

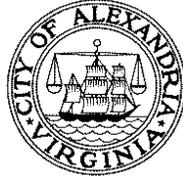
Line of Duty Death Investigative Report

Medic II Joshua A. Weissman



**Northbound Interstate 395
at Four Mile Run**

February 8, 2012



FIRE DEPARTMENT
900 Second Street
Alexandria, Virginia 22314

Robert Dubé
Fire Chief

Phone (703) 746-5200
Fax (703) 838-5093

November 20, 2014

Dear Colleagues,

The Alexandria Fire Department has a long, proud history of serving the residents and visitors of the City. Starting with small volunteer companies, 270 years ago, to the modern department of today, the members of the AFD unselfishly put their lives on the line every day. On February 9, 2012, Medic II Joshua Weissman became the 12th member of this Department to lose his life in the line of duty. Upon my appointment as the Fire Chief in June of 2014, I immediately worked to release this report containing the facts and issues surrounding the event and how the AFD has responded in the aftermath.

This report covers the event from the time of dispatch to the moment Medic II Weissman made the decision to step over that bridge railing. Nothing in this document is intended to lay blame or find fault, it is simply a compilation of facts and data, from which we can all learn and hopefully prevent similar incidents from occurring again. I want to thank the members of the AFD and the Arlington County Fire Department who operated on the scene that evening, to rescue one of their own, heroically and unwaveringly in their duty. As the AFD continues to heal from this tragedy, it is our hope that this report can help others understand what happened and allow us to move forward in our continuing tradition of excellent service to the community.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Dubé".

Robert Dubé
Fire Chief

September 23, 2014

Joshua Aaron Weissman was many things, both personally and professionally, during a life cut short in service to others: husband, son, brother, uncle, friend, partner, healer, and teacher. Josh will be remembered by those he loved, and by those who loved him, for the way he embraced all of these roles with energy, enthusiasm, and an indomitable spirit. But for countless others, many of whom will never have the chance to know Josh, his work as a healer and a teacher represents an enduring legacy and a constant reminder of selfless service. It is in this spirit of healing and teaching, which Josh demonstrated every day, that this report can best be used. For those who knew him, it is an opportunity to heal; for those who didn't, it is an opportunity to learn. In this way, we can continue honoring the life of a man, Josh Weissman, who gave it his all, so that others may live.

Sincerely,

A handwritten signature in black ink, appearing to read "A.K. Thiel". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Adam K. Thiel
Former Alexandria Fire Department Fire Chief



Joshua Aaron Weissman, 33, died on February 9, 2012, as a result of injuries sustained while responding to an emergency incident as a paramedic with the Alexandria (VA) Fire Department. Joshua was born in Ithaca, NY on February 23, 1978. As a child, he was fascinated with construction equipment and fire engines. At age 16, Joshua began volunteering with the Cayuga Heights Fire Department. Soon after joining the fire department, he found a passion for providing emergency medical care. While continuing with his fire and EMS (Emergency Medical Services) training and experience as a volunteer, Joshua also studied at Ithaca College and received his Bachelor's Degree in History in 2000.

As a student volunteer, Joshua lived at the fire station. There he met and fell in love with another volunteer, Rebecca Updike. They married in 2005. Joshua served with several ambulance companies, including Bangs in Ithaca, NY; TLC in Cortland, NY; Rural-Metro in Syracuse, NY; and the District of Columbia Fire and EMS Department. At age 28, he joined the Alexandria Fire Department where he served for nearly six years as a paramedic, instructor, field training officer, and an acting EMS supervisor. Joshua's peers and supervisors have praised his clinical skills and his commitment to those he served.

Joshua had a passion for EMS and for sharing his knowledge and experience with others. As an instructor with the Alexandria Fire Department and for the private firm of Associates in Emergency Care, he taught new medics and seasoned veterans with the same enthusiasm he displayed when responding to emergencies. His former students have expressed enormous respect for his work and some credit Joshua for changing their lives with his teaching, both in the classroom and in the field. Joshua's exceptional medical care and dedication to training earned him numerous awards, including the Alexandria Chamber of Commerce Valor Award and the Alexandria Jaycees Award for his contributions to the Field Training Program for EMS interns.

Beyond his work and family, Joshua filled his life with his love for construction equipment, American history, caring for his garden, and playing with his beloved cat, Nahla. He was also a proud fan of the New York Rangers, New York Jets, and New York Mets.

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Acknowledgments

The Alexandria Fire Department wishes to thank the following individuals for all their efforts and dedication throughout the difficult process of examining the circumstances involved in Medic II Joshua Weissman's line of duty death. The Alexandria Fire Department's goal is to adequately educate all first responders to help prevent such a tragedy from reoccurring.

Investigation Team Members

Jeffrey Merryman, Battalion Chief
Team Leader and Investigator
Health and Safety Unit
City of Alexandria (VA) Fire Department

Douglas McDaniel, Fire Captain
Lead Investigator
A-Shift Health and Safety Officer
City of Alexandria (VA) Fire Department

Michael Gerber, Medic III
EMS Supervisor
City of Alexandria (VA) Fire Department

Jason Wehmeyer, Fire Captain
Alexandria Firefighters Local 2141
City of Alexandria (VA) Fire Department

Anthony Washington, Fire Captain
Black Fire Service Professionals of Alexandria
City of Alexandria (VA) Fire Department

David Fox, Medic II
Alexandria Medic Association
City of Alexandria (VA) Fire Department

William Coates, Assistant Fire Marshal (Retired)
Fire Prevention and Life Safety Section
City of Alexandria (VA) Fire Department

Charles Bailey, Police Commander
Crime Scene Investigations Section
City of Alexandria (VA) Police Department

Patrick Lennon, Police Officer
Crime Scene Investigations
City of Alexandria (VA) Police Department

Special Acknowledgments

Robert Dubé, Fire Chief
City of Alexandria (VA) Fire Department

Adam Thiel, Former Fire Chief
City of Alexandria (VA) Fire Department

Denise Pouget, Former Assistant Fire Chief
City of Alexandria (VA) Fire Department

Andrew Snead, Former Assistant Fire Chief
City of Alexandria (VA) Fire Department

Rudolph Thomas, Assistant Fire Chief
City of Alexandria (VA) Fire Department

Brian Hricik, Operations Manager
Emergency Medical Services
City of Alexandria (VA) Fire Department

Wayne Bryant, Fire Captain
C-Shift Health & Safety Officer
City of Alexandria (VA) Fire Department

Andrew Vita, Assistant Fire Chief of Operations
City of Fairfax (VA) Fire Department

Daniel Gray, Battalion Chief of the Safety Section
Fairfax County (VA) Fire & Rescue

Lori Knowles, Battalion Chief
Support Services/ EMS/ Health & Safety Division
Stafford County (VA) Fire & Rescue Department

Laura Baxter, Firefighter/ EMT
Assistant to the Health & Safety Division
Stafford County (VA) Fire & Rescue Department

Stephen Yannarell, Battalion Chief
Office of Health & Safety
Prince William County (VA) Department of Fire and Rescue

Michael Nelson, Assistant Fire Chief
Safety Chief and Rail Liaison Officer
Montgomery County (MD) Fire and Rescue Service

Special Acknowledgments (cont.)

James Dugan, Battalion Fire Chief (Retired)
3rd Battalion - Anacostia S.E.
District of Columbia Fire and EMS Department

Robert Robinson, Battalion Fire Chief (Retired)
City of Alexandria (VA) Fire Department

Sharon Mangus, Medic II
City of Alexandria (VA) Fire Department

Michael Zuidema, Information Technology Services Coordinator
City of Alexandria (VA) Fire Department

James Burke, Computer/ Programmer Analyst IV
City of Alexandria (VA) Fire Department

George November, Information Technology Services
City of Alexandria (VA) Fire Department

James Lynch, Former Administrative Division Chief
City of Alexandria (VA) Fire Department

Mark Penn, Emergency Management Coordinator
City of Alexandria, Virginia

George McAndrews, Assistant City Attorney
City of Alexandria, VA

Joseph Barasoain, Deputy Director
Department of Emergency Communications
City of Alexandria, VA

Marietta Robinson, Executive Officer
Department of Emergency Communications
City of Alexandria, VA

Jeffrey Leibold, Battalion Fire Chief (Retired)
Arlington County (VA) Fire Department

Sherri McCuin, Quality Assurance Manager
Emergency Communications Center
Arlington County, VA

Ronald Paschal, Senior Special Agent
Virginia State Police

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Earnest B. Poole, Jr., Lieutenant
Bureau of Criminal Investigation
Virginia State Police

Michael J. Trabosh,
Safety Compliance Officer
Virginia Department of Labor and Industry

C. Donald McKeown,
Safety Senior Compliance Officer
Virginia Department of Labor and Industry

Branco Vlacich, District Maintenance Administrator
Virginia Department of Transportation, Northern Virginia

Nick Roper, Bridge Engineer
Virginia Department of Transportation, Northern Virginia

Kendal R. Walus, P.E. State Structure and Bridge Engineer
Virginia Department of Transportation

Chris Marston, Assistant Division Bridge Engineer
Federal Highway Administration

Joan Morris, Communications Manager
Virginia Department of Transportation, Northern Virginia

Jenni McCord, Communications Coordinator
Virginia Department of Transportation, Northern Virginia

Dawn Fels, Ph.D.
Director of the University Writing Center
George Mason University, Fairfax, VA

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Chatham, Ontario

The investigative team wishes to thank the personnel of Arlington County (VA) Fire Department Engine 107. These personnel unselfishly gave of their time for a number of interview sessions to ensure that credible information was contained in this report.

The investigative team also wishes to thank the partner of Medic Weissman. While enduring this tragic event and the time following, Josh's partner gave unselfishly to provide factual information and eyewitness testimony. Without this information, much of this report would not have been possible.

Executive Summary

This Line of Duty Death (LODD) Investigative Report is dedicated to Medic II Joshua A. Weissman, his wife Rebecca, his parents Edward and Frances Weissman, his brother Gabriel, and all his loving extended family and friends. Joshua will never be forgotten. To honor his supreme sacrifice, the Alexandria Fire Department commits to share this investigative report so that many may learn from it, with the sincere hope that no other family or department will suffer a similar loss.

This investigative report was developed using a multi-dimensional team approach. The objectives of the Health and Safety Unit and the LODD Investigative Team were to examine the events that occurred and to identify the factors involved in the death of Medic Weissman. The LODD Investigative Team has reviewed all available information at the time of publication of this report and has documented the factual findings and recommendations in an effort to prevent such a tragedy from occurring in the future. This document is a comprehensive report, which focuses on events leading up to this single tragic incident. Two additional reports will be forthcoming. One report is the technical after-action report analyzing the operational response and rescue immediately following the injury; the other report will analyze the recovery phase following the conclusion of the rescue.

The Virginia State Police (VSP) and the Virginia Department of Labor and Industry (VADOLI) have conducted independent investigations of this incident. The Alexandria Fire Department LODD Investigation Team's report took a dissecting approach from every aspect, which reaches beyond the scope of the VADOLI report. To prevent another tragic event, a critical self-assessment of the organization was necessary. This investigative report represents innumerable hours of effort in order to analyze operations and recommend necessary improvements.

On the evening of February 8, 2012, 33-year-old Medic Weissman was gravely injured from a fall from the overpass on I-395, as it crosses Four Mile Run. At the location of the incident, the highway crosses the creek via elevated spans; some of the spans are separated from one another; some are not. At the location where Joshua Weissman fell, the northbound span is separated from the High Occupancy Vehicle (HOV) lanes.

Medic Weissman was working as a member of Medic 206. Joshua was riding in the position of the aide and would have been considered in-charge. Medic 206 was responding to a report of a vehicle fire on southbound I-395 between Seminary Road and Duke Street. It was also reported that a person may possibly be inside the burning vehicle. Medic 206 was responding with other units from the Alexandria Fire Department. The units responding to this reported vehicle fire announced not finding that vehicle fire at the dispatched location.

A report was then made by the Alexandria Department of Emergency Communications (DEC) that the Arlington County Fire Department (ACFD) was handling an incident in the HOV lanes, near Shirlington Circle/Glebe Road. After that report, Medic 206 redirected their response by proceeding northbound toward Shirlington Circle.

Upon arriving at the scene, Medic Weissman exited Medic 206, approached the bridge railing, and traversed over, falling approximately 30 feet to the creek bed below. Fire, EMS, and law enforcement personnel located Medic Weissman, initiated patient care, and rescued him from the creek area. Medic Weissman was transported by ambulance to MedStar Washington Hospital Center in Washington, DC, where he passed away from his injuries the following day, February 9, 2012.

Overview of the Alexandria, Virginia Fire Department

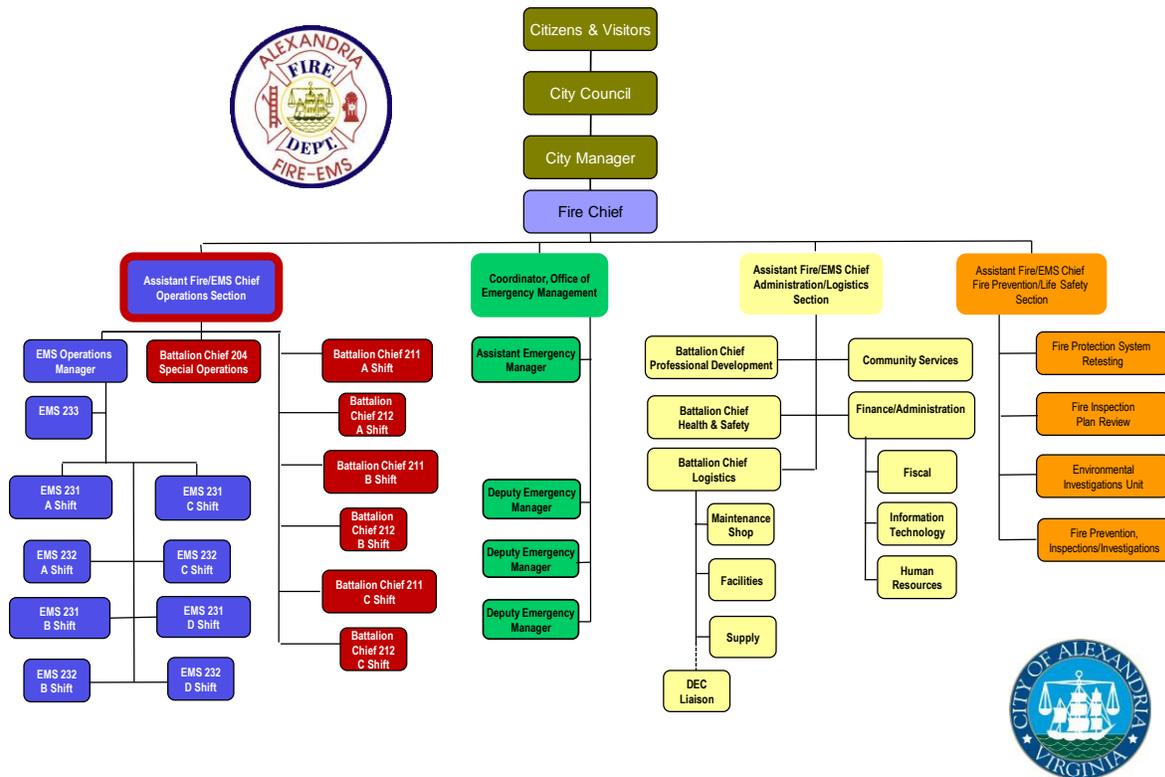
The Alexandria Fire Department holds a special place in the history of the City of Alexandria. Founded in 1774, it counts George Washington among its earliest benefactors. The first paid professional firefighters were hired in 1855.

