



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

INFOGRAM 17-08

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***NOTE:** This INFOGRAM will be distributed weekly to provide members of the Emergency Services Sector with information concerning the protection of their critical infrastructures. For further information, contact the Emergency Management and Response- Information Sharing and Analysis Center (EMR-ISAC) at (301) 447-1325 or by e-mail at emr-isac@dhs.gov.*

Public Works Departments: Essential CIP Resources

During the month of April 2008, a 4.7 magnitude earthquake rocked Nevada's largest city followed by more than 100 smaller aftershocks. Another quake of 5.2 on the Richter scale shook southern Illinois and was felt in parts of 16 states. According to prominent seismologists, there are 200,000 earthquakes recorded every year, with a magnitude 6 quake happening every three days somewhere in the world. Although many American scientists consider earthquakes an emerging national threat, they don't think it likely that quake events can be reliably predicted now and in the near future.

Recognizing the potential devastation of major earthquakes and nationwide concerns for local critical infrastructure protection (CIP), the Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) reexamined the dependence of emergency managers, incident commanders, and emergency responders on the resources and capabilities of Public Works (PW) Departments, which can make a significant difference in earthquake response and recovery.

A critical component of preparedness and protection is the acquisition of equipment that will perform to certain standards, including the ability to be interoperable with similar equipment used by other jurisdictions. In addition to operating water distribution and treatment facilities, PW departments provide essential response and recovery equipment that assist first responders to maintain the integrity of an incident scene, organize and expedite search and rescue activities, collect and protect evidence, and evacuate debris cleared for removal.

Considering PW vital contributions after a major earthquake and other catastrophes, the EMR-ISAC recommends PW departments actively participate in all local emergency planning, rehearsing, exercising, etc. Also, PW personnel should share in writing comprehensive emergency management and response plans, particularly the PW Annex to the plans. Being involved in this manner will ensure that PW knows the contents of plans in addition to the following (not inclusive):

- Functions to be performed.
- Operating and safety procedures.
- Special precautions for safe equipment operation.
- Scene security and crowd control procedures.
- Evidence protection and preparation.
- Reporting pertinent information or suspicious activities.

Joint coordinating, cooperating, and planning among community stakeholders including PW will help to ensure that PW personnel are trained to accomplish the following crucial tasks (not inclusive):

- Assess the operational environment.
- Select proper personal protective equipment.
- Identify the type and safety of the perimeter.
- Recognize suspicious individuals and packages.
- Decontaminate or decommission equipment.

The EMR-ISAC consulted two Homeland Responder Training Network (HRTN) video briefs (142 and 143) when preparing this article. Each video regarding Public Works Departments is five minutes in length and can be seen at: http://www.homelandresponder.org/hrbrief_142.htm (Part 1) and also at: http://www.homelandresponder.org/hrbrief_143.htm (Part 2). Additional HRTN videos can be accessed at: <http://www.homelandresponder.org/Pages/HR-2-features.html>.

City Managers and Emergency Planning

The Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) confirmed that city managers supervise all aspects of the actual working of a municipality, while implementing the policies developed by the city council and government. For example, city managers handle the coordination of all city services, citizen health and safety matters, building projects, re-zoning issues, etc. To achieve these tasks, city managers attend planning meetings and work closely with department managers to understand their realities, promote harmony and cooperation, identify and resolve problems, and organize the accomplishment of actions. They frequently help local government officials make decisions regarding critical infrastructure protection, emergency planning, safety and security, as well as the community economy and environment.

According to research by the EMR-ISAC, city managers should be important partners of local emergency planning committees, emergency managers, and the chief officers of emergency departments and agencies. Furthermore, the EMR-ISAC accepts that the guidance and activities of city managers can potentially influence the protection of community critical infrastructures as well as those of local first responders.

With regards to the performance of city managers as it pertains to the prevention and protection of community critical infrastructures, multiple sources suggest city managers and the chief officers of local emergency departments work together to implement the following measures (not inclusive):

- Communicate and coordinate with their respective counterparts at other levels of government in case a coordinated disaster response is needed.
- Ensure that all employees are watchful for suspicious or unattended packages and articles received through public and private mail delivery systems.
- Control access to all municipal buildings, other significant facilities, and key components of the public infrastructure.
- Guarantee that appropriate security measures for critical infrastructures and key resources are in place and functioning properly.
- Create provisions to place all emergency management, specialized response teams, and the leadership of emergency organizations on call-back alert status.

More information about protective measures can be found in the article “Threat Condition Orange,” by Roger L. Kemp, Ph.D., who is a career city manager. This article can be seen at http://govtsecurity.com/state_local_security/threat_condition_orange_2/.

