

2018

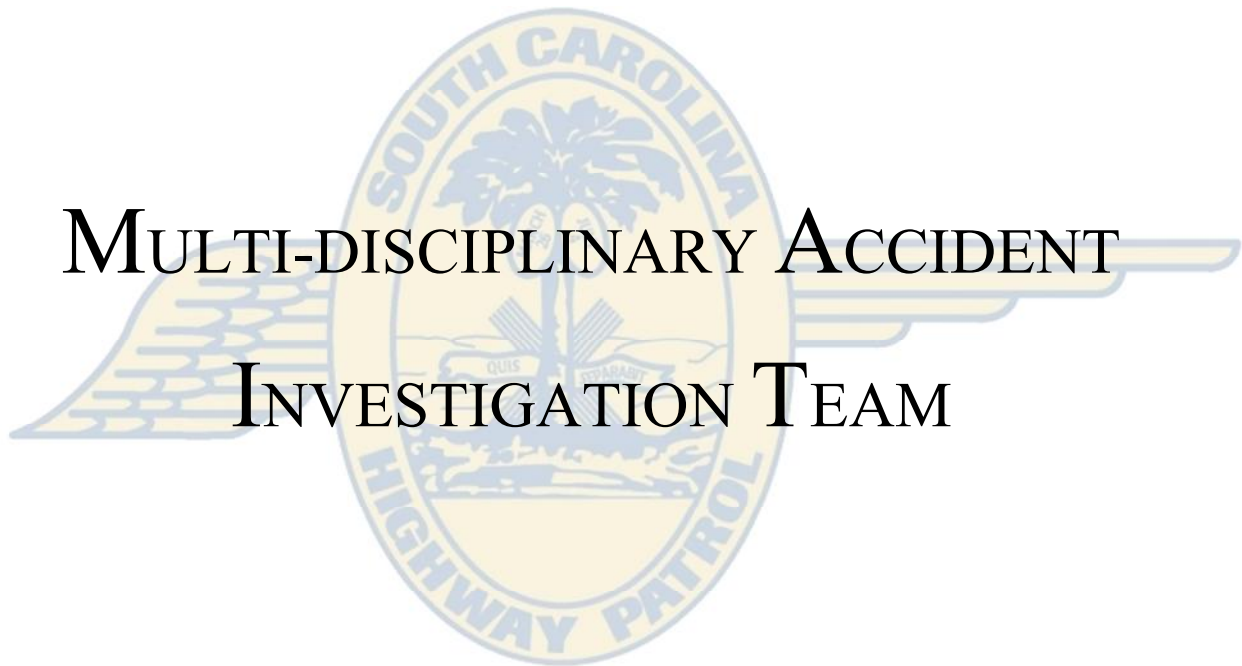
MAIT

Standard Operating Procedure



SOUTH CAROLINA
DEPARTMENT OF PUBLIC SAFETY

SOUTH CAROLINA HIGHWAY PATROL



MULTI-DISCIPLINARY ACCIDENT
INVESTIGATION TEAM

This document is intended for MAIT investigative use only.

Do not copy, reproduce or disseminate.

The South Carolina Highway Patrol Multi-Disciplinary Accident Investigation Team reserves the right to amend, correct, or detract any or all inferences, conclusions, or opinions presented in this document. This document is the intellectual property of the South Carolina Department of Public Safety and will not be duplicated or copied for distribution, unless written permission is granted by the Office of General Counsel.

FOREWORD

The severity of certain collisions dictates the need for a more intensive investigation to determine subtle collision and injury causes. The Multi-Disciplinary Accident Investigation Team (MAIT) was formed in 1994 to address this need. MAIT Investigators are trained and equipped to a high level of proficiency in collision reconstruction. MAIT operates as a support unit within the South Carolina Department of Public Safety Highway Patrol Division.

The objective of MAIT is to provide the Department with the means to conduct in-depth investigations to determine collision events, which are significant to causation or injury production. The ultimate objective being the utilization of these identified causation factors to prevent future collisions of a similar nature.

The purpose of this manual is to provide standard operating procedures for those responsibilities specific to MAIT. The objective of this manual is to ensure uniformity in the consistency and quality of investigations, and other associated activities conducted by MAIT.

Because of the complexity of a MAIT investigation, and its associated activities, this manual is not intended to be all-inclusive. Procedures outlined in this manual are guidelines for MAIT to consider in its operations and are subject to revision as deemed necessary by the MAIT Commander.

Wherever a conflict arises between South Carolina Department of Public Safety policy, procedure, rule or regulation and this Standard Operating Procedure the South Carolina Department of Public Safety policy, procedure, rule or regulation shall have precedence.

Contents

GENERAL.....	7
POLICY	7
SCOPE	7
ACTAR MEMBERSHIP	7
GEOGRAPHIC AREAS RESPONSIBILITY	7
GEOGRAPHICAL MAPS.....	9
MAIT OFFICER RESPONSIBILITIES AND DUTIES	14
Captain (MAIT Commander).....	14
Lieutenants (Region Field Operations Officers)	14
Sergeant (Office Sergeant/Training Liaison)	15
Sergeant (Post Commander/Team Leader)	15
Corporal (MAIT Scene Supervisor).....	17
Trooper – Lance Corporal (Investigator/Collision Reconstructionist)	17
MAIT DUTY OFFICER.....	19
PROCEDURE FOR REQUESTING MAIT ASSISTANCE.....	20
ACTIVE SCENE REQUEST	20
INACTIVE SCENE REQUEST	20
ALLIED AGENCY REQUEST FOR MAIT ASSISTANCE	20
RESPONSE TYPES	21
IMMEDIATE RESPONSE.....	21
COLLISIONS INVOLVING LAW ENFORCEMENT PERSONNEL	22
DEFERRED RESPONSE.....	23
TROOP PROCEDURE WHILE AWAITING MAIT	24
IMMEDIATE RESPONSE.....	24
DEFERRED RESPONSE.....	25
MEDIA RELATIONS	25
OPERATIONAL RESPONSIBILITY.....	26
MAIT RESPONSE NOTIFICATIONS.....	26
INVESTIGATIVE PROCEDURES	27
COLLISION ANALYSIS MATRIX (CAM)	27

MAIT INVESTIGATION CATEGORIES.....	28
INVESTIGATION FORMATS.....	29
POST COMMANDER RESPONSIBILITIES	29
COLLISION INVESTIGATION PHASE	30
ACTIVE SCENE	30
INACTIVE SCENE	30
COLLISION INVESTIGATION RESPONSIBILITIES	30
HUMAN FACTORS ELEMENTS.....	31
VEHICLE ELEMENTS.....	33
MECHANICAL SPECIALIST	35
ENVIRONMENTAL ELEMENTS	35
SMALL UNMANNED AERIAL VEHICLE SYSTEMS	36
COLLISION RECONSTRUCTION PHASE.....	37
POST COMMANDER/TEAM LEADER RESPONSIBILITIES	37
RECONSTRUCTION PROCEDURES.....	37
GENERAL	37
DAMAGE ANALYSIS	38
POSITION ANALYSIS.....	38
MOTION ANALYSIS.....	39
DYNAMICS ANALYSIS.....	39
OTHER COLLISION TYPES	39
VELOCITY CALCULATIONS	40
POST-IMPACT VELOCITY ANALYSIS.....	41
IMPACT VELOCITY ANALYSIS.....	41
VELOCITY CHANGES.....	41
PRE-IMPACT VELOCITY ANALYSIS	41
DOCUMENTATION	42
MECHANICAL ANALYSIS	42
HUMAN FACTORS ANALYSIS.....	43
ENVIRONMENTAL FACTORS ANALYSIS	43
VIDEO ANALYSIS	44
CAUSATION ANALYSIS.....	45

HIT AND RUN INVESTIGATION PROTOCOL	47
MAIT INVESTIGATIVE RESPONSIBILITIES	47
TROOP OR ALLIED AGENCY INVESTIGATIVE RESPONSIBILITIES	47
MAIT RESPONSE	48
LEAD MAIT INVESTIGATOR	48
INTERVIEWS	48
MESSAGE BOARDS	48
COMMUNICATIONS	49
VEHICLE IDENTIFICATION	50
INFORMATIONAL FLYER	51
VEHICLE DEBRIS EVIDENCE PHOTOGRAPHS	52
VEHICLE/SUBJECT LINE-UP	52
SOUTH CAROLINA INFORMATION AND INTELLIGENCE CENTER	52
PRESS CONFERENCE	52
CANVASSING/ROADCHECKS	52
AFTER ACTION REVIEW (AAR)	53
MAIT RECORDS UPDATE	53
COLD CASES	54
MAIT OFFICE PROCEDURES	56
TASKS	56
COMPUTER AIDED DRAWING (CAD)	56
DIGITAL MEDIA (Video/Pictures/Documents)	56
CALCULATIONS	57
CASE FILE ORGANIZATION	57
DEADLINES	59
DIGITAL PICTURES	59
DIGITAL AUDIO RECORDINGS	59
FORENSIC MAPPING DATA COLLECTOR	59
VIDEO	59
CASE FOLDERS - DIGITAL	60
MAIT DRIVE FOLDERS	60

DIGITAL CAMERA DOWNLOADING PROCEDURE	66
EDITING RAW VIDEO IN WINDOWS MOVIE MAKER	67
INSERTING PICTURES INTO REPORTS.....	67
INSERTING MAPS.....	68
INSERTING CAD DRAWINGS.....	68
REPORT FORMAT AND COMPOSITION.....	69
MAIT CASE NUMBERING SYSTEM	69
REPORT FORMAT INSTRUCTIONS.....	70
COVER SHEET.....	70
INVESTIGATIVE REPORT	70
REPORT REVIEW AND COMPLETION	72
MAIT CASE FILE DISTRIBUTION AND RETENTION.....	72
MAIT PAPERLESS DOCUMENT STORAGE.....	73
INVESTIGATIVE REVIEWS	74
DEFINITIONS.....	74
POST-LEVEL CASE REVIEWS (PLCR)	74
POST-LEVEL CASE REVIEW AUDIT.....	75
INVESTIGATIVE REVIEW COMMITTEE (IRC).....	75
COMPOSITION	75
RESPONSIBILITIES	75
PARTICIPATION	76
SUBMISSION OF CASES FOR REVIEW	76
ANIMATION REVIEW	76
THE MAIT LOG	78
TRAINING	80
PROGRAM LEVEL TRAINING.....	80
TEAM LEVEL TRAINING	81
RESPONSIBILITIES	81
TEAM RESPONSIBILITY	81
MAIT COMMAND STAFF RESPONSIBILITY	82
PATROL TRAINING RESPONSIBILITIES.....	82
REQUESTS FOR MAIT REPORTS OR CASE FILE MATERIALS	83

FEES SCHEDULE	83
TESTIMONY OF MAIT PERSONNEL IN CIVIL MATTERS.....	83
FEDERAL INVESTIGATIONS.....	84

GENERAL

POLICY

The Multi-Disciplinary Accident Investigation Team (MAIT) will conduct in-depth investigations of designated collisions/incidents for the South Carolina department of Public Safety (SCDPS). MAIT will conduct investigations within SCHP jurisdictions with the exception of collisions involving SCDPS employees. Collisions involving SCDPS employees will be investigated by the local jurisdiction, per South Carolina law.

MAIT will also assist with any other collision/incident of unusual significance, subject to the prior approval of the Administrative Operations Major and/or the Troop 9 Commander.

SCOPE

MAIT consists of Investigators with specialized skills in collision reconstruction, traffic signal timing, and automotive mechanics. These Investigators supplement the Department's normal collision/incident investigative efforts. MAIT Investigators will apply their specific skills to selected investigations in order to analyze human, environmental, and vehicle factors in order to determine the underlying causations.

ACTAR MEMBERSHIP

The South Carolina Highway Patrol maintains a board member presence on the Accreditation Commission for Traffic Accident Reconstructionists (ACTAR), the only world-wide accrediting authority for collision reconstructionists. To remain competitive, competent and cognizant of changes within the collision reconstruction community it is of utmost importance to maintain not only membership in ACTAR, but also board member status. MAIT Investigators, as designated by the MAIT Commander, serve as the South Carolina Highway Patrol representative on the ACTAR General Board of Directors.

GEOGRAPHIC AREAS RESPONSIBILITY

MAIT has four established Field Posts. These Posts are located in the Piedmont (Post A), Midlands (Post B), Coastal (Post C) and Pee Dee (Post D) Regions of the state. Post Headquarters and Geographic areas of responsibility are as follows:

Piedmont (Post A): 33 Villa Road, Suite 202, Greenville, S.C. 29615

Areas of Responsibility:

Anderson County, Greenville County, Oconee County, Pickens County, Spartanburg County, Abbeville County, Edgefield County, Greenwood County*, Lauren County, McCormick County, Newberry County, and Saluda County

Midlands (Post B): 1626 Shop Road, Columbia, S.C. 29201

Areas of Responsibility:

Aiken County, Clarendon County, Fairfield County, Kershaw County, Lee County, Lexington County, Richland County, Sumter County, Cherokee County, Chester County, Chesterfield County, Chesterfield County, Fairfield County, Lancaster County, Union County, and York County*

Coastal (Post C): 597 Old Mount Holly Road Goose Creek, SC 29445

Areas of Responsibility:

Allendale County, Bamberg County, Barnwell County, Beaufort County, Berkeley County, Calhoun County, Charleston County, Colleton County, Dorchester County, Hampton County, Jasper County, and Orangeburg County*

Pee Dee (Post D): 3415 E. Palmetto Street, Florence, S.C. 29506

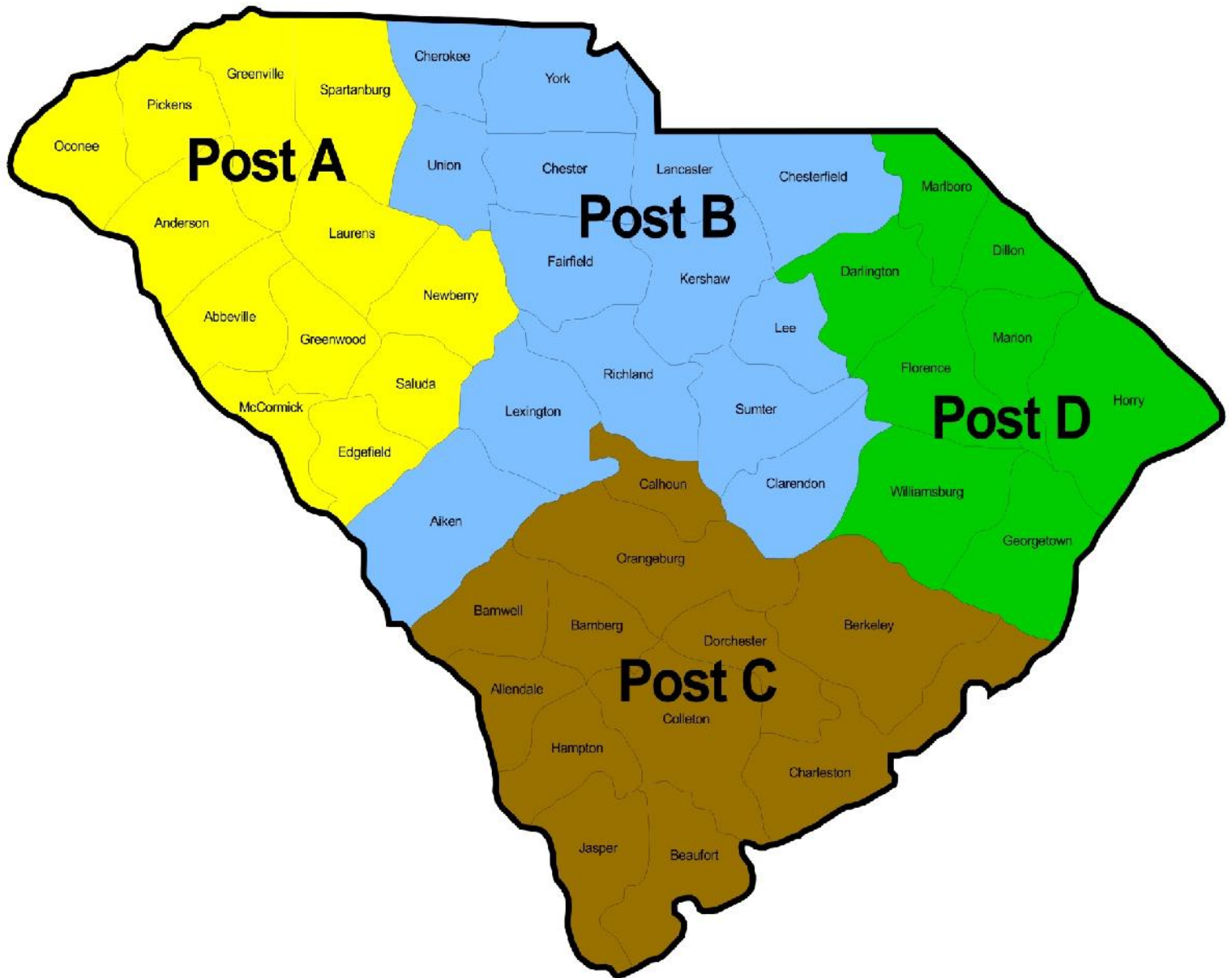
Areas of Responsibility:

Darlington County, Dillon County, Florence County, Georgetown County, Horry County, Marion County, Marlboro County, and Williamsburg County

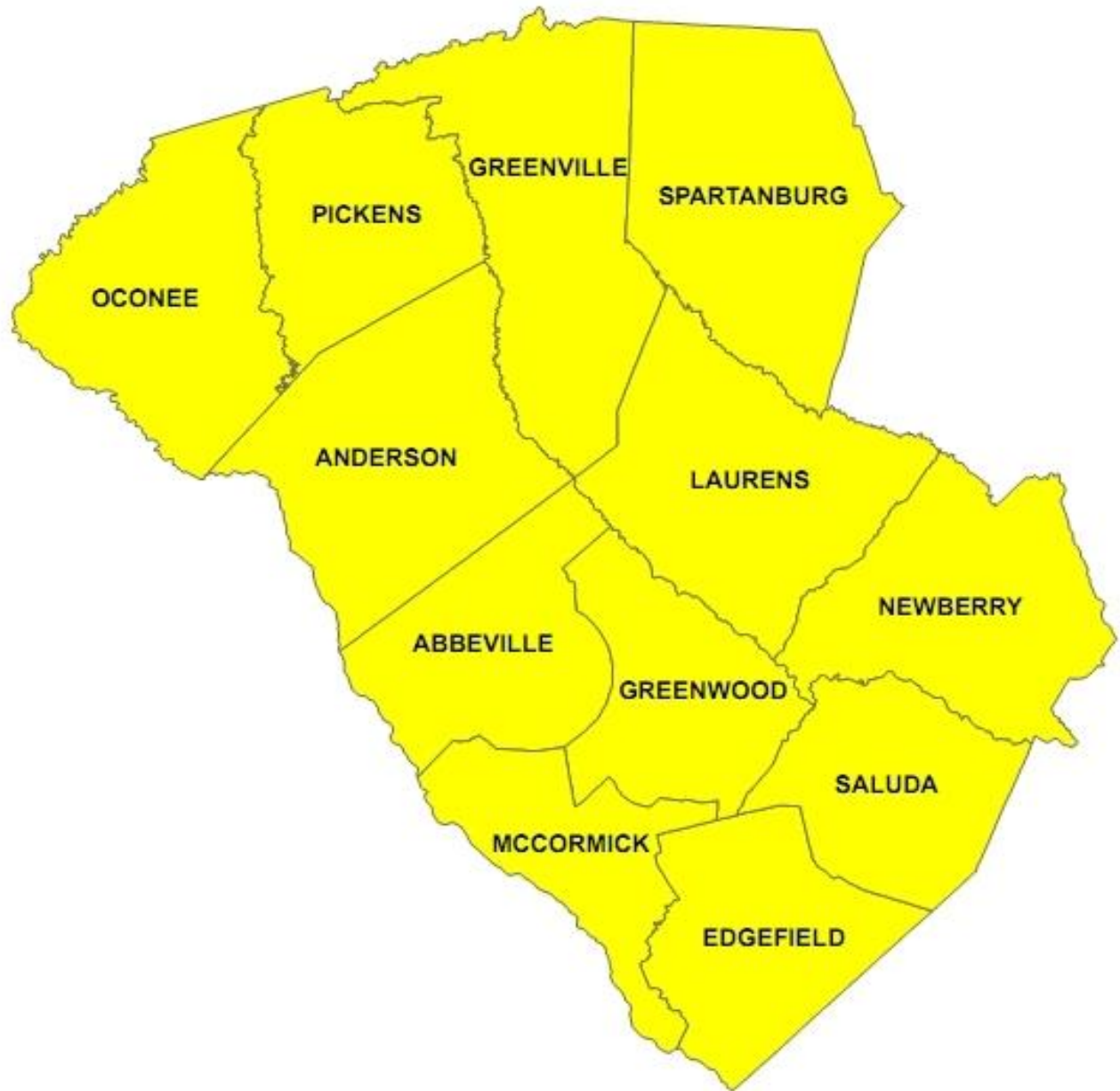
** Designated MAIT satellite office*

GEOGRAPHICAL MAPS

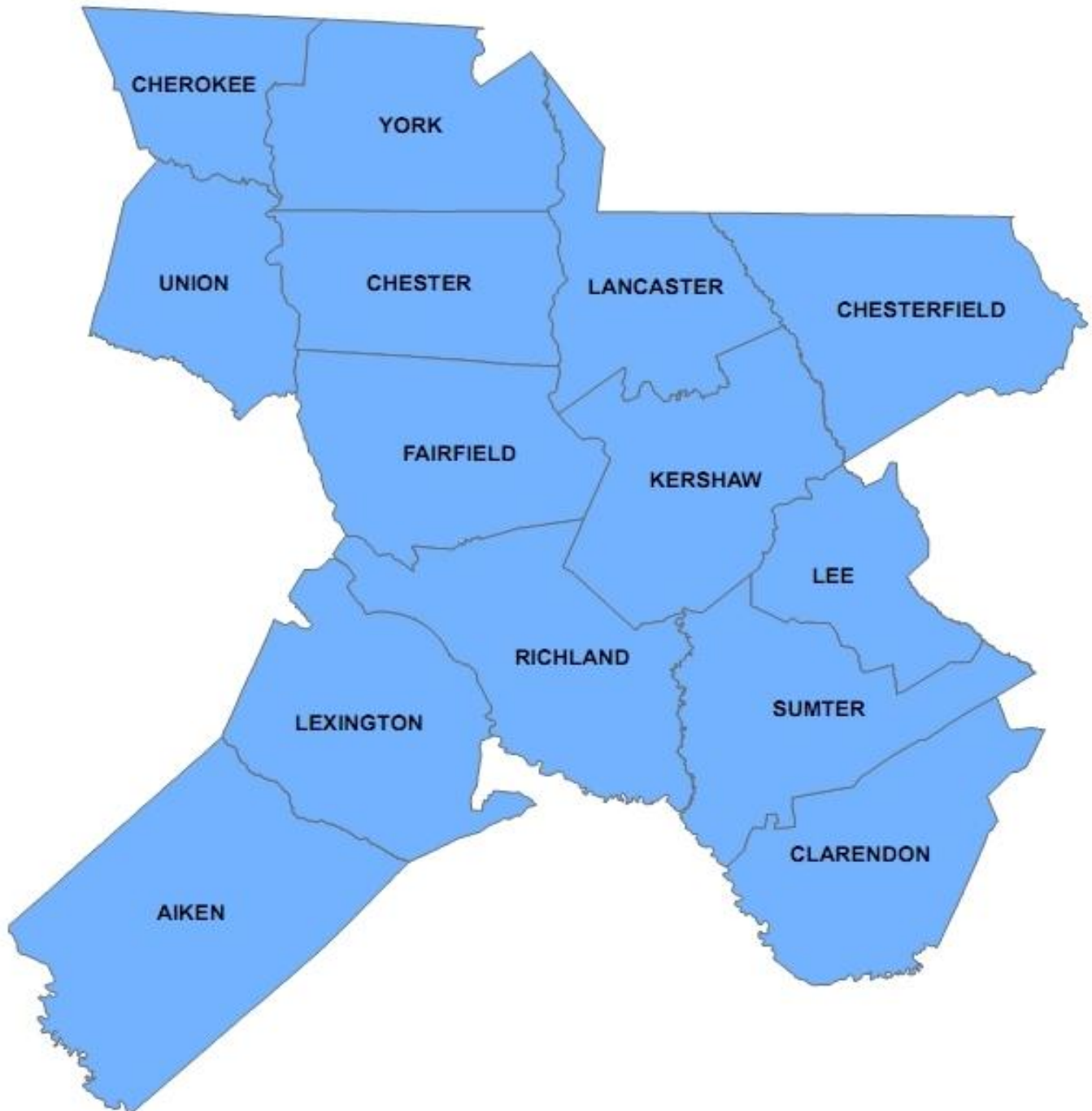
MAIT POSTS



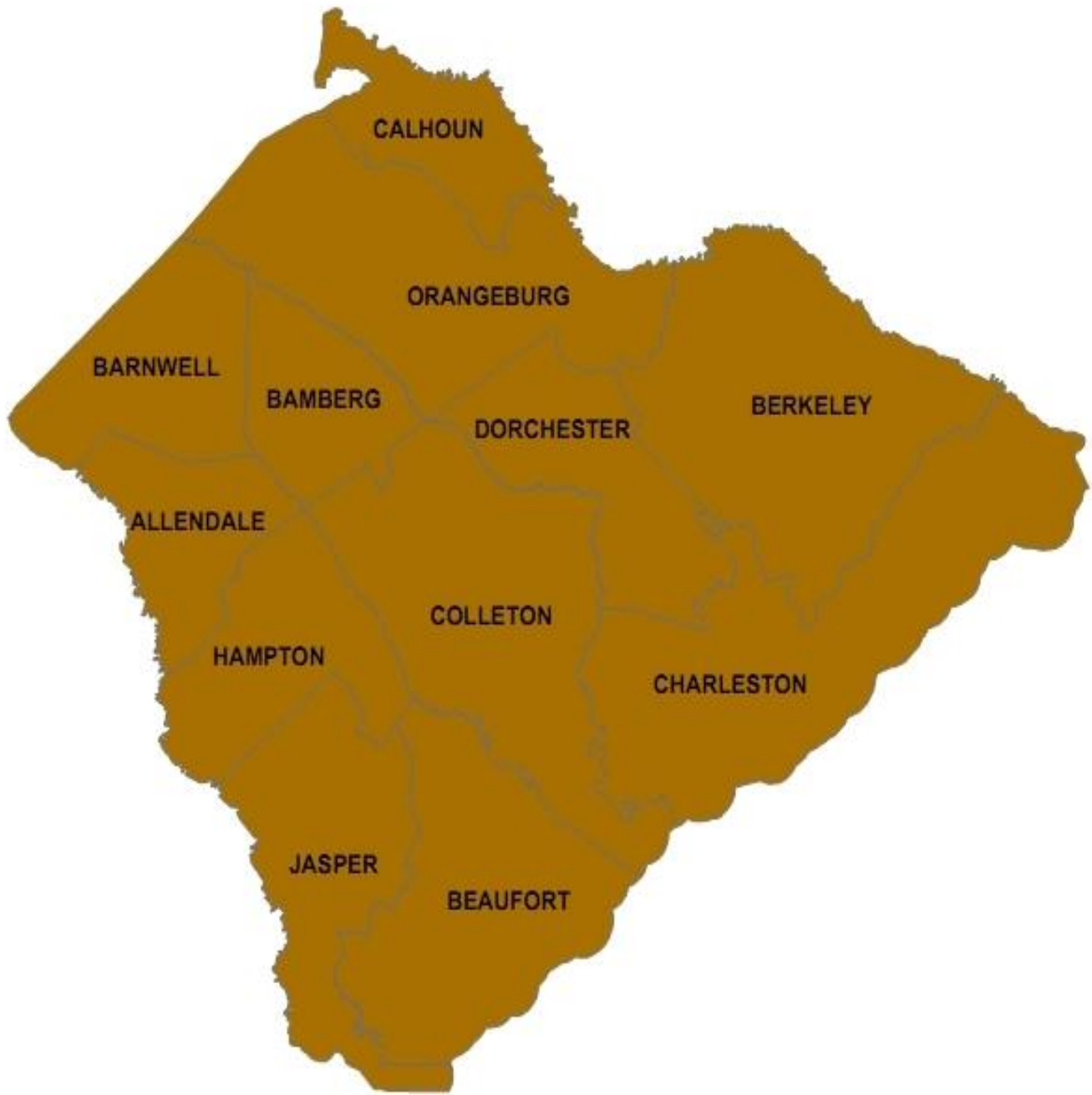
POST A



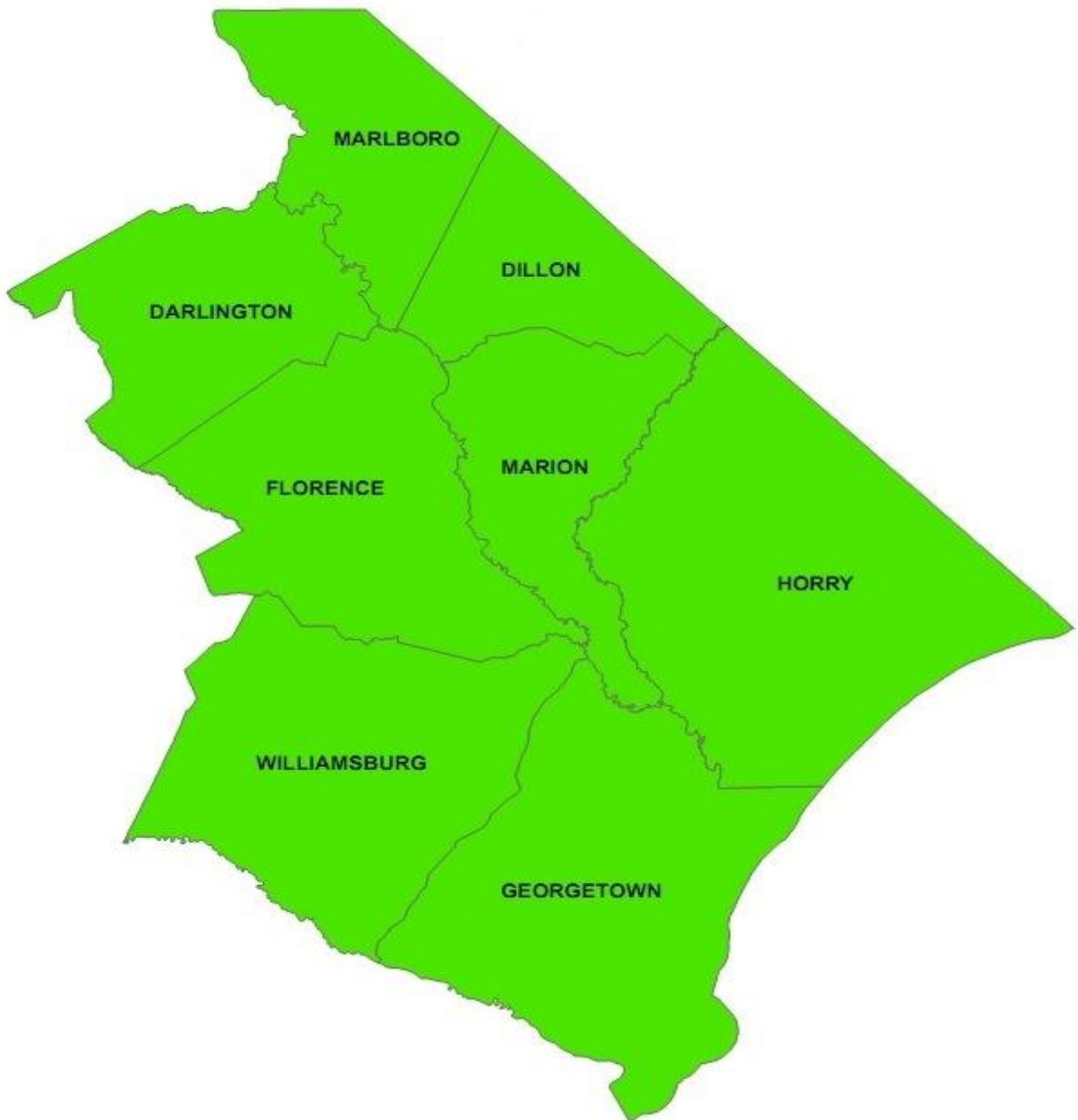
POST B



POST C



POST D



MAIT OFFICER RESPONSIBILITIES AND DUTIES

The following guides are representative of the duties of a MAIT officer from the respective ranks of Trooper through Captain. Additional duties and responsibilities are at the discretion of the Troop 9 Commander or designee. These guides are not intended to be all-inclusive and do not relieve MAIT Investigators of their duty as South Carolina Highway Patrol Troopers.

All MAIT officers are considered MAIT ambassadors who are responsible for promoting and maintaining a positive, professional relationship between MAIT and its customers within the South Carolina Department of Public Safety divisions and among all State and Federal allied agencies.