Today, the department employs approximately 300 professional personnel, including firefighters, paramedics, fire prevention staff, emergency managers, and administrative support. A network of nine fire stations protects 15 square miles. Among the department's specialized teams are the Northern Virginia Regional Hazardous Materials Team, Technical Rescue, and Marine Operations.

Alexandria also has a volunteer organization, the Alexandria Volunteer Fire Department (AVFD). The AVFD has served the citizens of our fine City for more than two hundred years. AVFD members provide assistance in the areas of firefighting, emergency medical services, communications, canteen, and administrative services.

The members of the Alexandria Fire Department are dedicated to Our Community, Our Profession, and Each Other.

The Alexandria Fire Department Organizational Structure



Version A.5 - Effective January 21, 2012

Incident Summary

On February 8, 2012, at the time of the incident, the area was experiencing light rain and temperatures of about 37 degrees Fahrenheit. The rain had been falling for most of the afternoon and the sun had already set.

At 1818 hours, the Alexandria Department of Emergency Communications (DEC) received a call reporting a vehicle fire with a person reported to be still in the vehicle on southbound I-395 (I-395) south of Seminary Road. DEC dispatched Engine 206, Engine 208, and Medic 206 at 1822 hours for a vehicle fire in the reported location. Engine 206 took the southbound response, entering I-395 at Seminary Road. Engine 208 took the northbound approach, entering I-395 at Duke Street. On the “rebroadcast” to responding units, DEC added that someone may be trapped in the vehicle.

While responding to this call, Engine 206 reported nothing found between Seminary Road and Duke Street. While in the course of their response, Medic 206 was within the “traffic circle” at the Seminary Road overpass just as DEC updated units that they had received additional calls reporting Arlington County Fire Department (ACFD) units running a vehicle fire in the area of Shirlington Road. Medic 206 redirected their response northbound on I-395, towards the revised location. Alexandria Fire Department (AFD) units were operating on Alexandria radio channel “2-Bravo.”

As Alexandria units were searching for a vehicle fire, units from Arlington County Fire Department (ACFD) were responding to a separate incident for a reported vehicle fire. Arlington County Public Safety Emergency Communications Center (ECC) dispatched Engines 107 and 109 to a vehicle fire on southbound I-395 at Shirlington Road. The Arlington units were on Arlington radio channel “1-Bravo.”

Initially, neither jurisdiction was aware of the other’s response to I-395. Arlington ECC received their first call for the vehicle fire at 1817 hours and dispatched their incident at 1820 hours. Engine 107 marked on the scene at 1823 hours. At approximately the same time, while not on the scene, Engine 109 reported a “working vehicle fire” and confirmed the location as being in the HOV lanes. Engine 107 requested that Engine 109 continue to the scene “for traffic.”

As Medic 206 continued past the Shirlington Circle Exit (heading north), they discovered ACFD Engine 107 was already on the scene, working to extinguish a vehicle fire. Engine 107 was parked in the far left travel lane of northbound I-395, between the exits for Glebe Road and Shirlington Circle. Engine 107 had already advanced a hose line over the guard rails and into the HOV lanes of I-395 (which were configured for southbound travel direction at that time) to the location of the vehicle fire. At the time of Medic 206’s arrival, Engine 107 had suppressed the vehicle fire and was checking for fire extension into the passenger compartment of the vehicle. There were no civilians trapped in the vehicle; thus no vehicle extrication was needed. Medic 206 arrived on the scene at 1829 hours. The driver of Medic 206 pulled past Engine 107 and positioned in the far left travel lane of northbound I-395, approximately 50 feet past Engine 107. At this time, Medic Weissman, the “aide” on Medic 206, exited the vehicle. Medic Weissman walked to the rear of Medic 206 and in front of Engine 107.

Medic Weissman moved toward the concrete jersey wall with an attached railing and traversed over. There is no eyewitness as to the exact physical action that Medic Weissman utilized to traverse over the wall/guard rail. The driver of Medic 206 exited the unit and looked over just as Medic Weissman fell “straight down.” The driver of Medic 206 had momentary eye contact with Medic Weissman seconds before he disappeared.

The driver of Medic 206 then began shouting to Engine 107’s crew to get their attention. Utilizing flashlights from the overpass, Engine 107’s crew then immediately began searching for Medic Weissman. Engine 107’s Officer called their dispatcher on “1-Bravo” and reported that an “Alexandria Medic has fallen into the river.” Engine 107 requested to “start TRT [Technical Rescue Team];” however, none was dispatched. Engine 107 established “395 Command” at 1834 hours and requested an additional medic unit be dispatched. Arlington ECC dispatched Medic 109, Battalion Chief 111, and EMS Supervisor 112. Battalion 111 arrived and relieved Engine 107 of command at 1850 hours.

Engine 107’s officer was able to locate Medic Weissman laying face up in shallow water in the creek bed below. At this time, Engine 208 was arriving on the scene, parking about 100 feet behind Engine 107. Engine 208 arrived on scene at 1831 hours and was met immediately by the driver of Medic 206, who kept repeating “Josh fell.” Engine 208’s officer quickly called Alexandria DEC and requested a battalion chief, safety officer, and additional medic unit.

Battalion 212 and Rescue 206 were already en route, having added on to the call at 1826 hours when they heard the report of a possible person trapped in the vehicle (this was during the Alexandria response to the “wrong location” incident). Medic 208 was then dispatched by Alexandria DEC at 1835 hours.

While Engine 107 and Engine 208 were coordinating their efforts on top of the bridge, Rescue 206, Engine 206, Medic 208, and Engine 109 proceeded to the Glebe Road Exit, to relocate their units to the creek area of the incident, under the bridge. Battalion 212 arrived on the scene at 1837 hours and established command on Alexandria’s channel “2-Bravo.” At this time, and for the next hour of the incident, the Arlington and Alexandria Fire units remained on their own separate radio channels.

Incident Scene

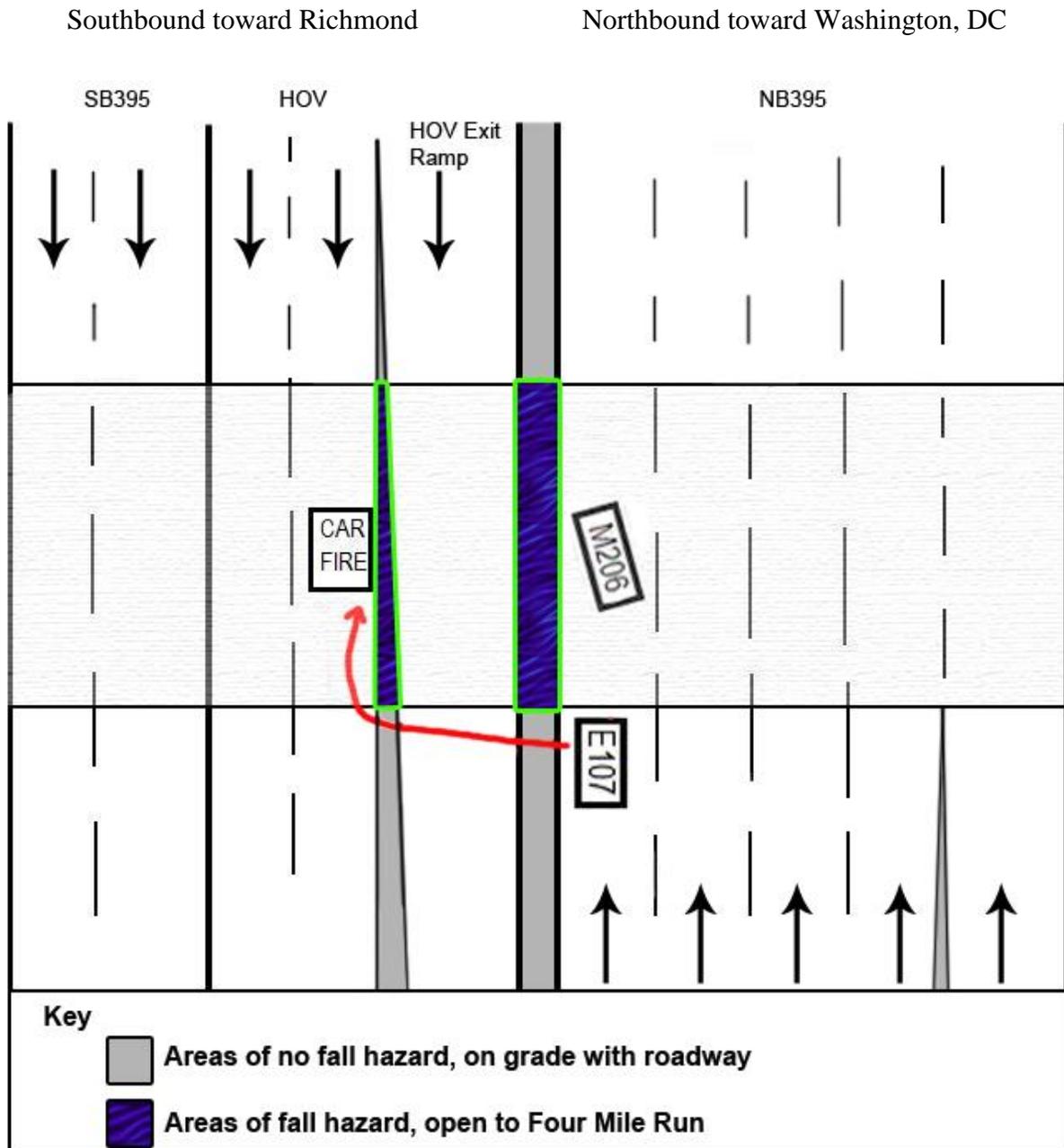
I-395 is part of the National Highway System. It is a 13-mile-long (21 km) spur route that begins at a junction with Interstate 95 (I-95) in Springfield, Virginia and ends in northwest Washington, D.C. In the area of the incident, I-395 is carried over Four Mile Run, a tributary of the Potomac River, by three separate bridge spans. The interstate is also divided into southbound main lanes, northbound main lanes, and reversible High Occupancy Vehicle (HOV) lanes. At the time of the incident, the HOV lanes were configured for southbound travel. The northbound lanes are one separate bridge carrying five lanes. The southbound main and HOV lanes are one separate bridge carrying seven lanes and an exit ramp.

It is most important to note for this incident that there is a single bridge lane separate from, and sandwiched between, the northbound main lanes and the HOV regular lanes. This single bridge lane contains an on and off ramp that carries traffic to and from the HOV lanes to and from the Shirlington Circle overpass.

In the immediate area of the incident, the bridge rails for the on and off ramp and northbound lanes are concrete walls with a round galvanized steel railing on top. There is also a small concrete curb as part of the bridge railing system. Immediately before the beginning of the northbound bridge, there is an approximately 20 foot long area where crossing between the main lanes and the HOV on and off ramp is possible over ground.

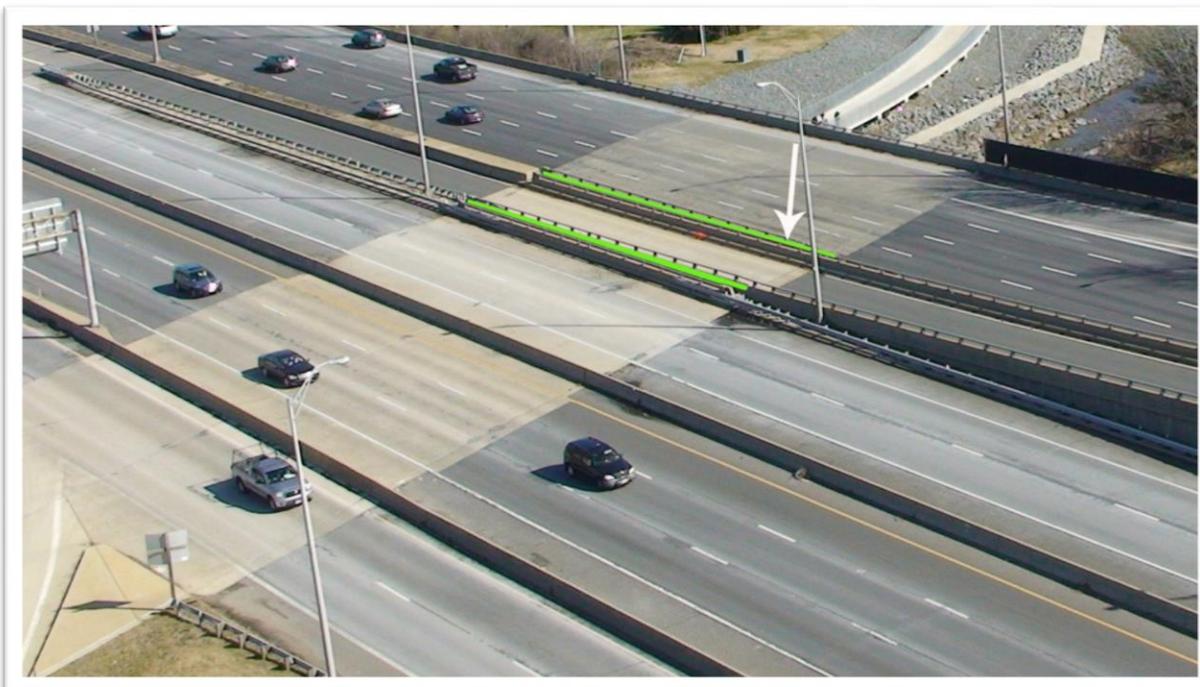
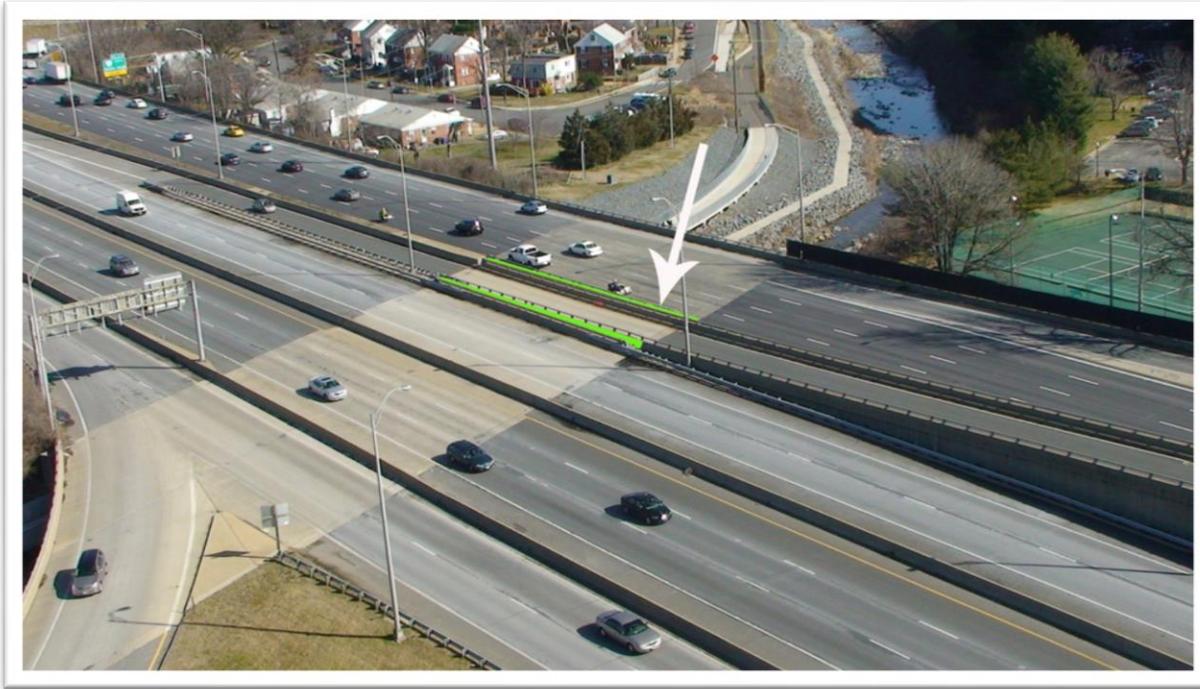
From the beginning of the bridge span to the other side of the creek (approximately 103 feet), there is a 32 inch gap between the northbound lanes, the HOV on and off ramp, and the HOV regular lanes. The distance from the top railing of the bridge span to the creek bed surface below is 30 feet.

