On-Duty Deaths of Fire-Police Officers, 1991-2010

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December 2011

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Acknowledgements

The National Fire Protection Association thanks all the fire departments and state fire authorities who participate in the National Fire Incident Reporting System (NFIRS) and the annual NFPA fire experience survey. These firefighters are the original sources of the detailed data that make this analysis possible. Their contributions allow us to estimate the size of the fire problem.

We are also grateful to the U.S. Fire Administration for its work in developing, coordinating, and maintaining NFIRS.

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NFPA Index No. 1643

On-Duty Deaths of Fire-Police Officers
1991 - 2010
Summary Sheet

- From 1991 through 2010, 68 fire-police officers died in the U.S. of injuries suffered while on duty.
- All of the victims were members of volunteer fire departments and all were male.
- "Fire-police officer" is a category of firefighter that is not commonly used throughout the U.S. In fact, 75 percent occurred in just two states -- Pennsylvania (30 deaths) and New York (22 deaths).[1]
- The victims ranged in age from 41 to 82 years, with a median age of 67.

Cause and Nature of Fatal Injuries

51 sudden cardiac deaths
12 struck by vehicles
3 killed in collisions
1 collapsed and fell, striking head
1 infection from contaminated flood waters

Type of Duty

15 fire scene operations
22 responding to or returning from alarms
25 non-fire emergencies
1 training
5 other

[1] The other states were New Jersey (6 deaths), Maryland (5 deaths), Connecticut (2 deaths), and Maine, North Carolina and Rhode Island with one death each.

Source: National Fire Protection Association, Quincy, Massachusetts, November 2011.

On-Duty Deaths of Fire-Police Officers in the United States 1991 - 2010

From 1991 through 2010, 68 fire-police officers died in the U.S. of injuries suffered while on duty. "Fire-police officer" is a category of firefighter that is not commonly used throughout the U.S. In fact, 75 percent of the deaths occurred in just two states -- Pennsylvania (30 deaths) and New York (22 deaths). The other states where deaths occurred were New Jersey (6 deaths), Maryland (5 deaths), Connecticut (2 deaths), and Maine, North Carolina and Rhode Island with one death each.

All of the victims were members of volunteer fire departments and all were male. The victims ranged in age from 41 to 82 years, with a median age of 67.

Most of the fire-police officers who were killed over this 20-year period were assigned to traffic control (60 percent) and this is reflected in the types of incidents at which the fatal injuries occurred. Of the 68 victims, 25 were at non-fire emergencies (e.g., motor vehicles crashes), 21 were responding to or returning from emergency calls, 16 were working at fire scenes, one was at a training exercise and five were involved with other on-duty activities.

Of the 68 victims, 51 suffered sudden cardiac death, 12 were struck by vehicles, three died in collisions while responding to alarms, one collapsed and fell, striking his head and one died of an infection when an open wound was contaminated by flood waters. Available medical documentations showed that most of the 51 sudden cardiac death victims had existing health issues, including prior heart attacks or bypass surgery, hypertension and severe arteriosclerotic heart disease. All 12 of the fire-police officers who were struck by vehicles were directing traffic or assigned to traffic control at the time. Those deaths will be discussed in more detail in a separate section of this report.

Non-Fire Emergencies

All 25 of the fire-police officers who were killed at non-fire emergencies were directing traffic. Sixteen suffered sudden cardiac death, seven were struck by non-fire department vehicles, one

Source: National Fire Protection Association, Quincy, Massachusetts, November 2011.

collapsed and fell, striking his head and one died of an infection when an open wound was contaminated by flood waters.

Responding/Returning

This category includes fire-police officers who were responding to or returning from emergency calls, as well as those who were directing traffic while apparatus responded. Eighteen of these 22 victims suffered sudden cardiac death (one of them while directing traffic), three were killed in collisions while en route to the emergency, and one was struck by a fire apparatus while directing traffic.

Fire Scenes

All of the 15 victims who were fatally injured at the fire scene were directing traffic. Twelve of the 15 victims suffered sudden cardiac death and three were struck by non-fire department vehicles.

