



CENTRAL IOWA EMS DIRECTORS Synergy

Fall 2012 | Winter 2013

BRIDGING THE
GAP BETWEEN
HOSPITALS
AND EMS

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**Polk County
Emergency
Management**



DM Int'l Airport & Polk County Emergency Management CONDUCT A FULL SCALE EXERCISE

On August 4th, 2012 the Des Moines International Airport conducted a full scale exercise with the assistance of Polk County Emergency Management, local emergency responders and area hospitals. The full scale exercise is required every three years by the Federal Aviation Administration (FAA) to maintain certification compliance for the airport.

The purpose of this exercise was to conduct a stringent focused exercise to evaluate the Des Moines International Airport Emergency Plan (AEP) in conjunction with State, County, and local emergency responder actions against current response plans and capabilities. To ensure an effective exercise, subject matter experts (SMEs) and local representatives took part in the planning process as well as the exercise conduct and evaluation. The primary focus for this exercise was FAA compliance for Des Moines International Airport in conjunction with training for jurisdictional emergency services, local hospitals and county medical examiner staff.

Of the thirty-seven Target Capabilities proposed by the Department of Homeland Security ten were incorporated to assist in meeting objectives. Those included: Onsite Incident Management, Emergency Operations Center Management, Communications, Firefighting Operations/Support, Critical Resource Logistics and Distribution, Triage and Pre-Hospital Treatment, Fatality Management, Information Sharing and Dissemination, and Emergency Public Information and Warning.

Based on the exercise planning team's deliberations, the following objectives were developed for the 2012 Des Moines International Airport Triennial Full Scale Exercise:

- Upon receiving notification of the airport incident, the Incident Command System or Unified Command System will be activated within ten (10) minutes
- Upon receiving notification of the airport incident, activate and staff appropriate Emergency Operations Center(s) to support the incident
- Upon receipt of emergency situation, immediately respond to Gate 5 and open it to allow rapid, unobstructed access to and from the incident scene



- Upon arrival at the Des Moines International Airport, stage at the appropriate location (Gate 5) and wait for positive escort by Des Moines Airport Officials with movement area driving privileges
- Within thirty (30) minutes of arrival, establish interoperable communications
- Upon clearance from the Incident Commander, perform lift operations on a Rockwell Sabreliner T-39 to simulate wreckage removal.
- Have at least two (2) ARFF vehicles respond from the airport ARFF facility to the incident site within three (3) minutes from the time the ARFF equipment is manned to the initial discharge of extinguishing agent
- Upon arrival at the crash scene, apply foam, dry chemical or other firefighting agents to extinguish the fire or to maintain a path for evacuating passengers to exit the fire hazard area
- Upon being assigned a search area, begin search operations using physical and electronic search capabilities and extricate trapped and/or non ambulatory victims
- Upon gathering sufficient information, produce Flash Reports/SITREPs and distribute to stakeholders to increase situational awareness and a common operating picture
- Immediately upon receipt of resource requests, work with local, state, Federal and private sector organizations to fill requests
- Conduct triage, treatment and transportation of patients in accordance with the Polk County Mass Casualty Incident Plan
- Conduct scene evaluation, documentation, labeling, tracking and removal of fatalities from scene
- Identify morgue capacity and assess alternatives for the temporary storage of remains
- Within 30 minutes of the incident, establish a Joint Information Center, staffed by representatives of all responding agencies, to create prompt, accurate and appropriate unified public information messaging

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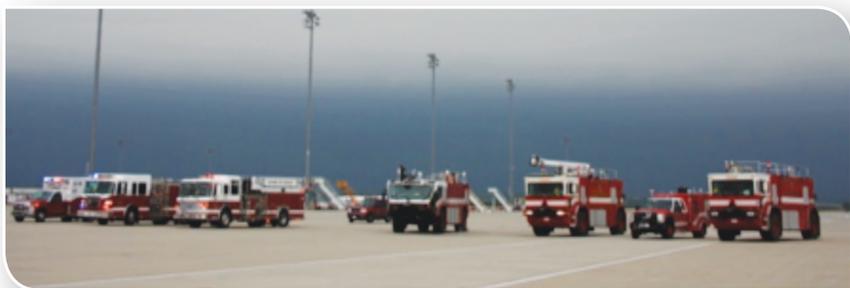
Major Strengths

The major strengths identified during this exercise were as follows:

