CHAPTER 10

TRAFFIC ACCIDENT RECONSTRUCTION SPECIALIST CERTIFICATION

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CHAPTER 10

TRAFFIC ACCIDENT RECONSTRUCTION SPECIALIST CERTIFICATION

1. PURPOSE. In order to reduce the instances of civil litigation, which usually accompany these types of complex investigations, and to maintain the Department's high level of credibility as a leader in the traffic accident reconstruction field, this chapter establishes the policy, procedures, and guidelines to be used to implement and administer the Department's Traffic Accident Reconstruction Specialist Certification (TARSC) Program.

2. BACKGROUND. In 1986, the National Highway Traffic Safety Administration (NHTSA) Committee on Accident Reconstruction Certification was formed. In 1988, Executive Management expressed concern as to whether or not our Department met NHTSA's Traffic Accident Reconstruction (TAR) certification standards. In 1989, a California Highway Patrol (CHP) Task Force was formed to address Executive Management's concerns. In 2005, the TARSC Program was implemented.

3. POLICY.

a. All members of this Department who prepare any form of traffic accident reconstruction investigations shall:

(1) Have completed all levels of the Department's specialized accident investigation courses.

(2) Have completed the TAR series.

(3) Be enrolled in the TARSC Apprenticeship Program or shall be a certified Traffic Accident Reconstruction Specialist (TARS) by the Department's TARSC Board.

b. To ensure accident reconstruction methodologies and techniques being used by members of this Department are applied correctly, and the conclusions are factual and accurate, the following parameters have been established:

(1) Employees who have successfully completed all levels of accident investigation through TAR II, must enroll in the TARSC Apprenticeship Program or he/she cannot use those skills learned in the program.

(2) Enrollment must be completed within 60 days of notification of completing TAR II. If enrollment is not completed within 60 days, the applicant will be removed from the TARSC process and must retake the TAR series prior to applying for the TARSC Apprenticeship Program. This is to prevent the derogation of the required skills to perform accident reconstruction investigations. In cases involving extenuating circumstances, this time may be extended with the approval of Field Support Section (FSS).

(3) NOTE: This policy does not prevent an employee from utilizing non-reconstruction skills learned in Intermediate or Advanced Accident Investigation. (Refer to Annex A.)

4. GENERAL.

a. Traffic Accident Reconstruction. The effort of determining how a collision occurred through the use of mathematical formulas like those outlined in Chapter 1, Annex A, or any derivation thereof.

b. Traffic Accident Reconstruction Apprentice. Includes any individual who is actively participating in the TARSC Apprenticeship Program as outlined in paragraph 10 of this chapter.

c. Traffic Accident Reconstruction Specialist. For the purpose of this chapter, a TARS is an individual who has completed the Department's Accident Investigation Training program as outlined in Annex B and is certified by the Department to conduct traffic accident reconstruction casework for the Department through the application of the basic laws of physics and/or advanced accident investigation/reconstruction techniques and methodologies.

5. IMPLEMENTATION. Since this program was implemented in 2005, and requires TARS certified mentors, the Department has exempted certain individuals from the application, apprenticeship, and testing requirements as outlined below.

a. Full-time Multidisciplinary Accident Investigation Team (MAIT) members as of August 2, 2005, are exempted from the formal application and apprenticeship process. Those exempted individuals will be required to pass the TARSC Board Examination. If successful, those individuals will be TARS certified.

b. The MAIT Program coordinator (lieutenant) and supervisor (sergeant) as of August 2, 2005, are responsible for creation, implementation, and administration of the TARSC certification test. Therefore, they are exempt from the application, apprenticeship, and testing requirements and are deemed to be TARS certified.

6. PROCEDURES.

a. Application Process.

(1) A person seeking to be certified by the Department as a TARS shall complete and submit, through channels to the appropriate MAIT, a CHP 558A, Application for Certification - Traffic Accident Reconstruction Specialist Program, within the prescribed time frames.

(2) The CHP 558A forms are available in each command's Forms Network Directory.

(3) The completed application shall be forwarded through the proper chain of command to FSS for review by the TARSC Board.

b. Certification Process. Traffic Accident Reconstruction Specialist Program - Flow Chart (Refer to Annex C).

(1) The TARSC Board will evaluate all applicants' qualifications to determine if the applicant meets the minimum requirements for certification, as specified in paragraph 6.c. of this chapter.

