### **EMR-ISAC**

Emergency Management & Response-Information Sharing & Analysis Center



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**Tourniquet Use Under Medical Protocols** 

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# The InfoGram

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#### **NFPA 2016 Firefighter Fatalities Report**

According to the National Fire Protection Association (NFPA), <u>69 United States fire-fighters died on duty in 2016</u>. A few notable statistics from the 2016 report:

- 17 firefighters died either traveling to or from an incident.
- 15 died on the fireground, the lowest number the NFPA has ever recorded.
- 10 deaths were at non-fire emergencies, and 10 during training activities.
- 29 deaths were due to medical issues, overexertion or stress.
- Two firefighters were shot and killed last year, and two died from suicide.
- Those 50 and above accounted for about half of firefighter deaths over the past 5 years.
- Only 19 were career firefighters, the lowest number ever reported.

NFPA has collected annual statistics since 1977 and they note a few interesting changes in the past 40 years. For example, the total number of firefighter deaths then averaged nearly 150 per year, more than double the current average. This is a significant success for the fire service, suggesting that changes made to organizational culture over time had the intended impact.

Also, while some categories trended downward (i.e., fireground deaths), others continue to trend upwards (i.e., sudden cardiac death). This may indicate years of health and safety education that targeted the now downward-trending issues are working. If so, this may spur the fire service to create or renew programs for those upward-trending causes of firefighter death.

One fact NFPA stresses is that it is impossible to accurately count the number of firefighter deaths or injuries resulting from job-related exposures to carcinogens and physical or emotional stress and strain. It goes on to list organizations attempting to track firefighter cancer and suicide deaths, and lists a number of ongoing, long-term studies working to understand these issues better, which hopefully will contribute to further reducing firefighter fatalities over the next 40 years.

(Source: NFPA)

#### The Day the Solar Eclipse Came to Town

On August 21, 2017, a total solar eclipse will be visible across the United States. It has been decades since a total solar eclipse has crossed a significant part of the country, and this one is special: the path of totality will travel completely across the contiguous 48 states from Oregon to South Carolina. It is likely millions of Americans

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## who have never seen one will plan road trips that weekend, and many small towns across the country are bracing themselves, as their populations may increase by a factor of three or more for a few days.

Towns along the <u>coast of Oregon</u> are especially concerned as they will be the first location for the totality to be seen. Grand Teton National Park is expecting the busiest day in their history, and emergency managers and first responders are meeting in <u>Idaho</u>, <u>Illinois</u>, <u>Kentucky</u>, and across the country to plan logistics for this event. Many are <u>warning visitors and residents</u> of traffic backups and poor cell phone service, and reminding them emergency response will likely be slow and to stock up on food, water and fuel to last a few days.

Some jurisdictions are setting up temporary generators as backups to their utilities and emergency communications while others are brushing off their crowd and traffic control plans. One smart move for those in the affected area is to use this event as an opportunity to <u>conduct exercises</u> and test emergency plans, such as in Oregon where state, local and federal agencies will do a "practice run" on their Cascadia Subduction Zone earthquake plan.

Fire departments in some areas are concerned about the <u>high potential for wildfires</u> <u>sparked by vehicles</u> in and around the tall, dry grasses. In Oregon, fire rescue departments will be sweeping the beaches the night before the eclipse, warning visitors of the dangerously high tide expected. Emergency medical personnel might want to brush up on eye injuries; Monroe County Tennessee EMS offers this information on avoiding eye damage from the eclipse.

If your town is not in the 70-mile wide path of totality this time, don't worry; you may have your chance soon. Another eclipse in 2024 will pass from Texas to Ohio and parts of Maine. The <u>Great American Eclipse website</u> has information on this and <u>future eclipses</u> that may be helpful to emergency managers and first responders, including separate pages for each state impacted by this event, maps and timelines.

(Source: Oregon Office of Emergency Management)

#### **Tourniquet Use Under Medical Protocols**

Tourniquet use is seeing a revival in emergency medical response. After going out of favor for more than half a century, military trauma medicine practiced overseas brought renewed interest in their use. Use of Combat Application Tourniquets (C-A-T) on soldiers with traumatic extremity injuries in the past decade "dramatically affected outcomes"; meaning, they strongly increased the likelihood of survival. This shift was influential in changing the attitude in domestic emergency medical treatment.

Lessons learned from recent mass casualty incidents, such as the Boston Bombing, show tourniquets as one of many vital life-saving methods used for bleeding control. Just weeks before that incident, a multi-agency group that included police and fire organizations published a document on responding to mass casualty incidents. The primary conclusion was properly applied tourniquets were the best way to lower the top cause of preventable death in trauma patients, which is blood loss.

The InterAgency Board (IAB) released the Training Trigger "Tourniquet Use Under Medical Protocols" (PDF, 413 Kb) to dispel some of the myths and highlight the benefits of tourniquet use. The one-page document lists facts about blood and the human body, tourniquet use and application, and the risks of tissue damage. The document goes on to list things departments should consider when they add tourniquets into their medical protocols, and a number of resources for further research.

(Source: InterAgency Board)

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