## EMR-ISAC

Emergency Management & Response-Information Sharing & Analysis Center

#### Highlights:

Wind Turbine Failures, Fires, and Collapses

OnTheMap for Emergency Management

Mobile Apps for Extrication and Bomb Threats

Chemical Safety Board Updates Strategic Plan

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

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

# The InfoGram

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#### Wind Turbine Failures, Fires, and Collapses

Wind turbines used to generate electricity have been around for decades, but their use has grown in part due to the push for "green" technology and the rising costs of oil fuels. Just like the unique conditions when <u>responding to solar panel fires</u>, wind turbine fires and accidents present risky situations for unprepared fire departments.

Remarkable <u>photos of various wind turbine fires and failures</u> found online can be even more shocking when the overall scale of the structures is realized: wind energy towers can be 300-400 feet high or more and the blades can each be more than 100 feet long. When responding to an incident at a wind turbine, terrain is also a concern as many wind farms are on mountain ridges, in remote locations miles from the nearest responding department, or even in coastal waters.

<u>Fire Rescue 1 has a short article</u> describing the most common types of calls to wind turbines. Lightning strikes, lack of proper maintenance, bird strikes, or general malfunctions can cause fires, blade failures, and structural tower failure without any warning. Blade parts have flown up to 4,200 feet after failure, causing even more damage to local structures.

<u>Fire Engineering Magazine published a more detailed article</u> last year diagramming units and discussing the basic workings of most wind turbines and the essential need for departmental SOPs/SOGs. It also outlines some of the things fire departments must consider planning for if wind turbine farms fall within their jurisdiction.

(Source: FireRescue1.com)

#### **OnTheMap for Emergency Management**

The U.S. Census Bureau released Version 6 of their online <u>OnTheMap application</u> which enables people to create, save, and print maps based on census statistics for a given geographical areas and a given timeframe. The basic OnTheMap application allows users to view labor force data from 2002-2010 down to a block-level area, and users can save the information for reports, briefings, or future study.

The Census Bureau has gone a step further with the release of <u>OnTheMap for</u> <u>Emergency Management</u>, enabling map views of the same types of data with an overlay of disaster declarations, major storms, fires, and floods. Maps are downloadable and reports can all be converted to Adobe PDF or Microsoft Excel.

The InfoGram is distributed weekly to provide members of the Emergency Services Sector with information concerning the protection of their critical infrastructures. Emergency or city managers can create several reports based on 2010 census data detailing the populations affected by disasters, including all potentially affected workers, workers by location, etc., to help in estimating response and budgetary needs. Reports can also show details about multi-state disaster declarations, and the potentially-affected populations in a forecasted weather event, like flood or snowfall probability.

(Source: Disaster Research Newsletter)

#### **Mobile Apps for Extrication and Bomb Threats**

The development of mobile applications for specialty fields has boomed in the past few years, including offerings of useful apps for the fire service. A couple of apps that could be of use to first responders:

Developed by a firefighter, the <u>Hybrid Auto Extrication Guide</u> App is free for Android, iPad, and iPhone and "provides clear, intuitive, zoomable schematics, showing the location of airbags, airbag sensors, high voltage electrical lines, fuel, pistons, and seatbelt pretensioners." The site recommends it for both operations and training. <u>Other extrication apps</u> are available for fees ranging from \$0.99 and up.

The <u>First Responder Support Tools (FiRST) app</u> provides first responders information accessible via smartphone, tablet, or laptop to help handle bomb threat or IED events. Information includes safe distances with blast radius, damage and injury estimates, and mapping of locations such as schools or hospitals. The FiRST app also contains a HazMat spill module based on the Emergency Response Guidebook, and it retrieves current weather data to determine downwind zones.

Developed by the Department of Homeland Security's National Protection and Programs Directorate, the mobile version of FiRST is available for purchase for \$12. The HazMat part of the app is available to anyone, but the data regarding bomb response is considered sensitive and is only available to those who qualify. However, the app is customizable to localities by inputting information directly. The <u>ARA website</u> has more information about eligibility and ordering.

(Source: Fire Chief Magazine and DHS Office of Bombing Prevention)

#### Chemical Safety Board Updates Strategic Plan

The U.S. Chemical Safety Board (CSB) released its <u>2012-2016 Strategic Plan</u> (PDF, 1.57 Mb) this month containing "13 strategic objectives that enable the agency to work towards its mission of accident prevention." The CSB board members unanimously approved it.

Interviews of industry stakeholders, government agencies, and members of academia used to update the strategic plan to include the Most Wanted List of Chemical Safety Improvements. The list will stress significant improvements the CSB feels would be most beneficial to the industry.

The <u>main mission of the CSB is to investigate incidents</u> involving life safety and the chemical industry such as fires, explosions, and chemical releases. Based on <u>completed investigations</u> they make recommendations of changes that should be made to prevent accidents from happening.

(Source: <u>Chemical Safety Board</u>)

The InfoGram

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