Overview of Incident Scene



The arrows indicate the direction of travel at the time of the incident.

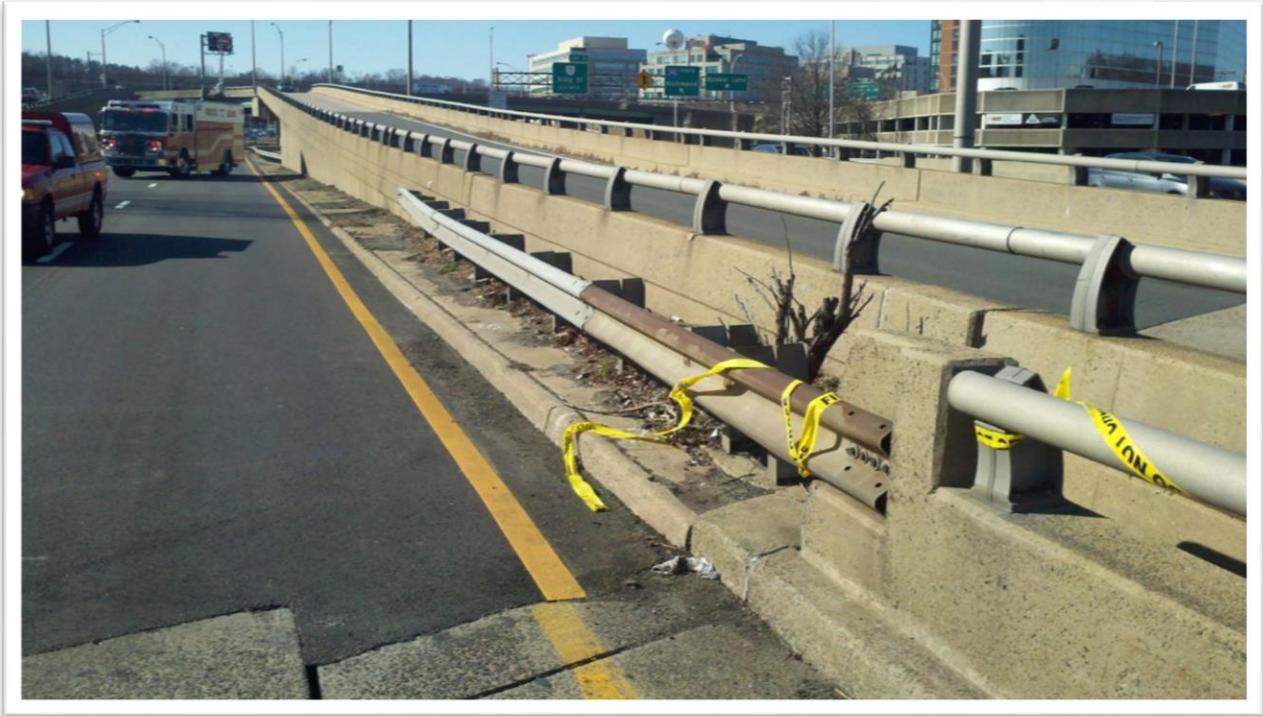
The pictures below are daytime aerial views of the incident scene taken from an adjacent office building. The southbound I-395 lanes are in the foreground, the HOV lanes are in center, and the northbound I-395 lanes are at the top of the photo. These pictures are facing northeast. The arrow shows the approximate area where Joshua went over the railing. The green shaded areas indicate open gaps in the bridge span to the creek below.



The picture below shows the approximate positions of Medic 206, Engine 107, and the vehicle on fire. The black “x” shows the approximate area where Medic Weissman went over the railing.



This picture was taken from the HOV ramp leading to Shirlington Circle. This view is facing north. The gap that Medic Weissman fell through can be seen in the right center.

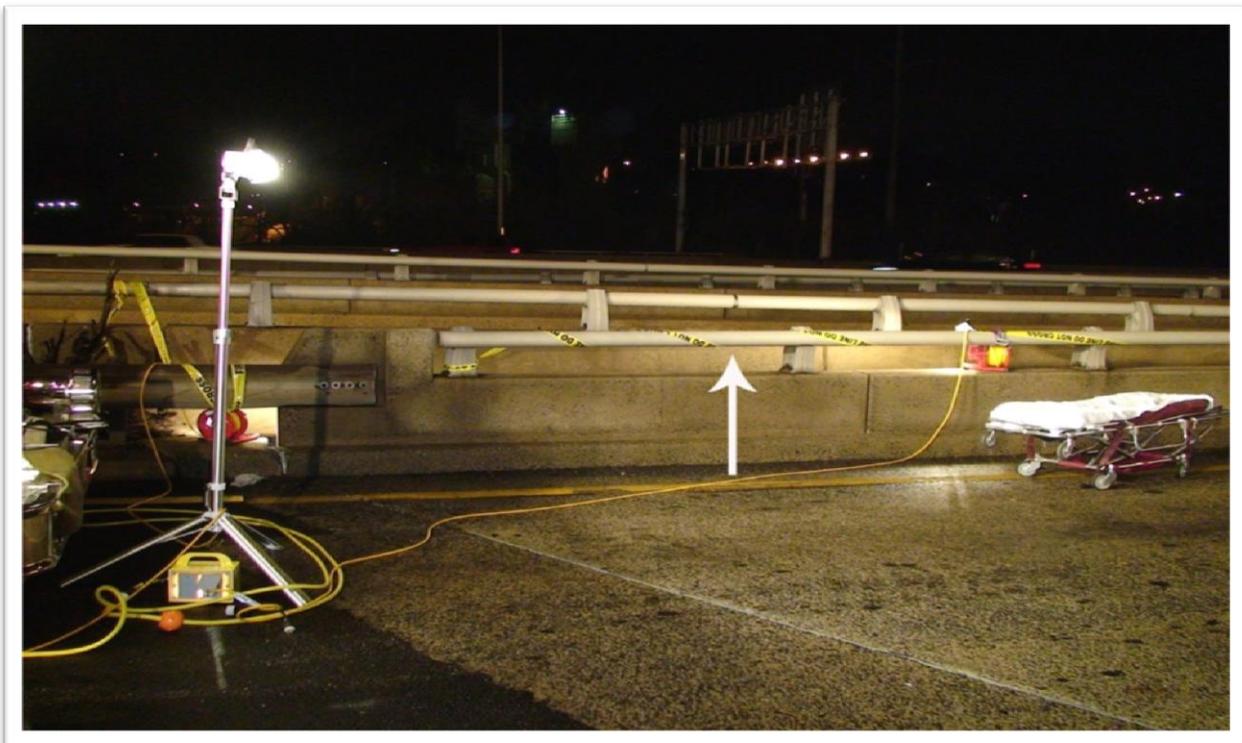


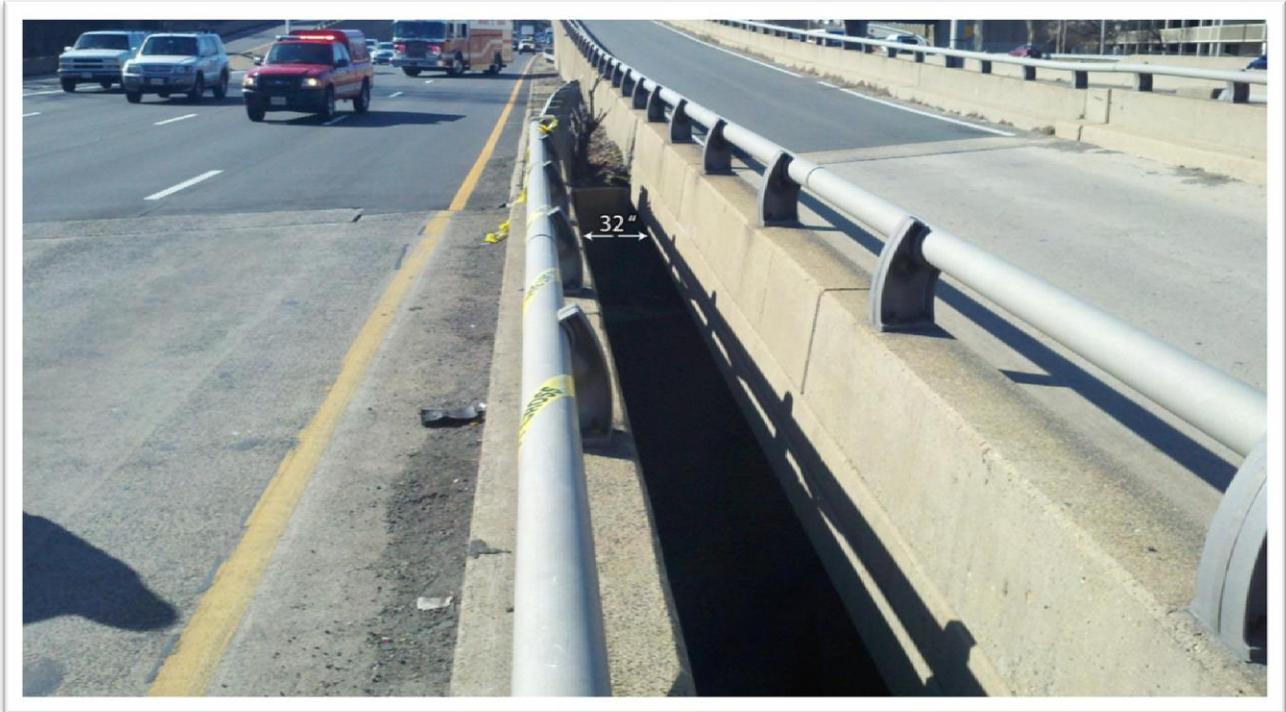
Northbound I-395 guard rail and bridge rail systems. Picture is facing south.



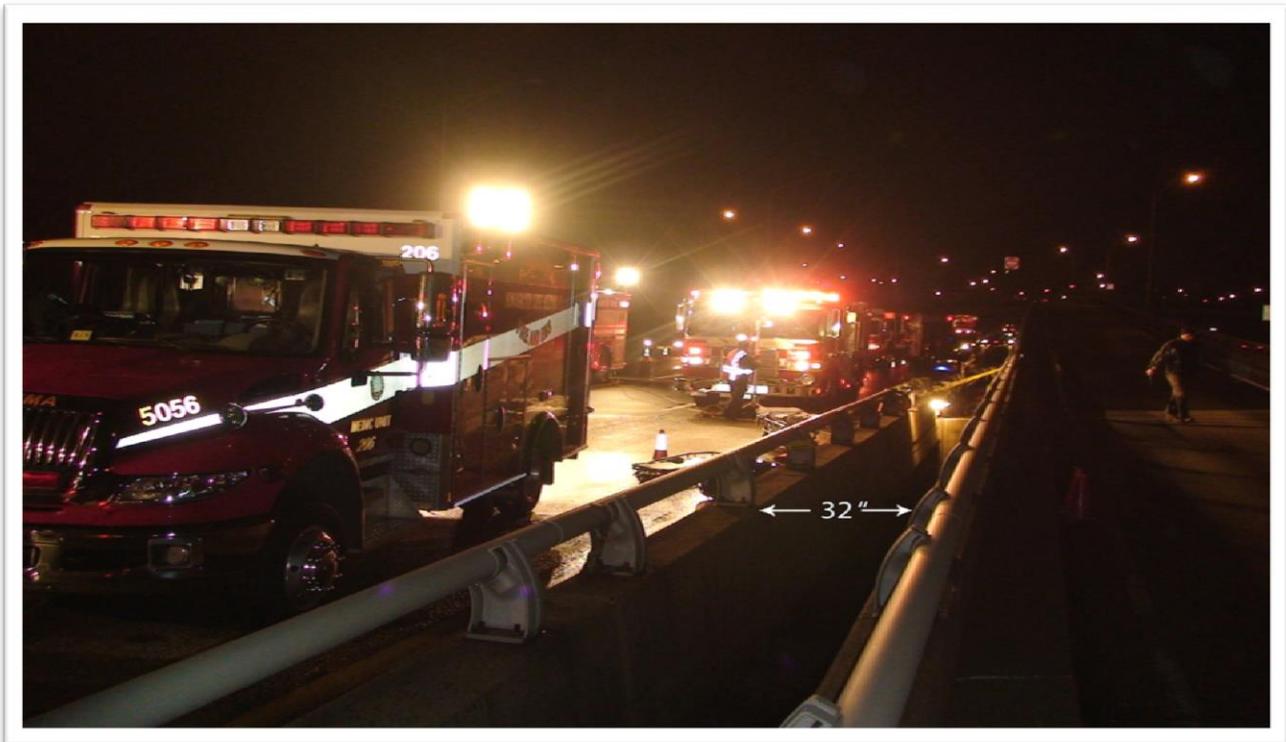
This picture of the scene was taken at the time of the incident. The lights on the tripod stand were placed after Medic Weissman fall. The lights above the windshield on Engine 107 were activated upon their arrival and were on at the time of the fall.

These pictures of the scene were taken at the time of the incident. The arrow in the bottom picture shows the approximate area of the fall. Pictures are facing west.