(a) If the minimum requirements have not been met, the TARSC Board will notify the applicant by memorandum outlining the specific reasons why the application was rejected. The memorandum will also include a development plan to assist the applicant in developing the skills necessary to meet minimum requirements.

(b) If the applicant meets the minimum requirements for certification, the TARSC Board will recommend to the field Division commander the applicant be accepted into the Apprenticeship Program, as specified in paragraph 9. of this chapter.

(2) Upon successful completion of the Apprenticeship Program, the apprentice will be eligible for the TARSC Board Examination, as specified in paragraph 10. of this chapter. Successful completion of the apprenticeship program requires the applicant to consistently display competence in the field of collision reconstruction, physical evidence and scene documentation, interview and interrogation, and scene management. In addition, the applicant must display a positive attitude and show a willingness to accept constructive criticism. Each team leader will present their respective apprentices CHP 558B, Apprenticeship Evaluation – Traffic Accident Reconstruction Specialist Program, to the TARSC Board for review. Once reviewed, the board will vote on each candidate's qualifications to participate in the TARSC test. A majority vote is required to allow the apprentice to participate in the test.

(3) Upon successful completion of the examination, the apprentice will be certified as a TARS for a period of four years from the date the certificate is issued.

(4) The TARS seeking to apply for recertification must comply with the provisions of paragraphs 13. and 14. of this chapter.

c. Certification Requirements. An apprentice having successfully completed all levels of the Department's accident investigation training through the TAR series, shall meet the following minimum requirements for TARS certification:

(1) The apprentice must have a minimum of one year of traffic collision investigation experience, prior to entering the TARSC process.

(2) The apprentice must successfully complete all levels of the Department's specialized accident investigation and reconstruction courses in the following order:

(a) Intermediate Accident Investigation.

(b) Advanced Accident Investigation.

(c) TAR Pretest.

(d) TAR Series.

1 Math and Physics.

2 TAR I.

3 TAR II.

NOTE: These courses must be completed in order as the preceding courses are building blocks and provide the necessary information for all the courses that follow. For this reason, there will be no deviation from the Accident Investigation courses and TAR series.

(3) The apprentice must successfully complete the Department's Apprenticeship Program as specified in paragraph 9. of this chapter.

(4) The apprentice must successfully complete the TARSC Board Examination as outlined in paragraph 10. of this chapter.

d. Traffic Accident Reconstruction Specialist Certification Board – Composition. The TARSC Board shall consist of, at a minimum, the following individuals:

(1) The TARSC Board shall consist of, at a minimum, the following individuals:

(a) Enforcement Services Division Captain (MAIT/AIU).

(b) MAIT Program Coordinator, FSS - lieutenant.

(c) MAIT Program Supervisor – FSS sergeant.

(d) MAIT leaders from each field Division – team leader must be TARS certified in order to serve on the Board.

NOTE: The ESD Captain will serve as Board chairperson and will not vote.

(2) If, for any reason, a candidate wishes to appeal the TARSC Board's decision, an Appeals Board will be convened consisting of:

(a) The ESD commander chief – chairperson.

(b) A representative from the Inspector General's office – Assistant Chief.

(c) A representative from a field Division – Assistant Chief. The Assistant Chief could not be from the affected Division and would be selected by Assistant Commissioner, Field.

NOTE: As in current policy, if the panel's response to the applicant's appeal is unsatisfactory to the applicant, the applicant could file a complaint through channels as described in HPM 9.1, Employee Relations Manual.

7. TRAFFIC ACCIDENT RECONSTRUCTION SPECIALIST CERTIFICATION BOARD - RESPONSIBILITIES.

a. The TARSC Board shall be responsible for the following elements of the certification process:

(1) Administration of the TARSC Apprenticeship Program.

(2) Determination of each apprentice's qualifications for accreditation based on the minimum requirements for TARS certification as specified in paragraph 6.c. of this chapter.

(3) Evaluation of accident reconstruction training programs submitted to the Department for accreditation.

b. The TARSC Board shall also be responsible for the following:

(1) Administration of the TARSC appeal process as specified in paragraph 11. of this chapter.

(2) Administration of the TARS recertification process as defined in paragraph 13. of this chapter.

(3) Administration of the TARS decertification process as defined in paragraph 15. of this chapter.