- **Firefighting:** At least two (2) ARFF vehicles responded from the airport ARFF facility to the incident site. This was done within three (3) minutes from the time the ARFF equipment was manned to the initial discharge of the extinguishing agent. This meets the FAA Part 139 requirements for the Des Moines International Airport.
- **Fatality Management:** Scene evaluations, documentation, labeling, tracking, removal of fatalities from the scene and the assessment of alternatives for the temporary storage of remains was conducted in accordance with the Polk County Mass Fatalities Plan.
- **Ensuring Safe Work Practices:** Throughout the exercise, the primary focus remained on the safety of responders and exercise participants. Despite severe weather impacting the field of play shortly after the exercise start, no injuries or illnesses were experienced. Players were moved quickly indoors ahead of the arrival of high winds, dangerous lightning and heavy rainfall.

Primary Areas for Improvement
Throughout the exercise, several opportunities for improvement in the ability to respond to an incident were identified.

The primary areas for improvement, including recommendations, are as follows:



• Comprehensive Understanding of the Mass Casualty Incident (MCI) Plan:

A robust program of training in all facets of the MCI plan is needed, to include the use of Tiered Emergency Asset Management System (TEAMS) cards; the role of Communications Centers in MCI events; re-familiarization with START triage; training in the use of SMART triage tags; and extensive review and familiarization with the transportation function of the MCI plan.

• Emergency Operations Center (EOC) Management:

The function of the airport EOC is not well understood by personnel tasked with staffing it. A better defined role, staff experience from exercises and shadowing during real world events is needed to ensure adequate performance.

• Unified Command:

The civilian/military interface underscored a need for the streamlined processes afforded by a unified command system. Public safety and the National Guard need to establish lines of authority and organizational structures for incidents involving National Guard response and assets prior to an incident. In the case of the airport exercise, the EOC could be tasked with working through those issues at the time of the incident, but this could be time consuming and could be further complicated by the lack of a strong EOC presence.

Overall, the 2012 Des Moines International Airport Triennial Exercise was successful in bringing multiple plans together for the first time in a single training exercise. This exercise established a baseline to determine where future planning, training and exercise efforts need to focus. The exercise with over 370 participants over two days was invaluable in finding strengths and exploiting them while finding areas for improvement and establishing a repository of considerable feedback from all participants.

Back Injuries and EMS:

Does it Need to Be?

For anyone who has spent time in EMS, the reality of back-injuries is an all-too common issue. The statistics are sobering. In 2009, 23,000 EMS personnel required treatment at an emergency room for some type of injury or exposure. Almost four in ten of those were for back injuries. Each year, 7 out of 100 EMS providers will suffer a lost time injury, the majority of these for back injuries.

If you project those numbers out, almost every EMS provider will suffer a lost-time back injury at some point in their career. The lucky ones are able to recover and return to work. Many aren't. To date there are no definitive courses of treatment for a significant back injury. I know. My wife - a firefighter/paramedic - suffered a career-ending back injury in 2001. To this day she still deals with daily pain, loss of nerve function, and lifting limitations that have changed her life forever.

How much time does your agency devote to back injury prevention? Industry-wide, research says not enough. Most EMS providers injured on the job indicate they received little to no additional training in back injury prevention beyond what was covered in their EMT-Basic or Paramedic Class. A lack of education and training is identified as a key factor when determining the cause of on-the-job back injuries.

A second key factor is a lack of appropriate resources. Many agencies use a tiered approach to EMS response based on the significance of the call. More serious calls often tier an EMS transport ambulance with an ALS response vehicle or an engine company. BLS calls are often handled by the ambulance alone. The reality is that additional resources based on the patient's size or locations are potentially needed on every call.

Research has also identified fitness as a third contributing factor. EMS providers who regularly exercise and have improved muscle tone are less likely to suffer an injury. According to the International Chiropractic Association, each extra pound of abdominal weight places can place up to ten pounds more stress on your lower back. People who regularly lift weights for fitness are also more likely to practice proper lifting techniques.

Our patients are getting larger. Fortunately patient transport equipment is improving. Cots with built-in lift systems allow EMS providers to raise and lower the cot at the push of a button then roll the patient into the ambulance without the need for lifting. Stair chairs are more ergonomically designed to allow EMS providers to move patients up and down stairs while maintaining a good lifting position. Improved patient slings or vacuum mattresses are available to help move patients from their beds onto a stair chair.