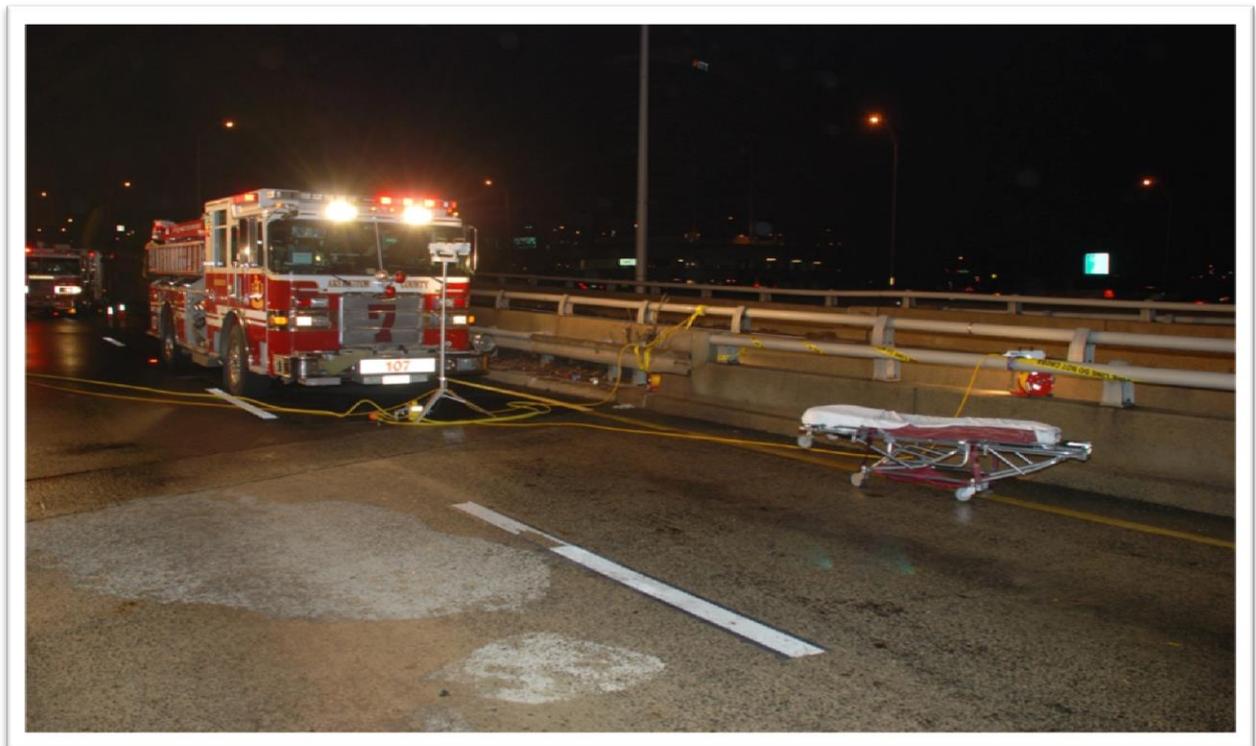


The view is the gap between the bridge spans, looking south. Note the ground at the top of the photo, and at the beginning of the span opening.



This picture of the scene was taken at the time of the incident. The side scene lighting on Engine 107, was activated upon their arrival. The side scene lights on Medic 206 were not activated upon their arrival.

These pictures of the scene were taken at the time of the incident. These pictures are facing southbound. The light unit to the left of the picture was on the scene for the investigation, but not the incident.

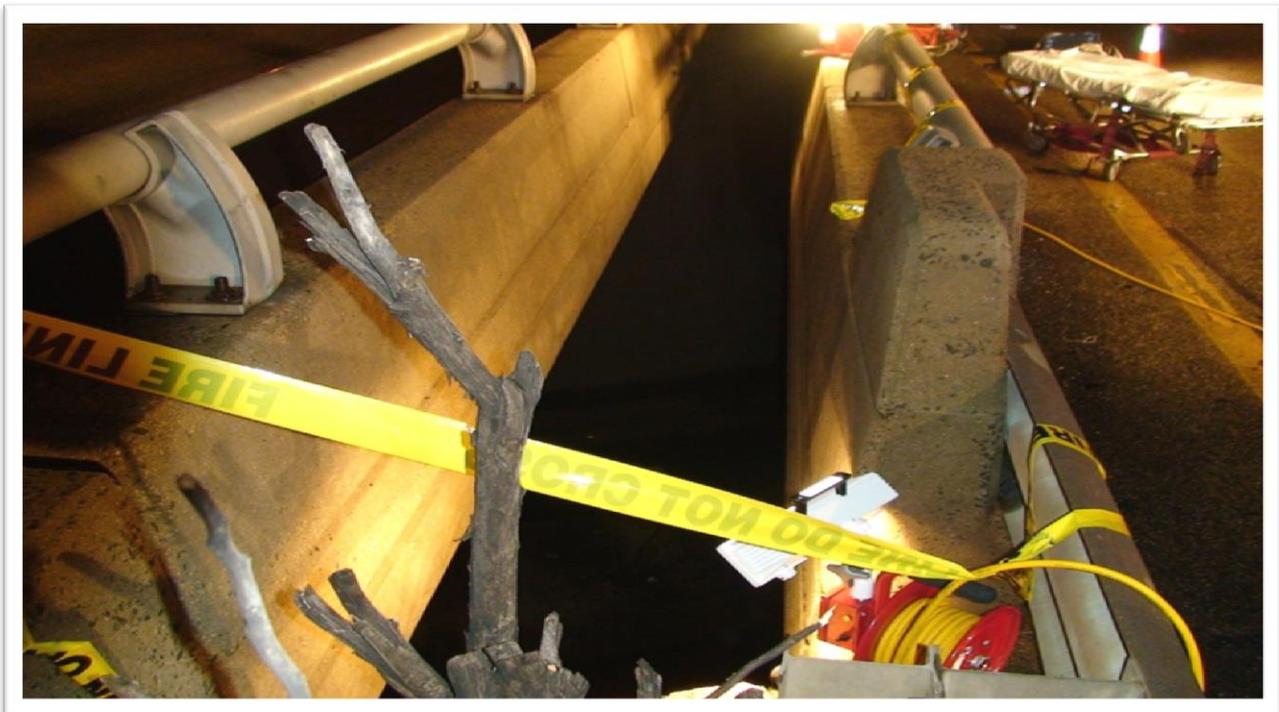
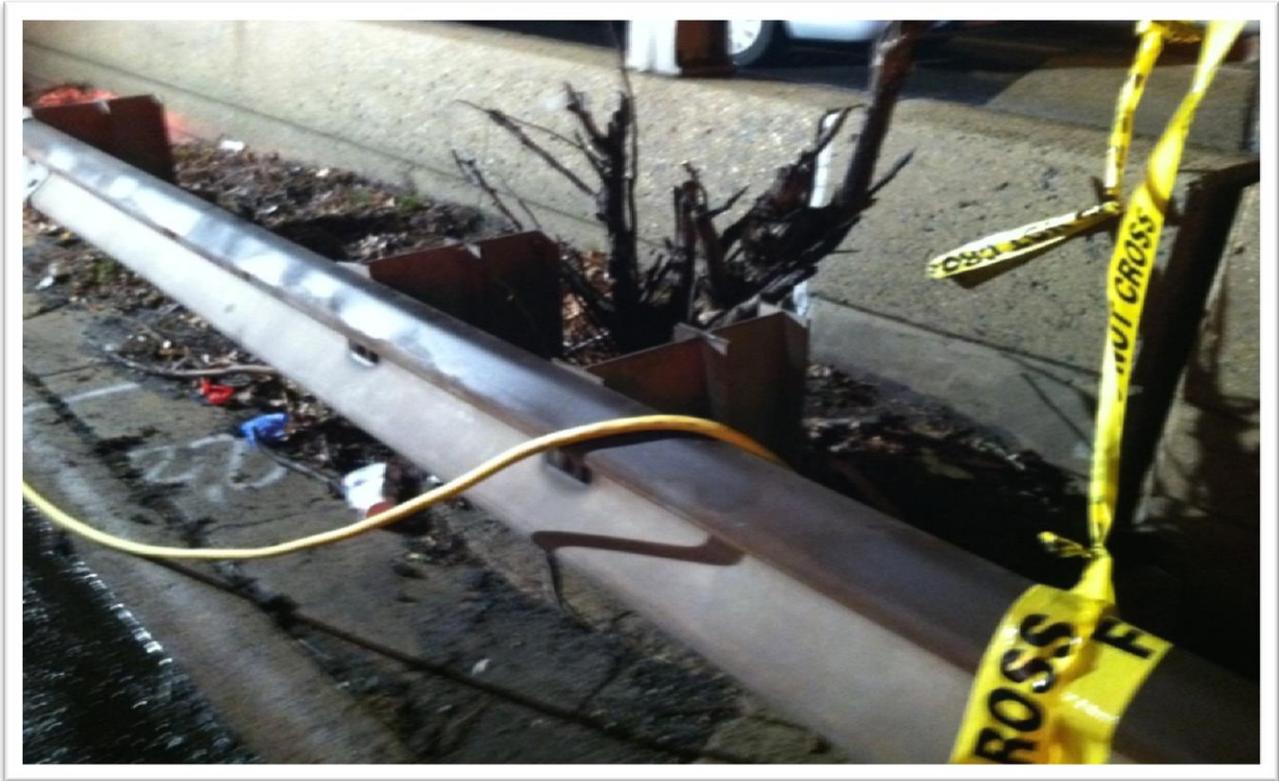


This is a close-up of the bridge railing system. The nearest railing system in the picture is where the accident occurred. Overall height: 42 inches. Roadway to top of concrete: 28 inches. Steel rail height: 14 inches. Curb height: 7 inches.



This picture of the scene was taken at the time of the incident.

These pictures of the scene were taken at the time of the incident. Note the ground surface area with a shrub that is just prior to the area where the span opening begins.



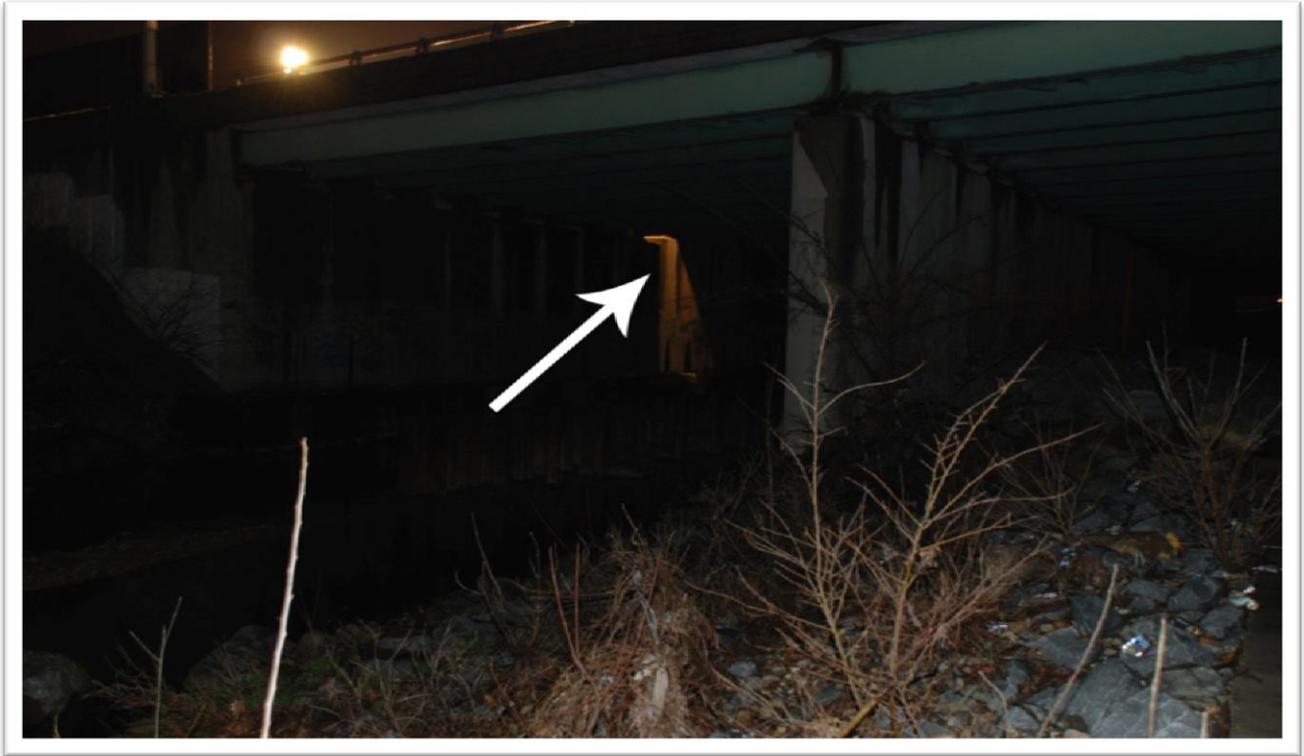
These pictures of the scene were taken at the time of the accident. Both pictures are from the bridge surface at the railing looking straight down into the creek bed below. The white tee shirt and debris are not related to the incident.



These pictures are a ground level view of Four Mile Run, looking west. The top and bottom arrow indicate the side of the bridge of the fall. The arrow on the inset picture indicates the reflection of the sun through the gap where the fall occurred.



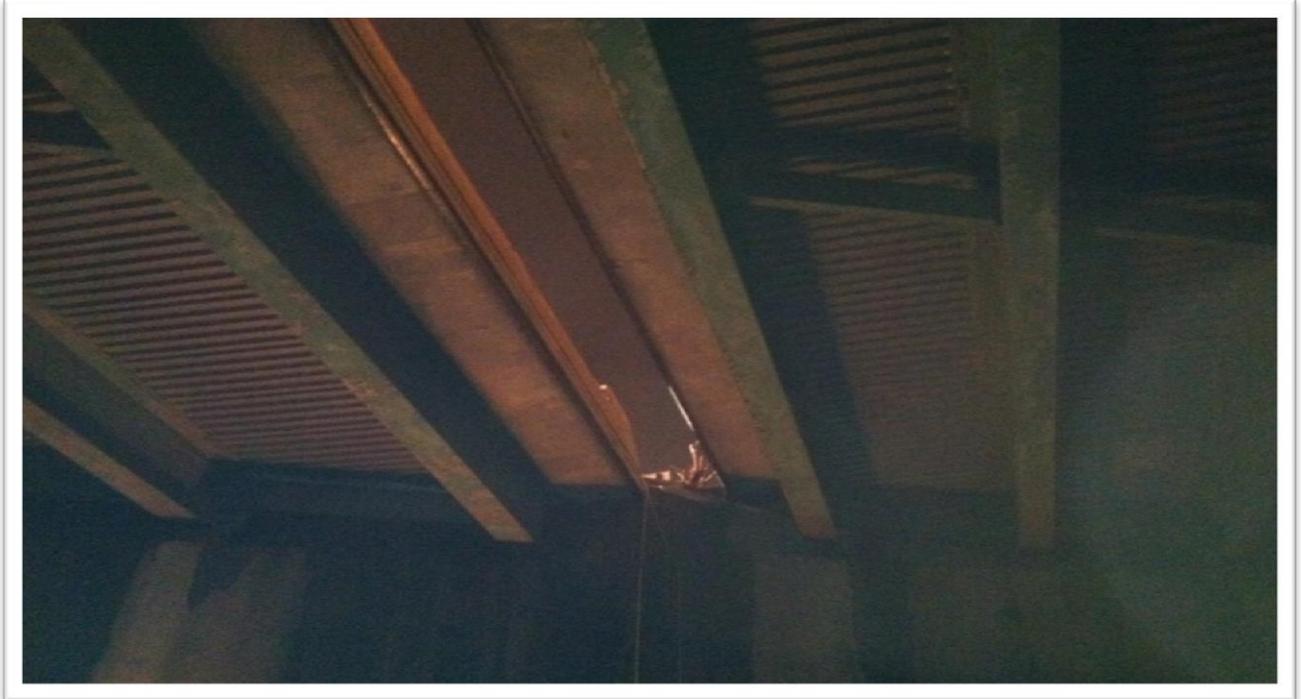
These pictures were taken the night of the accident. The light shining through, indicated by the arrow, is the gap where the fall occurred.



