform with the requirements of this chapter. If the circumstances of a specific case dictate a logical deviation from the standardized format outlined in this chapter, headquarters MAIT approval shall be obtained.

2. INTRODUCTION.

a. MAIT Investigation. A MAIT investigation is any incident investigated by MAIT in which the MAIT investigation report is supplemental to an original investigation report.

b. The report format included in this chapter is intended to ensure standardized documentation of MAIT investigations.

c. All MAIT-related forms, with the exception of the CHP 558, Multidisciplinary Accident Investigation Team Cover, and the CHP 558D, Multidisciplinary Accident Investigation Team Narrative/Diagram, are available to MAITs on the CHP Intranet site under Forms. The CHP 558 and CHP 558D are available from the Enforcement and Planning Division's (EPD), Collision Investigation Unit (CIU), upon request.

d. In cases where a MAIT investigation is to be conducted, the affected MAIT and area of jurisdiction shall exchange written documentation describing which elements of the investigation are to be completed by the area of jurisdiction and which will be completed by MAIT.

3. CASE NUMBERING SYSTEM.

a. The following numbering system shall be used in assigning MAIT case numbers.

(1) The case numbers shall be assigned sequentially for each calendar year.

(2) The case number shall consist of three separate parts, each separated by a hyphen.

(a) The first part shall consist of the single-letter abbreviation for the investigating MAIT, as designated in paragraph 3.b.

(b) The second part of the number shall consist of a three-digit, sequential case number beginning with 001 for the first case of the new calendar year. Investigations shall be assigned a sequential number in the order which the investigation requests are received.

(c) The third part of the number shall consist of the last two digits of the current calendar year.

b. Certified MAITs (refer to Chapter 1, General, of this manual) shall use the following abbreviations in the assignment of MAIT case numbers. Decertified MAITs shall contact the appropriate mentoring team leader for a case number.

| **Code** | **MAIT** |
|---|---|
| **H** | Headquarters |
| **N** | Northern Division |
| **V** | Valley Division |
| **G** | Golden Gate Division |
| **C** | Central Division |
| **S** | Southern Division |
| **B** | Border Division |
| **M** | Coastal Division |
| **I** | Inland Division |

c. Example Case Numbers.

(1) V-001-25. Valley Division MAIT, first case for the 2025 calendar year.

(2) C-005-25. Central Division MAIT, fifth case for the 2025 calendar year.

NOTE: When any reconstruction methodologies are used, MAIT associates are required to contact the appropriate MAIT to request a case number (case numbers shall be assigned as outlined in paragraph 3.a.). Once completed, the report shall be forwarded to the MAIT for review and approval prior to being released in accordance with Chapter 1 of this manual. Reports submitted for review shall be formatted according to departmental policy.

4. REPORT INSTRUCTIONS.

a. The narrative shall be completed on a CHP 558D (refer to Annex B).

b. The typeface, type family, and font size for all MAIT reports shall be consistent with Highway Patrol Manual (HPM) 5.1, Correspondence Manual. The standard size of the printed font should be 12 points, unless otherwise noted. The point size does not apply to figures, charts, tables, etc., inserted within reports.

c. All references shall be cited in a consistent manner throughout the report, and formatted according to the Gregg Reference Manual.

d. If diagrams will not fit on the CHP 558D, the header information contained on the CHP 558D shall be placed in the upper right corner of the diagram.

e. Page Numbering.

(1) The cover sheet and table of contents shall be numbered sequentially using lowercase roman numerals beginning with the cover sheet (i, ii, etc.).

(2) When MAIT completes the CHP 555, Page 1, Traffic Crash Report, CHP 555, Page 2, Traffic Crash Coding, and CHP 555, Page 3, Injured/Witness/Passengers, the MAIT investigation shall be numbered sequentially beginning with the first page of the CHP 555.

(3) When MAIT is not responsible for the completion of the CHP 555 forms, the MAIT investigation shall be numbered sequentially beginning with the Introduction page.

5. REPORT COVER SHEET FORMAT.

a. CHP 558, Multidisciplinary Accident Investigation Team Cover. The cover sheet for all investigations shall be prepared on a CHP 558, with a left margin of a minimum of one-half inch (to allow for binding when required), and shall be formatted following the example in Annex A.

(1) Page Header. The date of the crash, time, National Crime Information Center number, officer ID, Area/agency case number, MAIT case number, and page number shall appear at the top of the cover sheet.

(a) An Area case number or other appropriate number may be entered in the Area/Agency Case Number box. This box shall not contain the MAIT case number.

(2) MAIT Investigation. The report title “MAIT INVESTIGATION” shall be centered, in all capital letters, with a boldface 22-point font size. Three (12-point size) line spaces shall separate the bottom of the page header and the report title. The MAIT case number shall be centered and directly below the report title, use 12-point font, and be boldface. The typeface and type family of the title and report number in the body of the cover sheet shall be consistent with HPM 5.1.