8. FIELD SUPPORT SECTION/ACCIDENT INVESTIGATION UNIT (AIU) - RESPONSIBILITIES. Field Support Section, AIU, shall be responsible for the following elements of the certification process:

a. Development, maintenance, and administration of the TARSC Board Examination.

b. Maintenance of all records pertaining to the certification process.

c. Maintenance of certification packages (i.e., CHP 558A, TARSC test, and electronic or hard copy of departmentally approved TARSC training). These files will be retained for the current four-year certification period, plus the previous four year period.

d. Scheduling and approval of all TARSC- or MAIT-related training courses.

9. APPRENTICESHIP PROGRAM.

a. Purpose. To provide a method for evaluating an apprentice's ability to properly apply and document accident reconstruction techniques, methodologies, and their willingness to work together with other TARS to accomplish the overall goals of the Department’s MAIT Program.

b. Procedures. Each team leader shall identify investigators as mentors for the Apprenticeship Program.

(1) Each field Division commander, whose MAIT will be responsible for mentoring, will determine the number of participants for their Division in the TARSC Apprenticeship Program.

(2) The TARSC Board will refer the apprentice to the applicable Division MAIT.

(3) The team leader of that MAIT will assign the apprentice to a mentor.

(4) Investigators selected to serve as mentors must meet the following minimum criteria:

(a) Shall be a full-time MAIT member or employee assigned to FSS, AIU.

(b) Shall be TARS certified.

(c) Shall have demonstrated an exceptional ability to apply advanced accident reconstruction methodologies and techniques.

(5) Once accepted into the program, the apprentice will complete a 30-day temporary assignment with the mentoring MAIT. The temporary assignment will be scheduled with the approval of the apprentice's immediate commander.

c. Apprentice's Responsibilities. During the TARSC Apprenticeship Program, the apprentice shall submit all accident reconstruction work during their 12-month apprenticeship period. Each accident reconstruction report must include the application of at least one accident reconstruction technique or methodology. The investigations shall represent a wide range of reconstruction methodologies. The team leader may require additional case work to be submitted based upon an identified weakness in the apprentice's skill level or lack of reconstruction investigations which do not address one of the core skills, (i.e., angular and/or collinear momentum, speed change from damage, a complex speed from tire friction mark analysis or a complex energy based reconstruction solution).

(1) Cases shall be submitted for evaluation to the assigned mentor. The final report shall be approved, formatted, and distributed by the mentoring MAIT.

(2) Discrepancies discovered during the case review and evaluation shall be resolved to the satisfaction of the team leader.

(3) Upon approval of the Board, the 12-month apprenticeship period may be extended to accommodate completion of the required number of accident reconstruction reports. The required number of reconstruction reports will be at the discretion of the MAIT leader. At no time will an apprentice be extended beyond two years. If the apprentice is not prepared for the TARSC Board Examination at the end of a two-year mentorship, the apprentice shall be removed or shall reapply and retake the TAR series before continuing in the certification process.

(4) Reconstruction reports submitted should demonstrate a well-rounded understanding of traffic accident reconstruction methods.

(5) If reconstruction methodologies are utilized, or are anticipated to be used in any capacity, apprentices shall immediately notify the team leader and receive approval to apply reconstruction skills. At that time, the apprentice shall receive a MAIT case number for the investigation.

(6) If an apprentice fails to demonstrate competence in the understanding and application of reconstruction principles and methodologies, shows an unwillingness to perform MAIT-level investigative techniques, or is unwilling to work in concert with other MAIT members to reach unified conclusions, they will not be allowed to participate in the TARSC test.

d. Mentor's Responsibilities.

(1) The mentor shall review each of the accident reconstruction reports submitted by the apprentice.

(2) Each accident reconstruction report submitted for review by the apprentice shall be evaluated utilizing the evaluation criteria outlined in Annex D, Traffic Accident Reconstruction Specialist Program Investigation Report Evaluation Criteria.

NOTE: The CHP 558B requires the mentor to assess the apprentice's at-scene skills (available in each command's Forms Network Directory). An accurate assessment requires the mentor respond to the collision scene with the apprentice. Team leaders shall coordinate and approve all such responses by the mentors. The ability of the mentor to respond in a timely manner is dependent upon the apprentice immediately notifying the team leader that he/she may be utilizing reconstruction at a particular collision scene.

(3) The mentor shall be responsible for maintaining a file copy of each report submitted by the apprentice along with the CHP 558B.

(4) Mentors should meet with apprentices once a month to review current cases and discuss any issues that may have arisen. Once scheduled, it is mandatory for the apprentice to attend the meeting.