View from below looking at the gap between the northbound I-395 lanes to the left and the HOV ramp to Shirlington Circle on the right. This picture was taken the day after the incident.



View from below looking at the gap between the northbound I-395 lanes to the left and the HOV ramp to Shirlington Circle on the right. This picture was taken the night of the fall.



Dispatch Complements

The Alexandria Fire Department (AFD) and the Arlington County Fire Department (ACFD) both utilize the same standard dispatch algorithms outlined in Northern Virginia Mutual Aid response protocols.

The Arlington County Emergency Communications Center (ECC) received reports of a vehicle fire and dispatched their units accordingly: one Engine Company to respond in each direction for an interstate response. For this incident, an Engine 107 was dispatched in the northbound lanes of I-395 and Engine 109 was dispatched in the southbound lane I-395.

The Alexandria Department of Emergency Communications (DEC) received a call for a vehicle fire which resulted in one engine company dispatched in each direction; Engines 206 and Medic 206 were dispatched in the southbound lanes of I395 and Engine 208 was dispatched in the northbound lanes of I-395. Upon hearing the re-dispatch of someone trapped in the vehicle, Battalion Chief 212 and Rescue Squad 206 added themselves to the call at 1826 hours.

Department Staffing

Minimum staffing for ACFD units is four personnel on suppression units (engines, trucks, rescues) and two personnel on EMS units. Both ACFD engines that were dispatched on this incident were staffed with four personnel.

AFD minimum staffing is dependent on the physical location of each engine company; the engine companies that are in a fire station with a truck company have a minimum of three personnel and those in a “single-engine firehouse” have a minimum of four personnel. Trucks and rescues are three-person minimum and EMS units are two-person minimum. Rescue 206 and Engine 206 are usually cross-staffed with four personnel. On this date Rescue 206 was staffed due to Tower Ladder 203 being out of service.

Personnel from Tower Ladder 203 were utilized to staff Engine 206 as Engine 206 personnel were then utilized to staff Rescue 206. At the time of this incident, Engine 208 had a crew of four, Engine 206 had a crew of four, and Rescue 206 had a crew of four. Medic 206 and Medic 208 each had a crew of two personnel.

This report does identify that Engine 107 requests a “TRT” (Technical Rescue Team) response but ECC failed to make that dispatch. The fact that Rescue 206 was staffed and added-on to this incident played an integral part in the timely rescue of Medic Weissman.

Incident Dispatch Information

The times used for developing a time line of this incident come from three sources; electronic time stamp on radio recording, verbal time stamp from the dispatcher and a time stamp entered into the Computer Aided Dispatch (CAD) system.

The electronic time stamp on the radio recording is automatically done and is the most accurate. However this information is only available for a limited amount of time. The other two sources can vary due to what is being verbalized or as the dispatcher completes the input into that system. In addition all times could vary between CAD, Radio and computer servers.

Where it was available, this report utilizes the electronic time stamp on the radio recording. The possible time discrepancies, however, do not have a major impact on the chronological flow of this report.

Dispatch Information Alexandria Fire

Date: February 8, 2012
Initial 911 Call Received: 1818
Dispatch Time: 1822
Incident Number: 2012-001828
Incident Address: SB I-395 South of Seminary Rd.
Box Number: 5052

Dispatch Information Arlington Fire

Date: February 8, 2012
Initial 911 Call Received: 1817
Dispatch Time: 1820
Incident Number: 120003387
Incident Address: SB I-395 at Shirlington
Box Number: 7931

Initial Dispatch Units 1822 Hours

Engine 206 (Seminary Rd. Station)
Engine 208 (Paxton St. Station)
Medic 206 (Seminary Rd. Station)

Initial Dispatch Units 1820 Hours

Engine 107 (South Abingdon St. Station)
Engine 109 (South Walter Reed Dr. Station)

Added On Units 1826 Hours

Rescue 206 (Seminary Rd. Station)
Battalion Chief 212 (Seminary Rd. Station)

Added Units Dispatch 1836 Hours

Medic 109 (South Walter Reed Dr. Station)
Battalion 111 (South Glebe Road Station)
EMS 112 (Wilson Blvd. Station)

Added On Units 1833 Hours

EMS232
(EMS Supervisor Cameron Mills Blvd. Station)

Added Dispatch Unit 1838 Hours

Truck 105 (South Hayes St. Station)

Added Dispatch Unit 1835 Hours

Medic 208 (Paxton St. Station)

Added On Unit 1841 Hours

Command Aide 114 (North 10th St. Station)

Added On Unit 1836 Hours

Safety 201 (Shift Safety Officer Windsor Ave. Station)

Added On Unit 1838 Hours

Chief 200 (Alexandria Fire Chief)

Incident Timeline

Alexandria Fire Info in RED

Arlington Fire Info in BLUE

1817 Hours

- * Arlington County Emergency Communications Center (ECC) receives first 911 call reporting a vehicle fire on southbound I-395 at Shirlington Road.

1818 Hours

- * Alexandria Department of Emergency Communications (DEC) receives initial 911 phone call reporting a vehicle fire, southbound I-395, between the Seminary Road and Duke Street exits. Caller also reports that they believe someone is still in the vehicle.

1820 Hours

- * Arlington ECC dispatches Engine 109 and Engine 107 on channel "1-Bravo" for a vehicle fire southbound I-395 at Shirlington Road.

1821 Hours

- * Engine 107 en route
- * Engine 109 en route

1822 Hours

- * Alexandria DEC dispatches Engine 206, Engine 208, and Medic 206 for the report of a vehicle fire on southbound I-395, between Seminary Road and Duke Street. Radio channel is "2-Bravo."
- * Arlington ECC receives updated 911 calls that the vehicle fire is in the HOV lanes.

1823 Hours

- * Medic 206, Engine 206, and Engine 208 en route
- * Engine 109 confirms on 1-Bravo that vehicle fire is in HOV lanes, 300 yards prior to Shirlington Circle.
- * Engine 107 on scene. Engine 107 reports working vehicle fire and requests that Engine 109 continue to scene for traffic protection.

1824 Hours

- * Alexandria DEC advises on the radio rebroadcast that the caller said that someone is still trapped in the vehicle.

1826 Hours

- * Battalion 212 advises Alexandria to add Battalion 212 and Rescue 206 to the call.
- * Alexandria DEC advises units that Arlington Fire is on "southbound 395 at the Shirlington exit for a vehicle that is on fire – HOV lanes as well."

1827 Hours

- * Rescue 206 and Battalion 212 en route.
- * Medic 206 advises Alexandria that they are re-directing to northbound I-395 and that the correct location is "northbound 395 up near Glebe Road."
- * Engine 206 and Battalion 212 acknowledge Medic 206's report.

1829 Hours

- * Medic 206 arrives on scene.
- * Engine 107 reports fire out - holding Engine 107.

1830 Hours

- * Medic Weissman exits Medic 206, walks over to the guardrail, attempts to traverse from the main lanes to the HOV lanes, and falls over the railing into the creek bed some 30 feet below.
- * Engine 107 reports to ECC that "an Alexandria medic fell off the bridge into the river."

1831 Hours

- * Engine 208 arrives on scene and is met by the driver of Medic 206, who reports that “Josh fell.” Engine 208 immediately notifies Alexandria DEC and requests the safety officer and battalion chief.
- * Engine 107 advises ECC that they have “an unconscious medic lying in the river – start TRT.” ECC acknowledges Engine 107, but does not dispatch “TRT.”
- * Rescue 206 arrives on scene on I-395.
- * Engine 109 returns to call.

1832 Hours

- * Engine 107 establishes “I-395 Command” on channel 1-Bravo.
- * Engine 107 requests two more engine companies, another medic, and to advise the chief and EMS supervisor.
- * Arlington ECC dispatches Medic 109.
- * Medic 109 en route

1833 Hours

- * EMS 232 adds on to call.
- * Rescue 206 relocates to the S. Four Mile Run Dr. area, under the bridge span.

1834 Hours

- * Arlington ECC dispatches B111 and EMS 112.
- * EMS 112 marks en route

1835 Hours

- * Medic 208 dispatched and en route
- * I-395 Command (ACFD-E107) notifies ECC of first attempt to reach the victim by lowering a firefighter from Engine 107 down to the creek bed.

1836 Hours

- * Safety 201 adds on to call.
- * Battalion 111 en route

1837 Hours

- * Rescue 206 locates Medic Weissman and begins patient care.
- * Battalion 212 arrives on scene and establishes “I-395 Command” (AFD) at his vehicle.
- * EMS 232 on scene on I-395.

1838 Hours

- * Chief 200 adds on to call.
- * Engine 206 arrives on scene (S. Four Mile Run Dr. area).
- * I-395 Command (ACFD-E107) asks ECC what truck company has been dispatched to scene.

1839 Hours

- * Arlington ECC dispatches Truck 105.
- * Medic 208 on scene at S. Four Mile Run Dr. area.

1840 Hours

- * Truck 105 en route

1841 Hours

- * I-395 Command (AFD) requests a helicopter. Alexandria DEC advises that Medstar is not flying and the next closest is in St. Mary’s County (MD).
- * Command Aide 114 adds on to call.
- * EMS 232 advises DEC that the patient will be ground transported to Medstar.
- * Rescue 206 advises that they have the patient out of the water and on a backboard.

1842 Hours

- * Engine 109 relocates to S. Four Mile Run Dr. area.

1843 Hours

- * Safety 201 on scene at S. Four Mile Run Dr. area.
- * EMS 112 on scene at S. Four Mile Run Dr. area.

1847 Hours

- * Truck 105 on scene on I395.
- * I-395 Command (ACFD-E107) advises Arlington ECC to pre-alert Alexandria Hospital for one patient with CPR in progress with a 15 minute ETA.

1848 Hours

- * I-395 Command (AFD) requests that Virginia State Police (VSP) stop all traffic.

1849 Hours

- * Medic 109 on scene at I-395, then S. Four Mile Run Dr., then back to I-395.

1850 Hours

- * Battalion 111 assumes command from “I-395 Command” (Engine 107) and renames it “Cleveland Street Command,” located at his vehicle on Cleveland Street.

1851 Hours

- * I-395 Command (AFD) requests that Alexandria DEC contact ACFD and have their units switch to “2-Bravo.”

1854 Hours

- * Arlington ECC relays that I-395 Command (AFD) would like the ACFD units to switch to channel 2-Bravo.

1856 Hours

- * Alexandria DEC advises I-395 Command (AFD) that Arlington’s units cannot switch over to channel 2-Bravo at this time.
- * Cleveland St. Command (ACFD-B111) requests that Alexandria Battalion 212 respond to the scene, apparently unaware that Battalion 212 has been on the scene for nearly 20 minutes with a command post established on I-395.

1857 Hours

- * Command Aide 114 on scene at S. Four Mile Run Dr. area.

1859 Hours

- * Chief 200 on scene on I-395.

1902 Hours

- * Medic 104 dispatched and en route

1904 Hours

- * Medic 104 placed in service.

1906 Hours

- * Cleveland St. Command (ACFD-B111) asks ECC if Battalion 212 is en route to call.

1908 Hours

- * I-395 Command (AFD) requests that all units switch to channel 2-Delta.

1910 Hours

- * I-395 Command (AFD) requests helicopter once again “for anyone who’s flying.”

1911 Hours

- * I-395 Command (AFD) is advised that no one in the area is flying due to the weather.

1915 Hours

- * Medic Weissman is lifted by Truck 105's aerial ladder to roadway.

1918 Hours

- * Cleveland St. Command (ACFD) is terminated and ACFD units switch to channel 2-Delta.

1925 Hours

- * Medic 109 leaves scene to transport Medic Weissman to Medstar Washington Hospital Center. Also on board Medic 109 are Medic 208's crew, EMS 232 and Chief 200.

1938 Hours

- * Medic 109 with Medic 208's crew, EMS 232 and Chief 200 arrive at Medstar Washington Hospital Center.

Video Evidence Information

As with any accident and injury investigation, the Health and Safety Unit (HSU) looked for video footage that may have recorded events related to Medic Weissman's fall on Wednesday, February 8, 2012.

The best video footage would have been provided by the dashboard camera of Arlington County Fire Engine 107. All of the fire engines in Arlington County utilize dashboard cameras. The incident on February 8, 2012, occurred directly in front of Engine 107. The specialist from Arlington County Fire Department who oversees the dashboard cameras was requested to respond directly to the scene to extract the video footage from Engine 107's dashboard camera. The video system for this particular apparatus (Engine 107) had known mechanical issues that prevented it from capturing any video footage.

The Health and Safety Unit checked two nearby high-rise buildings for exterior cameras that may have captured footage of the I-395 area where the incident occurred. The commercial high rise at 2800 Shirlington Road does not have cameras on the outside of the building. Therefore, nothing was available from this address.

The residential high rise located at 1225 Martha Custis Avenue does have cameras on the exterior of the building. These cameras only monitor the parking area and present no footage that would encompass anything outside of the property boundary. No other structure could be identified that would have video footage covering this area of I-395.

The HSU has also identified that the highway-mounted "Traffic Land" cameras only provide a live feed and do not record. There is no recorded footage that would be available from these cameras. The Health and Safety Unit is periodically checking social media websites for any video that may arise from public footage. To this date, no such footage has surfaced.

The Health and Safety Unit investigation has not been able to identify any existing video footage leading up to and including the incident involving Medic Weissman.

Contributing Factors

As part of this report, the Health and Safety Unit's investigation addressed contributing factors that may or may not have led to the accident involving Medic Weissman. In the interest of following best practices, the Health and Safety Unit addressed the same contributing factors utilized by the National Fire Fighter Near-Miss Reporting System (www.firefighternearmiss.com).

These factors are considered part of the **Human Factors Analysis and Classification System (HFACS)**¹. The HFACS identifies the human causes of an accident and provides a tool to assist in the investigation process and later in targeting training and prevention efforts.

HFACS is based on a model of human error, which looks at four levels of active errors and latent failures, including: unsafe acts, preconditions for unsafe acts, unsafe supervision, and organizational influences.