Training

One fire-police officer was struck and killed by a passing vehicle while directing traffic at a live fire training drill.

Other On-Duty

Sudden cardiac death claimed the lives of all five of the fire-police officers in this category. One victim collapsed at the fire station after a traffic detail and another after directing traffic at a parade. One was directing traffic at a non-emergency fire department function. One was picking up supplies for a fundraiser. One was driving the traffic control vehicle along a parade route.

Fire-Police Officers Struck and Killed by Vehicles

Over the 20-year period, 12 fire-police officers were struck and killed while directing traffic or assigned to traffic control. (Over the same time period, 67 other firefighters were also struck and killed by vehicles, so this is a problem that is not limited to fire-police officers.)

The three factors most frequently reported as contributing to the deaths of these fire-police officers were: lack of visibility of the victim, distractions and blinding caused by emergency

vehicles at the incident, and moving into the path of on-coming vehicles. In three of the incidents, it was reported that the driver of the vehicle that struck the victim was intoxicated.

Most of the deaths occurred at times when darkness or bad weather could have created visibility problems. Three of the 12 victims were wearing dark clothing and no reflective gear when they were struck. One of the three was also not using a flashlight or flares.

In at least four cases, emergency apparatus warning lights that firefighters relied on to increase the safety of their operations actually contributed to the incidents, by blinding or distracting the drivers. In one incident, the driver was blinded and distracted by the lights of an oncoming fire truck that was turning left through the intersection in front of him, and never saw the fire police officer, who was wearing dark clothes and using only a small flashlight, while he stood in the road signalling him to stop. In another incident, the driver was distracted by the incident scene where a train struck a vehicle, and then was temporarily blinded by the lights of the emergency vehicles and struck the victim, although he was wearing a reflective vest and helmet and using a flashlight and flares. Another driver might have been distracted by the lights of an ambulance, and did not see the victim, who was wearing all dark clothing while directing traffic. On a dark highway, a driver looked over at the crash scene and did not see a firefighter who stepped into the high-speed lane.

Two other victims apparently stepped into the path of the vehicles that struck them -- one while directing traffic at an intersection, one who moved behind an engine for a reason that could not be determined while it was backing up to a hydrant. Another firefighter had his back to oncoming traffic, in a situation where drivers were not sufficiently warned of the situation.

Details of these 12 incidents are summarized here:

- While telling one driver that the road was closed due to a crash, a victim, dressed in dark clothing, walked into the path of an oncoming car at an intersection. That driver had slowed down because an ambulance with emergency lights activated was blocking the road.
- One victim was run over by a pumper that was backing uphill to a hydrant. The vehicle was moving approximately 8 mph (13 kph) and the driver was using both mirrors and did not see the victim on either side. Investigators could not determine why the victim

was behind the vehicle while it reversed, with emergency lights and backup alarm sounding.

- A victim wearing dark clothes was struck at an intersection while directing traffic. He had been issued a reflective vest but was not using it. The driver who struck him never saw him and could have been blinded by the flashing headlights of a fire truck that was making a turn in the intersection in front of him, while the victim's personal vehicle was parked facing oncoming traffic with its hazard lights operating. No flares or any other warning system had been set up at the intersection.
- While directing traffic at an intersection, a victim wearing a reflective vest and helmet and using a flashlight and flares was struck by a driver who was distracted by the emergency scene and was blinded by emergency lights when she looked back at the road.
- When a fire-police officer wearing a reflective vest and using a flashlight with an orange safety wand attempted to move traffic that had stopped on a highway shoulder, he stepped into the high-speed lane and was struck by a driver who was looking at the crash scene and never saw the victim.
- A fire-police officer wearing a yellow rainsuit, an orange vest with yellow reflective tape and a yellow hard hat was struck by a hit-and-run driver with a suspended license while directing traffic at an intersection at the end of a detour around a crash scene. He had stopped traffic in one direction and turned to stop traffic in the other direction when he was struck from behind. The driver claimed he did not know he had struck someone until he read the news story the next day.
- At dawn, at the scene of a live fire training exercise, a fire-police officer entered an intersection to help a tanker cross a highway to access the scene. Using his orange-lighted flashlight, he tried to slow an oncoming truck, but it did not slow down enough and he was struck as he tried to run out of its way. He was not wearing any reflective clothing.
- Few details were available for an incident where a victim was struck by a passing vehicle whose driver was cited for careless driving and failure to obey an authorized person

directing traffic. The victim was wearing a reflective vest and helmet and using a wand-type flashlight at the scene of a structure fire.

