Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.
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Abstract

This paper examines the need for a “full stop” policy at controlled intersections and would such a policy prevent an accident like the one in Massillon that claimed the lives of an elderly man and his young grandson. With the Massillon incident as a backdrop, I will look at the question of a full stop policy at negative right-of-way intersections and the recommendations from NFPA 1500, IAFF and IAFC. In addition, I will examine two incidents that claim the life of a fire fighter and see how many fire departments currently have a full stop policy and if the policy is enforced.
Introduction

Full Stop Policy: Apparatus Response Safety

Both the International Association of Fire Fighters (IAFF) and the International Association of Fire Chiefs (IAFC) have called for fire departments to enact SOPs that require fire apparatus to “STOP” at all negatively controlled intersections (STOP signs, RED traffic, controls, railroad crossings, etc.). According to the International Association of Fire Fighters (IAFF), when an apparatus becomes involved in a vehicle crash, the reputation and public trust, not to mention the legal ramifications, of the fire department is damaged. In emergency medicine there is a saying… “Do no harm” and I believe that it applies to the fire service as well. In this paper I ask the question: How do we prevent another Massillon from happening again? I will share recommendations from the NFPA, IAFF, IACF and the USFA. And I will see how many of my local fire departments currently have a Full Stop SOP for apparatus emergency response.
Background and Significance

The accident that is the reason for this paper

![Photograph of the accident](image)

The photograph is from May 6, 2008 in the City of Massillon, Ohio and shows the aftermath of an accident involving a fire apparatus and a mini-van. Seventy-year old Ron Anderson and 4 year old Javarre Tate died in the crash. According to court documents the driver of the apparatus was doing 52 mph in a 25 mph zone and failed to stop at a controlled (four-way STOP sign) intersection. This case is now pending before the Ohio State Supreme Court.
Literature Review / Discussion

First, let’s look at the recommendations from the IACF and their *Guide to Model Policies and Procedures for Emergency Vehicle Safety*. The IACF defines negative right-of-way intersections as a red light, flashing red light, or stop sign; blind intersections, or any intersection where hazards are present/or the driver cannot account for all oncoming traffic lanes. Quoting from the document, “*The fire department emergency vehicle shall come to a full stop* (boldface and underline added) *before entering a negative right-of-way intersection (red light, flashing red light, or stop sign), blind intersection, or any intersection where hazards are present and/or the driver cannot account for all oncoming traffic lanes. The emergency vehicle shall not enter the intersection until all approaching traffic has yielded the right-of-way and it is safe to proceed. The emergency vehicle driver shall ensure that all approaching vehicles in all lanes have yielded the right-of-way before advancing.*”

One important recommendation from the IACF is to treat each lane as a separate intersection or cross in stages. What do you do when the emergency vehicle has the right-of-way (green light or stop sign for cross-traffic)? The IACF recommends the following; not to exceed the posted speed limit; do not assume oncoming/opposing traffic has stopped, even when facing a green or “clear signal” and be prepared to stop immediately, if necessary.

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The IAFF’s recommendations on negative right-of-way intersections and full stop policies are identical to the IACF. So rather than repeat the information, I have listed the important points from the IAFF:

- A complete stop adds only 2-3 seconds per intersection in your response times.
- The driver/operator and company officer must work together.

The IAFF, US Fire Administration and the IACF all make reference to NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*. So let look at Chapter 6, *Fire Apparatus, Equipment, and Driver/Operators* and the requirements for emergency response to an incident. The driver shall bring the vehicle to a complete stop for any of the following:\(^2\)

1. When directed by a police officer.
2. At red traffic lights
3. At stop signs
4. At negative right-of-way intersections
5. At blind intersections
6. When the driver cannot account for all lanes of traffic in an intersection
7. When other intersection hazards are present
8. When encountering a stopped school bus with flashing warning lights.

\(^2\) Section 6.2.8 page 1500-14
All three governing bodies recommend, require or strongly suggest that fire departments have a full stop SOP at negative right-of-way intersections.

Phoenix Fire Department has long been considered the “Gold Standard” when it comes to standards and policies. And here’s what I found, “When approaching a negative right-of-way intersection (red light, stop sign) the vehicle shall come to a complete stop and may proceed only when the driver can account for all oncoming traffic in all lanes yielding the right-of-way.” But what really caught my attention was their Code 3 Intersection Management – Driver/Co-Driver policy. This policy requires that for a Code 3 the Driver is responsible for operating the vehicle safely. The Co-driver, Officer or Fire Fighter, is responsible for being a second set of eyes and ears. Both Driver and Co-driver must be focused on intersection management any time a PFD vehicle enters into an intersection Code 3. Intersection management requires the Drivers and Co-drivers undivided attention. The Co-drivers in addition to the Driver should be accounting for clearance in all traffic lanes, accounting for all pedestrian traffic and announce if it is clear or not clear to proceed. This policy complies with NFPA 1500’s “challenge and response” which says that any member of the crew can challenge the driver’s intentions when approaching any hazard or perceived hazard.

