



Todd Jester
Applied Forensics Specialist
(M) 330.787.1884
(O) 724.266.1600
CTJ@laserinst.com



# **Forensic Mapping Applications**

### **Traffic Collision**



For traffic collision investigations, forensic mapping solutions can provide an efficient method of scene/vehicle evidence documentation. Data once measured by hand can now be collected with greater accuracy and precision.

Vehicle Speeds • Collision Angles • Damage Analysis • Time/Distance Relationships • Video Analysis • Crush Deformation • Field-of-View Vehicle/Pedestrian Movement • Scene Dimensions

#### Crime Scene



Forensic mapping not only documents the scene, but reveals relationships between pieces of evidence and allows investigators to examine the scene from different perspectives.

Blood Spatter Documentation • Scene Diagrams/Dimensions
Tread/Footwear Impressions (3D) • Evidence Locations & Labeling
Suspect/Victim Movement • Evidence Archiving (3D)

### Shooting Reconstruction



When a shooting reconstruction is needed, forensic mapping can provide investigators with a variety of useful information concerning each shot and the circumstances surrounding it.

Horizontal/Vertical Flight Paths • Ricochet Angles • Shot Origin Shooter Movement • Vehicle-Related Analysis • Courtroom Exhibits Evidence Locations & Labeling • Victim Wound Documentation (3D)

### Post-Blast / Arson



Once incorporated into scene processing protocols, forensic mapping efforts can easily handle the evidence documentation on both horizontal and vertical surfaces. The devices are well-suited for the scene size and conditions.

Evidence Locations and Labeling • Blast Pattern/Debris Analysis
Debris Trajectories and Mapping • Victim Documentation
Trace Evidence (DNA) Mapping • Evidence Archiving (3D)

## **Forensic Mapping Applications**

### Aircraft / Mass-Transit



Investigations involving aircraft and other mass-transit incidents benefit from the detail and range that forensic mapping provides. Debris locations within the crash site – or miles away – can be documented with the same accuracy.

Evidence Locations • Victim Identification/Seating • Sequence of Events Structure Failure/Damage Analysis • Scene Dimensions/Topography Vehicle Movement & Speed • Evidence Archiving (3D)

### **Large-Scale Incidents**



From active shooter incidents to building collapses, forensic mapping can assist investigators, first responders, and victim recovery personnel. Large mass-casualty scenes can now be accurately documented with significant detail.

Victim Documentation • Suspect Movement • Scene Detail Multi-Agency Participation • Evidence Documentation/Correlation

### **Outdoor Context**



Forensic mapping methods can provide investigators a way of documenting difficult scenes not easily completed by manual means. Scenes involving heavily wooded areas, open fields, or clandestine graves are easily documented and referenced to other landmarks (roadways/structures).

Forensic Archaeology Recovery • Evidence/Victim Documentation Topographic and GIS Applications

### **Forensic Mapping Devices & Training**

**Precision Laser & Instrument, Inc.**, is an authorized *Trimble Distribution Partner* who specializes in the sale, support, and service of the <u>entire</u> **Trimble Forensics** mapping platform.

On-site trainings for all forensic mapping devices, software, and applications are available:

- Upon equipment/software purchase or upgrade.
- For agency/unit in-service training, refreshers, or to enhance existing training exercises.

To learn more, visit: www.laserinst.com/forensics





Trimble X7 Laser Scanner



Trimble SX12 Scanning Total Station



Trimble R12i/R4sLE GNSS Receiver



Trimble S7/S5 Robotic Total Station



Trimble Capture-Reveal-Realworks Software