It is a comprehensive human error framework which was selected as the first tool for analyzing firefighter near-miss reports. Below are 19 causal categories related to the four levels of human failure that are addressed in this report:

1. Accountability
2. Command
3. Communication
4. Decision Making
5. Equipment
6. Fatigue
7. Horseplay
8. Human Error
9. Individual Action
10. Procedure
11. Protocol
12. Situational Awareness
13. SOP / SOG
14. Staffing
15. Task Allocation
16. Teamwork
17. Training Issue
18. Unknown
19. Weather

For the purpose of this report, the investigative team has chosen to combine some of the above topics due to their related nature.

Accountability & Command

After conducting interviews with the crew from ACFD Engine 107, it was determined that the Captain of Engine 107 was aware of the location of the personnel assigned to his unit. However, the Captain of Engine 107 was not aware of a response by Alexandria units and was not anticipating increases in accountability beyond his crew. Engine 107 was working properly within an operational accountability structure, and within the protocols of the Fire Departments of Northern Virginia Command Officer Operations Manual². The Captain of Engine 107 was the initial incident commander.

The Alexandria Fire Department does not have a structured officer assignment for medic units. Instead, AFD relies on an informal system in which the paramedic who is “riding” in the medic unit’s front passenger seat and has assumed patient-care responsibilities for the shift is often considered the team leader or aide. Most often these units work well as a team, and it would appear that Medic Weissman’s crew had an above-average working rapport.

When Medic 206 arrived on the scene of the Arlington incident, it is possible that crew members based their initial actions on individual interpretations of what needed to be accomplished. During interviews with the driver of Medic 206, it was stated that she had a visual of a person in the vehicle and relayed that information to Medic Weissman. Subsequent interviews with Engine 107’s crew did confirm that someone was in the vehicle, but it was, in fact, a firefighter from Engine 107 checking for fire extension in the passenger compartment.

Since there was no contact by radio with Engine 107, and no face-to-face interaction prior to taking action, it can be surmised that the crew of Medic 206 took action without direction from the Incident Commander who was the Captain from Engine 107. It also appears the paramedics on Medic 206 individually determined their own initial actions. A more formal supervisory structure of the medic units might enhance crew safety and crew integrity, and the initial actions by the crew might have been delayed until contact with, and direction from, the Incident Commander.

At the same time this vehicle fire incident was reported to Arlington ECC on the HOV lanes at Shirlington Circle, there was another vehicle accident was reported to Arlington ECC further north on I-395 near the Pentagon exit. After interviews, our investigation revealed that the Captain of Engine 107 heard other responding units. He identified those responding units as associated with a response to the accident further northbound on I-395 near the Pentagon exit. The Captain of Engine 107 was not aware that Medic 206 was on the scene until Medic Weissman’s partner screamed at the time of his fall.

Communication

The investigation into this accident included a review of the audio-tapes related to all radio transmissions and all phone conversations. This audio review included the Alexandria Department of Emergency Communications (DEC) and the Arlington County Emergency Communications Center (ECC). There were several instances where communication difficulties occurred that negatively affected the incident outcome.

Alexandria DEC received a phone call that placed the vehicle fire, “underneath Seminary Road in the southbound HOV lanes.” Although the caller had the wrong location of the car fire, Alexandria DEC did complete a dispatch as southbound in the HOV lanes between Seminary Road and Duke Street.

The initial Arlington ECC dispatch was for a vehicle fire with no indications of persons trapped and had also provided an accurate location for the incident. Alexandria Fire units were initially dispatched to an incident that proved to be a wrong location and were also given an update that included a report of a person trapped in the vehicle. When Alexandria’s units responded to the dispatched location, Engine 206 reported finding nothing between Seminary Road and Duke Street. At that time, the responding units were provided with additional information that Arlington was working the same type of incident farther north on the interstate.

Arlington ECC contacted Alexandria DEC by landline phone at 1827 hours to inquire if Alexandria units were responding to a car fire on I-395. At the time of this incident, there was no protocol for Alexandria DEC to inquire from Arlington ECC whether AFD units were needed at their incident nor confirm whether there was a report of a person trapped in the car at their location. Further discussion between the two dispatch centers may, in fact, have presented a clearer picture of the situation and may have led to an officer of one of the responding units from Alexandria to determine that this was the same incident and possibly would have altered the level of response from Alexandria.

Prior to any Alexandria unit arriving at this incident, Engine 107 had returned to service the remaining Arlington units that were responding to their incident. Had the Alexandria units been provided the direction to change to the Arlington operational channel, the communication factor could have been improved. All of the Northern Virginia area fire departments have capabilities of radio interoperability and utilize this interoperability daily. Units operating on separate radio channels contributed greatly to delayed message conveyance and confusion on more than one occasion during the incident. It is important to note again, that Arlington’s units were operating on this incident prior to any units from Alexandria arriving and had already established communications and command on their operational channels.

Even after the tragic event, and despite Battalion Chief 212’s efforts to get all units on an AFD channel, ACFD and AFD units continued to operate on separate channels during the rescue effort. It should be noted that AFD was notified by DEC per Arlington ECC that ACFD would not switch channels.

Decision Making

Alexandria personnel operated within established protocol up until the time when no incident was found at the dispatched location. The decision to redirect units to the Arlington location without confirming with Arlington whether Alexandria resources were needed should be closely scrutinized. The fact that none of the responding officers inquired as to the need for further response to Arlington, ultimately led to units deciding independently whether to respond to that location.

When this information was first announced to the Alexandria units, Medic 206 had not yet committed to any portion of the highway. Units could have been staged at their locations until confirmation was received from Arlington that Alexandria units were or were not needed on the scene.

Alexandria DEC spoke with Arlington ECC over the phone but never asked if Alexandria units were needed for the Arlington incident. This led to Alexandria units continuing their response until they found an incident.

The decision-making process utilized by Medic Weissman that night will never be known. Based on AFD members' past experiences with Medic Weissman, as well as his known desire to aid everyone who requested his help, it is likely he felt his assistance was needed on the other side of the highway barrier.

Due to the Arlington unit on the scene operating on their radio channel, and no Alexandria units switching to that channel, a proper decision-making process and a scene size-up was not conducted by Medic 206 while they were en route nor when they arrived to determine Engine 107's need for any immediate assistance at their incident.

Equipment

All Alexandria Fire Department response units utilize a Zone Box map book, which provides an overview of roadway and street layouts. The area of this accident is contained in Alexandria's Zone Box map book under Zone Box 5653³ and Zone Box 5052⁴. Zone Box 5653 identifies the northbound lanes of I-395, which includes the area of the accident. Zone Box 5052 identifies the southbound lanes of I-395, which includes the area of the accident.

Arlington County Fire Department utilizes a similar Zone Box map book. The area of this accident is contained in their Zone Box map book under Zone Box 7905⁵. None of the responding jurisdictions' Zone Box map books contains details of bridge gaps.

Departmental Standard Operating Procedures⁶ (SOP) and protocols require the use of proper personal protective equipment (PPE) on all incident types. For a vehicle fire, this would include full structural firefighting gear: coat, pants, boots, helmet, gloves, radio, and for suppression personnel, self-contained breathing apparatus (SCBA).

Even for Emergency Medical Services (EMS) personnel not participating in fire suppression efforts, PPE should be donned when operating at a vehicle fire where the possibility of providing EMS care in proximity of the incident may be necessary.

When personnel are operating on roadways, they are required to have their radios and wear high-visibility traffic safety vests. The investigation has determined that Medic Weissman exited Medic 206 without any PPE, high-visibility traffic safety vest, or his portable radio. All AFD EMS personnel are issued PPE inclusive of a helmet, gloves, coat and pants. At the time of his fall, Medic Weissman was wearing only his work uniform: t-shirt, pants, and work shoes. While the wearing of PPE may not have influenced Medic Weissman's injuries, it is thought that had he taken the time to dress in PPE and followed proper procedures, this would have allowed for additional size-up and increased situational awareness.

Medic Weissman would not have been prepared, if necessary, to administer any medical intervention had he been able to access the fire vehicle. The investigation revealed that Medic Weissman did not have any appropriate EMS equipment with him at the time of his fall.

Medic Weissman did wear corrective eyeglasses. The investigation, along with interviews, did conclude that he was wearing his eyeglasses at the time of this accident. It is possible that due to the wet weather conditions, Medic Weissman's glasses may have been wet, potentially partially obscuring his vision when he attempted to climb over the railing. Although an exhaustive search was conducted in the creek for his eyeglasses, they were never found after his fall.

Fatigue

As part of any accident and injury investigation, the Health and Safety Unit (HSU) would look into Human Fatigue Factors that may play a part in such events. The HSU had an opportunity to interview Medic Weissman's wife to gain insight into his activities during the 72-hour period leading up to the event of February 8, 2012. The purpose of this interview was to determine if human fatigue was a factor in this accident.

On Sunday, February 5, 2012, Medic Weissman worked his regular 24-hour shift from 0700 hours to 0700 hours on Medic 206. On that particular day, Medic 206 was dispatched on four responses in that 24-hour period. The record indicates that nothing remarkable or out of the ordinary occurred during this shift period. This information was also confirmed by his partner.

On the morning of Monday, February 6, 2012, after Medic Weissman was relieved from duty, he immediately returned home. His wife advised him to sleep as she left for the airport. A subsequent conversation between Medic Weissman and his wife during the afternoon period confirmed that he reported sleeping during the first part of the day. Later in the evening, on that same day, his wife had another conversation with Joshua, in which she was able to confirm that he was home all day and was preparing to go to bed at around 2130 hours.

On Tuesday, February 7, 2012, Medic Weissman worked overtime on Medic 214 from 0700 hours to 1900 hours. The record for this day indicates that Medic 214 was dispatched on six responses. A review of the record for Medic 214 indicates nothing remarkable or out of the ordinary occurred during this shift period.

Joshua's wife did confirm that he went directly home after this shift ended. She spoke with him at around 2200 hours when he indicated that he had retired to bed for the night.

Medic Weissman's shift on Medic 206 on Wednesday, February 8, 2012, began at 0700 hours. The record for that day shows that Medic 206 was dispatched to five responses prior to the I-395 incident. All five appeared to be routine incidents, with four resulting in transporting patients to the hospital. At around 1800 hours, Mrs. Weissman spoke with Medic Weissman on the phone, and she indicated that he sounded great and informed her that he had a good day. She also indicated that she did not detect fatigue and that he sounded upbeat and was in a good mood. Based on the interview with Mrs. Weissman, the Health and Safety Unit does not believe that human fatigue played a part in this accident.

Horseplay

No evidence of horseplay was found during the course of this investigation.

Human Error & Individual Action

The investigation and interviews revealed that the Captain of Engine 107 incurred a near-miss, because he almost fell through the same opening as Medic Weissman. After his arrival, the Captain of Engine 107 was proceeding over the railing and concrete wall to the HOV lanes while maintaining hand and leg contact he was able to correct his motion before he would have fallen. He immediately conveyed this safety hazard to his crew and directed them to deploy their hose to the rear of Engine 107. Since he was not aware that Alexandria units were responding to their incident, he was confident that proper notification of the hazard was verbalized to his crew. This cannot be construed as an error on his part. Even if the Captain of Engine 107 had made a radio verbalization of this safety hazard, Alexandria units were on another radio channel and would not have heard the announcement.

Engine 107's actions to extinguish the auto fire from the I-395 northbound lanes, caused them to advance the attack hose and traverse two sets of barriers and the HOV ramp. Although this practice does not violate any procedure nor is it indicative of human error, an action for consideration could have been to confirm the location, establish command, and have a suppression unit respond southbound in the HOV lane to secure the roadway and then extinguish the fire.

While many factors had an impact on this tragic event, none of them were more significant than the individual actions of Medic Weissman. The most significant human error that factored into this tragic event was the single action of Medic Weissman in not visually detecting the gap between the highway barriers; even by allowing for other factors that contributed to this accident, the outcome was ultimately determined by Medic Weissman's decision to traverse the highway wall and the attached railing.

Situational Awareness

The National Firefighter Near Miss Reporting System, using data obtained through the Human Factors Analysis Classification System lists their top three reasons for accidents and injuries as; lack of situational awareness, human error and poor decision-making.

Situation Awareness involves being aware of what is happening around you at an incident scene and to understand how information, events, and your own actions will impact operational goals and incident objectives, both now and in the near future.

Situational awareness is a combination of attitudes, previously learned knowledge and new information gained from an incident scene and environment that enables personnel to gather information they need to make effective decisions that will keep them safe thus reducing the likelihood of adverse or detrimental effects.

One of the most difficult things for an emergency responder to do is control his or her sense of urgency and desire to help in any situation without first considering one's own safety.

The current emphasis placed on individual and crew safety within the Fire and EMS community is a constant reminder of the need to educate, train, and implement procedures, protocols, and habits that place the safety of oneself and one's crew above all else. As the aide or Team Leader, Medic Weissman not only had responsibility for his own safety, but for his partner's as well. Without safety leadership in this incident, the driver of the medic unit could have easily been the one to fall.

Medic Weissman's colleagues, family members and friends state that he had a very strong desire to make a difference by helping those people in need. His desire to immediately engage in the incident on I-395 is readily apparent. Medic Weissman's failure to thoroughly assess scene safety, including his surroundings and path over the roadway divider system, resulted in not detecting the opening to the creek bed below. A more thorough assessment of the environment, as well as communication with the Incident Commander, or a member of the ACFD crew already on scene, would have most likely saved Medic Weissman's life.

Based on dispatch reports, the Health and Safety Unit investigated previous calls to this area of I395 for the last six years to which Medic Weissman would have responded. It was our intent to see if Medic Weissman may have had prior knowledge of this bridge area, based on previous responses that would have contributed to a higher sense of situational awareness. The dispatch data can identify calls on I-395 to which Medic Weissman did respond, but cannot specifically identify this particular area.

During the investigation into this tragedy, it is impossible to rule out that medic Weissman would not have taken the same actions had Medic 206 arrived as the first emergency response unit. Situational awareness must be applied at all levels and at all times. Making assumptions regarding personnel safety based on your arrival order at any incident is problematic at best.

Procedure/Protocol/Standard Operating Procedures (SOPs)/Standard Operating Guidelines (SOGs)

The Northern Virginia (NOVA) regional fire departments have been operating under a standard set of operational procedures designed to ensure seamless interoperability. One of those operational procedures is the NOVA Operating Procedures for Highway Incidents⁷. Of particular concern is response on limited access highways such as the interstate roadway system that runs throughout the National Capital Region.

The limited-access response is designed to provide a basic level of first responder service in each direction of road travel. These units provide initial assessment and intervention toward overall mitigation of an incident. Specialty units are included to supplement this initial response. One of the primary reasons for this type of response is to avoid having personnel cross over travel lanes and various barrier systems without appropriate levels of protection by response apparatus or signaling devices.

Normal best practices should dictate adherence to these guidelines. Although there is no specific line item in the NOVA Operating Procedures for Highway Incidents to deter personnel from traversing over a highway wall, Medic Weissman failed to follow the written guidelines of the Fire Departments of Northern Virginia Command Officer Operations Manual² by first checking with the Incident Commander for operational direction.

It would appear that Medic Weissman chose to engage in the incident prior to receiving permission from command authority or completing a proper scene assessment. It is the responsibility of all personnel to understand and apply the SOPs/SOGs that are applicable to any given incident.

