

EVOLUTION

1990 saw the birth of McKinzie & Associates. A part time venture based on a passion of the puzzle. That in essence is what every motor vehicle collision investigation is.

Jump ahead nine years. 1999 saw a retirement from the Highway Patrol and we were supplying full time rapid response to crashes in the mid-west. In 2006 we moved to our current headquarters in Overland Park.

Another change is about to occur.

2020

Overland Park,
KS.

Reconstructionists

Kris Keberlein

Curt Haberlach

March 1st, 2020

Springfield MO,

Brian Reeves



Joined the GROUP full time.

Beginning March 1st, our presence in south central Missouri will be full time. Brian Reeves has been with us since 2017. Brian announced his retirement from the Springfield Police Department and will be transitioning to his role in the **POST-CRASH GROUP**. Brian is ACTAR accredited and currently serves on the ACTAR Board of Directors. Brian Reeves is a traffic accident reconstructionist and has been investigating traffic crashes since 1994. These traffic crash investigations have included over one thousand injury and minor injury crashes. In 2008 Brian was assigned to the Traffic Section of the Springfield MO Police Department where his responsibilities were focused on traffic related activities. While assigned there Brian was the lead investigator of fatal and serious injury crashes and assisted and numerous others. Brian has experience in the area of Driving While Intoxicated (DWI) enforcement as well. He spent three years on an enforcement team with DWI enforcement being the only responsibility. During this assignment he received a Command Commendation for his efforts along with recognition from the National Highway Traffic Safety Administration (NHTSA) and Mothers Against Drunk Driving (MADD). There were numerous hours of advanced training, including being certified as a Drug Recognition Expert and a Missouri Type II. In 2011 Brian earned accreditation from the Accreditation Commission for Traffic Accident Reconstruction (ACTAR).

After earning his ACTAR accreditation Brian was placed on the Governing Board of Director for ACTAR in 2013 and currently has positions on the Continuing Education Unit and Practical Test Committees. Brian has been teaching accident investigation courses for the Missouri Safety Center, University of Central Missouri since 2012. His teaching experience extends to the Springfield Police Department where he has taught in the Police Academy, Major Crime scene Investigators School, and in-house advanced crash investigation. To ensure his knowledge is up today and not stale, Brian recently obtained his FAA 107 Remote Pilot Certification and has attended Pix4D training. Mr. Reeves is an accomplished Forensic Mapping Technician and is very skilled at recognizing and characterizing evidence at critical incident sites. Proficiencies in:

- Event Data Recorder imaging and analysis
- Advanced accident investigation and reconstruction analysis
- Traffic Incident Management
- Commercial vehicle crash reconstruction

Mr. Reeves has deposition and expert witness experience. To see Brian's extensive education and experience request his full CV at breeves@rsmck.com

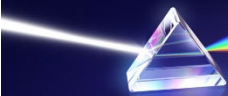
POST-CRASH
GROUP

This issue

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Principles for POST-CRASH Management

Case origination begins the day of or as much as years after the crash. Steve McKinzie pioneered the ten-day rule. A rapid response is initiated if the case is originated within the first ten days POST-CRASH. As roadway evidence diminishes over time, we learned that obtaining the at-scene photographs memorialized by the police is beneficial to advanced evidence mapping after this.

While considering even the most advanced vehicle diagnostics such as imaging with the Crash Data Retrieval system, evidence geometry is critical to locating a time element in space. We no longer lay absolute trust in the at-scene diagram. This document is critical to initial assessments and determining its value is paramount. A trained eye can compare the diagram and photos of evidence to make the critical decision as to what tools need applied to a particular case.

The response team may consist of one or as many as three members including case counsel after securing of DOT permits. In Kansas we enjoy a standing six district statewide permit. In Missouri the DOT requires an online application be filed before activation of the work zone. Yes, a post-crash investigation is a work zone and requires compliance with the MUTCD. Safety is our first concern.

Once on scene our 105 years combined experience seeks the collision data and documents its location 3 dimensionally using the most advanced and modern tools available. All of our team members are FAA 107 certificated UAS pilots and skilled forensic mappers.



Curt Haberlach has been with McKinzie and Associates since 2018. Prior to working for McKinzie and Associates, Curt worked as a police officer and detective for the Kansas City, Missouri and Everett, Washington Police Departments for a combined 14 years. During his years with the police department, he performed traffic related activities including traffic enforcement, accident investigation and crime scene investigations. He served specifically as a traffic detective and accident reconstructionist for 3 years in Washington state. Curt is accredited by the Accreditation Commission for Traffic Accident Reconstruction.

Curt has 15 years of experience investigating traffic collisions. He has hundreds of hours of specialized accident investigation training. Throughout his career he has reconstructed crashes involving heavy trucks, passenger vehicles, busses, motorcycles, bicycles and pedestrians. Curt is certified and experienced as a Child Passenger Safety Seat Technician and in crash data retrieval and analysis. He is a FAA Part 107 licensed UAS pilot and is experienced in flying missions at a crash site and creating 3D maps and models. He is experienced in crash scene documentation and post-crash vehicle inspections including heavy trucks.

Get to know Curt Haberlach

Roadway evidence is often critical to determining the causation of a roadway crash. Never go to bed with fresh evidence on the road.