All of these improvements still require personnel to move the patient. There is no substitute for having an adequate number of personnel on-scene to assist with patient moving and handling. Fire and EMS personnel will often "make do" rather than wait while additional personnel are requested and respond to assist. Too often the result is a significant back injury.

Get a Kit, Make a Plan, Be Informed

A better solution is to have those personnel on the call to begin with. While this may pose a problem for volunteer or minimally staffed agencies, this can be worked around. Work out training to have law enforcement assist in patient moving and handling – even if it's just holding the cot. Add a fire response with all EMS calls. It may appear to be more costly in the short run but it more than pays for itself if a significant back injury is avoided.

Finally, all EMS personnel have a personal duty to be physically capable. Working with someone who is physically incapable of equally lifting a patient's weight requires others to lift disproportionately, often awkwardly. Again a significant back injury is waiting.

There are a number of good websites and resources which explain proper lifting technique. It is critical given the number of back injuries in the EMS profession that all EMS agencies provide regular training and reminders on proper lifting technique. Practice removing patients from a bed. Practice moving a patient up or down a flight of stairs. Practice operating your cot and moving a patient into the ambulance. Practice, Train, and Practice some more.

The pathway to decreasing the number of back injuries can take many directions. A good EMS agency will look into all of them. A significant back injury is going to happen to your organization unless you take steps to prevent it.

Mike Cardwell, NREMT

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Every year since 2004, September has been designated as National Preparedness Month. Sponsored by the Federal Emergency Management Agency, National Preparedness Month encourages Americans to take steps to prepare for emergencies in their homes, businesses, schools, and communities. In conjunction with National Preparedness Month activities, Safeguard Iowa Partnership held its second annual Prepare Fair.

The free event was held at Merle Hay Mall with more than twenty indoor and outdoor exhibitors representing local emergency responders, businesses and nonprofit organizations in the Des Moines metro area. MidAmerican Energy Company provided free identification kits to the first 250 families that attended the Prepare Fair. Each kit includes an inkless fingerprint kit, wallet card and DNA collection swabs that can be used to collect valuable identification in the event that a child becomes missing. Several K-9s were on hand to show families how dogs are trained to assist in search and rescue operations. Special exhibits included the KCCI-TV Storm Truck, a preparedness video by Iowa's very own Shawn Johnson, and Iowa One Call's Gabby the Groundhog mascot. Citizens who attended the Prepare Fair were able to gain valuable information about how to make themselves more prepared for emergencies of all varieties and children were able to participate in various activities and see emergency responder vehicles up close.

Throughout the year, and especially during National Preparedness Month, emergency management professionals encourage personal preparedness with the slogan Get a Kit, Make a Plan, Be Informed.

Get a Kit

Your household emergency kit should include the necessary supplies to sustain you and your

family in your home for at least 3 days, maybe longer. Remember that it may take a significant amount of time for basic services (water, electricity, and telephones) to return to normal. Be prepared to improvise and use what you have on hand to make it on your own.

While there are many things that might make you comfortable, think first about fresh water, and clean air. Consider putting together two kits. In one, put everything needed to stay where you are and make it on your own. The other should be a lightweight, smaller version you can take with you if you have to get away.

Keep enough food on hand to sustain you and your family for a minimum of 3 days. Select foods that require no refrigeration, preparation or cooking and use little or no water. Watch your salt content, as salty foods make you drink more water. Foods should require very little preparation—try to avoid things that need water or cooking. Make sure it's food your family will eat.

Other items that should be included in your kit include:

- Water: 1 gallon per person per day
- Food: Ready-to-eat, just-add-water, canned and dried foods that are easy to store and prepare
- Manual can opener
- First Aid kit
- Essential medications
- Flashlight (with extra batteries)
- Matches in a waterproof container
- Whistle
- Tools
- Portable Television or Radio (battery-operated or manual)
- Batteries
- Cash in small denominations
- A copy of important documents & phone numbers
- Unscented liquid household bleach for water purification
- Personal hygiene items including toilet paper, feminine supplies, and soap
- Sturdy shoes
- Heavy gloves
- Warm clothes, a hat and rain gear
- A local map
- Prescription medicines
- Extra prescription eye glasses, hearing aid or other vital personal items
- Plastic sheeting, duct tape and utility knife for covering broken windows
- Blankets or sleeping bags
- Extra keys to your house and vehicle
- Large plastic bags for waste and sanitation
- Special-need items for children and seniors or people with special needs
- Don't forget water and supplies for your pets



In an emergency a family member, or you yourself may be injured. Having some basic supplies and knowing how to treat minor injuries can make a difference in an emergency. Having a first aid kit can help you stop bleeding, prevent infection and assist in decontamination. Consider taking classes on first aid and CPR.