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3 Phoenix Regional, Standard Operating Procedures, Driver Safety, M.P. 205.08 10/04R p. 1
4 NFPA 1500, Annex 6.2.7, p. 1500-34
Now let’s look at an actual incident that occurred in Chicago, Illinois on April 29, 2000.  

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5 National Institute for Occupational Safety and Health (NIOSH) F-2000-39 August 2001
Chicago FD’s Truck 24 was responding to an automatic residential fire alarm when the accident occurred. The driver of Truck 24 was approaching a 4-way-stop (negative-right-of-way) intersection (See Diagram above). A Battalion Chief, who was not responding to the call, but was returning to the station, was following the same route. As Truck 24 approached the intersection, the apparatus driver noticed a red Ford F-150 pick-up approximately a half-a-block from the intersection approaching from the right. The apparatus driver made a rolling stop, and then proceeded through the intersection. About three-quarters of the way through the intersection, he realized that the pick-up was not going to stop. The lieutenant (victim) told the apparatus driver to continue through the intersection and tried hand signals in an attempt to stop the pick-up.

Incident number two took place in Texas City, Texas on October 5, 1999.6 A captain was killed and two fire fighters were injured in the crash. Engine 33 was responding to an EMS call at 0938 hours. The driver approached a negative right-of-way intersection (traffic signal), slowed down, but did not come to a complete stop, checked traffic and proceeded through the intersection. A civilian vehicle also proceeded through the intersection and into the path of Engine 33.

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6 NIOSH Captain Dies and Two Fire Fighters are injured in a Motor-Vehicle Crash F-36-1999. March 2000
The apparatus driver, in an attempt to avoid the collision, applied the brakes, but was unable to stop and the two vehicles collided (Diagram 1). The civilian vehicle struck the driver’s side of the engine and the impact caused the apparatus driver to lose control and hit one of the concrete columns supporting the overpass (Diagram 2). The captain (victim) was not wearing a seat belt and was ejected, the driver was knocked unconscious and the fire fighter suffers a leg injury. I don’t know the condition of the civilian in the car.
The fire vehicle traveled past the support column and came to a stop in the same lane next to the victim.

I think both of these incidents could have been avoided if the Fire Apparatus Operator (FAO) had made a FULL STOP before proceeding through the intersection. So how many departments in my area have a full stop SOP and do they enforce it?
Survey

To answer that question, I conducted a survey of the 15 fire departments in Genesee County, Michigan. So I started with Deputy Fire Chief Bill Mahler, Drivers Training Instructor for Burton Fire Department, my former department, and the Drivers Training Instructor for the Genesee County Training Committee. He told me that “All drivers are taught to come to a complete stop for all negative right-of-way intersections and that Burton Fire Department has a full stop SOP for negative right-of-way intersections and it is enforced.” He said that “The Michigan Vehicle Code, Public Act 300 does not require a full stop, but only that the driver use ‘due regard’ when responding to an emergency incident”

The county drivers training program comes from the Volunteer Firemen’s Insurance Services (VFIS) So I checked, and I found this VFIS Risk Communique – that tells the driver that, “During emergency response be prepared to bring the vehicle to a complete stop for negative right-of-way intersections.”

The keys words are “be prepared.” I asked Chief Mahler about this communiqué, and he insists that all drivers in Genesee County are taught the full stop policy.

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7 VFIS. Risk Communiqué Intersection Practices. 2010
Rather than bore you with a quotes from all fifteen fire chiefs or their designees, I will simply share the results of my survey. All Genesee County fire department follow the Michigan Vehicle Code, Public Act 300. I was Surprised to find that all of departments have an SOP for emergency vehicle response. But only six out of fifteen or 40% have a full stop policy.

**Conclusion**

I have concluded from writing this paper that there is still a lot of work to be done. And even though fifty percent of the departments in Genesee County have a full stop SOP, I would like to increase to that number to 100% in the future. I think the two examples cited in this paper clearly show how important it is for fire departments to adopt a full stop policy. That’s why I will be meeting with Deputy Chief Bill Maher to show him the Massillon incident, and ask him to help get the message out! Accidents like the one in Texas City, Chicago and Massillon are preventable. Whether your department has a full stop policy or not, and if you are a driver/operator, do it anyway. You owe it to the people you are sworn to protect, your department and your family. You will find a sample SOP in the Appendices and I will do everything possible to implement this policy in your department. And there are two other very important lessons that I learned in writing this paper: **slow down and wear your seat belt!**
References


Appendices

FIRE DEPARTMENT
STANDARD OPERATING PROCEDURE
FIRE DEPARTMENT VEHICLE SAFETY
EMERGENCY AND NON-EMERGENCY RESPONSE
SAFE EMERGENCY OPERATIONS ON ROADWAYS

PURPOSE:

Fire Department responses to and from emergency incidents as well as emergency operations on roadways present a high level of risk to fire fighter safety. This procedure identifies requirements for the implementation of a safe Fire Department vehicle operations program. This procedure shall be enforced for all Fire Department vehicle operations. The company officer and the driver of the vehicle are responsible for the safety of all vehicle operations and managing compliance of this standard operating procedure.