(5) Upon completion of the apprentice's responsibilities, as specified in paragraph 10.c. of this chapter, the mentor shall forward an evaluation package to the team leader that includes the following:

(a) Copies of each report submitted to the mentor by the apprentice, along with the mentor's evaluation for each report submitted.

(b) A completed CHP 558B for each accident reconstruction investigation submitted during the rating period.

NOTE: Mentors should meet with apprentices once a month to review current cases and discuss any issues that may have arisen. Once scheduled, it is mandatory for the apprentice to attend the meeting.

e. Team Leader's Responsibilities.

(1) Coordinate and supervise the TARSC Program at the Division level.

(2) Bring copies of all evaluation packages to the TARSC Board meeting and be prepared to discuss each apprentice's evaluation package. (Team leaders are responsible for ensuring evaluation packages are maintained at the Division level.)

(3) Consult with mentors when deficiencies in an apprentice's performance are identified. If deficiencies are identified, the team leader will coordinate with the mentor and prepare a training agenda designed to correct the deficiency.

(4) Resolve any discrepancies that may arise between the mentor and apprentice.

(5) All evaluations will be handled in accordance with GO 100.11, Officer's Evaluation/Activity Summary - CHP 100, and HPM 10.2, Internal Investigations Manual. If issues arise from the CHP 558Bs (evaluation forms) the resolution process will be the Informal Dispute Resolution process

(6) Review and present all TARS applications to the TARSC Board.

10. TARSC BOARD EXAMINATION - CRITERIA AND PROCEDURES.

a. The TARSC Board Examination shall be a two-part examination consisting of the following elements:

(1) **Part I** - An examination covering accident investigation data collection, evaluation, analysis, documentation, and accident reconstruction processes and procedures.

(2) **Part II** - Case studies designed to test the apprentice's skills.

b. The examination shall be written and administered by FSS.

c. Field Support Section will administer the examination on an individual or group basis once per calendar year.

d. Field Support Section shall ensure that the examinations are proctored, and appropriate measures are taken to ensure the integrity of the examination is not compromised.

e. The apprentice shall be given eight consecutive hours to complete both parts of the examination.

(1) Scientific calculators may be used to make mathematical calculations.

(2) Graphing calculators may be utilized. Only the manual functions of programmable calculators may be used during the test. No pre-programmed formulas on programmable calculators may be used.

(3) The apprentice may utilize a reasonable amount of resource material provided by, or approved by the Test Proctor for Parts I and II of the examination.

f. Field Support Section shall grade and forward the results to the TARSC Board for review.

g. Successful completion of the examination requires a minimum raw score of 80 percent for each part of the test.

(1) If an apprentice fails to receive a composite minimum raw score of 80 percent on either part of the examination, he/she may retake the failed part of the exam within 60 days at the discretion of FSS. If the apprentice fails to receive a minimum raw score of 80 percent on both parts of the test, the attempt will be qualified a failure and the apprentice will be required to reapply for the TAR Series (to include the TAR pretest).

(2) If the apprentice successfully completes the re-examination, a TARSC certificate will be awarded. If the apprentice fails to receive the necessary minimum score on the re-exam, he/she will be required to reapply for the TAR series (to include the TAR pretest). The TARSC Board will notify the apprentice by memorandum outlining the procedures and will also include a development plan to assist the apprentice in developing the skills necessary to meet minimum requirements.

11. APPEAL PROCESS.

a. An apprentice may appeal any portion of the certification, recertification, or decertification processes by forwarding a memorandum through their field Division commander to FSS for the TARSC Board's review. The memorandum shall specify the basis for the appeal.

b. The TARSC Board shall consider the apprentice's appeal and respond by memorandum through Enforcement Services Division (ESD) to the field Division commander as soon as practicable.

(1) If the TARSC Board finds in favor of the apprentice, the apprentice shall be allowed to proceed with the TARSC process at the point deemed appropriate by the TARSC Board.

(2) If the TARSC Board's decision is to deny the appeal, a memorandum will be forwarded through ESD to the affected field Division commander of the TARSC Board's recommendations. Also included in the memorandum will be a development plan to assist the apprentice in developing the skills necessary to meet minimum requirements.

12. CERTIFICATION OF AN APPRENTICE.

a. Upon successful completion of the certification process, as outlined in paragraph 6.b. of this chapter, the apprentice will receive a certificate from the TARSC Board indicating certification by the Department as a TARS.

b. The certificate shall be valid for a period of four years from the date of issuance.

