Emergency Management and Response - Information Sharing and Analysis Center (EMR-ISAC)

The InfoGram

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First responders should know the dangers of MRI technology

Magnetic Resonance Imaging (MRI) machines in hospitals and medical facilities use superconducting magnets to perform tests. These magnets are extremely strong, in some cases 60,000 times stronger than the Earth's magnetic field. This creates an incredibly dangerous situation, and the magnets are always on and cutting power will not shut them down. People have been killed from flying metal in an MRI room.

There have been accidents causing severe injuries to first responders who have gone near MRI machines without first removing magnetic items from their person. In Germany, a firefighter was pulled into the machine by his SCBA tank and nearly choked to death. There have also been reports of firearms being pulled into machines, sometimes discharging.

Departments and agencies should work with medical facilities using MRI technology within their jurisdiction and discuss safety with them, ensure personnel understand the markings and labels in MRI areas, and discuss procedures to disable (quench) the magnet in an extreme emergency. Quenching the magnet may destroy the MRI machine and should only be used as a last resort.

In addition to the links elsewhere in this article, there is a lot of information for first responders available online which could easily be added to a departmental training program. Fire Engineering offers a continuing education course (PDF, 520 KB) and University Radiology offers the "MRI Safety Training for First Responders" training slide deck (PDF, 970 KB). A few medical organizations or companies have produced videos on the topic including Spectrum Health and ZPRad. The city of Concord, North Carolina, also has a short safety article for firefighters (PDF, 149 KB).

Firefighters, EMS personnel and law enforcement officers must understand the dangers associated with MRI machines, be able to easily find or identify the location of MRI equipment, know how to identify MRI-compatible equipment (i.e. fire extinguisher or stretchers), and know how to safely do their jobs around MRI machines.

(Sources: Various)

Distracted driving now a way of life, serious threat to first responders

Survey results of drivers in the United States show some very disturbing realities. If they see an emergency vehicle, the average driver says they will often do the following **while driving**:

- 25 percent will email someone about it.
- 30 percent will take a photo or video of the incident.
- 25 percent will post something on social media.
- 17 percent will text someone.
- 19 percent of drivers admit their behavior has likely put first responders at risk.

Ironically, 89 percent of the same survey respondents agreed that distracted drivers are a serious risk to first responders.

Highlights

U.S. Fire Administration

The U.S. Fire Administration operates the Emergency Management and Response – Information Sharing and Analysis Center (EMR-ISAC).

For information regarding the EMR-ISAC visit www.usfa.dhs.gov/emr-isac or contact the EMR-ISAC office at: (301) 447-1325 and/or emr-isac@fema.dhs.gov.

Subscribe here

With this much distracted driving going on around emergency vehicles, it's more important than ever to ensure your personnel have a better understanding of their risks and proper training to handle the dangers.

ResponderSafety.com offers an extensive catalog of training programs related to this topic for fire and law enforcement as well as EMS, transportation departments, and towing and recovery companies. Examples of available courses are Scene Control, Safe Fire Service Traffic Control Practices, Law Enforcement and High Visibility PPE, and Traffic Incident Management on Rural Roads.

The most recent addition to the training catalog is Autonomous Vehicles. This module discusses the basics of autonomous vehicle technology, the current state of development, how to prepare for them on our roads and challenges or opportunities emergency responders face.

(Source: ResponderSafety.com)

NOAA ups forecast for above-normal hurricane season

The National Oceanic and Atmospheric Administration (NOAA) updated its 2019 hurricane season forecast last week, saying that conditions are more favorable for an above-average year as El Nino has ended.

Forecasters increased the likelihood of an above-normal Atlantic hurricane season to 45 percent; they had predicted a 30 percent chance back in May.

So far, there have only been two named storms in 2019, but the busiest part of the season is still ahead of us. NOAA is predicting 10-17 named storms with 2-4 major hurricanes.

It is not too late to remind people in your community to prepare for hurricanes and the other hazards that often come with them, such as flooding and power outages. Ready.gov offers great resources for the public you can promote through public information campaigns via social media, website or local news outlets. NOAA also has related resources through its Hurricane Preparedness National Seasonal Safety Campaign.