9-1-1 Call Centers

The National Infrastructure Protection Plan is supplemented by several plans for the nation’s critical infrastructure sectors. The Sector Specific Plan for the Emergency Services Sector (ESS) acknowledges that Public Safety Answering Points (PSAPs) or 9-1-1 call centers are a major critical infrastructure component of America’s emergency services. Experience demonstrates that events which interrupt or degrade 9-1-1 systems potentially jeopardize “response-ability” and the continuity of emergency operations. Unfortunately, call centers attract media attention primarily when they experience disruptions or failures in service.

To acquire new or additional critical infrastructure protection (CIP) insights, the Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) looked at various news accounts of 9-1-1 system failures. The EMR-ISAC verified that among the threats to call center operations are computer hardware malfunctions, power surges, hackers, computer viruses or worms, system overloads, earthquakes, floods, fires, explosions, and lightning. System upgrades, e.g., a change in software, can also disrupt service, as can simply spilling a cup of coffee on a server. One 9-1-1 center, already in a backup mode because of power failure, discovered that frozen fuel had disabled its emergency generators.

Communication/cyber systems specialists assert that organizations often underestimate the impact of a significant computer disaster and the interrelationships and interdependencies in computer centric operations, while others might perceive that such disasters “happen to other people.” Recently, a 9-1-1 center underwent what was described as a “catastrophic failure.” At this particular center, 40 minutes passed before calls to the center were rerouted. However, another center experienced a failure just a few weeks after holding an exercise to test and refine a backup plan, and personnel were able to reroute calls within about a minute after the system failed.

Experts recommend that reviews of system integrity and written disaster recovery plans should take into account all possible sources of faults or disasters, including hardware, software (the operating system and the application), personnel, operations, environment, and communications. The goal should be that the system will tolerate all manner of possible interruptions.

The National Emergency Number Association (NENA) released “NENA Hazard and Vulnerability Analysis Operations Information Document,” a sample operations directive to guide PSAPs in developing hazard and vulnerability analyses. The 14-page document can be downloaded at http://www.njti-tert.org/press/NENA_Hazard_and_Vulnerability_Analysis_OID.pdf. PSAPs should also consider applying for federal funds to conduct exercises to test their communication systems.

Vacant Property Danger Increases

Emergency Services Sector (ESS) members across the United States are injured every year during responses to vacant buildings. The National Fire Protection Association estimates that more than 12,000 fires annually in vacant or abandoned properties result in approximately 6,000 injuries to responders, more than in any other property classification. Now, as a consequence of the dramatic increase in the number of bankruptcies and foreclosed properties across the country, hundreds of newly vacant properties are increasing life safety hazards to ESS personnel.

In a recent commentary on the issue at FireEngineering.com, the Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) noted relevant suggestions for the rank and file of ESS departments and agencies:

- Re-examine response plans and map locations of new vacancies.
- Re-evaluate tactics based on risk, e.g., interior versus exterior firefighting.
- Stay informed about the current status of vacancies, including utilities and gas lines, etc.
- Ascertain if vacant properties are being used by squatters or as drug houses.
- Consider hazards created by the absence of homeowners/caretakers, such as accumulations of dead grass and brush that increase fire load, or those associated with abandoned swimming pools.
- Determine if homeowners, angry about losing their property, have damaged the structural integrity of their residences, left behind hazardous materials, and created debris-ridden, dangerous environments.

To learn more about the new dangers presented by foreclosures, the EMR-ISAC recommends viewing “Fire Commentary: The Foreclosure Issue,” which can be accessed at: http://www.fireengineering.com/display_article/326704/25/none/none/BRNIS/Fire-Commentary:-The-Foreclosure-Issue?dcmp=Fireengineering.

NOTE: During the week of 5 to 9 May, the EMR-ISAC will be moving to a new location on the campus of the National Emergency Training Center in Emmitsburg, Maryland. Therefore, there is a possibility that no INFOGRAM will be prepared next week (dated 8 May).

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The National Infrastructure Coordinating Center (NICC) within the Department of Homeland Security (DHS) Office of Infrastructure Protection is the central point for notifications regarding infrastructure threats, disruptions, intrusions, and suspicious activities. Emergency Services Sector personnel are requested to report any incidents or attacks involving their infrastructures using at least the first and second points of contact seen below:

- 1) NICC - Voice: 202-282-9201, Fax: 703-487-3570, E-Mail: nicc@dhs.gov
- 2) Your local FBI office - Web: <http://www.fbi.gov/contact/fo/fo.htm>
- 3) EMR-ISAC - Voice: 301-447-1325, E-Mail: emr-isac@dhs.gov, fax: 301-447- 1034, Web: www.usfa.dhs.gov/subjects/emr-isac, Mail: J-247, 16825 South Seton Avenue, Emmitsburg, MD 21727