13. RECERTIFICATION PROCESS.

a. Active MAIT Member. Active MAIT Members are excluded from the four-year recertification if the following criteria is met:

(1) Active MAIT is a TARS certified full time MAIT investigator or supervisor, and associate actively participating in MAIT investigations to the degree the employee's skills can be adequately evaluated.

(2) Active MAITs must continue their Continuing Education Credits (CECs) and pass a test at the end of each course with a passing score of 80 percent or better.

NOTE: The TARSC Board will determine if an associate has adequately participated in MAIT.

b. Associates. Associates not meeting the definition of an active MAIT member in 13.a. above will continue to be required to successfully pass the four-year recertification test in order to maintain their TARS certification.

(1) A TARS wishing to maintain certification must submit a CHP 558A through their field Division commander to the Board within six months of expiration of their certificate.

(2) Certification applications are available on each command's Forms Network Directory.

(3) The application must be forwarded through the proper chain of command to FSS.

(4) Only those individuals meeting the requirements of paragraph 14. of this chapter will qualify for recertification. Upon approval of the TARSC Board, the six-month period for submitting an application for recertification may be extended for extenuating circumstances.

(5) If the TARS does not complete the requirements listed under paragraph 14. of this chapter, they will not be recertified and must reapply to the TARSC Apprenticeship Program.

14. RECERTIFICATION CRITERIA.

a. A TARS applying for recertification shall meet one of the following requirements:

(1) Shall have attained a minimum of 120 CECs of specialized training in the area of traffic accident reconstruction within four years of their current certification date.

(a) CECs are earned on an hour-for-hour basis. (For example, a five-day, 40-hour training class would count for 40 CECs toward this requirement.)

(b) The training must have been provided by a qualified training institution or organization (Annex E).

(c) For recertification, the TARS shall forward a copy of the course certificate and outline with the application for recertification.

(d) Individuals who are used as instructors in Math and Physics, Advanced Accident Investigation, or TAR I or II training classes can count instruction time toward this requirement up to 25 percent (30 CECs) of the 120 total CECs required.

(2) Shall complete courses directly related to accident reconstruction from an accredited college. A standard three unit course would be equivalent to 40 CECs. Four and five unit courses will be evaluated on a case-by-case basis by the TARSC Board to determine the number of CECs to be awarded.

(a) Examples of courses that meet this criteria are as follows:

1 Mathematics.

2 Physics.

3 General Sciences.

4 Engineering.

(b) The TARS shall forward a copy of college transcripts with the application for recertification.

(c) The Board may conduct random audits on a periodic basis to ensure the validity of the transcripts submitted.

(3) The TARS may also combine training classes, instruction, and college courses in order to attain the 120 CECs within the four-year time period.

b. The TARS shall also pass the TARSC Board's recertification examination every four years (unless they meet the criteria in 13.a. above).

15. DECERTIFICATION PROCESS.

a. Upon recommendation of the TARSC Board, the certification of any TARS may be withdrawn for any of the following reasons:

(1) Commits perjury.

(2) Continued pattern of technical incompetence relating to the application of reconstruction skills.

(3) Violation of the Incompatible and Inconsistent Activities Statement.

(4) Serious violation of departmental policy or procedures relating to accident investigation or reconstruction.

(5) Involvement in any activity that could reflect poorly on the individual's, or the Department's, competence or integrity.

b. The TARSC Board may assist in those cases where an investigation is being conducted by the Department or other agency.

c. A decertification for any of the reasons listed in paragraph 15.a., with the exception of a continued pattern of incompetence, will be for a minimum of one year and could be for the remainder of the individual's service time with the Department.

(1) When an individual has a problem which is listed in paragraph 15.a. the individual's Area commander shall notify FSS and the TARSC Board immediately.

(2) A TARS decertified for a continued pattern of incompetence must petition the TARSC Board for reinstatement. Proof of improvement in the areas of alleged incompetence must accompany the petition. If the petition is approved the employee must apply for recertification through the process outlined in paragraph 6.b. of this chapter.

ANNEX A

ACCIDENT INVESTIGATION COURSES

The following list of Accident Investigation courses and topics are offered to provide employees with a topical outline of learned skills for each course taught. Employees shall only utilize those skills taught and listed in the California Highway Patrol curriculum for Intermediate and Advanced Accident Investigation. Those completing Traffic Accident Reconstruction (TAR) I and II shall apply for the Traffic Accident Reconstruction Specialist Certification Program prior to utilizing those skills taught in the TAR Series.