He has training and experience in recognizing and characterizing evidence at collision and crime scenes.

Additional proficiencies in:

- 2D/3D forensic CAD drawings
- Event Data Recorder imaging and analysis
- Advanced accident investigation and reconstruction analysis
- Commercial vehicle crash investigation and reconstruction
- Post-crash inspections of passenger cars and commercial motor vehicles
- City and state criminal courtroom testimony
- Civil deposition

Mr. Haberlach is a FAA Part 107 licensed UAS pilot and a certified flight instructor using Microdrones UAVs. He is proficient in the production of 3D maps and models.

Since moving back to the mid-west Curt and his family have settled in and are enjoying BBQ country. He is keenly aware of the unique differences in civil vs criminal matters. This experience proves very useful when interacting with local or state law enforcement during the initial states of a reconstruction assignment.

Currently we are monitoring the pending changes in Federal Aviation regulations concerning our large investment in UAS operations. <https://www.federalregister.gov/documents/2019/12/31/2019-28100/remote-identification-of-unmanned-aircraft-systems>

Unmanned aerial systems have become a useful part of our investigation toolbox.





Around the next bend by Steve McKinzie

In 2020 we will celebrate our 30th Anniversary. Personally, I will have amassed 40 years' experience investigating and reconstructing traffic crashes. I first attended to a crash scene accompanying my dad when I was about 14. One of his truck tractor semi-trailers hauling bagged salt had slid off the roadway overturning in a ditch. My involvement was lugging those 40-pound bags up the hill and into another trailer. I don't think I gained any insight from this experience except earning an appreciation for my dad's career in motor carrier safety.

When I left the Patrol in 1999 I had just under 1500 crashes to my credit from both public and private work. On January 31st our case count reached 4038.

We reached 4000 a full year sooner than I expected. [Personally, I have reached my point to begin slowing down.](#) Having a group to rely on allows me to focus on support issues for them and spend more time at my passion for flying and family. We have invested in building a team of FAA 107 certificated Pilots and I serve as the Chief Pilot. We have 7 aircraft in our fleet with 2 fixed wing, 2 consumer grade and 3 Commercial multi rotor aircraft. These tie into our service primarily in mapping applications. Services for thermal, and VHR inspections are also online. These tools proved a safe path for visual inspection and documentation services. The mapping accuracy we can achieve is amazing. There are several ways aerial photography can be useful when incorporated with photogrammetry.

Accuracy is paramount to mapping used in our judicial system, the direct georeferencing method we employ is second to none in accuracy.

The MD1000DG paired with a SOKKIA GCX3 GNSS receiver make direct georeferencing relatively inexpensive compared to a laser scanner that has limited range and many more times difficult to understand. high definition photo of the roadway evidence means winning your case.

[I'll always be a call away but the team of reconstructionist in our group has 105 years' experience.](#) You can rest assured when we offer an opinion, we can prove it. Our primary goal is unchanged, to reveal the truth as closely as science allows and deliver that information.

This Quarter's Q&A Technology Tip

Q: How quickly does a crashed vehicle survive before the crusher?

A: We often hear when we ask about the involved vehicles, "oh they are long gone". This is rarely the case. From the tow yard the vehicles are normally moved to a salvage pool. In the last ten years these pools have tightened their grip on information after the vehicle is sold. A subpoena is usually required to obtain buyer information. After auction from the pool the vehicle is either rebuilt, dismantled, or stored awaiting

A couple things are important to remember; no one buys damaged parts from the vehicle, except us occasionally.

These are the most important parts to a reconstruction if reached before dismantled. Trace evidence is quickly lost during dismantling. The airbag control module or electronic control modules are often not linked to a VIN and have their own part number, so reaching the vehicle before this stage is important. We never say never. It is always worth the time to investigate the current status of the vehicle and location. We have encountered a few that have moved to Mexico, Europe and the Middle East.

EYE ON EDR Current Industry Trends

The POST-CRASH GROUP also supports Tesla, Hyundai and Kia makes in all supported years.

EDR data from commercial vehicles are supported from Caterpillar, Cummins, Detroit, Navistar Paccar Mack and Volvo



SOFTWARE Picks

BOSCH Crash Data Retrieval System Its important to remember all vehicle data imaged should be reread before final determination of a case. The current version is 19.3 See a list of all supported vehicles at https://www.boschdiagnostics.com/cdr/sites/cdr/files/CDR_v19.3_Vehicle_Coverage_List_R1_0_0.pdf

All electronic data must be obtained in compliance with the 2015 driver privacy act.

You may request this vehicle authorization form from our office.

Chat a question to us at <http://www.rsmck.com/LiveChat.html>

By Kris Keberlein



Professional Development

The POST CRASH TEAM stays current on all aspects of crash reconstruction.

While the United States is a hot bed for training and technology our reach covers Europe and Australia.

Upcoming topics

- What's your first clue that the crash story might be questionable?
- How and when should I activate the CAT, (Catastrophic Accident Team)
 - -<http://www.rsmck.com/cat.html>
 - 877-851-5831 OPT 2 and ONLY 2
- EDR data what it means and when it can and cannot be useable
- What are the differences in Forensic Mapping Methods?

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