Captain (MAIT Commander)

- Reports to the Major of Administrative Operations
- Ensures Lieutenant's duties are performed
- Ensures the continued support of MAIT by command staff
- Serves as Liaison between MAIT and Command Staff
- Serves as Liaison between MAIT and the public
- May serve as the MAIT Duty Officer
- Meets with MAIT Investigators and supervisors no less than annually
- Oversees the MAIT budget
- Reviews MAIT equipment and training requests (approval and acquisition)
- Directs and plans for the future of MAIT
- SCEIS approval (at least every 2 days)
- Conducts annual EPMS for Lieutenants
- Reviews and approves MAIT headquarters schedule
- Chairs Investigative Review Committee (IRC)
- Approves case report findings
- Approves/Disapproves case due date extension requests

Lieutenants (Region Field Operations Officers)

- Reports to MAIT Commander
- Serves as the MAIT Duty Officer as assigned
- Monitors and reviews Post investigations
- Provides briefings and updates to the MAIT Commander on all Core 5 and other potentially high profile investigations
- Region Lieutenants will visit a MAIT Post within their area of assignment weekly to:

- Resolve complaints, offer guidance, ensure MAIT procedures are followed and disseminate pertinent information
 - Ensure that proper principles of collision investigation/reconstruction are followed
- Ensures Post Commanders/Team Leaders are performing assigned duties, completing case work and properly supervising subordinates
- Contacts Troop liaisons to discuss current and recently closed cases
- SCEIS approval (at least every 2 days)
- Verifies Post Commanders/Team Leaders time sheets
 - Ensures time entered into SCEIS matches MAIT Post schedule
- Conducts line inspection on Post Commanders/Team Leaders
- Conducts quarterly reviews of all Post cases for completion and trends
- Verifies that archived cases are completed
- Verifies that the MAIT Log is consistently updated and accurately reflects case file content
- Compiles an annual report of investigations for assigned MAIT Posts
 - Categorized by Hit & Run, Pedestrian, Bicycle and Moped collisions
- Conducts annual EPMS evaluations for Post Commanders/Team Leaders
- Reviews and approves MAIT Post schedules
- Attends Investigative Review Committee (IRC) meetings

Sergeant (Office Sergeant/Training Liaison)

- Reports to Troop 9 Commander or designee
- Serves as Troop Training Liaison
- Authors MAIT headquarters schedule
- Responsible for ordering all requested supplies
- Compiles needed Investigators for special assignments
- Orders approved equipment
- Conducts fiscal analysis

Sergeant (Post Commander/Team Leader)

- Proficient at all scene responsibilities and Background Investigations (BI)
- Uploads electronic/digital media
- Reconstruct collisions using industry accepted methodologies
- Review and approve Investigator findings
 - Calculations
 - Computer Assisted Drawing (CAD)
 - Vehicle Examinations

- Field Sketches
 - Other Investigator generated documents
- Case file management
 - Reviews case notes, CAD, audio, pictures, videos, etc.
- All case file data inputs
 - AutoStats, DMV records, TR310 reports, etc.
- Responsible for entire investigative product
 - Reviews every case for completeness no less than weekly
 - Holds weekly team meetings
- Manages investigations direction
 - During case review makes decisions on task assignments/re-assignments in order to comply with MAIT Standard Operating Procedures
 - Determines need for case due date extension requests
 - Provides detailed justification for request
- Assigns case identifiers per MAIT policy
 - At-Scene (A)
 - Limited (L)
 - Hit and Run with Death/Personal Injury (H)
 - Felony DUI with Great Bodily Injury (G)
 - Felony DUI with Death (F)
- Informs team personnel of new investigations within 24 hours
- Assigns Investigators to special assignments
- Recommends/reviews training
- Author's Case Reports
- Maintains the MAIT Log as it applies to their respective Post
 - Verifies that the MAIT Log is consistently updated and accurately reflects case file content
- Conducts Monthly Post Level Case Reviews (PLCR)
 - One of which will be a review of a case from another MAIT Post
 - One of which will be an audit of a subordinate Corporal's internal PLCR
- Presents case findings to the Investigative Review Committee
 - Briefs team on IRC recommendations/directions/information
- Dispute Resolution
 - Resolves internal disputes where possible
 - Recommends disciplinary action where appropriate
 - Disciplinary action routed through Blue Team console
- Conducts annual Corporal EPMS evaluations
- Authors and submits Weekly Events Synopsis
- Updates/maintains MAIT log within twenty-four hours of receiving an investigation

- Updates/maintains MAIT Post schedule
- Reviews and approves/disapproves time sheets of assigned Corporals
 - Approves SCEIS time every two days
- Conducts monthly line inspections of assigned Corporals
- Reviews all TR310 and/or Incident Reports associated with a MAIT investigation for accuracy and completeness
- Delivers completed case product to Troop Commanders and/or allied agencies

Corporal (MAIT Scene Supervisor)

- Proficient at all scene responsibilities
- Uploads electronic/digital media
- Reconstruct collisions using industry accepted methodologies
 - Other methodologies approved by the Troop 9 / MAIT Commander
- Review and approve Investigator findings
 - Calculations, CAD, vehicle examinations, field sketches, etc.
- Case file management
 - Reviews case notes, CAD, audio, pictures, videos, etc.
- All case file data inputs
 - Autostats, DMV records, TR310 reports, etc.
- Reviews and scans all Investigator time sheets
- Monitors and approves leave, time and changes to on-call schedule
- Conducts Line Inspections on Investigators
- Conducts annual Investigator EPMS evaluations
- Attempts to resolve all disciplinary issues before presenting to the Post Commander/Team Leader
- Monitors equipment needs
- Serves as Evidence custodian
- Evaluates, monitors and critiques Investigators work product
- Reviews all TR-310 and/or Incident Reports associated with a MAIT investigation for accuracy and completeness
- Assists Post Commander with administrative duties as assigned

Trooper – Lance Corporal (Investigator/Collision Reconstructionist)

Investigator

- Proficient at all scene responsibilities

- Field sketches, total station operation, scene architecture, audio recordings, photography, videography, evidence identification, and vehicle examinations
- Assists in the investigation of collisions and/or incidents using industry accepted methodologies
- Uploads digital media to the MAIT drive
- Completes Daily Reports, SCEIS, etc. (time sheets as needed)
- Performs administrative duties as assigned by the Team Leader

Collision Reconstructionist

- Proficient at all scene responsibilities
- Accredited through the Accreditation Commission for Traffic Accident Reconstructionists (ACTAR)
 - May be accredited through MAIT
 - MAIT Proficiency Exam
- Uploads all digital media
- Reconstructs collision and/or incidents using industry accepted methodologies
- Performs limited administrative functions at the direction of a Corporal or higher
- Completes all administrative reports required of SCHP by SCDPS
- Assists immediate supervisor as needed/directed

MAIT DUTY OFFICER

The Troop 9 Commander and Region Lieutenants may be tasked to serve as the MAIT Duty Officer. The Troop 9 Commander will assign MAIT Duty Officer Responsibilities at his discretion. The MAIT Duty Officer schedule will be reflected in the MAIT Headquarters schedule and on the Troop 9 Calendar.

The MAIT Duty Officer is the MAIT point of contact for all requests for MAIT assistance coming from SCHP Troop Commanders or their designee and/or Allied Agencies. The MAIT Duty Officer will ensure that requests meet the criteria for MAIT assistance or document any extenuating circumstances that lead the requestor to believe that MAIT assistance is necessary prior to dispatching the appropriate personnel.

The MAIT Duty Officer may be required to respond to the scene of an ongoing investigation at the discretion of the Troop 9 Commander or the SCHP Command Staff and should be readily available to do so.

The MAIT Duty Officer has the entire state of South Carolina as their area of responsibility and will not travel out of state unless directed to do by the SCHP Command Staff.

The MAIT Duty Officer will not be granted leave unless a suitable replacement for duty has been approved by the Troop 9 Commander. In the event of an emergency, the Troop 9 Commander will assume the duty.

PROCEDURE FOR REQUESTING MAIT ASSISTANCE

ACTIVE SCENE REQUEST

The Post investigating trooper or supervisor, upon arriving at the scene of a collision or incident, will make an initial determination of whether the collision or incident is within or beyond their level of training. If the collision or incident is beyond the investigating Trooper's level of training, they will notify their immediate supervisor.

Requests for MAIT assistance must be routed through the chain-of command of the affected Troop to the Troop Commander or designee. The Troop Commander or designee will notify the MAIT Duty Officer of the request. The MAIT Duty Officer will advise the requesting Troop Commander or designee of the MAIT response type to be received. The MAIT Duty Officer will notify the appropriate MAIT Post Commander/Team Leader and direct the response to the collision scene.

Requests for MAIT assistance made directly to the Troop 9/MAIT Commander will be handled according to his/her discretion.

INACTIVE SCENE REQUEST

If at any point during an investigation and after the scene has been cleared, or after an investigation has been completed, the need for MAIT assistance is identified, the procedure described above will be used to request assistance from MAIT.

ALLIED AGENCY REQUEST FOR MAIT ASSISTANCE

Under normal circumstances, requests for MAIT assistance from allied law enforcement agencies will be directed to the Troop Commander having geographic responsibility for the area in which the collision/incident occurred. The Troop Commander will notify the MAIT Duty Officer of the request. The MAIT Duty Officer will contact the allied agency to determine if a MAIT response is appropriate.

Due to the nature of MAIT's statewide operations, bonds have been forged between many MAIT Investigators and other law enforcement Investigators. As such, a request for assistance may be initiated between those officers and a MAIT Supervisor or Investigator. Requests for assistance received by any MAIT Supervisor or Investigator will be immediately forwarded through the chain-of-command to the MAIT Duty Officer. The MAIT Duty Officer will notify the respective Troop Commander of the request for assistance and direct the type of response that MAIT will be providing.

RESPONSE TYPES

Due to the resources available to MAIT, responses to collisions/incidents will be either immediate or deferred.

IMMEDIATE RESPONSE

MAIT Investigators will respond to the collision or incident scene immediately after notification is given to a MAIT Post supervisor.

Before responding, the notified MAIT supervisor will contact the on-scene Troop or Agency supervisor and receive an update on the status of the investigation.

A minimum of two MAIT Investigators will respond to the collision or incident scene. The MAIT Post Commander/Team Leader must provide written justification to the MAIT Commander or designee for sending one Investigator to a collision or incident scene.

All responding MAIT Investigators will use issued radio equipment to:

- Advise the telecommunications center (TCC) that they are on-duty and responding to the incident or collision scene
- Advise the TCC that they have arrived at the collision or incident scene
- Advise the TCC that they are finished at the collision or incident scene
- Advise the TCC when they are off-duty

Additionally, all responding MAIT members will:

- operate their vehicle in a reasonable and prudent manner
- obey all traffic laws
- utilize emergency lights and siren when operating in an emergency mode

Generally, an immediate response will involve a collision/incident with the following:

- All collisions that will result in a General Sessions Charge (primary charge)
- A Felony DUI with Death (Core 5)
- Any collision involving police officers acting in an official capacity
- A hit and run collision resulting in a fatality or life threatening injuries (Core 5)
 - Life threatening injuries are injuries sustained which have a high probability of resulting in death
- A collision requiring a driver determination due to all occupants being ejected
- High profile collisions or incidents (Core 5)
- A Troop Commander requests an immediate response (Core 5)
- Allied agency assists falling within with the above criteria (Core 5)

- Any collision or incident where the Troop 9 Commander directs an immediate response

COLLISIONS INVOLVING LAW ENFORCEMENT PERSONNEL

MAIT will provide an immediate response to all collisions involving law enforcement personnel operating in an official capacity.

- A non-departmental collision involving a police vehicle
 - Level of investigation determined by the Troop 9 Commander
- A non-departmental police pursuit collision resulting in a fatality (Core 5)
- A collision resulting in a police officer death (Core 5)
- A collision where a police officer is facing criminal charges

If notification is received at the MAIT Post level, the affected MAIT Post Team Leader will immediately notify the Troop 9 Commander through the chain-of-command. All notification, without exception, will be via telephone/cellphone call, and followed-up with an email. All subsequent updates will use the same notification method.

If notification is received from the affected Troop after working hours, the MAIT Duty Officer will immediately notify the Troop 9 Commander via telephone/cellphone call, and followed-up with an email. All subsequent updates will use the same notification method.

The following information is to be provided to the Troop 9 Commander at the time of notification:

- Date, time and specific location of the collision
- Details of the collision
 - Types of vehicles involved
 - Direction of travel for each vehicle
 - Number of persons involved
 - Reported injuries or fatalities
 - Known sequence of events
- Was the involved police officer on duty?
- Was the involved police officer responding to a call?
 - Type of response
- Does the involved patrol vehicle have in-car video?
 - If yes, has anyone from SCHP viewed the video?
 - Who viewed the video?
 - Is it available?
- Has anyone involved in the collision accused the police officer of committing a crime?
- Does the best available evidence, at the time of notification, indicate that the police officer may have committed a crime?
- The names of MAIT personnel that are responding to the scene

The MAIT Scene Supervisor will provide an update prior to securing from the collision scene and again prior to securing from any investigative work completed away from the collision scene. The Troop 9 Commander will be updated on the status of the collision prior to responding MAIT personnel securing.

The Troop 9 Commander is responsible for providing updates to the Administrative Support Major. In the event that the Troop 9 Commander is unavailable, a Delegation of Authority will identify the individual responsible for the command of Troop 9.

DEFERRED RESPONSE

A deferred response means MAIT will respond to the collision or incident scene at a later, scheduled time. This is usually the next available business day after notification is given to a MAIT Post Commander/Team Leader.

A minimum of two MAIT members should respond to the collision or incident scene. The MAIT Post Commander/Team Leader must provide written justification to the Troop 9 Commander or designee for sending one Investigator to a collision or incident scene

MAIT is not required to advise the TCC when responding to a deferred response. However, upon arriving on the scene, the scene supervisor will advise the TCC of arrival and departure times utilizing issued radio equipment.

Generally, a deferred response will involve a collision/incident with the following:

- Fatal collision when the contributing party survives
- Felony DUI with Great Bodily Injury (GBI) (code 3 injury)
- Hit and run collision with GBI (code 3 injury)
- A collision that *may* result in a General Sessions charge
- The scene has been cleared and a determination is later made that the investigation dictated an Immediate Response

MAIT may assist with an investigation at the request of a Troop Commander or designee and approval of the Troop 9 Commander or designee for a SCDPS investigated collision where:

- There is no clear causation factor.
- An In-depth speed analysis, mechanical inspection, scale diagramming, physical evidence collection, occupant kinematics, extensive interviewing or consultation is required.

TROOP PROCEDURE WHILE AWAITING MAIT

The following procedure is suggested to SCHP Troops awaiting a MAIT response. These procedures are based on “best practices” which have assisted MAIT in providing a high degree of service. While SCHP Troops are encouraged to follow these procedures, they are not bound by them.

IMMEDIATE RESPONSE

The Advanced Collision Report will not be completed.

Minimum Troop / Agency Responsibilities:

Scene Supervisor

- Secure Scene
- Receive briefing from MAIT Post Commander on MAIT response type
- Direct and assist the primary investigating officer with documenting the collision/incident scene
- Ensure Primary Investigator Form(s) are completed
- Ensure that digital photographs are uploaded to the “Troop Photographs” folder on the MAIT drive
- Direct the use of in-car or portable cameras for video/audio interviews
- Complete the Supervisor Checklist

Primary Investigator/Assisting Troopers

- Photograph short-lived evidence
 - Vehicle fluids and faint skid marks etc.
 - Biological matter trails/fluids
- Mark short-lived evidence
- Locate witnesses
- Upload digital media
- Use cameras for audio/video recording
- Complete the TR-310 with all available information with the exception of the MAIT findings
- Consult with the MAIT Post Commander/Team Leader when completing the TR-310 if in doubt

DEFERRED RESPONSE

The Advanced Collision Report will not be completed.

Minimum Troop/Agency Responsibilities:

Scene Supervisor

- Secure Scene
- Receive briefing from MAIT Post Commander/Team Leader on MAIT response type
- Direct and assist the primary investigating officer with documenting the collision/incident scene
- Ensure Primary Investigator Forms are completed
- Ensure that digital photographs are uploaded to the “Troop Photographs” folder on the MAIT drive
- Direct the use of in-car or portable cameras for audio/video interviews
- Complete the Supervisor Checklist

Primary Investigator

- Photograph short-lived evidence
 - Vehicle fluids and faint skid marks, etc.
 - Biological matter trails/fluids
- Mark short-lived evidence
- Locate witnesses
- Upload digital media
- Use cameras for audio/video recording
- Complete the TR-310 with all available information with the exception of the MAIT findings
- Consult with the MAIT Post Commander/Team Leader when completing the TR-310 if in doubt

MEDIA RELATIONS

All media relations are the responsibility of the affected Troop Commander and/or Community Relations Officer (CRO), or the agency having primary jurisdiction for the investigation of the collision or incident. MAIT will not release information to the public or any media representative concerning any investigation. All MAIT personnel will sign and adhere to a confidentiality agreement.

OPERATIONAL RESPONSIBILITY

The Troop on-scene supervisor will be responsible for all aspects of traffic incident management to ensure the safety of all on-scene personnel. In regards to collision investigation, the on-scene MAIT supervisor will ensure that MAIT investigative protocols are followed. Where any conflict between Troop personnel and MAIT arises regarding investigative practices, the MAIT Supervisor will seek guidance from the MAIT Duty Officer. While MAIT is conducting or assisting in an investigation within a Troop, the MAIT Post Commander will be responsible for providing timely case status updates to the affected Troop Commander. The Troop 9 Commander remains ultimately responsible for the conduct of all MAIT personnel.