INTERMEDIATE ACCIDENT INVESTIGATION
Basic Physical Evidence Identification
Basic Diagramming Techniques
Basic Measuring Techniques
Basic Vehicle Damage Assessment
Basic Interview and Interrogation Techniques
Basic Photography

ADVANCED ACCIDENT INVESTIGATION
Advanced Measuring and Diagramming Techniques
Vehicle Mechanical Assessment
Advanced Vehicle Damage Assessment
Introduction to Human Factors and Restraints
Introduction to Insurance Fraud and Investigative Techniques

TAR SERIES

Math & Physics
Basic Mathematics
Algebra
Error Analysis
Quadratic Equations
Rectangular and Polar Coordinate Systems
Trigonometry
Statistics
Speed
Velocity

ANNEX A

ACCIDENT INVESTIGATION COURSES *(continued)*

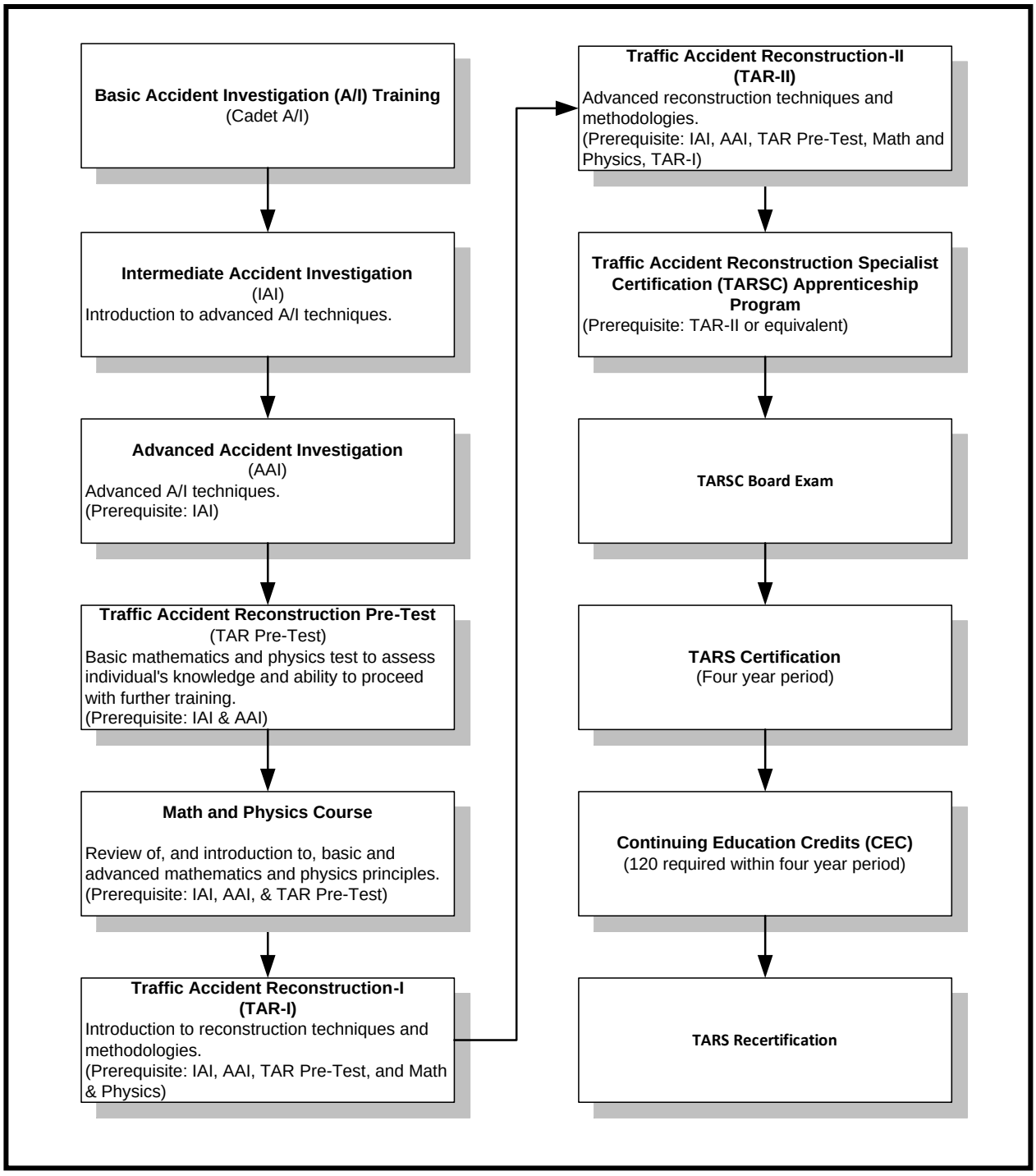
Acceleration
Vectors and Scalars
Projectile Motion
Circular Motion
Dynamics
Angular Rotation
Kinetic Energy