(Source: NOAA)

Free course: Leadership for the Fire and Emergency Services

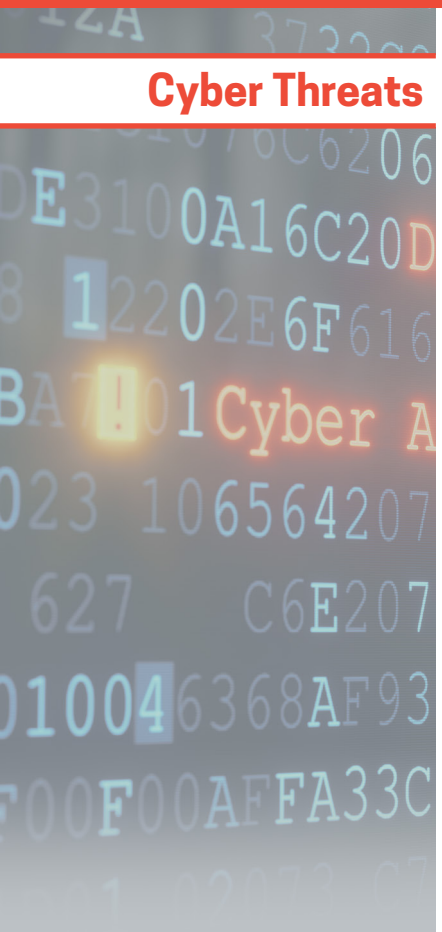
The National Volunteer Fire Council (NVFC) is offering their course "Leadership for the Fire and Emergency Services" free for a limited time to all fire and emergency services personnel.

The training webinar examines leadership styles, qualities and practices that enable fire departments to function at a high level and how to avoid fire service leadership pitfalls. The module includes a 49-minute webinar, a file download and a quiz. Other leadership courses will be offered for free over the next two months.

To access this training, you must create a Virtual Classroom account. NVFC courses are always available free to members. Some courses offer Continuing Education Credits (CEUs), please see the NVFC website for details.

(Source: NVFC)

Cyber Threats



Hospital Preparedness for Unplanned IT Downtime Events

Massachusetts General Hospital Center for Disaster Medicine developed "Hospital Preparedness for Unplanned Information Technology (IT) Downtime Events: A Toolkit for Planning and Response" (PDF, 746 KB) to help hospitals and other healthcare organizations improve their continuity of operations in the event of an IT service failure.

In many cases hospitals' abilities to manage unplanned IT downtime events have substantially lagged behind their adoption of new technologies. Yet, because of the potential impact on hospital operations, **unplanned IT downtime events can be just as serious a threat to patient safety as a power outage or medical gas failure**. Therefore, it is essential that hospitals close this gap in emergency preparedness.

(Source: Massachusetts General Hospital)

Cyber threat increasing for industrial control systems

As adversaries that target ICS environments improve their capabilities, it is easier for them to execute difficult attacks that cause operational disruptions or environmental damage, said a Dragos report. The report warned that **the energy infrastructure of all countries is at risk**, and companies and utilities are facing global adversaries.

Dragos assesses that state-associated actors will increasingly target oil and gas and related industries to further their political, economic and national security goals.

(Source: ComputerWeekly)

State Cyber Disruption Response Plans

The National Governors Association (NGA) released the "State Cyber Disruption Response Plans" issue brief (PDF, 1.25 MB) in July to aid states and territories trying to keep up with the ever-changing cybersecurity threat environment.

The NGA's 38-page issue brief looks at how 15 different states are addressing the cyber disruption issue, the response plans they have developed and **offers recommendations for creating state cyber disruption response plans**.

(Source: National Governors Association)

Why cities are a big target for cyberattacks and why it'll get worse

Once content to target individuals' PCs, cybercriminals have extended their reach upwards after realizing they can make tens of thousands of dollars by encrypting the entire networks of small- and medium-sized businesses and other organizations, and holding them to ransom.

While some major organizations – such as Norsk Hydro – have fallen victim to this kind of attack, cities and local governments, particularly those in the United States, have fast become regular victims of ransomware campaigns.

And, **cybercriminals are going to keep attacking cities with ransomware because it is bringing in lucrative paydays**.

(Source: zdnet)

Cyber Information and Incident Assistance Links

MS-ISAC
SOC@cisecurity.org
1-866-787-4722

IdentityTheft.gov

IC3

Cybercrime Support Network

General Information Links

FTC scam list

CISA alerts

Law Enforcement Cyber Center

TLP Information

The InfoGram is distributed weekly to provide members of the Emergency Services Sector with information concerning the protection of their critical infrastructures.