MAIT RESPONSE NOTIFICATIONS

The MAIT Duty Officer will notify the Troop 9 Commander or designee of all immediate responses by MAIT. All MAIT Core 5 notifications to the Troop 9 commander will be made via telephone/cellphone call and followed up with an email. The Troop 9 Commander or designee will notify the Administrative Services Major of all Core 5 investigations.

INVESTIGATIVE PROCEDURES

Investigations conducted by MAIT will be consistent with the procedures and guidelines established herein to every extent possible. Should the investigation dictate the necessity to use methods and/or techniques not herein, approval must be obtained from the Troop 9 Commander designee.

The Post Commander/Team Leader or designee is responsible for the safety of all MAIT Investigators under his/her direct supervision as well as the safety of those personnel assigned to assist MAIT. When Troop supervisory personnel present are of a higher rank than the on-scene MAIT Supervisor, they will be considered the Incident Commander unless that responsibility is delegated to the MAIT Supervisor. This is in keeping with established Incident Command principles.

COLLISION ANALYSIS MATRIX (CAM)

Collision reconstruction involves collecting data (investigating) and analyzing data (reconstructing) to reach a conclusion. The majority of MAIT investigations are based upon the 9-cell Collision Analysis Matrix (CAM) for vehicle collision analysis.

The CAM associates the three basic phases of a collision:

1. Pre-Collision
2. At-Collision
3. Post-Collision

With the three basic elements of the collision:

1. Human Factors
2. Vehicle Factors
3. Environmental factors

Each cell in the Collision Analysis Matrix (CAM) is evaluated during the course of the investigation. The evaluation seeks to identify all factors associated with the cause of the collision. The interrelationship between each cell in the matrix and their effect on collision events are also evaluated.

The ultimate goal of the investigation, using CAM as the basic investigative structure, is the identification of all causative, and/or contributory factors to the collision.

COLLISION ANALYSIS MATRIX

	Pre-Collision	At-Collision	Post-Collision
Human Factors			
Vehicle Factors			
Environmental			

MAIT INVESTIGATION CATEGORIES

1. Felony Driving Under the Influence - Fatal Investigation
2. Felony Driving Under the Influence - Great Bodily Injury (GBI) Investigation
3. Felony Hit and Run with Death
4. Limited Investigation
5. At-Scene Investigation

The **Felony DUI Fatal Investigation** will involve the complete analysis of the collision considering all cells of the Collision Analysis Matrix.

The **Felony DUI GBI Investigation** is the complete documentation of the collision. This investigation is maintained for future Reconstruction.

The **Felony Hit and Run with Death** will involve the complete analysis of the collision considering all cells of the Collision Analysis Matrix.

The **Limited Investigation** is the evaluation of a specific area or areas of a collision and may involve the evaluation of one or more cells of the Collision Analysis Matrix.

The **At-Scene Investigation** is the complete documentation of the collision. This investigation is maintained for future Reconstruction.

INVESTIGATION FORMATS

POST COMMANDER RESPONSIBILITIES

The Post Commander will ensure that all requests for investigations are routed through the MAIT Duty Officer before responding or committing Investigators to an investigation.

The Post Commander, or designee, will meet with the requesting party to evaluate the investigation request. Based on this evaluation the Post Commander will determine the breadth and depth of the investigation and make appropriate personnel assignments ensuring that Investigators follow MAIT investigative procedures in all aspects of their assignments.

The Post Commander, or designee, will ensure that all necessary reports, photographs, videos, collected physical evidence, field notes, etc. are made available to Investigators assigned to the investigation.

The Post Commander, or designee, will coordinate investigation efforts and ensure that the affected Troop Commander or Allied Agency representative is updated on the status of the investigation.

The Post Commander or designee may modify this format to fit the special requirements of the investigation.

COLLISION INVESTIGATION PHASE

The following general format will be followed during collision / incident investigations:

ACTIVE SCENE

MAIT Investigators arriving first on scene will gather as much information as possible about the collision/incident and be prepared to brief the MAIT Scene Supervisor upon his/her arrival.

The MAIT Scene Supervisor will meet with the Troop/Agency scene supervisor and/or primary investigating officer to assess the situation and explain MAIT investigative assignments.

In the absence of a MAIT Scene Supervisor, the senior Collision Reconstructionist/Investigator will assume the role of MAIT Scene Supervisor, meet with the Troop/Agency scene supervisor and/or primary investigating officer to assess the situation and explain MAIT investigative assignments.

On arrival at the collision scene MAIT Investigators will report to the MAIT Scene Supervisor to receive a scene assessment briefing and scene assignments.

INACTIVE SCENE

The MAIT Post Supervisor will designate a MAIT Scene Supervisor and arrange to have MAIT team members respond to a convenient location in the area where the collision/incident occurred.

The MAIT Scene Supervisor will meet with the Troop/Agency scene supervisor and/or primary investigating officer to assess the situation and explain MAIT's investigative assignments.

COLLISION INVESTIGATION RESPONSIBILITIES

Post Commander/Team Leader Responsibilities

When MAIT assumes responsibility for all investigative aspects of a collision the Post Commander/Team Leader then becomes the Lead Investigator. The Post Commander/Team Leader will evaluate all elements of the collision or incident to determine the breadth and depth of the investigation.

The Post Commander/Team Leader will coordinate all aspects of the investigation and ensure that necessary information is disseminated among assigned Investigators and that case assignment are completed in a timely fashion.

The Post Commander/Team Leader will conduct an on-going evaluation of the investigation; make any necessary changes to the breadth and/or depth of the investigation, or any individual assignment or combination of assignments.

The Post Commander/Team Leader will keep the Troop Commander, Agency Commander, or designee, apprised of the status of the investigation.

The MAIT Post Commander is responsible for the completion of an approved Scene Case Notes form.

****In the absence of the Post Commander/Team Leader, the MAIT Scene Supervisor will assume the duties and responsibilities of the Post Commander/Team Leader.***

Assignments may include, but are not limited to the following:

HUMAN FACTORS ELEMENTS

DRIVERS

MAIT Investigators assigned to investigate human factors elements will be responsible for the collection, documentation and evaluation of all evidence considered relevant to establishing who was operating each vehicle involved in the collision or incident. This may include, but are not limited to the following:

- Interview and/or interrogation of a driver or a suspected driver
- Conducting a driver profile
- Investigating medical histories to uncover possible impairments of a driver or a suspected driver
- Investigating mental histories to uncover possible impairments of a driver/suspected driver
- Investigating the driving experience of a driver or a suspected driver
- Conducting a chronological survey of activities leading up to impact for a driver or a suspected driver
- Investigating the employment history of a driver or a suspected driver
- Investigating the driver's license status and restrictions of a driver or a suspected driver
- Investigating a driver's or suspected driver's familiarity with the area of collision or incident

PASSENGERS

MAIT Investigators assigned to investigate human factors elements should contact and interview every passenger in each vehicle involved in the collision.

To every extent, possible passenger seating positions will be determined through interviews and physical evidence.

INJURED PARTIES

MAIT Investigators will be assigned to conduct interviews with all injured parties in order to achieve the following:

- Obtain statements concerning the collision event.
- Ascertain the nature of injuries and obtain medical records if needed.
- Ensure that all necessary items of physical evidence are collected.
- Photograph and or video all significant injuries

OTHER PARTIES

MAIT Investigators will be assigned to conduct interviews with all other parties listed on the TR-310.

WITNESSES

MAIT Investigators will be assigned to contact and interview all identified witnesses.

SUSPECT OR WITNESS IDENTIFICATION

MAIT Investigators will be assigned to develop, or follow up on, suspect information in hit-and-run cases, or in any case, where the identity of the driver is in question.

In cases where unidentified witnesses are known or suspected to exist, MAIT Investigators will be assigned to identify, locate and interview these individuals in order to determine whether their potential observations are crucial to the investigation.

AUTOPSIES

MAIT Investigators will be assigned to attend and monitor necessary autopsies. Autopsies will be documented in the following manner:

- Sufficient photographs and/or video will be taken to depict all external areas of the body.
- Photographs will be taken of significant external and internal injuries.
- A written or audio record of significant injuries will be created.
- All necessary items of physical evidence are collected. (I.e. blood, tissue and hair samples, clothing, footwear, etc.)

PRIMARY INVESTIGATING OFFICER

MAIT Investigators will be assigned to interview the Troop or Allied Agency primary investigating officer.

MAINTENANCE OR MOTOR CARRIER RECORDS

MAIT Investigators will be assigned, as necessary, to assist the Mechanical Specialist in the search for, examination of, or interview of persons associated with motor carrier or maintenance records.

OCCUPANT KINEMATICS

MAIT Investigators may be assigned to work in the determination of occupant kinematics and injury mechanisms.

STATEMENTS, INTERVIEWS AND INTERROGATIONS

All statements, interviews and interrogations will be recorded using digital audio recorders provided by the department. If circumstances surrounding the interview or interrogation are such that a recording is not possible, or would otherwise hamper the exchange of information, other methods of documenting the statement may be used.

When interviewing SCDPS civilian and uniformed personnel, the following statement will be read prior to the start of the interview.

“Before we begin, please understand that every recorded interview of a civilian or commissioned employee of SCDPS is a matter of permanent record attached to a MAIT investigation. The interview recording will continue uninterrupted from beginning to end. At no time will you be allowed to go “Off-Record” or stop the recording of the interview. You are expected to conduct yourself in accordance with SCDPS Policy, specifically 100.12 (Code of Conduct). Limit your statements to the facts surrounding the collision, as you understand them and your professional opinion of any causative factors based on the best evidence available to you at the time of this interview. Do you understand?”

Every interview conducted by MAIT personnel will include the following as the last question asked prior to concluding the interview.

“Has anyone with the South Carolina Department of Public Safety or the South Carolina Highway Patrol asked you to change any facts or circumstances that you know to be true?”

VEHICLE ELEMENTS

MAIT Investigators will be assigned to examine each vehicle involved in the collision or incident. Each vehicle examination will document the nature and extent of damage sustained as a result of the collision and the overall condition of the vehicle. General Vehicle Examinations, General Motorcycle/Bicycle/ATV Examinations, CMV Examinations, and Trailer Examinations will be documented on approved forms.

Photographs will be taken of each vehicle to depict the extent, nature and location of all damage. Photographs will also be taken to depict the undamaged regions of each vehicle.

The examination will include the documentation of all external, internal, and structural damages sustained as a result of the collision. The damage analysis will include, but is not limited to, a description of the following areas:

- External damage including undercarriage,
- Interior damage including structural deformation of the occupant compartment as well as areas of occupant impact damage,
- Structural damage to chassis or body substructures
- Identify transfer or imprint evidence
- Identify the principle direction of force for each area of contact damage.
- Sufficient longitudinal, lateral and vertical measurement will be taken to locate damaged regions of the vehicle and to quantify the extent of that damage.
- The damage analysis will differentiate between areas of contact and induced damage.
- The overall condition of the vehicle will include but is not limited to:
 - Tires and wheels,
 - Steering mechanisms
 - Braking systems
 - Lighting systems
 - Seatbelt systems

In-depth analysis of individual vehicle components such as brakes, lights, tires and seatbelts will be conducted if needed and documented on approved forms.

MECHANICAL SPECIALIST

A MAIT Mechanical Specialist will be assigned to evaluate the mechanical condition of all collision-involved vehicles when needed. The mechanical inspection will consist of an evaluation of all vehicle component systems for each vehicle inspected. Where possible the pre- and post-impact condition of each component system will be identified. The mechanical inspection will be documented on an approved form.

If needed, the maintenance history of the vehicle will be investigated. When the collision involves a vehicle subject to motor carrier regulations, the maintenance history investigation will determine whether the carrier meets all the requirements of law.

All vehicles will be secured in a predetermined location and stored in a secure area for the period necessary to complete the investigation. Each MAIT Post will identify towing services within their area of responsibility that meet the needs of MAIT. The Troop 9 Commander will approve all identified towing services.

The mechanical inspection does not take the place of, nor relieve the responsibility of MAIT Investigators to conduct a General Vehicle Examination.

A MAIT Post supervisor should contact the solicitor if releasing the vehicle may be considered detrimental to the investigation.

ENVIRONMENTAL ELEMENTS

For the purpose of this standard operating procedure, “Environmental Elements” concerns the collision or incident environment. This will include physical aspects of the collision such as detailed in the following paragraphs.

Investigators may be assigned to evaluate the collision or incident scene. This evaluation will include, but is not limited to, the following areas:

- Traffic controls, signs and other regulatory devices.
- Sight distance to/from the collision or incident scene
- Vision obstructions to/from the collision scene
- Evaluation of existing construction, or “as-built” plans
- Evaluation of
 - Average daily traffic flow
 - Peak traffic flow periods
 - Collision histories at or adjacent to the collision scene

Investigators may be assigned to evaluate physical evidence existing at and/or adjacent to the collision scene. Including but not limited to, the following:

- Identification, measurement and description of all physical evidence found at and or adjacent to the collision or incident scene, including, but not limited to:
 - Skid marks
 - Gouge, scrape and scratch marks
 - Vehicle fluid spatters, trails and pools
 - Blood trails, pools, spatters and stains
 - Tire tracks and imprints
 - Vehicles and bodies at their respective areas of rest
 - Location of fixed or movable objects associated to the collision or incident
 - Debris type, location and distribution
 - Location and identification of detached vehicle components or pieces
 - Damage to fixed objects or other property associated with the collision sequence
- Ensure that adequate measurements are taken to identify specific elements of physical evidence, including, but not limited to:
 - Tire print and skid mark width
 - Number of, and spacing between, tire ribs, sides or sidewall markings
 - Track width of skid marks belonging to a particular vehicle
 - Wheel base measurement between the ending of front and rear wheel skid marks
 - Circumference, diameter, or girth of fixed or moveable objects associated to collision
 - Width, depth, and length of gouge, chop, and chip marks
 - Width, depth, length, description of material displacement in, metal gouge, scrapes or scratches
 - Nature of debris
 - Source or evidence
- Climatology
 - Climatology reports may be compiled where weather is considered as a possible causative factor.
- Ensure that adequate measurements are taken to reconstruct the collision scene and document the location of all the physical evidence. A Field Sketch will be completed on an approved form. Each Post, when required, will complete scaled diagrams of the collision scene, which accurately document the location of physical evidence.
- Ensure that all elements of physical evidence located at, or adjacent to, the collision scene that should be collected and preserved, are collected and preserved using methods consistent with existing SCDPS policy and procedures.
- Ensure that sufficient photographs are taken at, and adjacent to, the collision scene, which accurately depict all elements and sources of physical evidence.

SMALL UNMANNED AERIAL VEHICLE SYSTEMS

In the course of an investigation, MAIT may employ small-unmanned aerial vehicle systems (sUAS). These sUAS are operated in accordance with the manufacturer's instructions and applicable Federal Aviation Administration regulations. Only those MAIT personnel who have received training in sUAS may operate a MAIT sUAS. MAIT sUAS Operators are responsible

for the safe operation of small-unmanned aerial vehicles (sUAV). In addition, MAIT personnel should adhere to the following rules regarding sUAS operations:

- Other department personnel may serve as spotters for the sUAV
- Spotters must have visual contact with the sUAV at all times
- Operators should avoid flying over tree lines whenever possible
- Operators must receive annual refresher training on the operation of sUAS or be grounded
- Operators are responsible for the condition of the sUAV while it is in their possession

Post Commanders/Team Leaders should check the cleanliness and condition of all sUAS assigned to their respective MAIT Post. All issues with sUAS equipment must be properly documented and reported through the chain of command to the Troop 9 Commander.

COLLISION RECONSTRUCTION PHASE

The following general outline should be followed in the reconstruction of all collisions investigated by MAIT. These procedures apply directly to Felony DUI with Death investigations. They may be modified to meet the specific needs of all other investigations.

POST COMMANDER/TEAM LEADER RESPONSIBILITIES

It is the responsibility of the Post Commander/Team Leader to ensure that the reconstruction of each collision follows the procedures set forth in this chapter.

The Post Commander/Team Leader will coordinate the collision reconstruction phase of the investigation and will ensure optimum communication and cooperation between all disciplines involved in the reconstruction effort.

The Post Commander/Team Leader is responsible for the identification and proper documentation of all collision causation factors.

RECONSTRUCTION PROCEDURES

GENERAL

The following procedure should be followed in reconstructing the motions of collision-involved vehicles.