Traffic Accident Reconstruction I
Basic Speed Analysis
Critical Speed Scuffmark Analysis
Combined Speed Analysis
Controlled Testing and Recording Accelerometers
Drag Factors and Coefficient Of Friction
Freefall Analysis
Marking Mechanisms
Time-Position Analysis

Traffic Accident Reconstruction II
Auto Pedestrian and Bicycle Collision Analysis
Conservation Of Momentum Analysis
Heavy Duty and Articulated Vehicle Collision
Injury Mechanism and Occupant Kinematics
Motorcycle Collision Analysis
Speed from Damage

ANNEX B

ACCIDENT INVESTIGATION TRAINING PROGRAM FLOW CHART



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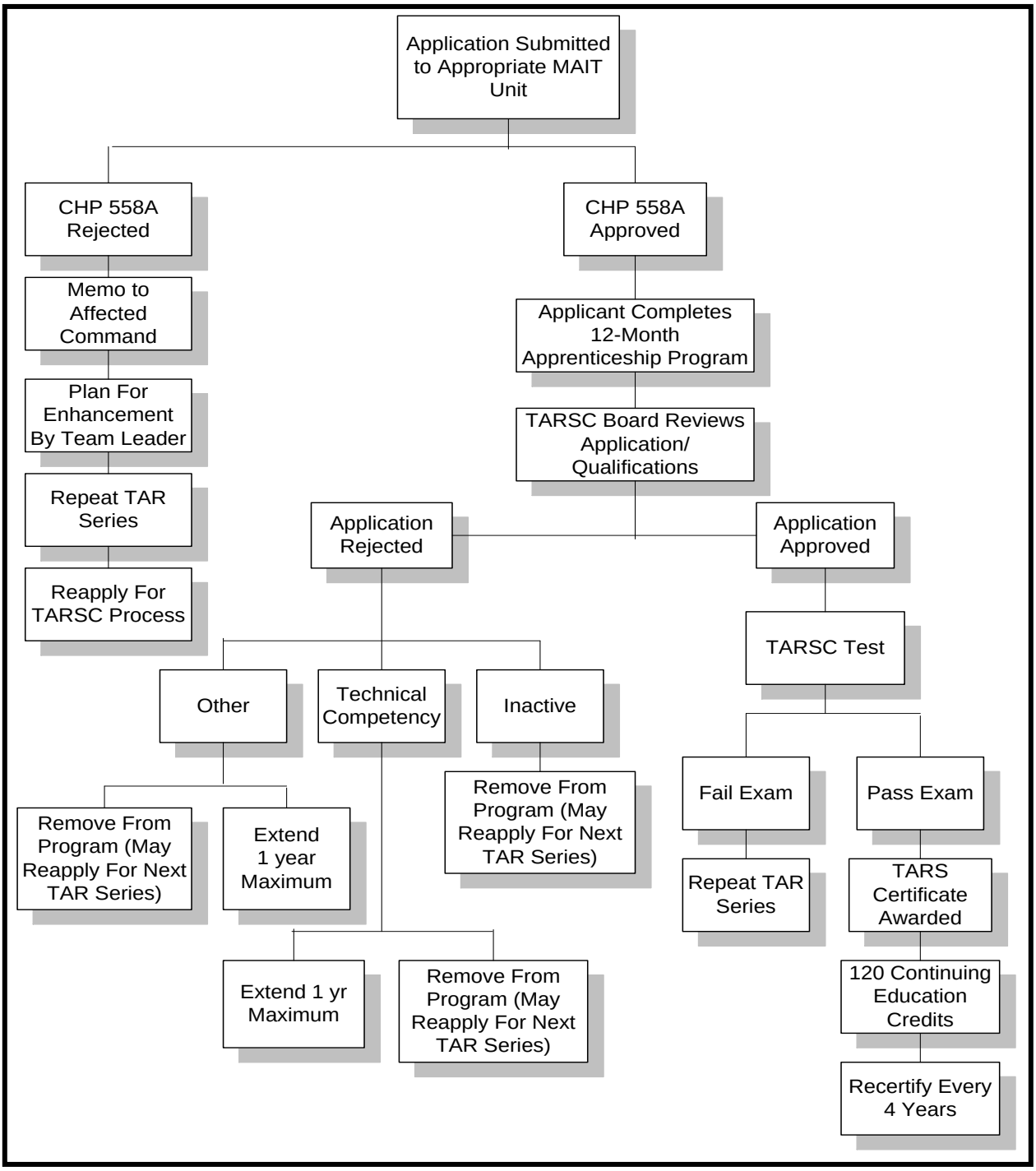
ANNEX C