(a) A paragraph identifying the MAIT conducting the investigation, and the requester shall be placed with a single 12-point line space separation from the bottom of the title. The paragraph shall be left-aligned, in alignment with the left-most edge of the page header.

(b) Logo. No photographs of the crash scene may be placed on the cover sheet. The “CHP Badge” is the approved logo. The CHP Badge should be 2 1/2 inches from point to point, centered between the right and left edges of the paper, and a single 12-point line space should separate it from the bottom of the title paragraph.

(c) Primary MAIT Investigator. Enter the rank, name, and ID number of the investigator assigned by the investigating MAIT, originating Area, or agency to investigate the crash directly below the Primary MAIT Investigator section heading. The section header and personnel information shall be left-aligned, in alignment with the left-most edge of the page header and a single 12-point line space should separate it from the bottom of the CHP Badge logo.

(d) MAIT Personnel. Enter the rank or title, name, ID number if applicable, and Division or Area of assignment of all the individuals assigned to, or participating in, the investigation. The section header shall be left-aligned, in alignment with the left-most edge of the page header and a single 12-point line space should separate it from the bottom of the primary investigating officer’s name. Uniformed staff should be listed first, followed by any Motor Carrier Specialists’ information and any California Department of Transportation (Caltrans) Engineers’ information. Uniformed staff should be listed by rank and status (Investigator, Associate) as appropriate. MAIT Motor Carrier Specialists and Caltrans Engineers may be listed with the Investigator designation when appropriate.

(e) Subpoenas for MAIT Personnel Should be Directed to:. The section header shall be left-aligned, aligned with the left-most edge of the top header, and a single 12-point line space below the bottom of the MAIT Personnel section. Enter the mailing address of the MAIT investigating the incident. The mailing information shall be a single 12-point line space

below the bottom of the section header. Below the address, include an attention line to the team leader.

6. INVESTIGATION REPORT FORMAT INSTRUCTIONS.

a. The topic headings are to be used, at the discretion of the Division MAIT leader and with the concurrence of the Area commander with jurisdiction, as necessary to produce a complete investigation report. Each major topic heading used shall be included in the report in the order given (refer to Annex D).

(1) Headers. All section headers and subheaders shall be formatted in accordance with Annex D of this chapter and shall be left-aligned, in alignment with the page header. The text below each section header shall be directly below and left-aligned with its respective header. If any section is transected across subsequent pages, it is not necessary to reiterate the section header on the subsequent pages. Any line spacing between sections shall be a single line space of 12-point size, unless otherwise stated.

NOTE: The font styles relating to the descending header and subheader structure should follow the example designated in Annex C.

b. Topic Format. Each of the topic headings, when included, are to be structured as follows:

(1) Table of Contents.

(a) A table of contents shall be prepared when multiple individuals are responsible for the preparation of different topic areas within the same investigation report.

1 A table of contents should be prepared when it would enhance access to information within the investigation report.

(b) The table of contents shall identify all topic headings in their respective order of appearance.

(c) Topic headings shall be broken down further into subtopic headings with their respective page numbers identified. Subtopic headings used shall be indented from the topic heading.

(d) Individual statements may be listed below the statements heading with their respective page numbers.

(e) Each subtopic listing should include the names or initials of the investigators responsible for its completion.

(2) CHP 555, Page 1, Traffic Crash Report.

(a) The guidelines established in HPM 110.5, Crash Investigation Manual, shall be adhered to in the preparation of page 1 of the CHP 555.

(3) CHP 555, Page 2, Traffic Crash Coding.

(a) The guidelines established in HPM 110.5 shall be adhered to in the preparation of page 2 of the CHP 555.

(4) CHP 555, Page 3, Injured/Witness/Passengers.

(a) The guidelines established in HPM 110.5 shall be adhered to in the preparation of page 3 of the CHP 555.

(b) Seating charts or diagrams may be used in conjunction with fatal/injured and passenger lists.

(5) Introduction. The introduction should include the following:

(a) Give a brief description of the call-out notification, response, and arrival for the responding Area/agency, as well as for MAIT personnel.

(b) Include a brief description of the incident scene as observed by first responders.

(c) The introduction may include an investigative summary in narrative form. The investigative summary, if used, should include at minimum the dates and pertinent details of the investigation in chronological order.

(d) Issues. Issues shall identify the specific areas to be investigated, the limits of the investigation within those areas, and the ultimate objectives of the investigation. The issues or objectives may be presented in the form of questions.

(6) Scene Assessment. Note any measured locations used as reference points to geolocate a measuring system to the incident scene.

(a) Measurement Equipment.

1 In this section, report the location, description, and setup of any surveying instruments or any other measurement devices not listed in

this paragraph that were used to document physical evidence or the scene environment.

2 This section shall include an introduction in which the reference system used to take physical evidence measurements is defined or described.