- **Scale Diagram:** At the discretion of the Post Commander/Team Leader, vehicles will be mapped. Using the data collected at and/or adjacent to the collision scene, prepare a scale diagram, which accurately depicts the collision scene, and the physical evidence found therein.
- **Scaled Vehicles:** Using data collected in the damage analysis of collision –involved vehicles, prepare a scale representation of each vehicle. These models may be either two or three-dimensional dependent on the needs of the investigation. Two sets of models should be made; one model representative of the pre-impact configuration of the vehicle; the second model representative of the post-impact configuration of the vehicle.
 - At the discretion of the Post Commander / Team Leader, areas of contact damage and pertinent areas of impressions, or transfer evidence, should be identified to scale on the vehicle models.
- **Physical Evidence Identification:** The source of each element of physical evidence located at the collision scene, when possible, should be identified to its source. Examples of this type of identification include:
 - Skid marks ending at the wheels of a vehicle at its position of rest
 - The comparison of track and/or print width and wheel base of a vehicle to measurements of skid marks found on the pavement
 - The comparison of tire prints to a suspected source tire
 - Comparing physical dimensions of chop or gouge evidence to suspected sources, etc.

DAMAGE ANALYSIS

When possible, the source of each area of contact damage for each collision-involved vehicle should be identified. Examples of this type of identification are physical match of damaged regions, comparison of transfer evidence, comparison of length, height and depth of damaged regions, comparison of an imprint to a suspected imprinting source, etc.

The principle direction of force should be identified, when possible, for each area of significant contact damage identified.

POSITION ANALYSIS

Using a CAD scale diagram, scale models of the collision-involved vehicles are positioned at those places on the diagram that can be supported by physical evidence evaluation. Examples of this would be:

- Linking the source of a vehicle fluid leak to a fluid trail or pool
- Linking a specific wheel of a vehicle to an identified skid mark
- Linking a gouge, chop, or chip mark, on the road surface to the portion of the vehicle which produced that mark
- Identifying overlapping areas of contact damage between vehicles or between a vehicle and fixed objects

Place scaled models of each collision-involved vehicle at positions on the diagram, which are accurately supported by documented physical evidence.

MOTION ANALYSIS

Using a CAD scale diagram with vehicle positions determined from the position analysis, make a determination as to how each vehicle moved with respect to the collision scene, and each other, during the collision sequence.

Care must be taken to ensure that position and motion analyses are compatible with the influence of all forces acting on each vehicle during the collision sequence.

Motion analysis should identify areas of impact, areas of rest, and other significant events, which occurred during the collision sequence. Motion between reconstructed positions may be inferred from an analysis of the influences of the external forces acting on the center of mass of each vehicle.

Motion analysis should also detail the effects of vehicle motion upon the occupants of the collision-involved vehicles. This should include, but is not limited to, injury mechanisms; relative seating positions; modes of ejection; effectiveness of restraint systems; occupant/rider safety equipment performance, etc.

DYNAMICS ANALYSIS

Using vehicle positions as determined by position and motion analyses, prepare a scale diagram, or diagram overlay, which depicts the reconstructed motion of each collision-involved vehicle. The diagram should be reviewed in the context of all documented evidence to ensure that the reconstructed motions of each collision-involved vehicle are accurately depicted.

OTHER COLLISION TYPES

The procedures outlined above may be applied to vehicle/pedestrian collisions, vehicle/bicycle collisions, vehicle/motorcycle collisions etc. In each one of the aforementioned collisions, the source or causative instrument of injuries suffered in the collision shall be identified to every extent possible. The projection and post-impact motions of pedestrians, motorcycle and/or bicycle riders shall, to every extent, be determined from physical evidence at the scene or other evidence, i.e., witness statements.

Scale representations of pedestrians, motorcycle and/or bicycle riders should be used in position and motion analyses.

VELOCITY CALCULATIONS

The following procedures should be used in calculating the velocities of collision-involved vehicles.

Velocity calculations should normally be evaluated in four phases.

- Post-impact velocity analysis
- Impact velocity analysis
- Speed change analysis
- Pre-impact velocity analysis

POST-IMPACT VELOCITY ANALYSIS

Using the reconstructed motion of each vehicle in association with the corresponding elements of physical evidence, an evaluation of how each collision-involved vehicle dissipated or increased energy in the post-impact phase of motion should be conducted.

From this evaluation, apply the existing velocity reconstruction procedures (i.e., formulae, equations, estimates, etc.) necessary to calculate or estimate the post-impact speed of each vehicle involved in collision.

When non-energy related methods of calculating post-impact velocities exist, (i.e., centrifugal motion, flip, vault or other forms of free fall) the Investigator will ensure that the calculated post-impact velocities are consistent with the calculated or estimated post-impact energy available to each vehicle.

IMPACT VELOCITY ANALYSIS

The velocity of each vehicle at impact should be determined to every extent possible.

Only those reconstruction procedures, techniques or formulas received through formal classroom training, approved collision reconstruction seminars, or validated through testing and peer review as found in publications such as SAE Technical Papers will be used in the calculation or estimation of impact velocities

When direct methods of impact velocity analysis are used to calculate or estimate the impact velocity (centrifugal motion, free fall, witness estimate, etc.), the Investigator will ensure that the calculated or estimated impact velocity is compatible with the energies dissipated in, and remaining after, impact.

VELOCITY CHANGES

Vector speed change based on the calculated, or estimated, post-impact and impact velocities should be calculated. In some instances, this data may be available through the imaging of the Engine Data Recorder (EDR) in supported vehicles. The injuries suffered by occupants, and the damage sustained by vehicles, must be consistent with speed changes and resultant positive or negative acceleration rates determined through calculations or EDR imaging.

PRE-IMPACT VELOCITY ANALYSIS

If evidence of pre-impact negative or positive acceleration exists, the pre-impact velocity of that vehicle, if possible, will be calculated.

Only those reconstruction procedures, techniques or formulas received through formal classroom training, approved collision reconstruction seminars, or validated through testing and peer review as found in publications such as SAE Technical Papers will be used in pre-impact velocity determination.

DOCUMENTATION

Velocity calculations will be documented on approved forms in a format approved by the Troop 9 Commander.

MECHANICAL ANALYSIS

All component systems of each collision-involved vehicle will be evaluated as deemed necessary. The evaluation shall, to every extent possible, identify the pre-impact condition of each system and whether the system was, or was not, defective prior to impact.

If a component system is determined to have been defective prior to impact, the exact nature of the defect will be documented along with supporting evidence. The effect of each identified defect on the operation of the vehicle will be evaluated and its contribution to the collision identified.

If the cause of a component system failure is determined to be impact-related forces, the exact nature of the failure should be documented along with supporting evidence. The effect of the impact-related failure on the collision sequence will be evaluated and its contribution to the collision, if any, identified.

If a component system is determined not to have been defective, the general condition of the system should be documented along with supporting evidence.

If a determination cannot be made concerning the pre-impact condition of a component system or any element within a component system, and such a determination is pertinent to the investigation, the following procedure should be followed.

- Collect and preserve the component system, or system element.
- The resources of the State Law Enforcement Division Laboratory may be used for failure or defect analysis. This resource should be used only when this type of analysis is essential to determining causation factors for the collision being investigated.
- If possible, the component system, or system element, will be examined by a qualified specialist or laboratory. This may require Command Staff approval due to associated costs. Any such request must be submitted to the Troop 9 Commander for approval.

HUMAN FACTORS ANALYSIS

Investigators assigned to human factors issues should evaluate the information obtained in his/her investigation. This evaluation at a minimum should include the following areas:

- Driver, occupant, and witness credibility.
 - Are statements consistent with known facts?
 - Was the person giving the statement in a position to see what he/she indicated he/she saw?
 - Are special interests or bias involved in giving the statement, etc.?
- When appropriate, make a determination of the physical and/ or mental condition of involved parties.
 - Was the driver fatigued?
 - Was the driver impaired as a result of a physical or mental handicap, etc.?
- When appropriate, determine the degree of skill or experience of the driver.
 - Was the driver properly licensed?
 - Was he/she qualified to operate the vehicle?
 - Was the driver familiar with the collision scene, etc.?
- Form an opinion as to how the driver, occupant, or other involved party influenced the collision. Identify each area that is considered a causative or contributory factor to the collision.
- Identify occupant-seating positions, motion during the collision sequence, and correlation of injuries to the source or cause of those injuries.
- In conjunction with the dynamics specialist, identify the driver of each collision-involved vehicle and list the elements of which this determination was made.
- In cooperation with other team members, evaluate the actions of each involved party, which are considered pertinent to the investigation. This evaluation should include, but is not limited to, driver or involved party evasive tactics, or lack thereof, delay or lack of perception of danger, ability to react, etc.

ENVIRONMENTAL FACTORS ANALYSIS

Information collected at the collision scene relevant to the roadway and surrounding environment should be evaluated by an SCDOT engineer. This evaluation should include, but not be limited to, the following areas:

- Design Standards: Determine whether the roadway and surrounding environment meets required design and construction standards.
- Roadway Condition: Comment on the condition of the roadway, identifying any noted defect.
- Collision Approach: Evaluate the approach to the collision scene.
 - Is the signal distance adequate?
 - Are necessary signs in place and visible?
 - Are the roadway markings adequate, etc.?
- Traffic Controls: Inspection of traffic controls at the collision scene.

- Are they adequate?
 - Are controls that are in place functional, and were they functional at the time of collision, etc.?
- Errant Vehicle Protection: Evaluate provisions for errant vehicles.
 - Were guardrails, bridge rails, median barriers, or energy attenuators in place?
 - If in place, did they function as intended?
- Speed Limits: Evaluate posted speed limits at, and approaching the collision scene.
- Traffic Volumes: Analyze traffic volumes at the area of collision.
 - Include average daily traffic, peak month, and hour traffic figures.

Collision History

Review the collision history for at least three years plus the current year. The road section evaluated should normally be less than one mile in length and will not include areas significantly different from the collision scene.

Determine if collision numbers are significantly high and whether collisions similar to the one being investigated have occurred before. If there are significantly high numbers of similar Collisions, identify the probable cause.

VIDEO ANALYSIS

Team Leaders will assign the review of any in-car or surveillance video provided by the Troop. MAIT Investigators will conduct an on the spot review of surveillance video discovered by MAIT during the course of an investigation.

MAIT personnel will review all available video to determine its investigative value. Video, which has no investigative value whether it is Troop In-Car video or surveillance video will not be uploaded to the MAIT drive.

In every instance, MAIT Investigators will document the review on an approved MAIT Case Notes Form and include the following information:

- Date, time and location of the review
- Details of the review
 - Source of the video being reviewed
 - Location depicted in the video
 - Direction of the camera in relation to the roadway
 - Any difference between the time on the video and real time, if possible
 - Relevance to the MAIT investigation
 - If the video is not relevant, indicate that no relevant information was found on the video.
 - If the video is relevant, continue documentation

- Point(s) in the video relevant to the MAIT investigation
 - Identify by the date/time stamp on the video
 - Identify by the time counter for a video rendered in Windows Movie Maker
 - Identify by the counter of any player used to view surveillance video
- Summary of what the relevant portion of the video is depicting
 - Units identified
 - Directions of travel
 - Sequence of events shown on the video

The respective Team Leader is responsible for discussing the review with assigned personnel.

CAUSATION ANALYSIS

At an appropriate time in the investigation, the Commander/Team Leader should conduct a meeting of all the team members participating in the investigation. The purpose of this team meeting will be to determine how and why the collision occurred. Each team member should summarize their finding and outline the conclusions for their specific assignment.

More than one team meeting may be necessary to reach conclusions as to how and why the collision occurred. Post Commanders/Team Leaders are encouraged to conduct team meetings, or meetings between specific assignments, as often as is necessary to ensure the adequate exchange of information and ideas.

From the evaluation of all the information provided by each assignment, conclusions should be drawn as to how and why the collision occurred. Each element considered a causative or contributory factor of the collision should be identified. The significance of these conclusions and their interrelationships should be evaluated by the team to determine their overall effect on the events of the collision. The specific factor, or combination of factors, which in the opinion of the team members, contributed most to the cause of the collision are to be identified as the primary collision factor(s).

The Post Commander/Team Leader will ensure that all conclusions are consistent with the known facts and that any differences of opinion within and between assignments are resolved in favor of the facts on which these opinions are based.

Post Commanders/Team Leaders are responsible for documentation of findings and conclusions related to the investigation and must ensure that the findings and conclusions of the investigation are documented in a clear and logical manner consistent with the requirements of this standard operating procedure.

HIT AND RUN INVESTIGATION PROTOCOL

The purpose of this Hit and Run Protocol is to establish minimum standards and guidelines to be used in the investigation and reconstruction of hit and run collisions and/or incidents. The objective of hit and run investigations is to identify the vehicle or vehicles involved in the collision.

All MAIT Posts will adhere to the Hit and Run Protocol when conducting hit and run investigations. Investigative responsibilities shall be shared and distributed between MAIT Investigators and the affected Troop or Allied Agency in the following manner:

MAIT INVESTIGATIVE RESPONSIBILITIES

- Forensic Mapping
- Photography
 - Scene
 - Vehicles, Pedestrians, Bicyclists
 - Evidence
- Video
- Interviews
- Identification of suspect vehicle:
 - Year (range)
 - Make
 - Model
 - Color
 - Damaged areas
- Provide a DMV vehicle list and map, if applicable
- Provide informational flyer
- Provide vehicle and subject line-ups
- Pedestrian involved:
 - Orientation of pedestrian
 - Location of pedestrian at area of impact
- Request for autopsy
 - A MAIT member will be present

TROOP OR ALLIED AGENCY INVESTIGATIVE RESPONSIBILITIES

- Coordinate the release of all information with the Community Relations Officer (CRO) or Public Information Officer (PIO)
- Conduct press conferences
- Canvass the area surrounding the collision for any suspect vehicle or vehicles
- Conduct road checks in the area of the collision

- Coordinate Requests for Information (RFI) through the South Carolina Information and Intelligence Center (SCIIC)
- Create an investigation tracking database
- Track the receipt and distribution of Tips/Leads received at telecommunication centers (TCC) in the department's Computer Aided Dispatch system (CAD)
- Coordinate the distribution and placement of Message Boards
- Coordinate the distribution and placement of Automated License Plate Readers
- Photograph every vehicle of interest that is inspected
- Appoint a MAIT Liaison

MAIT RESPONSE

Upon notification by the MAIT Duty Officer, a MAIT supervisor and a minimum of two MAIT Investigators will immediately respond to the scene of a Hit and Run with Death.

LEAD MAIT INVESTIGATOR

The responding MAIT Supervisor will operate as the Lead Investigator. The Lead Investigator and the two responding investigators will focus on the investigation for the first 72 hours.

- They are relieved of all other duties and or tasks for 72 hours and will be allowed a flexible work schedule
 - The investigation will dictate the need to lengthen the 72 hour time frame
 - The Lead Investigator will follow all leads to their resolution
 - The progress of the investigation will determine hours worked
- The Lead Investigator will send briefs through the chain of command relating any changes in the status of the investigation

INTERVIEWS

MAIT will conduct recorded interviews with all witnesses or persons of interest.

MAIT will re-interview all witnesses or persons of interest already interviewed by the affected Troop or Allied Agency.

MESSAGE BOARDS

Before MAIT leaves the scene, the Lead Investigator will coordinate with the Troop or Allied Agency to have a message board delivered to the scene.

- If a message board cannot be delivered immediately, arrangements will be made to deliver one as soon as possible.
- The Lead Investigator will follow-up on the message board delivery.

- The investigating Troop or Allied Agency and the CRO/PIO will determine what message is displayed on the message board.
 - MAIT will provide assistance if requested
- AMBER Alert message boards activated if appropriate

COMMUNICATIONS

Troop Liaison

The Troop Commander or designee will appoint a Hit and Run Liaison and a backup (to assist in the event of an absence) for each Post within the Troop. The selection will be based upon employee skill and experience in managing complex investigations. Due to the complexities of a hit and run investigation; it is recommended that the Liaison hold the rank of Sergeant or above. This will give MAIT, CRO's and all other support entities a constant point of contact throughout the course of the investigation and enable them to effectively manage each entity in regards to time and resources.

The Liaison will coordinate all areas of the investigation within the Post to ensure that assignments are completed and that necessary information is disseminated amongst assigned investigative Investigators, i.e. follow-up on all leads in an investigation and supervise the completion of amended reports, et cetera.

Troop or Allied Agency

The affected Troop or Allied Agency liaison will notify MAIT immediately of changes or findings throughout the course of the investigation so that resources will not be wasted duplicating investigative tasks.

MAIT

The Lead Investigator will brief the affected Troop or Allied Agency liaison twice daily for the first 72 hours (morning/evening).

The Lead Investigator will contact each shift supervisor at the beginning of each shift to update the status of the investigation.

The Lead Investigator will immediately notify the affected Troop, Post or Allied Agency liaison of any changes or findings throughout the course of the investigation so that resources will not be wasted duplicating investigative tasks.

Community Resource Officers / Public Information Officers

The CRO or PIO will respond immediately when a hit and run collision results in a confirmed death. The CRO and or PIO will:

- Know what information to release, how to release it and what not to release
- Forward the SCHP Incident Intake Sheet to MAIT
- Follow CRO protocol

As the face and voice of the Highway Patrol most recognizable by the media the CRO and/or PIO is the critical information sharing officer.