TRAFFIC ACCIDENT RECONSTRUCTION SPECIALIST PROGRAM FLOW CHART



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ANNEX D

TRAFFIC ACCIDENT RECONSTRUCTION SPECIALIST PROGRAM INVESTIGATION REPORT EVALUATION CRITERIA

RATING	EVALUATION CRITERIA
EXCEEDS	In the investigation report, the collision site and vehicle evidence documented will be complete or above average reflecting a thorough investigation. The officer's evaluation of the evidence is correct and without any questionable interpretations. The motion analysis will match or be consistent with the available physical evidence and accurately reflect the vehicle motion. This investigation report will be free of mathematical and technical errors. The appropriate accident reconstruction techniques and methodologies will be selected and properly used. All reconstruction applications will display the use of common sense and are in compliance with the laws of physics. The conclusions reached in the investigation will be supported by the available evidence. The report format will be complete, properly organized, and within the documentation guidelines established by departmental policy. The documentation will be exceptionally neat (typed), and the diagrams, charts, and calculations sections will be professional in appearance. There will be a minimum of spelling and grammatical errors in the investigation.
MEETS	In the investigation report, the collision site and vehicle evidence documentation will be average and may contain some minor errors or omissions. The motion analysis will be representative of the general motion of the vehicle; however, it may have some awkward areas of motion not entirely consistent with the available physical evidence. The accident reconstruction techniques and methodologies selected will provide a reasonable answer for the quantity in question, but may not represent the best approach to the solution for the particular situation. This report may contain minor mathematical and/or technical errors that could have a slight impact on the final answers. The reconstruction application will show a use of common sense and will be in compliance with the basic laws of physics. The report format may contain a few minor omissions, but will generally support the opinions and conclusions reached as a consequence of the investigation. The report will be neat and the diagrams, charts, and calculations sections will be accurate. There may be minor grammatical and spelling errors.
SUBSTANDARD	The investigation report will show clear incompetence in at least one area of evaluation. The collision site and vehicle evidence documentation will be below average and will contain obvious errors and omissions. There will be no motion analysis when one is necessary, or the motion analysis included will not be supported by the physical evidence. The accident reconstruction techniques and methodologies selected may not be applicable and may be improperly applied. There may be mathematical and technical errors that will have a significant impact on the final answers. The reconstruction application will display a lack of common sense and may violate the basic principles of physics. The conclusions reached in this investigation may not be supported by the available evidence. The report format may be disorganized with the associated diagrams, charts, and calculations sections incomplete and sloppy. There will be a number of errors in grammar and/or spelling.

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ANNEX E

QUALIFIED TRAINING INSTITUTIONS AND ORGANIZATIONS

INSTITUTIONS

California Highway Patrol Academy

Northwestern University Traffic Institute

Northern California Criminal Justice Training Center

Riverside Sheriff's Department - Academy of Justice

University of North Florida, Institute of Police Technology and Management (IPTM)

Texas A&M University, Texas Engineering Extension Service (TEEX)

University of California, Riverside

ORGANIZATIONS

Society of Automotive Engineers (SAE)

Society of Accident Reconstruction Specialists (SOAR)

Society of Forensic Engineers and Scientists (SOFE&S)

Southwestern Association of Technical Accident Investigators (SATAI)

Washington Association of Technical Accident Investigators (WATAI)

International Association of Accident Reconstruction Specialists (IAARS)

National Association of Professional Accident Reconstruction Specialists (NAPARS)

Accreditation Commission for Traffic Accident Reconstructionists (ACTAR)

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