(b) Environment Description.

1 Describe the scene, including, but not limited to, the type of roadway, number and width of lanes, direction and alignment of the roadway, sight distances, visual obstructions, grade, superelevation, the radius of any horizontal and/or vertical curve, curbs, shoulders, islands, fences, median area, loose materials and other surface contamination, and fixed objects on or near the highway.

(c) Traffic Controls.

1 Describe the position, operation, and visibility of all traffic controls at the incident scene, including, but not limited to, official traffic control signs, traffic signal phases and time duration, warning signs, flares, cones, officers, flag person, and other temporary controls.

(d) Weather Conditions and Lighting.

1 Record ambient weather conditions existing at the time of the incident which are pertinent to the investigation, as well as the method of determination (weather service or direct measurement and observation). The following are examples of the types of entries for this category:

a Amount and type of precipitation.

b Temperature.

c Humidity.

d Wind direction and velocity.

e Visibility.

(e) Environment Diagram.

1 An environment diagram should be prepared in each investigation where physical evidence is observed, measured, and

reported. The environment diagram should be prepared as an overview of the environment, including all environmental features that are pertinent to the incident.

2 The diagram shall be drawn to scale and shall accurately depict the incident site. The scale shall be specified on the diagram.

(f) Coefficient of Friction.

1 Document the coefficient of friction, determined by the use of accepted and published test procedures.

(g) Engineer's Report.

1 A written report of the roadway environment from the traffic engineer's perspective, including any pertinent roadway defects or design deficiencies, traffic volumes, and crash history for the area at, and adjacent to, the incident scene must be included when appropriate.

(7) Physical Evidence Assessment.

(a) In this section, report the descriptions and the location measurements of all physical evidence, excluding vehicle crash damage, found at the scene. This evidence includes, but is not limited to, tire friction marks, gouges, scrapes, scratch marks, chops, fluid spatters, fluid trails, tire tracks, scattered debris, location of vehicle components, bullet strikes, position of body parts, and body fluids. The description does not include analysis.

1 Following each description, a determination of the origin of physical evidence (e.g., tire friction mark, debris, gouges) documented at the scene shall be given. If the origin of the physical evidence cannot be determined, it should be noted.

(b) Positions of Rest.

1 Measurements determining the positions of rest for parties, ejected vehicle occupants, or vehicles involved in the incident shall be reported in this section.

2 Positions of rest reconstructed without a direct measurement shall be identified as such and include a description of how the position of rest was obtained.

(c) Physical Evidence Diagram.

1 A physical evidence diagram shall be prepared in each investigation where physical evidence is observed, measured, and reported. More than one diagram may be prepared.

2 The diagrams shall be drawn to scale, and the scale shall be specified on the diagram. The diagram shall accurately depict the incident site, as well as the physical evidence contained therein.

(8) Parties.

(a) Identify each party and all pertinent party-related pre-incident information relevant to the incident. This would include sobriety, mental and physical condition, fatigue, activities prior to the incident, pertinent driver's license information and status, experience and/or training for the type of vehicle operated, etc.

(b) Describe how this individual was identified as the driver of the subject vehicle.

(9) Occupants.

(a) Identify the occupants of each vehicle by name and seating position within the vehicle.

(b) Charts or seating diagrams may be used.

(c) This section may be deleted when seating charts or diagrams are used in conjunction with the CHP 555, page 3.

(10) Injury Assessment.

(a) Identify all deceased and injured parties by name, party type (driver, passenger, pedestrian, etc.), vehicle or party number, and seating position. Include the coroner's case number(s), when applicable.

(b) List fatal and injured parties in a logical sequence.

(c) Describe the nature and extent of the injuries suffered by all parties killed or injured in the incident. If victim or occupant position was determined by comparison of injuries to interior or exterior vehicle damage, the injuries used in that comparison should be described in detail.

(d) In fatality cases, the date, time, and location of death as well as the name of the person pronouncing death, should be recorded.

(e) Specify the cause of death for all deceased parties and occupants, when possible.

(11) Statements.

(a) Statements should be reported in the following order:

1 Drivers and other primary parties by sequential party numbers as listed on the CHP 555, page 1.

2 Passengers, occupants, or other victims by sequential party number as listed on the CHP 555, page 3.

3 Witnesses, in the order listed on the CHP 555, page 3.

(b) Each statement shall be given a heading which will include the following:

1 Full name and party number of the person giving the statement.

2 Date, time, and location where the statement was taken.

3 Full name, title, and ID number of the person taking the statement.

4 Identify how the statement was taken:

a In person.

b Telephone.

c Audio/video-recorded, etc.

(c) Audio/video-recorded statements may be summarized, edited, and transcribed, or transcribed verbatim. When edited or summarized, a preface statement shall indicate that the statement is an edited transcription or summary of an audio/video interview.

(12) Vehicle Identification.

