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

INFOGRAM 22-08   June 12, 2008

Disastrous Flooding Mitigation

Heavy rainfall and rising rivers in the Midwestern United States during the past several days have caused record flooding in Illinois, Indiana, Iowa, Minnesota, and Wisconsin. Several cities in those states have declared mandatory evacuations with thousands of homes and businesses inundated, roads damaged or gone, in addition to weakened or failed minor levees and dams. On 11 June, the National Weather Service reported a total of 200 central U.S. locations are under water, and issued new flood warnings for Missouri, Montana, and Oklahoma.

The Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) observed that this severe weather has presented multiple challenges for the Emergency Services Sector (ESS). The seemingly incessant rain forced ESS departments and agencies in affected areas to respond to atypical flooding, while simultaneously trying to protect their own critical infrastructures and continuity of operations.

Lessons learned from this flooding disaster are already beginning to appear. Therefore, for the benefit of ESS organizations in regions susceptible to extreme water and flooding conditions, the EMR-ISAC offers the following considerations acquired from various sources as well as previous flooding events:

- Prepare to operate in water depths exceeding three feet.
- Identify reliable sources for civilian and military boats to conduct operations.
- Confirm reliable sources for civilian and military vehicles with water-fording capabilities.
- Determine reliable sources for helicopter support.
- Acquire and practice with hard sleeves/suction hoses to draft water.
- Obtain Coast Guard approved (Type 1) personal flotation devices for all personnel.
- Find locations to store apparatus and equipment threatened by floodwaters.
- Establish the means and procedures to pump floodwaters from buildings.
- Ascertain sources to acquire sandbags, shovels, tarps, etc.
- Assess locations of electrical and mechanical systems in ESS buildings and explore changing their locations, particularly when found in basements or lower floors.

More useful information about flooding mitigation can be seen at the following FEMA links:
- http://www.fema.gov/plan/prevent/floodplain/index.shtm
- http://www.fema.gov/hazard/flood/index.shtm

Organization Recovery Tips and Planning Resources

Considering the recent flooding and tornadoes that devastated several areas of the United States, the Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) searched for recovery tips to assist the communities and emergency responders affected by these severe weather events. The EMR-ISAC learned that the Institute for Business and Home Safety (IBHS) offers the following recommendations for recovering areas and any other region of the nation affected by future natural disasters:

- Ensure buildings, stations, and firehouses are safe before allowing personnel re-enter.
- Report downed power lines and gas leaks as soon as possible for immediate repair.
- Arrange for a certified engineer to inspect damaged structures to determine the extent of destruction and feasibility for restoration.
- Assess damages to the structure, equipment, and property, including any stocked items or inventory.
- Submit a description of losses promptly to the insurance company.
- Make temporary repairs to the structure to avoid further damage by boarding up windows or covering holes in the roof, etc.
- Partition any unusable areas of the building if possible to block access.
- Coordinate the expeditious repair of the structure's sanitation systems.
- Guarantee that those performing cleanup work wear protective eyewear, gloves, hardhats, and masks.

Additionally, the IBHS has resources available on its website such as the "Open for Business" toolkit, which includes vulnerability assessment information as well as guidance for minimizing risks. The toolkit guides the user through organizing the institution's critical information and reviewing its essential operations. The toolkit can be viewed and downloaded at http://www.ibhs.org/docs/OpenForBusiness.pdf (14.3 MB; 47 pages). Also available at this website is "Getting Back to Business," a brochure that explains how to report losses, assess damage, and restore operations.

Roadway Safety

Emergency Services Sector (ESS) leaders continue to investigate methods to increase safety during travel to and from incidents. At stake are responder lives, time lost to injuries, damage to physical assets, and liability risks to responder organizations, all of which the Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) regards as negatively affecting infrastructure protection, continuity of operations, and response-ability.

After years of steadily increasing "struck-by" deaths and injuries of responders on roadways, legislation mandating the use of high-visibility safety apparel becomes effective on 24 November 2008. The Federal Highway Administration, Worker Visibility Final Rule (23 CFR Part 634), which includes guidance on its application, can be examined in the Federal Register (Vol. 71, No. 226, 24 November 2006) at http://edocket.access.gpo.gov/2006/pdf/E6-19910.pdf.

Protecting emergency personnel, the foremost of ESS critical infrastructures, at highway incidents is the mission of the Responder Safety Institute, created by the Cumberland Valley Firemen's Association. The Institute's ResponderSafety.com site, funded by the U.S. Fire Administration and the Department of Justice Office of Justice Programs, offers emergency services training and information resources.

The Institute was instrumental in designing a high-visibility safety vest and having it approved by federal highway officials to meet the new final rule. Featured at the organization's newly revamped web site is a 90-second public safety video, "Accepting the Challenge to be Visible," that shows the new breakaway safety vest in use. Also available is a downloadable "high-visibility vest push card" that explains vest specifications and features, and outlines compliance issues with the new rule. Public safety organizations, training agencies, and associations can request free bulk shipments of the push card by contacting cvvfarespondersafety@yahoo.com. All Responder Safety Institute training, including a PowerPoint program on the vest issue, Frequently Asked Questions, and supporting materials on high-visibility garments, can be accessed at http://www.respondersafety.com/Training/Downloads.aspx.

Shelter Assessment

Although natural and man-made disasters strike year-round, the January-October timeframe is a period of high activity for hurricanes, tornadoes, wildfires, and flooding, which are events that frequently necessitate shelter activation. Managing and operating shelters to protect a community's most valuable component—citizens—are chief among many Emergency Services Sector (ESS) activities.

The American Red Cross is currently the leading Non-Governmental Organization (NGO) in emergency sheltering, in partnership with the Federal Emergency Management Agency. During, or immediately following a disaster, community emergency managers select shelters from predesignated lists based on areas of need and estimated numbers of displaced persons. Each site will be inspected before it is opened to the public.

To help emergency officials conduct rapid assessments of shelter conditions during emergencies and disasters, the Centers for Disease Control and Prevention (CDC) developed a concise (two-page) shelter assessment tool that is easy to modify to meet local needs. It is a standardized instrument that covers 14 general areas from the structural integrity and safety of the facility and its systems (electrical, ventilation, security, etc.), to water supplies, sanitation, drinking water, food services, sleeping accommodations, and handicapped accessibility. Once completed, the assessment identifies and prioritizes health and safety issues, provides data and recommendations for shelter officials, and creates documentation for use in future planning and improvement of shelters.

The Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) learned that the tool provides supplemental guidance and information that should be used in conjunction with existing plans, procedures, guidelines, resources, assets, authorities, and incident management systems. While it cannot be substituted for a community's shelter preparedness and planning activities as found in its Emergency Management Plan, it is an additional resource for the Emergency Services Sector. The Shelter Assessment Tool (93.33 KB, 2 pages) can be downloaded at http://www.bt.cdc.gov/shelterassessment/pdf/shelter-tool-form.pdf.

FAIR USE NOTICE

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