VEHICLE IDENTIFICATION

MAIT will utilize all resources to identify the suspect vehicle including:

- Closely examining all collected debris and evidence immediately for part numbers and other identifying marks
 - Numbers are often clearly visible and stamped onto the part
- Absence of part number does not mean it cannot be identified
 - Web search part numbers
 - Google and other search engines have narrowed searches in the past
- Visit salvage yards, body shops, dealerships
 - Automotive professionals can often identify or exclude a manufacturer without a part number by sight alone
 - Maintaining a professional relationship with private automotive businesses

DMV Vehicle List

When a vehicle of interest has been identified, MAIT will obtain a DMV vehicle list.

- Request made by a MAIT supervisor immediately regardless of the hour
- Depending upon collision location, multiple counties may be needed
- The requester will be given as much information as is known

The Troop / Agency will be given the DMV printout by a MAIT supervisor

The list will be sorted dependent upon investigation

- Proximity to the scene
- Color of vehicle
- Other criminal identifiers
- License suspensions
- Criminal History

Troopers and Officers are to be provided with a mapped vehicle list and instructed to photograph every vehicle they inspect.

- Photograph license plate and/or VIN
- Photograph all damaged areas (regardless of damage)

Troopers will upload all photographs to the department server.

Allied Agency officers will provide copies of inspected vehicle photographs to MAIT.

The Post Commander, Agency supervisor or designee will coordinate and track the inspection of all suspect vehicles.

INFORMATIONAL FLYER

MAIT will further assist the Troop or Allied Agency by creating an informational flyer. The purpose of these flyers is to gather information from the public at large by creating a greater awareness of the collision.

MAIT personnel creating the flyer will email the flyer to the MAIT Duty Officer and notify the MAIT Duty Officer by telephone that the flyer has been sent. The MAIT Duty Officer will review and either approve or disapprove the flyer.

Upon approval, the Post Commander will transmit the flyer via email to the respective Troop and copy the MAIT Duty Officer in the email. In the event that the Post commander/Team Leader is not available, the flyer is to be reviewed and approved by the MAIT Duty Officer. This is to be done regardless of the hour of the day. Under no circumstances is a flyer to be disseminated without approval.

Informational flyers for suspect vehicles will contain the following:

- specifics of the collision
- A photograph of an exemplar vehicle (make, model, and color if known)
 - If color is unknown, use a neutral color or gray scale photograph
 - The photograph angle will encompass the suspected damage area

Informational flyers for suspects or persons of interest will contain the following:

- A photograph of the suspect or person of interest
 - Name, if known
 - Physical description, if known
 - Age or approximate age
 - Commonly frequented areas

Flyers created to locate individuals considered suspects or persons of interest in Hit and Run collisions are **not** to contain personal data. For these purposes, the personal data referred to includes the following:

- Date of Birth
- Social Security Number
- Driver's License Number
- Telephone Numbers

- Home Address of Record
- Last Known Address

VEHICLE DEBRIS EVIDENCE PHOTOGRAPHS

MAIT will provide the Troop or Allied Agency photographs of debris evidence and its relationship to the suspect vehicle upon request.

VEHICLE/SUBJECT LINE-UP

MAIT will provide the Troop or Allied Agency with a photograph line-up of the suspect vehicle or subject if possible.

SOUTH CAROLINA INFORMATION AND INTELLIGENCE CENTER

MAIT will coordinate with the affected Troop or Allied Agency for a Request for Information (RFI) release, if requested.

PRESS CONFERENCE

A press conference is held by the Troop or Allied Agency after a vehicle of interest is identified.

- The press conference should be held at the scene or as close as practical.
- The Lead Investigator will attend
- The MAIT Post Commander/Team Leader will attend

CANVASSING/ROADCHECKS

After the press conference, a 2-mile radius of the collision scene is canvassed by Investigators. The radius of the canvassed area may be adjusted as necessary due to demographics. Allied Agencies may be requested to assist in the canvassing. Personnel involved will hand out flyers seeking information.

Road checks are to be conducted in the area of the collision at approximately the same time as the collision occurred. The purpose of these road checks is to seek information and to hand out flyers in order to locate a vehicle of interest.

Once a vehicle of interest has been located by a Troop/Agency and confirmed by a supervisor, MAIT will:

- Respond immediately to that location
 - Preferably the Lead Investigator
- Photograph the vehicle regardless of its suspected involvement or lack thereof
- If possible, confirm or deny that the vehicle is involved

- Assist in securing a warrant to seize a suspect vehicle
- Interview the owner and/or driver of any suspect vehicle

AFTER ACTION REVIEW (AAR)

Once a suspect vehicle has been located and processed or all viable leads have been exhausted, MAIT will conduct a post investigation analysis, in the form of an After Action Review, with the affected Troop or Allied Agency.

The purpose of the After Action Review is to:

- Identify successes and failures
- Evaluate the need for changes in the investigative process
- Discuss the need to broaden the search

MAIT RECORDS UPDATE

The respective MAIT Post Commander/Team Leader will update the MAIT Log when the case has been closed.

MAIT will produce a quantitative summary of all hit and run cases investigated annually.

COLD CASES

All case files on the MAIT Drive, which are designated as “Cold Case” files will be copied to Cold Case Files folder at the following location on the MAIT Drive:

[M:\Cold Case Files](#)

MAIT will not archive the Cold Case Files folder. It will remain on the MAIT drive indefinitely. MAIT Post Commanders will advise through the chain-of-command when materials are added to a Cold Case file. Once a Cold Case is officially closed, the up to date file will be moved to appropriate archive.

Any questions regarding the handling of Cold Case file materials should be referred through the chain-of-command to the Troop 9 Commander prior to taking any action.

The Troop 9 Commander or designee will review the status of all open, closed, or cold hit and run investigations on a monthly basis.

MAIT Post Commanders will conduct a thorough review of Cold Case files on a monthly basis following up on the status of case file materials:

- Status of any materials taken to SLED for analysis
 - When was the status updated?
 - Who at SLED was spoken to about the case?
 - What was the response received from SLED at the time of the requested update?
 - Document what was learned on the MAIT Case Notes form.
- Obtain copies of Coroner’s Reports.
 - When was the report requested?
 - Who at the Coroner’s Office was spoken to about the report?
 - What was the response received from Coroner’s Office at the time of the request?
 - Document what was learned on the MAIT Case Notes form.
 - Document any issues in obtaining the report.
- Obtain copies of any toxicology reports related to the victim.
 - Coroner’s Office
 - Primary Investigating Officer
 - Document what was learned on the MAIT Case Notes form.

The respective MAIT Post Commander will coordinate meeting Troop Commanders every six months to discuss the status of Cold Cases. The MAIT Post Commander will keep a calendar of these meetings and document missed or rescheduled meetings.

At these meetings, MAIT Team Leaders will discuss with the Troop the following specific items:

- Redistribution of Hit and Run Flyers
 - Specific areas to target
- Reaching out to Allied Agencies in order to keep the case out in the community
 - Deputies and City Officers talking to locals
- Discuss subject/suspect interviews
 - Interview and/or re-interview

MAIT OFFICE PROCEDURES

The purpose of this section is to familiarize officers and employees assigned to the Multi-disciplinary Accident Investigation Team (MAIT) with standard office guidelines and procedures followed by all MAIT Posts. These procedures should be considered fluid as procedures are reviewed and updated no less than annually. MAIT Posts will follow the office procedures outlined herein inasmuch as they do not conflict with established South Carolina Department of Public Safety (SCDPS) Policy, Procedure, Rule or Regulation. Where any such conflict may arise, SCDPS Policy, Procedure, Rule or Regulation will have precedence.

TASKS

Tasks are assigned by a MAIT supervisor to track an investigations progress and ensure that all aspects of an investigation have been addressed. Tasks are broken down into the average number of man-hours required for completion. MAIT supervisors will determine the beginning and ending dates over which these man-hours will be spread. The following are tasks that will be assigned for most investigations:

COMPUTER AIDED DRAWING (CAD)

MAIT Investigators will be required to prepare complete CAD drawings illustrating roadways, collision evidence, areas of impact and final rest as well as other relevant references applicable to the collision. In addition, MAIT Investigators will be required to insert completed CAD plates into case reports.

Assigned CAD related tasks are to be completed within 24 man-hours. Under exigent circumstances, a MAIT supervisor may extend this time limit.

DIGITAL MEDIA (Video/Pictures/Documents)

Digital Media has become of increasing importance to MAIT documentation and reporting processes. MAIT Investigators should determine the relevance and value of any digital media available from a source outside of MAIT before taking it into evidence and uploading it to the MAIT Drive. MAIT Investigators will be required to perform the following actions as they relate to digital media:

- Scan and save MAIT forms used in investigations as PDFs
- Insert maps into case reports, if applicable
- Secure and scan Primary Investigating Officer documents
- Upload, edit and save MAIT digital video to the MAIT drive
- Upload and save MAIT digital photographs to the MAIT drive

- Ensure Troop pictures are copied to the appropriate location in the Troop Photographs folder on the MAIT drive
- Prepare printouts of vehicle identification data and specifications using computer software (Autostats and VIN Assist), if applicable
- Print SCDMV driver and vehicle records.
 - 10 year Driver records with photograph, if available
 - Vehicle License Information
 - If no license plate, Title History by VIN
- Secure and save other relevant documents to the MAIT drive as collected

With the exception of interviews, Digital Media tasks will normally be completed within 72 hours. Exigent circumstances with the approval of a MAIT supervisor will extend this time limit.

CALCULATIONS

MAIT Investigators will be required to perform mathematical calculations to answer questions regarding vehicle speeds at respective post-impact, impact, and pre-impact positions during the collision sequence. MAIT Investigators will prepare the aforementioned calculations using provided computer software. All calculations are to be verified through hand computation (calculator). Printouts of all calculations are to be included in the Case Notes section of the case file.

Calculation tasks will normally have a 24 man-hour deadline after assignment. The complexity or variety of calculations may require an allotment of additional time. Absent exigent circumstances, the time allotted for a series of calculation should never exceed 40 man-hours. Exigent circumstances will require approval of a MAIT supervisor to extend this time limit.

Only those calculations learned through S.C.C.J.A. or other formal classroom training are to be utilized in MAIT investigations. All other methods of calculating speed, velocity, time, distance etc. must be approved for use by the Troop 9 / MAIT Commander.

CASE FILE ORGANIZATION

All MAIT Investigators are responsible for ensuring that case files are current and contain relevant materials. MAIT Investigators may be assigned to specific case organization duties by the Post Commander/Team Leader. These may include but are not limited to the following:

- Ensuring that all pertinent documents have been scanned to the MAIT drive
- Preparing PDF documents associated with case files
- Conducting case file audits for case finalization

Case File Organization will normally be handled by a MAIT supervisor but may be assigned as deemed appropriate by the MAIT Post Commander/Team Leader.

MAIT CASE JACKETS

All documents located within the Case Jacket will be labeled with the case number. If there is not a place specifically located on the document for the case number, it will be digitally printed on the document at the top right corner.

MAIT will store all documents related to a case in a manila envelope with closures and labeled in the upper left hand corner with the case number and county where the collision occurred or agency assisted if outside the SCHP. Manilla envelopes will be used to store all documents that kept on file outside of the MAIT drive.

These documents will be shredded when the case is completed, signed off, and the case archived to the appropriate MAIT external hard drives. Shredding is essential due to the personal and sensitive nature of some of the information however, Investigators will not shred any documents unless their existence online is verified and approved by a supervisor. Furthermore, before shredding, the Investigator must ensure that the work is backed-up on the server by waiting that period of time that includes the following Saturday. MAIT Investigators will place all information in the appropriate online folder as soon as possible.

ARCHIVING COMPLETED CASES

Thirty calendar days after a final case report has been delivered to the affected Troop the MAIT Post Commander/Team Leader will make contact with the affected Troop Commander or designee and verify that there no outstanding issues in regards to the investigation. If it is determined that there are no issues to be addressed the MAIT Post Commander/Team Leader will complete a Post Case Completion Form. Appropriate remarks from the meeting with the affected Troop Commander or designee will appear at the bottom of the form in the remarks section. The Troop Captain or designee will sign the Post Case Completion Form along with the MAIT Post Commander/Team Leader. The MAIT Post Commander/Team Leader will forward the completed Post Case Completion Form to the MAIT Command Staff Administrative/Training Sergeant. The Administrative Sergeant will archive the case to the appropriate external hard drives. Exigent circumstances with the approval of the MAIT Post Commander or designee will extend this time limit.

The Troop 9 Commander will determine how many years of digital case files will be kept on the MAIT drive. Technology and data storage requirements (volume) will be primary factors in determining which case file years are maintained on the M drive and which are archived. All archived case files will be maintained on duplicate external hard drives stored at the Central Evidence Facility (CEF) and MAIT Headquarters. Access to archived cases will be handled through the MAIT Coordinator.

DEADLINES

Deadlines are set to ensure adequate forward progress during an investigation. The following deadlines are standard for all MAIT Investigators and will be enforced and /or extended only by a MAIT supervisor:

DIGITAL PICTURES

Digital Pictures will be uploaded onto the MAIT drive no later than the next business day that the photographer is in a SCDPS office equipped for uploading digital media to the MAIT drive. In no circumstance will this time limit exceed 72 hours from the date the photographs were taken.

DIGITAL AUDIO RECORDINGS

Digital Audio Recordings should be uploaded to the MAIT drive no later than the next business day that the recorder is in an SCDPS office equipped for uploading digital media to the MAIT drive. In no circumstance should this time limit exceed 72 hours from the making of the recording.

In addition, the following timetables will be utilized:

- MAIT Investigator Audio Notes will be uploaded to the MAIT drive within 72 hours from the date of the MAIT response to the collision. Audio Notes related to any follow-up collision investigation event will be uploaded to the MAIT drive within 72 hours of the event.
- Investigative Interviews are to be completed as soon as possible after receipt of the investigation and uploaded to the MAIT drive within fifteen days from the date of the collision. Witnesses, or other identified persons, deemed to have information relevant to the investigation will be interviewed and that interview uploaded to the MAIT drive within fifteen days from the date of their identification.

FORENSIC MAPPING DATA COLLECTOR

Forensic Mappings will be uploaded onto the MAIT drive no later than the next business day that the custodian of the equipment is in an SCDPS office that is equipped for uploading the media. Under no circumstances should this time limit exceed 72 hours.

VIDEO

Video footage filmed by MAIT personnel will be transferred to the MAIT drive no later than the next business day that the custodian of the equipment, or video medium, is in an SCDPS office that is equipped for uploading the media to the MAIT drive. Under no circumstances should this time limit exceed 72 hours from the making of the video.

CASE FOLDERS - DIGITAL

All MAIT Posts will continue to maintain the current format for online, case file, information storage. The case folder will contain individual folders for Animation, Audio, CAD, Case File, Case Notes, EDR, Non-FOIA materials, Pictures, sUAV files, and Videos. A Supplemental folder may be added to contain relevant materials that do not fall into any of the aforementioned categories. Additional folders may be added upon approval of the Troop 9 Commander. All documents and data will be added to the file as soon as possible.

A Case File Checklist will be saved within the case file but outside of the aforementioned folders. In this location, it will be a constant reminder to check off items as soon as information is added. Upon completion, the checklist is moved to the Non-FOIA folder.

Upon completion, a copy of the Post Case Completion Form and the Investigative Review Form is to be placed next to the Case File Checklist in the Non-FOIA.

MAIT DRIVE FOLDERS

The following folders will be the only folders permitted on the MAIT Drive for Casework. The folders will be arranged alphabetically.

ANIMATION

The Animation folder will contain the following items:

- An Animation Sequence labeled with the case number, “Animation” and the author’s name in parenthesis i.e. ML-000-18 Animation (Brooks).
- A “Scene File” created by the CAD program i.e. “EdgeFx Scene File”. The Scene File will be labeled with the case number and “Animation”.

The “Title Page” for the animation will display the case number and name of the county where the collision/incident occurred.

For Example:

ML-000-18
Calhoun County

If required, Title Pages for specific animation renderings will have a sequence identifier.

For Example:

ML-000-18
Calhoun County
Daytime Slow Motion

No other text will appear on the “Title Page”. All animation sequences will be arranged alphabetically.

No additional folders (sub-folders) will be created within the Animation folder. If no animation was produced during the investigation, an Animation folder will not be created.

AUDIO

The Audio folder will contain audio files of the following items arranged alphabetically:

- Interviews of law enforcement personnel, drivers, witnesses, occupants, pedestrians and other individuals deemed relevant by Investigators.
- MAIT Investigator notes of field activities related to the investigation.

Interviews will be labeled with the case number, the subjects first and last name followed by “Interview” with the eight digit date with hyphens, and the interviewing officers last name in parenthesis and ending with interviewee’s relationship to case.

For Example:

ML-089-15 John Smith Interview 12-15-2015 (Nix) D1

The following relationship to case format should be used:

- Driver - D1
- Witness #1 - W1; Witness #2 - W2
- Occupant #1 - O1; Occupant #2 - O2
- Pedestrian #1 - P1; Pedestrian #2 - P2

Names appearing on audio files should match those appearing on the “Interview Tracking Form”. If more than one interview is conducted with the same person on the same date, the interviews will be combined with Windows Moviemaker. Multiple interviews conducted with the same person but on different dates will be maintained as separate audio files and labeled appropriately.