Staffing

Staffing, as dictated by the current operating guidelines of the Alexandria Fire Department, did not play a role in this incident.

Task Allocation

An officer's position on each medic unit would allow for structured decision-making and task allocation assignments for personnel. Specific task allocations would be a beneficial part of the actions of personnel when arriving at an emergency scene. This would allow for more command and control of the medic crew.

Teamwork

While the members of Medic 206's crew reportedly worked very well together, in this instance a more team-oriented approach to the scene may have led to a different outcome. The investigation reveals that Medic Weissman's actions were individualized as he pursued access to the vehicle without counsel from his partner. He never communicated his intentions to his partner nor allowed for an input or assessment. In one continuous sequence, less than 60 seconds in duration, he exited the vehicle, walked around to the rear, traversed the jersey wall and railing system, and fell through the narrow gap.

Emergency response personnel must understand the importance of effective and thorough communication with each other to ensure everyone is working toward the same goals and within a safe environment.

It is felt that if both members of Medic 206 had assessed the situation and provided input, their actions may have been conducive to avoiding this tragedy. At this incident, the application of Crew Resource Management⁸ could have played a vital role.

It should be noted for this report that Medic Weissman, at the age of 33, had almost six years of service with the Alexandria Fire Department, and 17 years of experience in fire and EMS. Medic Weissman's partner joined the department in October of 2010, and had 16 months of service. Medic Weissman and his partner were paired together as a team for nine months prior to this event.

Training Issues

As part of the investigation, Medic Weissman's training records, both local and state, were examined for specific training related to this type of incident. As expected, Medic Weissman's training records were heavy in Basic and Advanced Medical Life Support curricula. In all EMS training levels, "scene safety" is taught, and emphasized, at all times. The basis of all training is personal safety and scene safety.

There was no evidence of any driving or highway safety training other than what is offered in Emergency Vehicle Operators Course (EVOC). To the knowledge of the Health & Safety Unit (HSU) there is currently no available training that covers Highway/Roadway construction components and the related and safety hazards.

Medic Weissman successfully completed the department's requirements related to the National Incident Management System⁹ (NIMS) training. In addition to the standard requirements of NIMS 100, 200, and 700 criteria, Medic Weissman completed the department's requirements of NIMS 300 and 400 for supervisory personnel.

On the evening of this incident, ACFD Engine 107 was on the scene, and consistent with the Incident Command System training of NIMS, had established command in accordance with applicable policies, plans, and procedures. Engine 107 was unaware of the dispatch or arrival on the scene of Medic 206. Therefore, Medic 206, including Medic Weissman, was not operating within the scope of the established command structure.

Medic Weissman's file did not contain any specific evidence of any training related to the NOVA operational guidelines, either during recruit training or on-going training outside of recruit school. Regardless of whether the members of Medic 206 were fully versed in the NOVA SOP regarding responses on limited access highways, periodically reviewing and practicing the written guidelines under which they operate daily is pertinent. Every member operating at an incident has an obligation to practice safety, both individually, and as a member of a team.

Weather and Visibility

The weather and the effects of the weather on visibility were found to be a contributing factor in this incident. At the time of the accident, it was dark with light rain and mist. The temperature at the time of the incident was 37°F with a wind speed of 5.8 mph. The sun had set at 1738 hours and the total precipitation for this day was 0.11 inches of rain. The high temperature for the day was only 43° F.

With limited visibility and no back-lighting from underneath the bridge, the area where Medic Weissman fell was completely black. Statements from Engine 107's crew also validate this, as initially they were not aware that there was a gap between the bridge spans.

The driver of Engine 107 did confirm during the investigation that he activated the front and side scene lighting package that is part of Engine 107's apparatus. The scene lighting casts light in a horizontal aspect toward the incident scene and not in a vertical aspect.

The scene lighting projected light over the bridge gap and left the gap muted in darkness. When standing at the retaining wall, at the time of the accident, it can easily be assumed that the land area just south of the gap continued all the way through the gap area to the far side of the bridge span.

The investigation revealed that limited visibility led to an inaccurate assessment of the scene, including the activities surrounding and within the vehicle on fire.

Highway and Roadway

Our investigation into this accident included meeting with the Virginia Department of Transportation and the Federal Highway Administration. The purpose of this meeting was to discuss roadway and bridge construction. Our main purpose was to inquire if any type of roadway construction would be an indicator of a fall hazard.

Although the original bridge was constructed in the 1960s, it did meet the standard criteria of bridge construction.

The roadway and bridge jersey walls and railing systems are constructed to keep vehicles in the roadways, when necessary, and not to allow the vehicles to travel over these systems. These barriers are built for vehicle traffic issues and not pedestrian traffic issues.

It has been confirmed that all bridges are constructed with concrete surfaces. Working on a concrete surface should be an indicator that a fall hazard exists. A concrete surface equals a bridge surface; a bridge surface equals a fall hazard.

However, although bridge surfaces are constructed with concrete, there is evidence that some bridges have had asphalt paving laid on top of the concrete surface. The only full safety measure that can identify a fall hazard from a bridge is looking in all directions before advancing over any type of retaining wall, barrier, or guardrail.

Engine 107 stopped their vehicle just short of the bridge span on the asphalt surface of the roadway. Medic 206 stopped their vehicle on the concrete surface of the bridge directly in front of Engine 107. All of Medic Weissman's actions occurred while on the concrete surface of the bridge. Further interviews of the initial personnel on the scene indicated that they did not realize that they were on a concrete surface. As previously discussed in this document, weather and limited visibility played into the factors surrounding this incident.

Aerial pictures of the bridge surface during daylight hours indicate that the northbound lanes of the bridge have a darker surface than the southbound lanes of the bridge. The northbound lanes were previously paved in October of 2011, and the traffic flow through the newly laid asphalt carried the darkness from the asphalt onto the bridge, darkening the concrete surface. The lack of daylight, precipitation, and the darkening of the concrete bridge surface were contributing factors to Medic Weissman's loss of situational awareness.

Recommendations

Recommendation #1: Develop, train, and enforce standard operating procedures (SOPs) for reporting to, and requesting direction from, Incident Command.

One of the primary means by which the fire departments of Northern Virginia establish consistent operations and manage risk is through the adoption and enforcement of SOPs. The development and enforcement of SOPs related to Incident Command procedures are particularly important due to the level of hazard at any emergency operation.

Depending on the size and complexity of a roadway incident, command must be considered. The Incident Command System (ICS) must be used. This process is a systematic tool for the command, control, and coordination of an emergency response. ICS allows agencies to work together using common terminology and operating procedures for controlling personnel, facilities, equipment, and communications at an incident scene.

It is imperative that “Command” be established by the first responding unit at all highway incidents. The Incident Commander is the overall safety officer and is responsible to ensure safe working conditions.

A training priority must be placed on identifying, and receiving direction from, Incident Command upon arrival and/or reporting to any incident scene. Historically, training on Incident Command has been directed more toward the fire emergency service side of the department, including special operations. Incident Command training must be reassessed to include all divisions of the department, especially emergency responders, inclusive of Emergency Medical Services Division. Practical “Hands On” training should be emphasized. All personnel must be assessed, to demonstrate their understanding, of their position within the Incident Command system.

Recommendation #2: Develop and train all Alexandria Fire Department personnel via a situational awareness program that addresses hazards specific to working at all highway or roadway emergency incident, especially with regard to bridge/overpass safety and construction.

Situational awareness can be described as a genuinely heightened consciousness or cognizance of what is currently developing or occurring. Being alert to what is going on at a roadway emergency incident is extremely critical because roadway incidents are always high-risk events.

Complacency, redundancy, and lack of situational awareness are issues that all responders must avoid. When responding to a roadway emergency incident, fire fighters and other first responders must ensure their personal safety, as well as the safety of individuals they are trying to assist.

Emergency personnel need to develop a heightened sense of awareness to detect impending dangerous situations and recognize warning signals. Responders need to do a quick survey of the location where they will be working. Nighttime incidents, requiring personnel to work on the roadways are particularly hazardous because of reduced visibility.

To ensure that first responders maintain situational awareness, they need to understand the incident action plan that is communicated by the Incident Commander at the beginning of the incident and maintained throughout the duration of the incident. The operations at a highway/roadway incident must be continually reassessed, especially as the incident objectives are met and additional resources arrive and/or are released from the incident.

It is important for all emergency responders to remember that things can go very wrong, very quickly at roadway emergency incidents. Fire departments need to ensure that multiple prevention strategies are in place. Emergency responders must maintain awareness of what is going on around them at all times.

Recommendation #3: Provide training to all Alexandria Fire Department personnel to ensure that thorough scene assessments are conducted, and risks are identified and managed by all personnel throughout responses to highway or roadway incidents.

Roadway emergency incidents that occur must be effectively and safely managed due to the multitude of risks encountered by fire departments and other emergency response personnel. Other first responders can include law enforcement personnel; emergency medical services; state, county, and/or local transportation agencies; and vehicle recovery firms.

Fire and rescue agencies are needed at incidents that involve victim rescue, firefighting operations, or hazardous materials mitigation. They may be supported by emergency medical services (EMS) if the incident involves injuries or the potential injures.

The management of an incident involving multiple agencies and jurisdictions can be difficult. Pre-incident planning to identify each responding agency and their particular role and responsibility is needed. In addition, mutual aid agreement that identify specific responses to deliver appropriate equipment and staffing for the incident should be established.

Size-up can be defined, in most fire service applications, as an on-going evaluation of problems confronted within any situation. Size-up starts with the receipt of an alarm and continues until the incident is under control. This process is carried out many times and by many different individuals at each fire or emergency event. All emergency responders must realize that size-up is not only a function of command, but also the duty of every emergency responder to gain as much information as possible, about related conditions.

Size-up is a continuing evaluation of information received and incorporated with personal observations at a fire or emergency scene. A thorough scene size-up is ongoing and must be applied at all levels by all personnel, including emergency medical responders.

Recommendation #4: Establish protocols that define Alexandria Fire Department personnel actions when arriving on the scene of a highway or roadway incidents that are already in progress and are being handled by other on-scene units. These actions would define processes for the Alexandria Fire Department personnel to stage inside of their unit until proper communications are established, and directions from a Command officer are provided.

Responding units arriving on a roadway incident that is being handled by units from one's own jurisdiction, or from another jurisdiction, and who do not have radio communications established, should realize this error. Assistance, including an appropriate interoperability channel, should be requested through the communications centers. Before this occurs, all personnel, along with their vehicles, should not advance toward any roadway incident. Units arriving on the scene of a roadway incident that is being handled by other units should have procedures that systematically support actions to maintain a standby position. This procedure is extremely important when communications via mobile and portable radios have not been established.

To further provide a level of action related to staging, if a definitive location and situational assessment had been relayed to the Alexandria units, they could have maintained a staging position at their location prior to redirecting their response. For example, Medic 206 could have maintained its current staging position at Seminary Road Circle, while a request was made to Alexandria DEC or Arlington ECC to identify the need to redirect its response.

Personnel should not advance toward an emergency or non-emergency roadway incident without first addressing the need to possibly standby or continue to respond at all. Protocols should be established, and personnel should be trained appropriately, for this type of action.

Recommendation #5: Establish and provide all appropriate training for an officer's position for the Medic Units.

Whether by increasing staffing or adjusting current staffing, a designated person on the Medic Unit should be given the authority and be properly trained as an officer.

Similar to engine and truck companies, a designated officer of the medic unit would be able to provide direction and leadership. In this incident, an officer of the medic unit, with the appropriate command training, should have stopped to assess the situation (size-up) and make appropriate contact with the Incident Commander prior to moving forward toward the incident.

An officer's position on each medic unit would allow for structured decision-making and structured direction for the assigned personnel. It could also require criteria for the aide position to demonstrate proficiency in ICS procedures, SOPs related to highway operations, and all other SOPs and SOGs.

Recommendation #6: Improve both phone and radio inter-jurisdictional communications between emergency communication centers and field units.

Emergency communication centers should implement changes that would improve a more thorough line of questions between the two entities. This would assist in determining the need for additional units on roadway incidents or the need to continue towards a response.

The communication centers identified the incident and eventually were able to properly identify the location of the car fire. The investigation revealed that Engine 107 communicated its ability to handle the incident alone. If the communication centers improved their information exchange protocols, the ability to question the need for a continued response of Alexandria units would have been determined. The determination for the need of a continued response by Alexandria units was never addressed.

The communication centers were both aware that an inter-jurisdictional response was developing. The need to place the units on an appropriate inter-operable channel never occurred at the onset of this incident. It was later identified, but the incident continued to operate on two separate channels for the duration, as B212's request to DEC to have the ACFD units switch to the AFD operational channel was denied by Arlington.

This information should have originated between the communications centers of Alexandria and Arlington prior to the fall occurring. Through an improved series of questioning, the information transfer between communications centers and field units can be improved.

Since this incident, changes have occurred by both communication centers to make notification, to each other, when an incident may crossover due to jurisdictional boundary lines. Although this process has been identified as an informal duty by the dispatch centers, it is none-the-less an attempt for better communication. This process should be formal in nature and part of a Standard Operating Procedure.

The Alexandria Fire Department and Department of Emergency Communications must commit to developing standardized dispatch protocols that not only describe the number and types of resources that respond to various incident types; but also address training and structured interviewing processes that need to be established so that emergency responders receive early and accurate information regarding the incident from dispatchers and other responding units.

Recommendation #7: Upgrade Alexandria Fire Department Zone Box Map Books to identify highway and roadway bridge gaps.

Current zone box map books provide only an overview of roadways and streets. A more detailed drawing should be completed to identify bridge gap hazards and other roadway hazards that may exist.

Recommendation #8: Enhance Mobile Data Browsers (MDB) to include up-to-date mapping software that will allow units to identify their current location through the Global Positioning System (GPS). A current and up-to-date GPS capability would provide the Alexandria Fire Department personnel with the ability to identify when their unit is located on a bridge structure.

Engine 107 was positioned on the asphalt surface of I-395. Medic 206 had positioned in front of Engine 107, but was on a concrete surface, which may or may not give an indication of being on a bridge surface.

The current MDB can utilize GPS to show the exact location of AFD units, including roadway locations while on a bridge structure. This type of service would aid situational awareness and size-up purposes.

Tracking technologies use Global Positioning Systems (GPS), and passive and active electromagnetic and radio technologies (e.g. Radar, Doppler, Thermal-Infrared, and Sonar) to monitor the locations of just about anything that moves. In addition, this technology can provide a picture map on the screen of an MDB that is equal to a Google Earth map.

The knowledge of a unit's exact position would require MDBs with the appropriate technologies.

Recommendation #9: In partnership, the AFD and DEC should work on guidelines for the dispatching of incidents within the I-395 HOV lanes. This will most likely create the need for regional cooperation with Arlington County and Fairfax County Fire Departments and Communication Centers.

The dispatch protocols for the Woodrow Wilson Bridge¹⁰ allow for additional units to respond on both the local and through lanes for both the northbound and southbound I-95. This type of dispatch protocol should apply for other limited access roadways, such as the HOV lanes on I-395.