(a) All vehicles involved shall be identified by year, make, model, color, license plate number, and the vehicle identification number. The date and location of their inspection shall also be recorded.

(b) Vehicle identification may include any other relevant vehicle data including, but not limited to: recalls, gross vehicle weight rating, curb weight, gross axle rating, and original manufacturer tire size.

(13) Mechanical Inspection.

(a) A description of the mechanical condition of each relevant and pertinent vehicle involved in the crash shall be included in this section. This description shall include a factual description of the mechanical inspection and conclusions based on the mechanical evaluation of each vehicle inspected.

(b) Inspect and report on the following component systems:

1 Engine.

2 Transmission.

3 Drivetrain.

4 Differential/Transaxle.

5 Exhaust system.

6 Suspension.

7 Steering.

8 Brakes.

9 Parking brakes.

10 Tires and wheels.

11 Fuel system.

12 Electrical system.

13 Other accessories.

(c) Each component system inspected should be given a topic heading and the inspection of that system should be described in narrative form below that heading.

1 Structural damage to component systems should be described in detail in the section covering that component system.

2 Charts, graphs, or diagrams may be used to clarify measurements, specifications, or system configuration.

3 When applicable, the examination of vehicle maintenance records shall be reported in the Mechanical Inspection section of that vehicle.

(d) Conclusions based on the mechanical evaluation of each vehicle shall be reported in the Conclusions section of the report.

(14) Damage Assessment.

(a) Physical evidence in the form of damage, markings, or transfer to a vehicle shall be reported in the damage assessment section. Describe in the narrative the nature and extent of the damage sustained by each involved vehicle. The description should distinguish contact damage from induced damage.

1 The damage assessment should include the damage to all external and internal areas of the vehicle, including undercarriage damage, as well as damage within the passenger compartment of the vehicle. Longitudinal, lateral, and vertical measurements should be included in the description of areas of significant damage.

2 Damage to vehicle component systems, such as the steering system, suspension, drivetrain, or brake system, may be described in general in this section. Specific damage descriptions of these areas will be included in the Mechanical Inspection section of the report, if completed.

3 Physical evidence associated with the vehicle, such as, but not limited to, transfer evidence, imprints, and impressions, should be described in detail along with their location as defined by longitudinal, lateral, and vertical measurements.

(b) A vehicle damage profile should be used to enhance or clarify the damage description.

(c) Describe in the narrative how the damage to each of the involved vehicles or property was created.

1 The assessment should describe impact match points and contain a general description of the principal direction of force acting on the vehicles during the impact.

2 The assessment may be supported by photographs and/or vehicle damage diagrams.

(d) Damage to property at, or adjacent to, the incident site shall be described in this section. Examples of the types of damage to be documented include, but are not limited to: signs, poles, trees, shrubbery, other types of vegetation, fences, and buildings.

1 Include the owner of each item of property damaged, and whether or not the owner was notified of the damage.

(15) Restraints Assessment.

(a) Describe in the narrative the condition of the restraints in each involved vehicle. The description should identify any damage sustained to the occupant restraints.

(b) In this section, include the deployment or non-deployment of any relevant supplemental restraint system.

(c) Document child safety seats in this section, and include all relevant information including, but not limited to: date the child safety seat was manufactured, installation details, any known recall information, relevant dates, and damage sustained to the seat or latch connection.

(16) Event Data Recorder.

(a) Describe in the narrative the foundation and process of acquiring any data from the event data recorder(s) of the involved vehicle(s).

(b) This section should note what legal authority was used to acquire the data from the event data recorder.

(c) If an assessment of the data is conducted, the assessment should include, at minimum, the following elements:

1 Recorded data completely stored.

2 Ignition cycles consistent with the recorded data, when applicable.

3 Other physical evidence consistent with the recorded data.

4 Direction of change in velocity consistent with recorded data.

(17) Other Evidence.

(a) Any additional evidence not identified or described in other sections may be placed in this section. The Other Evidence header may be substituted in a logical order to better describe the evidence being evaluated in this section.

(b) The Other Evidence should include a description in the narrative of the process used to acquire the evidence and any assessment of the acquired evidence.

(c) Additional headers may be used when they are relevant to the investigation. Additional Other Evidence headers may include, but are not limited to:

1 Metallurgical assessment.

2 Paint sample assessment.

3 Body tissue or fluid assessment.

4 Component failure.

5 Lamps assessment.

6 Fingerprint identification and comparisons.

7 Imprint and impression comparisons.

8 Thermal damage.

9 Trace evidence analysis and comparison.

10 Shooting trajectories.

11 Firearm identification.

12 Infotainment system.

(18) Physical Evidence Log.

(a) A physical evidence log shall be prepared any time evidence is physically retained and collected by MAIT personnel relative to a MAIT investigation. This is true whether or not the evidence is retained by the investigating team, allied agency, or Area.