Law Enforcement Officer (LEO) interviews will be labeled with the rank, first and middle initial (if applicable) and last name of the officer being interviewed followed by the date as described above and the interviewing officers name in parentheses.

For Example:

ML-042-18 Cpl. J.A. Jones Interview 12-15-2015 (Rikard)

This will assist in distinguishing LEO interviews from other interviews.

Investigator’s audio notes will be labeled with the case number followed by Audio Notes and the officer’s last name in parenthesis.

For Example:

ML-001-15 Audio Notes (Ridgeway)

Investigators will create audio notes of all field activities related to an investigation. Each officer will have no more than one set of audio notes for each investigation; combine multiple audio notes with Windows Moviemaker.

Audio files received from police, fire/EMS dispatch, Telecommunications or 911 dispatch centers will be placed in a subfolder within the Audio folder. The subfolder will be labeled with the case number and source of the audio files.

For Example:

CF-089-18 Charleston TCC

Audio files placed within the subfolder will remain titled as they were upon receipt.

CAD

The CAD folder will contain the following items:

- A PDF of the final CAD drawing labeled with case number “CAD” and the author’s name in parenthesis.

For Example:

ML-001-18 CAD (Trotter)

- A folder labeled “Raw Files”. The Raw Files folder will contain all associated files generated by the CAD program and a DXF File created from these files.

CAD drawings other than the final CAD will also be placed in the Raw Files folder. All CAD Scene Files located within the Raw Files folder will be labeled with the case number and a description of what it represents.

For Example:

ML-048-15 Angles

ML-048-15 Calculations

Files within the Raw Folder will be arranged alphabetically.

The following basic definitions are provided as a matter of information:

- **CAD:** Computer Assisted Drawing.
- **CAD Scene File:** A file generated by a CAD program that is specific to that program i.e. “EdgeFx Scene File”.
- **DCF File:** Data Computation File - This file is associated with digital rights management.

- **DXF File:** Drawing Exchange Format – allows for interoperability between CAD programs.
- **RAW File:** Data file created from a forensic mapping, which contains all unedited data related to the mapping.
- **VXF File:** Data file associated with visual effects and 3D rendering.

CASE FILE

During the course of an investigation, the Case File folder will contain Word and PDF documents arranged by type and grouped. Word documents located within the Case File folder will be labeled with the case number followed by what it is.

For Example:

ML-058-15 Case Report
PL-057-15 Binder Cover

The full case report will be labeled with the case number and “Full Case Report”.

For Example:

ML-003-18 Full Case Report

Once a Full Case Report has been submitted for approval to the Investigative Review Committee meeting, a MAIT supervisor will delete all documents except for the PDF of the Full Case Report.

CASE NOTES

The Case Notes folder will contain one PDF file of the MAIT Case Notes only. The Case Notes PDF will consist of all scanned notes and documents produced and/or obtained by MAIT and arranged according to MAIT case notes dividers. All documents will have a MAIT case number. If a document does not have a place designated for the case number then the case number will be digitally printed at the top right hand corner. This is to be done using Adobe Professional or NITRO PDF Professional. The text must be Times New Roman, size 18. The PDF file will be labeled with the case number and Case Notes.

For Example:

DL-025-15 Case Notes

No additional folders (sub-folders) will be created within the Case Notes folder.

EDR

The EDR folder will be labeled “EDR” with the number of downloads contained within shown in parenthesis.

For Example:

EDR (3)

The folder may contain both CDR and/or HVEDR download data files. Each downloaded CDR file will be labeled with the Vehicle Identification Number (VIN), module identifier and case number.

For Example:

4T1BD1EBXDU001437_ACM_DL-001-19

HVEDR data will be contained in a subfolder within the EDR folder and labeled with the case number and VIN.

For Example:

DL-001-19 3T1FG2RRYDE8367

No other files will be within the EDR folder. If no EDR was downloaded during the investigation, an EDR folder will not be created.

NON-FOIA

All documents restricted from release or exempted by the Freedom of Information Act (FOIA) will be placed into the NON-FOIA folder. As a matter of information, some FOIA exemptions are listed below.

- Information related solely to the internal personnel rules of an agency
- Information specifically exempted from disclosure by another statute
- Records exchanged between agencies that are normally privileged in the civil discovery context such as records protected by the deliberative process privilege
- Protects information about individuals in personnel and medical files and similar files when the disclosure of the information would constitute a clearly unwarranted invasion of personal privacy
- Protects records or information compiled for law enforcement purposes, but only to the extent that the production of such law enforcement records or information:
 - could reasonably be expected to interfere with enforcement proceedings;
 - would deprive a person of a right to a fair trial or an impartial adjudication;
 - could reasonably be expected to constitute an unwarranted invasion of personal privacy;
 - could reasonably be expected to disclose the identity of a confidential source, including a state, local, or foreign agency or authority or any private institution, which furnished information on a confidential basis. In the case of a record or information compiled by a criminal law enforcement authority in the course of a criminal investigation or by an agency conducting a lawful national security

intelligence investigation, it also protects information furnished by the confidential source;

- would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law;
- could reasonably be expected to endanger the life or physical safety of any individual.

Any questions regarding the applicability of FOIA to any portion of a MAIT investigation should be directed to the MAIT Coordinator for research.

PICTURES

The Pictures folder will contain one additional subfolder for each set of pictures. Subfolders will be labeled with the case number, Digital Pictures and the officer's last name, or the initials of the agency that produced them in parentheses.

For Example:

CL-084-15 Digital Pictures (Proctor)
ML-054-15 Digital Pictures (NCPD)

sUAV

The sUAV folder will house two subfolders. One subfolder will contain all photographs taken using the sUAV. This subfolder will be labeled with the case number, "sUAV Digital Pictures" and the authors name in parenthesis.

For Example:

MA-017-18 sUAV Digital Pictures (Ridgeway)

A second subfolder, labeled "Raw Files" will contain all files generated as a result of rendering sUAV photographs.

Video taken using the sUAV will be placed in the sUAV folder outside of the aforementioned folders and labeled with the case number, "sUAV" and MAIT in parenthesis.

For Example:

MF-011-18 sUAV (MAIT)

No other folders or items will appear within the sUAV folder. If no sUAV is utilized the sUAV folder will not be created.

VIDEO

The Video folder should contain video files only. All video other than sUAV video created by MAIT will be merged into one video. If videos are shot on different days and/or for different aspects of an investigation (mechanical, roadway exam, etc.) they should be merged into one video with Windows Moviemaker. The video will include a title plate that denotes the case number and county where the investigation occurred. The video will be named with the case number and MAIT in parenthesis.

The following additional rules will apply:

- Video interviews will be labeled in the same manner as an Audio interview.
- Video other than that created by MAIT will be labeled with the case number and the appropriate agency initials in parenthesis.

For Example:

DA-133-12 (MBPD)

- DVD video or security camera footage will be converted to an mpeg format and labeled with the case number and the business name of the video or security camera source in parenthesis.

For Example:

DL-243-19 (Loris Magic Mart)

- DVD video or security camera footage which cannot be converted to an mpeg, saved as an application, or which can only be viewed using an embedded media player may be saved in an individual subfolder labeled with the case number and the business name of its source in parenthesis.

For Example:

PD-014-19 (Stimpy's Storage)

All video files and subfolders within the Video folder will be grouped by type and arranged alphabetically.

SUPPLEMENTAL DATA

All data, which would not fall within the aforementioned folders but remains relevant to the MAIT investigation, will be housed in the Supplemental Data folder. Post Commanders/Team Leaders will ensure that any information contained therein complies with the Freedom of Information Act (FOIA). Any questions regarding FOIA compliance should be directed to the MAIT Coordinator.

DIGITAL CAMERA DOWNLOADING PROCEDURE

Digital cameras should be uploaded to the MAIT drive within 72 hours of photography.

Because Internet and transfer speeds vary; digital pictures should be uploaded or copied onto a computer first and then placed into the appropriate Digital Pictures folder on the MAIT drive.

Downloading the camera on a local computer first ensures that all pictures are secured and not lost to the internet.

Photographs will not be renamed, manipulated, enhanced or changed in any manner. This includes embedded photograph data.

MAIT personnel are to confirm that pictures have been uploaded to MAIT drive and then delete those pictures from the camera if they are still present.

EDITING RAW VIDEO IN WINDOWS MOVIE MAKER

1. Open Windows Live Movies Maker.
2. Select Add videos and photos. When the Add videos and photos box appears, locate videos to be imported. Alternatively, you can simply drag the video file into the designated area in Windows Live Movie Maker.
3. Select videos to be imported and left click the Open button in the Add videos and photos box.
4. Once video is imported, make sure that if there are multiple videos that they are in proper order.
5. Once all clips are inserted into the storyboard, click on Edit tab under Video Tools. Select the Video Volume tab and slide the cursor all the way to the left (no sound).
6. Movie is ready to be saved. Select the Home tab again. In the visible toolbar, select Save Movie --- Recommended for this project.
7. Name the file using the case number and the recording agency. Select the location for file to be saved. Then click Save.

INSERTING PICTURES INTO REPORTS

If a report requires pictures to illustrate findings, use the following procedure:

1. Tab down one line
2. Copy and paste the picture onto the page
3. Right click on the picture and select 'Size and Position'
4. Resize the picture to 3.5"
5. Ensure that the boxes for Lock aspect ratio and Relative to original picture size are checked

6. Make sure the picture is centered on the page
7. If a second picture is inserted onto the same page, press enter twice and then follow the instructions above
8. Text identifying a picture will be centered under the picture (Bold, size 12, underlined). The style of text will be the same as text within the report. The text will be a brief description of what is being depicted.

For Example:

SC 291 southbound towards the area of impact

INSERTING MAPS

If maps or other overhead views are needed in the report, use the same procedure as for inserting pictures.

INSERTING CAD DRAWINGS

CAD drawings that will become part of the final MAIT report will be printed from the CAD program to a PDF document. The only approved CAD plates are:

- Roadway
- Impact
 - Subsequent impacts should be labeled appropriately
 - Second Impact, Third Impact and so forth
- Evidence and Final Rest
- Sequence of Events

All other CAD plates must be approved by the Troop 9 Commander before being submitted in the final report.

REPORT FORMAT AND COMPOSITION

The purpose of this section is to outline the format to be used in the composition of MAIT investigation reports. All MAIT Posts will complete required reports following the guidelines outlined herein. These report outlines are general in nature and are intended to ensure standardized documentation of MAIT investigations. All reports falling outside of these guidelines must be pre-approved by the Troop 9 Commander or designee.

MAIT CASE NUMBERING SYSTEM

Felony DUI with Death or Great Bodily Injury, Hit and Run with Death, Limited and At-Scene investigations will be assigned a case number. Case numbers will be sequential for each calendar year and will consist of three sections, each separated by a hyphen. The first section of the case number will consist of an abbreviation, consisting of two capital letters, which designates the responsible MAIT Post by region and the investigation type.

The first letter in this section designates the MAIT Post by region:

- MAIT Post A (Piedmont Region) designated by the letter “**P**”
- MAIT Post B (Midlands Region) designated by the letter “**B**”
- MAIT Post C (Coastal Region) designated by the letter “**C**”
- MAIT Post D (Pee Dee Region) designated by the letter “**D**”

The second letter in this section of the case number will identify what type of investigation the report references:

- “**F**” - Felony DUI with Death
- “**G**” - Felony DUI with Great Bodily Injury
- “**H**” - Hit and Run
- “**L**” – Limited: Specific Investigative Need Identified
- “**A**” - At-Scene: Scene Documentation Only

The second section of the case number will consist of a three digit sequential number. The number will be assigned sequentially beginning with **001** for the first case of the new calendar and each case thereafter.

The third and final section of the case number will consist of the last two digits of the current calendar year.

For Example:

ML-005-14: Midlands Limited - Case Number **005** - Calendar Year: **2014**.
CA-004-12: Coastal At-Scene - Case Number **004** - Calendar Year: **2012**.
PF-001-10: Piedmont Felony DUI w/ Death - Case Number **001** - Calendar Year: **2010**.
DH-003-15: Pee Dee Hit and Run Investigation - Case Number **003** - Calendar Year: **2015**.

REPORT FORMAT INSTRUCTIONS

COVER SHEET

The design of the Cover Sheet is at the discretion of the Troop 9 Commander and subject to change and as such, exact design details will not appear in this SOP. It is the responsibility of the Troop 9 Commander to ensure that an appropriate Cover Sheet is uniformly in use throughout all MAIT Posts. General descriptive guidelines are provided below.

Case Number: The case number will appear centered on the cover sheet centered under the Departments logo and title.

County: The name of the county in which the case originated will appear centered under the case number. The word “County” will appear centered under name of the respective county.

Acronym: The MAIT acronym will appear centered under the county name and below the mid-point for the page.

Team Members: The name and rank of each team member will appear below the MAIT acronym under the heading “Team Members”. Names will appear according to rank in a descending order and aligned to the left. The name of all MAIT personnel involved in the investigation will appear here regardless of their assigned Post.

MAIT Coordinator: The name, business address, phone number, fax number, and email address will appear below the MAIT region under the heading “MAIT Coordinator”.

INVESTIGATIVE REPORT

All MAIT Investigative reports will be completed using the approved letterhead of the South Carolina Highway Patrol Multi-disciplinary Accident Investigation Team.

The Investigative Report will bear the following disclaimer below the report header:

“The South Carolina Highway Patrol Multi-disciplinary Accident Investigation Team reserves the right to amend, correct, or detract any or all inferences, conclusions, or opinions present in this report. This report is the intellectual property of the South Carolina Department of Public safety and will not be duplicated or copied for distribution, unless written permission is granted by the Office of General Counsel.”

The Investigative Report will include the following information:

- MAIT Case Number
- Requesting Agency
- Troop
- Incident Location
- Investigating Officer
- Date
- MAIT Region
- County
- CAD/Case Number
- MAIT Team Leader

The IRC may recommend the wording of findings; the Troop 9 Commander is responsible for approving the wording. The MAIT Report will consist of the following major findings numerically listed in the order of importance as determined by the MAIT Post Commander/Team Leader.

- | | |
|--------------------------------------|----------------------------|
| • Conclusion | • ACM Download |
| • Speed Calculation | • Evidence |
| • Driver | • Lamp Examination |
| • Occupant Section | • Fragmentation Analysis |
| • Pedestrian | • Toxicology |
| • Mapping / CAD | • Witnesses |
| • Lane Location | • Time and Distance |
| • Mechanical | • Roadway Defect |
| • Tire | • Traffic Signal Operation |
| • Crush Profile | • Police Pursuit |
| • Environment | • Audio / Interviews |
| • Visibility Obstruction | • Photographs |
| • State Transport Police Examination | • Video |
| • Driver History | • Animation |
| • Railroad Crossing | |

The last page of the Investigative Report will contain a signature line and a space for an ACTAR number. Completed Investigative Reports will bear the signature of the Post Commander/Team Leader, Region Commander, or Chairperson of the IRC, as well as their ACTAR number.

REPORT REVIEW AND COMPLETION

MAIT investigations should be completed as soon as possible and no later than thirty business days from the initial MAIT response. Investigations requiring more than thirty business days to complete will require the submission of a request for a due date extension using an approved form. The due date extension must be approved by the Troop 9 Commander. The Troop 9 Commander will determine how the extended case will receive a final review.

The Troop 9 Commander will direct the final review of the completed report and ensure that all disciplines were applied thoroughly and accurately prior to releasing the report to the involved Troop. The report will then be processed in the same manner as normal MAIT investigations.

The MAIT Post Commander will deliver the report to the Troop Commander or his designee and will be available to discuss/review the report as necessary.

The Troop 9 Commander is ultimately responsible for the quality of all MAIT investigation reports.

MAIT CASE FILE DISTRIBUTION AND RETENTION

The original report and all materials determined by MAIT to be relevant to the investigation will be digitized and maintained on the SCDPS server. The “M” drive on the SCDPS server has been dedicated to MAIT case file storage. The MAIT Post responsible for conducting the investigation will add relevant case file materials to the appropriate folders on the “M” drive which are designated for that MAIT Post’s use.

Once the Post Commander/Team Leader has verified that all relevant paper documents associated with a MAIT case have been added to the appropriate case folder on the MAIT drive, he or she may direct that the paper documents be shredded.

Post Commander/Team Leaders will advise the MAIT Coordinator when cases are ready to be archived. The MAIT Administrative Sergeant will copy those cases to designated external hard drives. Each external hard drive dedicated to archiving MAIT case files will have a duplicate. One external hard drive will remain at MAIT headquarters in Blythewood. The other will be kept at the Central Evidence Facility for secure storage.

The MAIT case files retention schedule is as follows:

Records involved in civil or criminal proceedings will be maintained until the civil proceedings are completed or the criminal proceedings adjudicated. If the proceedings are completed and/or adjudicated within five years of the investigation, the files will be maintained for five years from the date of the investigation and then destroyed. Cases with no known criminal or civil litigation will be maintained for five years from the date of the investigation and then destroyed.