Currently the response on I-395 does not include a dedicated response within the HOV lanes. Units that have direct access to the HOV lanes may, at times, respond on these lanes, but there is no definitive dispatch protocol for a response on the HOV lanes.

As part of a normal dispatch protocol, additional units should be dispatched to cover the HOV lanes in the direction of travel that is current for that particular time of day. This would minimize and/or eliminate the need for personnel to cross over guardrails, railings, and jersey walls.

Recommendation #10: Recommend that the Virginia Department of Transportation and/or the Federal Highway Administration increase the number of access points from the regular lanes of I-395 into the I-395 HOV lanes.

Currently, this roadway does have a few openings in the jersey wall that allow access from the regular lanes into the HOV lanes. However, these access points are not very wide and would only accommodate a vehicle the size of a law enforcement vehicle.

The access points are limited and require a straight perpendicular turn to drive through the opening. The size would not accommodate any Fire or EMS response vehicles currently dispatched for any related issue on this highway.

This recommendation would need to be concurrently addressed with recommendation number 9. The goal continues to be minimizing or eliminating the need for personnel to cross over guardrails, railings, and concrete jersey walls.

Recommendation #11: Recommend that the Virginia Department of Transportation and/or the Federal Highway Administration install clear markings to indicate bridge gap fall hazards.

Currently no system exists for markings, signage, warnings, and/or barriers on any highway overpass fall hazards. While some type of warning system would be beneficial, the amount of government agencies that would be involved in developing, and implementing, changes would be problematic at best.

Even so, the Committee felt it necessary to recommend that some sort of system be considered by local, state, and federal authorities. Although a simple recommendation on the surface, we realized it would be an enormous undertaking for VDOT and the FHA.

References

1. HFACS was initially developed by the U.S. Navy to investigate aviation incidents but has been adopted by many other industries to investigate and prevent accidents and injuries. The National Fire Fighter Near Miss Reporting System utilizes these factors and provides more information at <http://www.firefighternearmiss.com/index.php/hfacs>.
2. Fire and Rescue Departments of Northern Virginia (2008). Command Officers Operations, 2nd Edition, Emergency Operations Manual Volume I Firefighting Procedures
3. Alexandria Fire Department (1998). Zone Box Map Book, Zone Box 5653
4. Alexandria Fire Department (1998). Zone Box Map Book, Zone Box 5052
5. Arlington County Fire Department. Zone Box Map Book, Zone Box 7704
6. Alexandria Fire Department General Order (2011). Personnel Safety/ Zero Tolerance, FES 10-005v2
7. Fire and Rescue Departments of Northern Virginia (2008). Operating Procedures for Highway Incidents, 2nd Edition, Emergency Operations Manual Volume III Utility, Highway and Other Emergencies
8. International Association of Fire Chiefs (2003). Crew Resource Management; A Positive Change for the Fire Service, 3rd Edition
9. United States Department of Homeland Security (2011). National Incident Management System, Training Program
10. Alexandria Fire Department General Order (2010). Response to the Woodrow Wilson Bridge, FES 10-004

Investigative Agency Summary

Immediately following Medic Weissman's death, contact was established with the National Institute for Occupational Safety and Health (NIOSH) by the Alexandria Fire Department Health and Safety Unit for an investigation into this tragic event.

When a Firefighter Line of Duty Death occurs, NIOSH is the federal agency responsible for an investigation. Medic Weissman was hired and trained as a single-role paramedic for the Alexandria Fire Department and was not cross-trained as a firefighter. Therefore, NIOSH did not investigate the incident. There is no federal agency that is responsible for an EMS Line of Duty Deaths unless those involved are also trained as firefighters.

The Virginia Department of Labor and Industry (VADOLI) was properly notified of Medic Weissman's death. Representatives of VADOLI did respond and have completed an investigation of this workplace death as governed by federal and state law (Appendix A).

The Virginia State Police (VSP) has also completed an investigation of Medic Weissman's death. Their investigation was predicated by his accident and subsequent death with relation to the interstate highway (Appendix B).

The Alexandria Fire Department's Health and Safety Unit (HSU) was tasked by the Fire Chief to continue with and complete this investigative report. With some minor changes, the HSU utilized a NIOSH Line of Duty Death report as a guiding template. The format of this report was developed by the Health and Safety Subcommittee of the Washington Metropolitan Council of Governments Fire Chiefs Committee.

Closing

The information contained within this document is only the first phase in a process of identifying and implementing measures that are intended to prevent accidents during similar events within the Alexandria Fire Department and the broader fire and emergency services profession.

While we believe that this document and the implementation of its recommendations in the future will be helpful to this fire department, it is the global information drawn from our experience that will enable the fire service to reinforce current safety measures and implement new safety measures that will benefit all personnel. During this investigation, the Safety Investigation Team noted that no matter how experienced or properly prepared we are, we must always approach all incidents with the utmost situational awareness and prudence.

As with most emergency services line of duty deaths, there is rarely one misstep or event that causes such a tragedy; they are mostly caused by a combination or series of events, miscalculations, and personal responsibility. When we think of a conventional firefighter line of duty death, especially those that occur inside a burning structure, there are many variables that need to be investigated and confirmed. There can be many factors involved, including but not limited to: the performance of the self-contained breathing apparatus (SCBA) and personal protective equipment (PPE), crew integrity, radio transmissions, and adherence to standard operating procedures.

While the circumstances surrounding this particular line of duty death were not as numerous, it has been found that there were still a series of events that led to this tragic outcome. After many interviews and exhaustive investigative practices, the nature of Medic Weissman accident can be verified by an eyewitness. While we now know exactly what Medic Weissman's actions were prior to his fall, we will never know his thoughts and mindset leading up to his decision to traverse over the highway barrier.

The Alexandria Fire Department will never forget the ultimate sacrifice made by Medic II Joshua Weissman in his service to the community. By sharing the knowledge gained from this very tragic and painful incident, the department will ensure his sacrifice was not in vain and hopes that other fire departments can avoid a similar tragedy.

We believe this is what Medic Weissman, as an educator and consummate professional, would have wanted.

Glossary of Terms

Added-on Units (Adding to Calls): a process that allows units to insert themselves onto a previously dispatched call.

Added Dispatch: A formal process of the dispatch center adding units to incidents that were not initially dispatched.

Advanced Life Support (ALS): a level of care provided by pre-hospital emergency medical services. Advanced life support consists of invasive life-saving procedures including the placement of advanced airway adjuncts, intravenous infusions, manual defibrillation, electrocardiogram interpretation, and much more.

Basic Life Support (BLS): a level of medical care provided by pre-hospital emergency medical services. Basic life support consists of essential, non-invasive life-saving procedures including CPR, bleeding control, splinting broken bones, artificial ventilation, and basic airway management.

Cardio-Pulmonary Resuscitation (CPR): an emergency procedure in which the heart and lungs are made to work by manually compressing the chest overlying the heart and forcing air into the lungs. CPR is used to maintain circulation when the heart stops pumping.

Emergency Medical Services (EMS): type of emergency service dedicated to providing out-of-hospital acute medical care and/or transport to definitive care, to patients with illnesses and injuries which the patient, or the medical practitioner, believes constitute a medical emergency. The use of the term emergency medical services may solely refer to the pre-hospital element of the care or be part of an integrated system of care, including the main care provider, such as a hospital.

Fire and Rescue Departments of Northern Virginia: a regional coalition of 14 member jurisdictions, aims to provide the Northern Virginia region with the best possible emergency services through shared use of resources and coordinated emergency response.

Medic II: a rank and pay designation for ALS Providers in the Alexandria Fire Department.

Medic III: a rank and pay designation for ALS Providers in the Alexandria Fire Department.

Medic Unit: a vehicle used to deliver pre-hospital medical care and transportation of medical patients.

Health and Safety Unit (HSU): a division of the Alexandria Fire Department tasked, in-part, with accident and injury prevention, training, and investigation.

High Occupancy Vehicle (HOV): highway travel lanes designated for vehicles that have a minimum number of occupants (2 or 3).

Glossary of Terms

National Fire Fighter Near-Miss Reporting System: The National Fire Fighter Near-Miss Reporting System is a voluntary, confidential, non-punitive, and secure reporting system with the goal of improving firefighter safety.

National Institute for Occupational Safety and Health (NIOSH): The National Institute for Occupational Safety and Health (NIOSH) is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH conducts independent investigations of firefighter line of duty deaths.

Mobile Radio: two-way radio communication device that is permanently mounted within a vehicle.

Mutual-Aid Response: agreement among jurisdictions to lend emergency response capabilities across jurisdictional boundaries.

Personal Protective Equipment (PPE): refers to protective clothing, helmets, goggles, or other garment or equipment designed to protect the wearer's body from injury.

Portable Radio: two-way radio communication device that is hand-held and carried by the user.

Self-Contained Breathing Apparatus: a self-contained breathing apparatus, or SCBA, is a device worn by rescue workers, firefighters, and others to provide breathable air in an Immediate Danger to Life and Health (IDLH) Atmosphere.

Standard Operating Guideline: a Standard Operating Guideline (SOG) is a set of written instructions that document a routine or repetitive activity followed by an organization. Guidelines may imply more discretion in performing the job.

Standard Operating Procedure: a Standard Operating Procedure is “an organizational directive that establishes a standard course of action. Procedures may imply relatively inflexible task steps or instructions.

Technical Rescue Team (TRT): sometimes referred to as Heavy and Technical Rescue (HTR), specialized trained personnel that provides emergency response services such as: Trench Rescue, Confined Space Rescue, Vehicle Rescue, Water Rescue, Rope Rescue, Farm Machinery Rescue, Structural Collapse Rescue, and Wilderness Search Rescue.

TrafficLand Cameras: TrafficLand is the leading provider of live traffic video, offering easy access to thousands of traffic cameras throughout the United States and the world. TrafficLand cameras are mounted at various locations throughout the Washington, DC metropolitan area.

Virginia Department of Labor and Industry: state agency designated with workplace fatality investigations.

Zone Box Map Book: a street map book that provides diagrams of the streets in any particular Zone Boxes response area.



Joshua A. Weissman
1978-2012



COMMONWEALTH of VIRGINIA

DEPARTMENT OF LABOR AND INDUSTRY
Valley Regional Office

Mailing Address
P.O. Box 77
Verona, VA 24482
Tel: 540-248-9280
Fax: 540-248-9284

Physical Address
201 Lee Highway
Verona, VA 24482

October 17, 2012

Battalion Chief Jeffrey Merryman,
Health and Safety Unit
City of Alexandria Fire Department
Re: Hazard Alert Letter

Battalion Chief Jeffrey Merryman:

The Virginia Department of Labor and Industry; Occupational Safety and Health is not pursuing the issuance of citations against the City of Alexandria Fire Department, in relation to the accident on Interstate 395 and Four Mile Run on February 8, 2012, which resulted in the death of Paramedic Joshua Weissman.

During the course of this investigation the following information was obtained in regards to the general conditions at the time of the accident and could have been contributing factors in the accident.

- **Atmospheric Conditions:** The accident took place at night with mixed precipitation consisting of sleet and rain, with no measurable accumulation.
- **Lighting:** No direct lighting was present within the underpass area of Four Mile Run. In addition, the ambient urban lighting and lights from the emergency vehicles created an atmosphere of near zero visibility when looking through the gap from the interstate down into Four Mile Run.
- **Communication:** At the time of the accident, the car fire was extinguished, but no further communications were relayed in regards to the entrapment. This was still an active rescue in the mind of Paramedic Weissman.

In addition, several visual indicators were present at the accident scene which could have given Paramedic Weissman the impression that it was safe to navigate across the guardrail.

- Firefighters from Arlington County were actively on scene across the guardrail. The Arlington County apparatus (Engine 107) was located approximately thirty feet (30') behind Medic 206.

- A small brush or remnant of a tree was located just to the left of Engine 107, within the area where Paramedic Weissman attempted to cross the guard rail.
- The hose lines from Engine 107 were charged and were still near the vehicle fire.

Per Standard Operating Procedures (SOP's), Medic 206 was parked in front of (the first on-scene apparatus), Arlington County Engine 107. However, the front bumper of Engine 107 was located at the edge of the bridge/overpass abutment. This inherently placed Medic 206 on the bridge/overpass over Four Mile Run. In addition, neither the driver of Medic 206 or Paramedic Weissman was aware they were located on the bridge/overpass. The following common indicators may be used for additional generalized situational training involving roadway operations:

- Construction: Bridge decks and overpasses are constructed using concrete and are generally lighter in color from asphalt roadway. However, precautions should be used, the concrete, however unlikely could be paved over with an asphalt coating or the roadway could be constructed of concrete. Either of these would make visual identification difficult.
- Guard Rail: The guard rail was a tubular steel guardrail with a concrete base. The base was constructed with a curb to channel water away from the road surface. In general, tubular steel guardrails used in conjunction with a concrete base are located at or near the edge of elevated roadways, bridges/overpasses or lack of a median to divide traffic. Other common forms of guard rails, either cable retainers or standard "W" style guardrails have the support post anchored directly into the ground.

In addition, it was understood that Medical Units with The City of Alexandria Fire Department are equipped with one re-chargeable light that is stored in the patient care area and the Engine Companies have a re-chargeable lights within the front cabin of the apparatus. The City of Alexandria Fire Department should evaluate the accessibility of portable hand held lighting available within the personnel cabins of the Medical Units.

It is impossible to conclude which, if any, some or all of the factors listed above contributed to the actions taken by Paramedic Weissman. It is recommended that the City of Alexandria Fire Department institutes into their rotational training schedule, situational training to identify fall hazards and other hazards that are related to fire and rescue operations and evolutions on elevated roadways and bridges. The City of Alexandria Fire Department should review and revise, if needed any existing SOP's or institute new SOP's to address all the hazards identified.

Thank You

Michael J. Trabosh

Compliance Safety and Health Officer
Va. Department of Labor and Industry
201 Lee Highway
Verona, Virginia 24482

(P) 540.248.9280 ext.16

(F) 540.248.9284

Appendix B

**COMMONWEALTH of VIRGINIA**

Colonel W. S. (Steve) Flaherty
Superintendent
(804) 674-2000

DEPARTMENT OF STATE POLICE
Bureau of Criminal Investigation
4977 Alliance Drive Fairfax, VA. 22030
(703) 803-2676

January 10, 2013

Battalion Chief Jeffrey Merryman
Alexandria Fire Department
900 Second Street
Alexandria VA, 22314

Re: Death Investigation -- Joshua Weissman

Dear Chief Merryman:

This letter is to confirm our telephone conversation on this date, where I advised you the Department of State Police had completed the investigation of the events surrounding the death of Paramedic Joshua Weissman that occurred on February 8, 2012. As a result of the investigation, it was determined Paramedic Weissman was on duty responding to a vehicle fire when he fell approximately thirty feet from an overpass. Paramedic Weissman's cause of death was determined to be "blunt impact injuries" and the manner of death was determined to be "accidental". No further inquiry will be conducted.

Please feel free to contact me with any questions regarding this investigation.

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Russillo".

Captain David A. Russillo
Division Commander
Bureau of Criminal Investigation
Fairfax Field Office

DAR/rle