(b) The physical evidence log shall consist of the following elements.

1 Date, time, and location of collection.

2 Description of the evidential item collected.

3 Name of the investigator who collected the evidence.

4 Disposition of the evidence.

(19) Digital Media Log.

(a) The photograph/video log shall account for all photographs taken by MAIT personnel that are related to the incident investigated. The photograph/video log for investigations shall also include those photographs taken by the Area or agency having jurisdiction for the investigation, if they are not accounted for in a report prepared by that Area or agency.

(b) Photographs taken by news media personnel, private photographers, or members of the public should also be included, when applicable.

(c) Each series of related photographs shall be identified by the name of the person(s) taking the photograph(s), the date the photograph(s) were taken, the general subject(s) photographed, and the number of photographs taken.

(d) The photograph/video log may be in a narrative format, chart format, or listed by image numbers and description. A combination of these formats may be used in reporting the photograph inventory.

(e) Videos produced that are related to the incident shall also be listed. The date, location, general subject, and camera operator shall be reported for each video recording.

(f) With respect to digital photographs, MAITs shall follow the policy contained in HPM 70.1, Evidence Manual, and General Order 110.8, Processing and Storage of Digital Media.

NOTE: Any request for Caltrans aerial photography shall be made through the Caltrans Engineer of the certified MAIT that has investigative responsibility for the case.

(20) Dynamics Diagram.

(a) Where possible, each investigation shall include a dynamics diagram.

(b) The dynamics diagram shall be drawn to scale; the scale shall be specified on the diagram. The diagram shall accurately depict the incident site.

(c) The reconstructed motion of each of the involved vehicles shall be depicted on the dynamics diagram. The dynamics diagram should include the motion of the vehicles and other involved parties during the pre-crash, at-crash, and post-crash phases of motion from first identified evidence to final positions of rest.

(d) A series of sequential diagrams may be used to clarify the motion of each of the involved vehicles.

(e) The relative position(s) of each vehicle between the established area of impact and the position of rest should be specified.

(21) Occupant Kinematics.

(a) In this section, describe the movements and interactions of the occupants and pedestrians involved in the incident. The description should include the movements of the body within or around the vehicle based on injuries sustained and physical evidence located.

(22) Velocity Reconstruction.

(a) Any MAIT reconstruction methodologies shall include only approved and established formulas, and derivations thereof, and will be consistent with current practices performed by MAIT personnel. Techniques used in published reports shall be based on established physics principles and follow sound mathematical practices. Any new techniques shall be submitted and approved by EPD, CIU, prior to their use in investigations conducted by departmental personnel.

(b) All calculations relating to the dynamics of the crash and/or velocity reconstruction should be reported in this section.

(c) Velocity reconstruction shall be structured in the following manner.

1 Introduction. The introduction may be used to discuss the method of calculation, identify known quantities or variables, identify key assumptions, establish parameters, or provide any other information used to clarify or qualify the calculations used.

2 Symbols. List all symbols used in the calculations.

3 Equations and Formulas. List all equations and formulas used in the calculations.

4 Calculations.

a Report in logical sequence the calculations on which the final solutions are based.

b The calculations should be in outline or block form with each phase of the calculation given an appropriate heading or title.

5 Summary. A brief summary of the results of the calculations should be given in narrative or chart form. The calculations must be strongly defensible and shall be firmly established on the available physical evidence, current methodologies, and other factual information.

(23) Time-Position Assessment.

(a) When applicable, the time-position relationships of involved vehicles, pedestrians, etc., should be evaluated and reported.

(b) The same general format used for dynamics and velocity reconstruction should be used for time-position calculations. Symbols, formulas, and equations used may be included in the listings for the velocity reconstruction.

(c) The time-position analysis may be done for all phases of motion pre-crash, at-crash, and post-crash, or at any single phase of motion where a time-position analysis is necessary for crash-cause determination.

(d) The results of the time-position calculations may be reported in narrative or chart form, or both.

(e) A time-position diagram should be prepared, to scale, giving the relative time and position of each of the involved vehicles at significant times or locations during the crash sequence.

(f) Dynamics diagrams may be used as the time-position diagram for known pre-crash, at-crash, and post-crash sequences based on physical evidence locations and only if no further involved locations are depicted or calculated.

(24) Crash Sequence.

(a) A description of the crash sequence shall be written for every investigation conducted by MAIT, when applicable.

(b) The description shall be based on the in-depth evaluation of all available information relevant to the crash.

(c) The description shall be divided into three distinct phases: the pre-crash, at-crash, and post-crash phases of motion.

1 The “pre-crash” description shall describe all significant events leading up to the first area of impact. The pre-crash description may go as far into the past as necessary to establish the circumstances leading up to the crash. Examples of some of the elements contained in a pre-crash description are the driver’s mental and physical condition, mechanical condition of the vehicle(s) prior to the crash, significant environmental influences, the sobriety of driver(s) or other involved party(ies), pre-impact speed and direction, and attempted evasive actions.