POLICY:

Fire Department vehicles shall be operated in either an emergency mode utilizing vehicle emergency lights and sirens (e.g. Code 3, Priority 1) or a non-emergency mode (e.g. Code 2 or Priority 2). Regardless of the vehicle operation mode, it is the responsibility of the driver of each Fire Department vehicle to drive safely and prudently. It is the responsibility of the company officer to ensure that the driver is operating the Fire Department vehicle in a safe and prudent manner.

All employees are required to use seat belts at all times when operating a Fire Department vehicle. All personnel shall ride only in regular seats provided with seat belts. Riding on tailboards or other exposed positions is not permitted on any vehicle at any time. The company officer and driver of the vehicle shall confirm that all personnel and riders are on-board, properly attired, with seat belts on, before the vehicle is permitted to move. This confirmation shall require a positive response from each rider, as in "ready."

Vehicles shall be operated in compliance with the Federal, State and/or Provincial Motor Vehicle Code. This code provides specific legal exceptions to regular traffic regulations that apply to Fire Department vehicles only when responding to an emergency incident or when transporting a patient to a medical facility in an emergency mode. Emergency response does not absolve the driver or the company officer of any responsibility to drive with due caution. The driver of the emergency vehicle and its officer are responsible for its safe operation at all times.
When responding in the emergency mode, warning lights must be on and sirens must be sounded to warn drivers of other vehicles, as required by the Federal, State and/or Provincial Motor Vehicle Codes. When responding or returning in a non-emergency mode, warning lights and sirens shall not be used.

The use of sirens and warning lights does not automatically give the right-of-way to the emergency vehicle. These emergency devices simply request the right-of-way from other drivers, based on their awareness of the emergency vehicle presence. Emergency vehicle drivers and company officers must make every possible effort to make their presence and intended actions known to other drivers, and must drive defensively to be prepared for the unexpected or inappropriate actions of others.

Fire Department vehicles are not authorized to exceed posted speed limits when responding in any mode and under any conditions.

Federal, State and/or Provincial Motor Vehicle Codes prohibit travel in oncoming traffic lanes (i.e. beyond double yellow lines). However, when emergency vehicles must travel in oncoming traffic lanes, the maximum permissible speed shall be 20 mph. On limited access roadways (e.g. interstates, freeways, toll roads) the use of oncoming traffic lanes shall only be used at the request of the Police and only after it is assured that all oncoming traffic is stopped. The Fire Department shall confirm the traffic has been stopped before entering any roadway against traffic.

Intersections present the greatest potential danger to emergency vehicles. When approaching a negative right-of-way intersection (red light, stop sign, yield sign) the vehicle shall come to a complete stop and shall proceed only when the driver can account for all oncoming traffic in all lanes yielding the right-of-way. When emergency vehicles must use center or oncoming traffic lanes to approach controlled intersections, (traffic light or stop sign) they must come to a complete stop before proceeding through the intersection, including occasions when the emergency vehicle has a green light. When approaching and crossing an intersection with the right-of-way, drivers shall not exceed the posted speed limit.

Emergency response is authorized only in conjunction with emergency incidents. Unnecessary emergency response shall not be permitted. When the first unit reports on the scene and establishes and confirms that there is no emergency, the incident commander will advise Dispatch/Communications and all additional responding units shall be alerted by Dispatch/Communications and shall continue to the scene in the non-emergency mode.
During an emergency response, fire vehicles shall avoid passing other emergency vehicles. If passing is necessary, the vehicle being passed must be contacted by radio and shall, when possible, move to the right lane.

Radios, cellular phones, mobile data terminals, mobile computer terminals or other communication devices shall not be used by the vehicle operator while the emergency vehicle is in motion.

Drivers shall avoid backing whenever possible. Where backing is unavoidable, at least one spotter shall be used. If no spotter is available, the driver shall dismount and walk completely around apparatus to determine if obstructions are present before backing. Members shall not be permitted to ride on tailboard or running board while backing the vehicle.

The unique hazards of driving on or adjacent to the fireground requires the driver to use extreme caution and to be alert and prepared to react to the unexpected. Drivers must consider the dangers their moving vehicle poses to fireground personnel and spectators who may be preoccupied with the emergency, and may inadvertently step in front of, or behind, a moving vehicle.

When stoppec at the scene of an incident, vehicles shall be placed to protect personnel who may be working in the street and warning lights shall be used to make approaching traffic aware of the incident. During emergency operations, vehicles shall be angled to block at least one lane of traffic and, where applicable, the road’s shoulder. All personnel working in or near traffic lanes shall wear high visibility vests.

At night, vehicle mounted floodlights and any other lighting available shall be used to illuminate the scene. The total amount of lighting used at nighttime emergencies shall be managed to prevent blinding other drivers as they approach the scene.

### Emergency Response Criteria

- All personnel seated and belted
- Warning lights and sirens activated
- Maximum 10 mph over posted speed limit.
- Traveling in center or oncoming traffic lanes, 20 mph maximum and complete stop at all traffic lights/stop signs.
- Posted speed limit when entering intersections with green light.
- Complete stop at all red lights, stop signs and yield signs.
- No driver use of communication or texting equipment when vehicle in motion