MAIT PAPERLESS DOCUMENT STORAGE

With a few exceptions, all teams will continue to maintain the current format for online digital case information storage. All documents and data will be added to the file as soon as possible.

INVESTIGATIVE REVIEWS

The review and critique of completed collision investigations is intended to ensure adherence to all policy and procedures related to MAIT investigations and that findings and recommendations are supported by collected evidence.

A review of completed MAIT cases will be performed at Post and Committee levels. All significant cases investigated by MAIT will be evaluated and critiqued by an Investigative Review Committee (IRC) prior to the release of the final report to any agency or individual outside of the Department.

DEFINITIONS

Post-Level Case Review (PLCR) - A review of any MAIT case completed during the month(s) proceeding the current month of any calendar year and conducted at the Post level which includes the review of all digital media, case file raw materials and the finished report for the purpose of determining whether any procedural violations were made.

Post-Level Case Audit (PLCA) – An audit of a Post-Level Case Review (PLCR) conducted by a Sergeant or above on a monthly basis. A PLCA conducts the same review of case materials as a PLCR to include a review of the PLCR document. These audits are an integral part of MAIT's internal review process and serve as an additional level of accountability.

Investigative Review Committee (IRC) – A committee formed from current MAIT Command Staff and Post Level Team Commanders for conducting a formal review of completed MAIT cases. At the discretion of the Troop 9 Commander Non-MAIT department personnel may be asked to attend committee meetings and provide input.

Investigative Review Committee Meeting – A meeting of the Investigative Review Committee for the purposes of conducting a formal review of completed MAIT cases according to a schedule determined by the Troop 9 Commander. This includes the review of all digital media, case file raw materials and finished reports for determining the validity of findings and determining whether the reporting of those findings is in keeping with established MAIT procedures and collision reconstruction principles.

POST-LEVEL CASE REVIEWS (PLCR)

Post-Level Case Reviews are to be conducted on a monthly basis by team members holding a supervisory rank.

Corporals will conduct at least one PLCR monthly. The case selected must be categorized as an F, G, L or A case, in order of preference.

A Post-Level Case Review Form will be completed by the reviewer and forwarded to the Troop 9 Commander or his/her designee no later than the first Wednesday of the month following the review.

POST-LEVEL CASE REVIEW AUDIT

A Post Level Case Review Audit will be completed by MAIT supervisors holding the rank of Sergeant on a monthly basis and forward to Troop 9 Commander or his/her designee no later than the first Wednesday of the month following the review.

Sergeant will conduct one (1) PLCA of a PLCR conducted by a Team Leader (Corporal) within the Post.

INVESTIGATIVE REVIEW COMMITTEE (IRC)

COMPOSITION

The Investigative Review Committee will consist of the following Investigators:

- Troop 9 Commander or designee will serve as the Committee chairperson.
- MAIT Lieutenants
- Post Commanders or designee with the prior approval of the Troop 9 Commander
- Other designated MAIT Investigators approved by the Troop 9 Commander
- Non-MAIT department personnel as requested by the Troop 9 Commander

RESPONSIBILITIES

The Investigative Review Committee will report directly to the Troop 9 Commander.

The IRC will review, evaluate, analyze and discuss all areas of each investigation ensuring compliance with standard operating procedures and adherence to principles and theories of collision reconstruction.

In those areas where questions or concerns are raised, the IRC, in cooperation with investigating team members, will attempt to resolve issues to the mutual satisfaction of all concerned. The final decision, as to the course of action to be taken as a consequence of the IRC's concerns or recommendations, will be within the purview of the Troop 9 Commander.

An IRC Board Members Form will be completed to indicate committee members present. The committee chairperson will sign the form.

If necessary, an Investigative Review Request for Corrections Form will be completed. The committee chairperson will sign the form.

All final documentation will be the responsibility of the Troop 9 Commander or designee.

PARTICIPATION

The Troop 9 Commander or designee will notify committee members of the date, time, and location of Investigative Review Committee meetings. The rescheduling of investigative review committee meetings will be at the discretion of the Troop 9 Commander.

SUBMISSION OF CASES FOR REVIEW

MAIT Post Commanders are to submit cases to the Investigative Review Committee for review according to the following guidelines:

1. All immediate response cases are to be submitted to the Investigative Review Committee for review no later than 30 business days from the date the case was received. Case due dates which fall on a weekend will be extended to the Monday following the original due date.
2. All deferred response cases are to be submitted to the Investigative Review Committee for review no later than 30 business days from the date the case was received. Case due dates which fall on a weekend will be extended to the Monday following the original due date.
3. All cases falling under a Core 5 classification are to be submitted to the Investigative Review Committee for review no later than 30 business days after the date the case was received. Case due dates which fall on a weekend will be extended to the Monday following the original due date.
4. A MAIT Post Commander/Team Leader may request an extension for those cases which they foresee will not be ready for submission by their respective due date. Requests for extensions will be made on approved forms and detail the reason for the request and the length of the requested extension in days (no more than five business days). Requests for extensions will be forwarded to the Troop 9 Commander for review.

ANIMATION REVIEW

1. Cases presented at any meeting of the Investigative Review Committee may be closed with exception of a required animation provided that all submitted materials and casework meet the approval of the Troop 9/ MAIT Commander or designee.
2. Team Leaders will be granted no more than five business days from the IRC closing date to complete any outstanding animation. No extension beyond the five business days will be granted without the expressed permission of the Troop 9 Commander. The Troop 9 Commander will determine the length of the extension.

3. Upon the completion of the animation, the respective Post Commander/Team Leader will notify the MAIT Command Staff and other MAIT Post Commanders by email.
4. The MAIT Command Staff and the other MAIT Post Commanders will review the completed animation and provide an email response within two business days identifying any required corrections to be made or that “**No corrections are necessary**”.
5. The responsible Post Commander/Team Leader will scan the email responses and maintain them as part of the case file in the NON FOIA folder.

THE MAIT LOG

The MAIT Log is located on the department's SCHP Console Website. Access to the SCHP Console Website requires a log in using the employee's last name and employee number. Once access has been obtained, the user will see all administrative functions supported by the Console listed on the left hand side. A general description of MAIT related functions are described below.

Under "MAIT", the following items can be found:

- Add Log Entry – Selecting this function sends the user to a screen for "MAIT Log Entry". A mixture of drop down check and text boxes allow the user enter information about newly received cases.
- View Log – Selecting this function sends the user to the "SC Highway Patrol MAIT Log". The screen defaults to the current calendar year and lists log entries for all MAIT teams. Drop down boxes allow the user to query the log by calendar year and MAIT Team. The current aspect of the log being queried can also be printed from this screen. Selecting a case number from this screen directs the user to the appropriate MAIT Log Entry screen for that case where logged information can viewed, edited, saved or deleted.
- MAIT Quantitative Summary Report – Selecting this function will direct the user to the MAIT Quantitative Summary Report screen. Drop down boxes allow the user to query the MAIT Log by MAIT Team or MAIT Teams, individual months or all months and Calendar Year. Clicking on "View Report" after making the desired selection will produce a quantitative summary for all MAIT activity during the selected period which is broken down in the following manner:
 - Investigations
 - Hit and Run Collision
 - Court
 - Training and Testing

This information is provided for the current calendar year and the prior calendar year. A column that displays the difference between the current and prior year is located on the right hand side of the report. The report can be exported from this screen in several formats such as PDF, EXCEL and Word.

- MAIT IRC 45 Day Report – This section of the MAIT Log is under Revision and will not be discussed here.
- MAIT DTO 7 Day Report - This section of the MAIT Log is under Revision and will not be discussed here.
- MAIT Hit and Run Report – Selecting this function will direct the user to the MAIT Hit and Run Report screen. Drop down boxes allow the user to query the log by entering

beginning and end dates. Clicking “View Report” will display Hit and Run Investigations received during the selected period. These cases will be displayed by case number. This report will also indicate whether the status of the case is “Cold” and if there are injuries or fatalities associated with the case.

MAIT Post Commanders/Team Leaders are responsible for data entry concerning new cases or the editing of existing MAIT Log Data for their respective MAIT Posts.

No later than close of business on the Friday after a meeting of the Investigative Review Committee, MAIT Post Commanders/Team Leaders will verify via email that all required case corrections for their respective MAIT Posts have been completed and that the content of those closed case files is accurately reflected in the MAIT Log. In addition, the MAIT Post Commander/Team Leader will ensure that the latest version of any applicable TR-310 or incident report generated by the department is added to the appropriate case notes folder. The MAIT Lieutenant responsible for assigned MAIT Regions will be responsible for ensuring that this done consistently and accurately.

TRAINING

Multi-disciplinary collision reconstruction is a complex and highly technical field, which requires a high level of expertise in a number of specific disciplines. It is recognized that, in order to establish and maintain the necessary degree of expertise in these disciplines, a training program must be developed that meets the needs of each discipline, as well as the needs of the MAIT Program in general. The guidelines given in herein will be used by all MAIT teams in the establishment of training programs.

The training needs of the MAIT Program can be separated into two specific areas.

- Program- Level Training
- Team Level Training

PROGRAM LEVEL TRAINING

Program Level Training will include training conducted by agencies, institutions, and individuals from outside the Department, as well as training conducted by individuals from within the Department.

Program Level Training includes, but is not limited to, the following training categories:

- MAIT Field Training and Evaluation Program (FTEP)
- Office Procedures
 - Photography
 - Videography
 - Audio Notes
 - MAIT Forms
 - Forensic Mapping
 - Total Station
 - Data Collector
- Computer Assisted Drawing
 - 2D drawings
 - 3D Animation
- Advanced training for Investigators working within the MAIT Program.
 - At-Scene Traffic Collision Investigation
 - Technical Collision Investigation
 - Advanced Collision Reconstruction
 - Motorcycle Collision Investigation
 - Commercial Motor Vehicle Collision Investigation

- Pedestrian / Bicycle Collision Investigation
- Interview and Interrogation
- Detective Level I
- DNA Evidence Gathering Techniques
- Expert Testimony
- Training given at team level, which by its nature would be of unusual value to the entire program
 - Mechanical Examinations
 - Tire Examinations
 - sUAV Operator Training
 - CDR Technician
- Any other training which is required to meet the operational needs of the MAIT Program

TEAM LEVEL TRAINING

Team Level Training may include training conducted by agencies, institutions, and individuals from outside the Department, as well as training conducted by individuals from within the Department. Team Level Training will be conducted on an as-needed basis and includes, but is not limited to the following training categories:

- On the job training or tutoring of new MAIT Investigators outside of those topics covered in the MAIT FTEP
 - Calculations
 - Computer Assisted Drawing
 - 2D drawings
 - 3D Animation
- Training designed to meet the specific needs of the team conducting the training
 - Training to address skill deficiencies of individual team members
- Training and exchange of information during team meetings
- Any other training, which is required to meet the operational needs of the MAIT

RESPONSIBILITIES

TEAM RESPONSIBILITY

The Team Leader has the responsibility to evaluate the training needs of his/her team on an on-going basis and may assign training officers as needed.

Those training needs, which meet the criteria of Entry level/Field training, are to be scheduled and administered by the Team Leader or his designee. These types of training will be conducted and documented as remedial training in accordance with the MAIT Field Training and Evaluation Program.

MAIT COMMAND STAFF RESPONSIBILITY

The Troop 9 Commander or designee is responsible for seeking the approval and scheduling of any training that requires resources outside of MAIT such as:

- Training offered at the South Carolina Criminal Justice Academy
- Training offered at the North Carolina Criminal Justice Academy
- Training available from a private vendor

PATROL TRAINING RESPONSIBILITIES

Patrol Training will assist the training needs of the MAIT Program on an on-going basis.

A training request or proposal will be submitted through the proper channels for approval.

Those training needs, which meet the criteria of Program Level Training and require the resources of the South Carolina Criminal Justice Academy are to be requested in writing through the chain of command to Patrol Training, and should include the following elements in accordance with the Departmental policy.

- Identify the specific area of training or course needed
- Why the training is needed
- What the specific objectives of the training should be
- Training resources, if known

Patrol Training will evaluate requests received from the Troop 9 Commander or designee. If the training request is not approved, Patrol Training will prepare a memorandum outlining the reason for disapproval along with any recommendations and route the memorandum through the chain of command to the Troop 9 Commander or designee. The Troop 9 Commander will notify the affected Post Commander/Team Leader through the chain-of-command.

When training is approved, Patrol Training has the responsibility for preparing and coordinating the training program.

REQUESTS FOR MAIT REPORTS OR CASE FILE MATERIALS

Requests for copies of MAIT reports and/or case file materials will be directed to the DPS Office of Communications to the attention of the Freedom of Information Coordinator (FOIA).

FEES SCHEDULE

The following fee schedule will be used when answering questions related to the costs of MAIT materials.

Reports:	\$100.00 each
Photographs:	\$100.00 plus cost of processing (if applicable)
Video Recordings:	\$100.00 each
Audio Recordings:	\$100.00 each
Forensic Mappings:	\$100.00 each
Crash Data Retrieval Reports:	\$100.00 each
Animations:	
Two Dimensional Rendering:	\$100.00 each
Three Dimensional Rendering:	\$100.00 each

TESTIMONY OF MAIT PERSONNEL IN CIVIL MATTERS

MAIT will comply with the following South Carolina Code of Law:

Section 23-6-187 Witness fees for trooper trained in Advanced Accident Investigation

The department may charge a witness fee of one hundred thirty dollars per hour, up to one thousand dollars per day for each trooper trained in Advanced Accident Investigation testifying in civil matters, which do not involve the State as a party in interest. The fee shall be charged in addition to any court prescribed payment due as compensation or reimbursement for judicial appearances and deposited into a designated revenue account. The department is authorized to receive, expend, retain, and carry forward these funds.

FEDERAL INVESTIGATIONS

The South Carolina Department of Public Safety (SCDPS) may be called upon to provide investigative resources to Federal agencies such as the National Transportation Safety Board (NTSB) and/or the Federal Bureau of Investigations (FBI). SCDPS will provide those resources available within the scope of its responsibility as appropriate. SCDPS will continue to assume the primary investigative and scene management responsibility for all traffic collisions occurring within its jurisdiction.

SCDPS and Federal agencies have similar interests in the investigation of major traffic collisions, incidents and other crimes, which fall under their respective jurisdictions and as such may enter into cooperative agreements.

The NTSB has federal authority to conduct investigations of motor vehicle traffic collisions, in cooperation with the state, as they determine appropriate; to determine probable cause; and make recommendations for safety improvement to prevent collisions of a similar nature from occurring in the future. Additionally, the NTSB has been empowered by the United States Congress to conduct safety studies and investigations on matters pertaining to transportation.

The FBI may call upon SCDPS to provide personnel and technological resources such as forensic mapping and aerial video/photography equipment to assist in the documentation of crime scenes, which fall under their jurisdiction.

While the investigative responsibilities of SCDPS and Federal agencies may differ, there are significant areas of mutual interest. In light of these areas of mutual interest, it is to the advantage of each agency to cooperate with one another in all investigations.

SCDPS has the responsibility and authority to conduct traffic collision investigations to determine causative factors, collect data relevant to the prosecution of criminal offenses, and to identify factors affecting traffic safety within the State of South Carolina. In addition to its investigative responsibilities and authority, SCDPS also has the responsibility to manage the collision scene. The management of the collision scene includes the authority to coordinate at-scene operations and implement Traffic Incident Management plans (TIMS) designed to minimize the risk of death or injury to SCDPS personnel and the public.

In regards to any collision under investigation by the NTSB and SCDPS, the Troop 9 Commander or designee will coordinate with the senior NTSB agent on the ground (in the field) to determine how information or facts gathered during the course of SCDPS's investigation will be disseminated to the NTSB. It is the goal of SCDPS to provide the NTSB with the greatest

assistance possible while maintaining the integrity of its own investigation and adhering to SCDPS policy. The Troop 9 Commander or designee will be responsible for documenting NTSB contact information and forwarding any NTSB requests for information or assistance through the chain-of-command.

There are two specific areas where SCDPS and the NTSB will conduct parallel investigations:

- Major Collisions: A major collision is a collision of significant severity or involving significant transportation safety issues. In this type of collision, the NTSB will send an investigation team similar to MAIT, or individual Investigators, directly to the collision scene. As the criteria for NTSB involvement in a major collision investigation is similar to MAIT call out criteria, MAIT will normally be involved in the investigation of collisions of interest to the NTSB.
- Safety Studies on Transportation Problems: In this type of investigation, the NTSB will request notification of specific types of collisions related to a particular traffic safety problem. Normally, this type of request would originate from the Atlanta Field Office of the NTSB and involve only investigative Investigators from the field office. This type of activity by the NTSB may involve active investigation at the collision scene, access to investigation reports after completion of the South Carolina Highway Patrol (SCHP) investigation, or both.

THIS PAGE INTENTIONALLY LEFT BLANK