2 The “at-crash” description shall describe the motion of the involved vehicle(s) or party(ies), from the point of initial contact to the point where crash forces have been dissipated and separation does, or could, occur.

3 The “post-crash” description shall describe the motion of the involved vehicle(s) or party(ies) from the end of the at-crash phase to their respective positions of rest.

a The post-crash description should also include any significant post-impact event which affects the damage sustained by vehicles, injuries suffered by involved parties, or otherwise affects the investigation of the crash.

1/ Examples of some of the post-impact events which should be reported include an increase in the extent of injury suffered by a victim as a consequence of medical care activities, post-impact damage to vehicles resulting from rescue or tow-out operations, post-impact fires, and marks made or obscured by post-impact scene cleanup operations.

(25) Area(s) of Impact.

(a) Describe the area(s) of impact for each impact occurring during the crash sequence and how it was determined.

(26) Conclusions.

(a) The issues or objectives raised as a consequence of the investigation request shall be answered in a sequential, clear, and logical manner. They may be written in narrative or outline format, addressing all factors which were considered contributory to the incident.

(b) The primary cause and associated factors of the crash should be identified, and the elements used in their determination should be outlined and explained.

(c) Pertinent violations of law shall be identified and reported. All elements for each violation shall be outlined and substantiated.

(27) Recommendations.

(a) Indicate any follow-up action needed to complete the investigation which the Division MAIT was unable to complete prior to release of the report.

(b) Indicate any recommendations to the district or city attorney for filing of criminal charges based upon the conclusions contained in the report.

(c) If there are no recommendations, state “None.”

(d) Indicate any special routing necessary for appropriate action to be taken based on the conclusions established in the report, such as:

1 Routing to affected vehicle or component part manufacturers in cases relating to product defects.

2 Routing to appropriate federal, state, county, city, or private agencies involved in the regulation, control, design, manufacture, or operation of any vehicle, device, regulation, or other element considered contributory to the crash, where such routing is necessary or beneficial to traffic safety.

Example: It is recommended the Department’s Commercial Vehicle Section review this report for causation factors which may be related

to training provided to ambulance drivers as part of the Department's licensing requirement.

3 Specific recommendations for appropriate action to be taken based on the conclusions established by the report shall not be contained in the report. These specific recommendations shall be contained in a separate memorandum. (Refer to paragraph 10.)

7. REPORT REVIEW AND COMPLETION.

a. All MAIT investigations should be completed as soon as possible and, except under special circumstances, no later than 120 calendar days after the initial MAIT response. The completion date for an investigation requiring more than 120 calendar days must be coordinated with the appropriate Area commander. The report will be processed in the same manner as normal Area investigations, except as follows:

(1) The team leader will review the completed report prior to submission to the involved Area. This review will ensure all issues addressed, and areas agreed upon to be the responsibility of MAIT, are accurately and thoroughly covered (refer to paragraph 2.d.). The team leader shall ensure the content of the MAIT report is consistent with any report generated by the Area. If an investigation is unusually complex or has unusual public interest, the team leader can request a Minor, or Significant, Case Review prior to submission to the involved Area (refer to Chapter 4, Case Review Panel, of this manual). Reports containing new techniques or using previously unapproved formulas or technical information shall be approved by headquarters MAIT prior to publication.

NOTE: As a general practice, MAITs are encouraged to exchange ideas and to discuss the application of methodologies with adjacent teams and other MAIT members who have specialized skills in various reconstruction methodologies. All MAITs should use the experience and knowledge of all persons in the program to produce the most accurate report possible. Refer to Chapter 4 of this manual for confidentiality issues associated with informal discussions. It is important to understand the product of any one MAIT is perceived by the public as being representative of the program and the Department as a whole.

b. The MAIT Division commander is responsible for the quality of all MAIT investigation reports produced within the team's area of responsibility.

8. DISTRIBUTION.

a. Normal Distribution. The Area or agency having investigative jurisdiction shall be responsible for the normal distribution of the final MAIT report.

(1) The original MAIT report shall be delivered to the Area commander or commander's designee by the team leader or alternate.

9. CASE FILE DISTRIBUTION AND RETENTION.

a. The original primary MAIT report will be filed as the involved Area's report of the incident and the original supplemental MAIT report will be filed with the involved Area's report of the incident. The original MAIT investigation report and all evidence taken by MAIT investigators are to be routed to the Area or agency having primary investigative jurisdiction.

b. All MAIT case support materials not incorporated into the report, such as field notes, audio and video recordings, copies of investigation reports, or prints of photographs taken, shall be maintained by the Division MAIT having responsibility for investigations in that particular geographical area.