- A fire-police officer wearing a reflective helmet, high-visibility reflective safety vest and a high-visibility body strobe light was struck by a drunk driver while directing traffic at an intersection. The victim tried to get into the other lane to avoid being struck, but the driver crossed the centerline.

- Heavy fog was a factor in an incident where a victim wearing a high-visibility reflective vest and flashlight with wand attachment was struck. Flares had been placed down the centerline of the road in both directions and flares and traffic cones were placed in the intersection where the victim was directing traffic. A friend of the victim had pulled his vehicle to the side of the road, partially in the travel lane. A driver steered around the parked car and back into the travel lane when he saw the victim and could not stop in time. He was driving 45 mph (72 kph) when he entered the fog bank at the intersection.

- A fire-police officer was struck by a drunk driver while directing vehicles out of a parking lot after a hazardous materials incident. The victim was wearing an orange mesh safety vest with reflective tape and using a flashlight with an orange illuminating plastic cone.

- A victim who was directing traffic at the scene of a motor vehicle crash was struck by a vehicle whose driver drove over traffic cones that had been set out to close the road. A flare had been placed near the cones. The victim was wearing coveralls with some reflective material and a high-visibility hat, and was using a flashlight with a traffic wand. However, he had his back to oncoming traffic and had positioned his vehicle, with emergency lights operating, beyond the point where the road was closed. Factors in the death included no advance warning to drivers, inconspicuousness of the victim and careless driving.

These incidents illustrate the need for all firefighters to exercise caution while operating on streets, roads and highways. Firefighters may not be as visible to drivers as they believe themselves to be. The use of flashlights, flares and protective clothing with reflective stripes should be mandatory when directing traffic or operating at accident scenes. Warning lights on vehicles should

be in operation, but firefighters must be aware that drivers can be confused by them. Only the warning lights necessary to alert motorists, identify the area and maintain a smooth flow of traffic should be used. Care must be exercised when stepping onto or operating on roadways. Firefighters must also be aware of the danger of intoxicated drivers whose behavior will be unpredictable and who can defeat even the most careful deployment of apparatus and firefighters.

Standards Dealing with Safety of Emergency Personnel Operating on Roadways

The 2009 version of the Federal Highway Administration's Manual of Uniform Traffic Control Devices (MUTCD) requires anyone working on a roadway to wear an ANSI 107-compliant high-visibility vest. An exemption was created for firefighters and others engaged on roadways that allows them to wear NFPA-compliant retroreflective turn-out gear when directly exposed to flames, heat and hazardous material. NFPA 1500, *Fire Department Occupational Safety and Health Program*, requires firefighters working on traffic assignments where they are endangered by motor vehicle traffic to wear clothing with fluorescent and retroreflective material. The 2009 edition of NFPA 1901, *Automotive Fire Apparatus*, requires that ANSI 207-compliant breakaway high-visibility vests be carried on all new fire apparatus, and MUTCD 2009 allows emergency responders to use them in lieu of ANSI 107-compliant apparel. Advice on compliance with the updated Federal rules, including definition of the term 'safe-positioned' and use of temporary control devices, can be found at: http://www.respondersafety.com/Articles/2009_Edition_of_the_Manual_on_Uniformed_Traffic_Control_Devices_MUTCD_Released_December_16_2009.aspx .

NFPA is currently developing a new standard, NFPA 1091, *Traffic Control Management Professional Qualifications*, which will have jurisdiction over documents that address professional qualifications for emergency responders in relation to their operations on roads.