10. MEMORANDUM CONTAINING RECOMMENDED ACTION.

a. All recommendations requiring special routing, as outlined in this chapter, shall be completed in a memorandum separate from the MAIT investigation report.

b. The memorandum reflecting the recommendations and a copy of the investigation shall be forwarded to CIU for review prior to distribution.

c. The CIU shall objectively review, evaluate, and critique the recommendations from all points of view.

d. In the event the recommendations may affect departmental programs, operations, or procedures coordinated through another Office of Primary Interest (OPI), CIU will forward a copy of the recommendations to the affected OPI and request an analysis of the recommendations.

e. In those areas where questions or concerns are raised, CIU, in cooperation with investigating team members and the affected OPI providing the analysis, will attempt to resolve issues to the mutual satisfaction of all concerned.

f. The CIU shall submit the final memorandum, their evaluation of the recommendations, and the analysis by the OPI to the appropriate Assistant Commissioner for review.

g. After the recommendations have been approved by the appropriate Assistant Commissioner, the MAIT with investigative jurisdiction will attach the memorandum to the investigation for public distribution.

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## ANNEX A

## EXAMPLE OF A CHP 558, MULTIDISCIPLINARY ACCIDENT INVESTIGATION TEAM COVER WITH OPTIONAL SECOND PAGE

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

**MULTIDISCIPLINARY ACCIDENT INVESTIGATION TEAM COVER**

CHP 558 (Rev. 3-24) OPI 060 *(MAIT use only)*

| DATE OF CRASH *(MONTH-DAY-YEAR)* | TIME *(2400)* | NCIC | OFFICER ID | AREA/AGENCY CASE NUMBER | MAIT CASE NUMBER | PAGE |
|---|---|---|---|---|---|---|
| 01-01-2050 | 2500 | 9999 | 30000 | 9999-2050-00001 | C-001-50 | i |

# MAIT INVESTIGATION

C-001-50

This Investigation was conducted by the California Highway Patrol (CHP) Central Division Multidisciplinary Accident Investigation Team (MAIT) for the CHP Merced Area.

**PRIMARY MAIT INVESTIGATOR**
Officer R. Superstar, ID 30000, Central Division MAIT Investigator

**MAIT PERSONNEL**
Sergeant F. Leader, ID 29988, Central Division MAIT Team Leader
Sergeant M. Bossman, ID 29989, Valley Division MAIT Team Leader
Officer A. One, ID 29990, Central Division MAIT Investigator
Officer B. Two, ID 29991, Central Division MAIT Investigator
Officer C. Three, ID 29992, Central Division MAIT Investigator
Officer D. Four, ID 29993, Central Division MAIT Investigator
Officer E. Five, ID 29994, Central Division MAIT Investigator
Officer F. Six, ID 29995, Central Division MAIT Associate

**SUBPOENAS FOR MAIT PERSONNEL SHOULD BE DIRECTED TO:**
California Highway Patrol
Central Division MAIT
5179 North Gates Avenue
Fresno, California 93722
Attention: Sergeant F. Leader

## ANNEX A

## EXAMPLE OF A CHP 558, MULTIDISCIPLINARY ACCIDENT INVESTIGATION TEAM COVER WITH OPTIONAL SECOND PAGE *(continued)*

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
**MULTIDISCIPLINARY ACCIDENT INVESTIGATION TEAM COVER**
CHP 558 (Rev. 3-24) OPI 060 *(MAIT use only)*

| DATE OF CRASH *(MONTH-DAY-YEAR)* | TIME *(2400)* | NCIC | OFFICER ID | AREA/AGENCY CASE NUMBER | MAIT CASE NUMBER | PAGE |
|---|---|---|---|---|---|---|
| 01-01-2050 | 2500 | 9999 | 30000 | 9999-2050-00001 | C-001-50 | ii |

# MAIT INVESTIGATION

C-001-50

**MAIT PERSONNEL CONTINUED**
Officer G. Seven, ID 29996, Central Division MAIT Associate
Officer H. Eight, ID 29997, Valley Division MAIT Investigator
Officer I. Nine, ID 29998, Valley Division MAIT Investigator
Officer J. Ten, ID 29999, Valley Division MAIT Investigator
Motor Carrier Specialist I M. Wrench, ID A99999, Central Division MAIT Investigator
Motor Carrier Specialist I, V. Inspector, ID A99998, Valley Division MAIT Investigator
Caltrans Senior Transportation Engineer E. Calculator, P.E., S999999, Central Division MAIT Investigator

# ANNEX B

# EXAMPLE OF A CHP 558D, MULTIDISCIPLINARY ACCIDENT INVESTIGATION TEAM NARRATIVE/DIAGRAM

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
**MULTIDISCIPLINARY ACCIDENT INVESTIGATION TEAM NARRATIVE/DIAGRAM**
CHP 558D (Rev. 11-23) OPI 060 *(MAIT use only)*

| DATE OF CRASH *(MONTH-DAY-YEAR)* | TIME *(2400)* | NCIC | OFFICER ID | AREA/AGENCY CASE NUMBER | MAIT CASE NUMBER | PAGE |
|---|---|---|---|---|---|---|
| 01-01-2050 | 2500 | 9999 | 30000 | 9999-2050-00001 | CP-001-50 | 36 |

## EVENT DATA RECORDER

### 2019 Lexus ES300h

***TRG 2 (First Prior Event)***

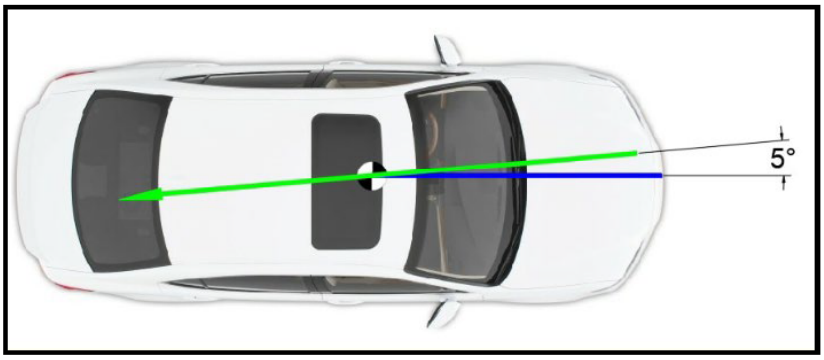
The resultant velocity change and principal direction of force experienced by the ACM during the event was calculated using the reported sampling for both axes at 170 milliseconds:

Where:

- $mph$ - Miles per hour
- $\Delta$ - Change in
- $v$ - Velocity ($fps$ or $mph$)
- $PDOF$ - Principal direction of force ($degrees$)

$$\Delta v_r = \sqrt{\Delta v_x{}^2 + \Delta v_y{}^2} = \sqrt{(-43.7)^2 + (3.9)^2} = 43.9 \approx 44\ mph$$

$$PDOF = Tan^{-1}\left(\frac{\Delta v_y}{\Delta v_x}\right) = Tan^{-1}\left(\frac{3.9}{-43.7}\right) \approx -5\ degrees$$




*PDOF Illustration*

The calculated resultant change experienced by the ACM during the event was 44 miles per hour. The calculated PDOF was -5 degrees (front-to-rear with a left-to-right component). This did not account for any force in the normal (vertical) direction.

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## ANNEX C

## HEADER/SUBHEADER FONT STYLE FORMAT

The format of font styles listed below should be followed for the hierarchy of headers and subheaders of topics (as necessary) within MAIT investigations.

The heading should be in 14-point font size, all capital letters, and boldface.
Subheading #1 should be in 14-point font size and boldface.
Subheading #2 should be in 12-point font size, italicized, and boldface.
Subheading #3 should be in 12-point font size and italicized.
Subheading #4 should be in 12-point font size and underlined.
Subheading #5 should be in 10-point font size, all capital letters, and boldface.

Example (this example is in Arial typeface):

**HEADING**

**Sub-Heading #1**

***Sub-Heading #2***

*Sub-Heading #3*

Sub-Heading #4

**SUB-HEADING #5**

If any headings continue to subsequent pages, the following example may be considered for the purposes of attempting to provide the reader with topic clarity while saving space within the report and minimizing space/resource waste.

Example (this example is in Times New Roman typeface):

**HEADING—Sub-Heading #1**

***Sub-Heading #2***

*Sub-Heading #3*

Sub-Heading #4

**SUB-HEADING #5**

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## ANNEX D

## INVESTIGATION OUTLINE

1. Cover (CHP 558).
2. Table of Contents.
3. CHP 555, Page 1, Traffic Crash Report.
4. CHP 555, Page 2, Traffic Crash Coding.
5. CHP 555, Page 3, Injured/Witness/Passengers.
6. Introduction.
7. Scene Assessment.
    a. Measurement Equipment.
    b. Environmental Description.
    c. Traffic Controls.
    d. Weather Conditions and Lighting.
    e. Environment Diagram.
    f. Coefficient of Friction.
    g. Engineer’s Report.
    h. Physical Evidence Assessment.
    i. Positions of Rest.
    j. Physical Evidence Diagram.
8. Parties.
9. Occupants.
10. Injury Assessment.

## ANNEX D

## INVESTIGATION OUTLINE *(continued)*

11. Statements.
12. Vehicle Identification.
13. Mechanical Inspection.
14. Damage Assessment.
15. Restraints Assessment.
16. Event Data Recorder.
17. Other Evidence.
18. Physical Evidence Log.
19. Digital Media Log.
20. Dynamics Diagram.
21. Occupant Kinematics.
22. Velocity Reconstruction.
23. Time-Position Assessment.
24. Crash Sequence.
25. Area(s) of Impact.
26. Conclusions.
27. Recommendations.