- Two pairs of Latex, or other sterile gloves (if you are allergic to Latex).
- Sterile dressings to stop bleeding.
- Cleansing agent/soap and antibiotic towelettes to disinfect.
- Antibiotic ointment to prevent infection.
- Burn ointment to prevent infection.
- Adhesive bandages in a variety of sizes.
- Eye wash solution to flush the eyes or as general decontaminant.
- Thermometer
- Prescription medications you take every day such as insulin, heart medicine and asthma inhalers. You should periodically rotate medicines to account for expiration dates.
- Prescribed medical supplies such as glucose and blood pressure monitoring equipment and supplies.
- Scissors
- Tweezers
- Tube of petroleum jelly or other lubricant
- Aspirin or nonaspirin pain reliever
- Anti-diarrhea and Laxative
- Antacid (for upset stomach)

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Make a Plan

Parents can help prepare children and reduce their emotional stress during an emergency by including them in the planning process and answering their questions about safety. Make sure your children take part in your preparation process and ensure that you have included supplies that make them feel comfortable and safe.

Your family may not be together when disaster strikes, so plan how you will contact one another and review what you will do in different situations. Consider a plan where each family member contacts the same person in the event of an emergency.

Traditional means of communication may be limited during an emergency situation due to system damage or overload. It is important that you identify several different ways to communicate with your family and friends to let them know you are safe.

Pets are often full-fledged members of the family, and any family emergency plan must include them to be truly complete. Many shelters will not permit animals (with the exception of registered service animals), so it is especially important that you have a plan for your pets in case of an evacuation.

Be Informed

During a major emergency, officials will work to provide timely, accurate information to the public. Several public information procedures and/or tools are in place that may be used during a major emergency or disaster.

CodeRED

This system will send a recorded message to telephones in a geographically specified area or to a pre-programmed list of contacts.

To sign up for CodeRED, scan with your smart phone.



Outdoor Warning Sirens

Outdoor, all-hazards sirens are used to warn the general population of a potential danger in a short amount of time.

NOAA Weather Radio

NOAA Weather Radio All Hazards broadcasts cannot be heard on a simple AM/FM radio receiver. However there are many receiver options ranging from handheld portable units which just pick up Weather Radio broadcasts, to desktop and console models which receive Weather Radio as well as other broadcasts.

Diversion

***Diversion:** the act or an instance of diverting from a course, activity, or use : DEVIATION <bad weather forced the diversion of several flights>*

It is a typical November Saturday. Football games are going on across the State; hunting season is getting into full swing as well. For today you are the nurse in charge at local ER, and it is busy. The waiting room has 16 patients who have been triaged into your typical colors of green yellow and red. Wait times are getting increasingly longer. Every ER room is full, and the last two hallway spots were just taken by two inbound ambulances. You are aware of an inbound helicopter and 3 additional inbound ambulances, and based on information from your communication center the metro area ambulances have been busy all day.

5 patients are being admitted from the ER to the hospital once the patients who currently occupy those rooms are discharged and the rooms made ready. 6 more are just about ready to be discharged home from the ER. What you need is just a little bit of time to get this done. So you contact the Director of the ER, the House Supervisor, and together with the input of others make the decision to request ER diversion for 60 minutes

Leaders from all Des Moines Metro ER's meet bi-monthly at the Iowa Hospital Association and together have implemented a "Des Moines Hospitals Bypass Protocol". Using these guidelines, each hospital will determine their own internal protocols, when their hospital needs to be bypassed for either trauma patients, or adult and/or pediatric patients arriving by ambulance. The terms for the four bypass situations will be "trauma bypass," "adult ER bypass," "pediatric ER bypass" and adult and pediatric ER bypass.

When a hospital has determined they need to go on a bypass, the hospital will update EMResource (a web based emergency department status product of EMSsystems) to initiate the process. Bypass situations are limited to 60 minutes and the hospital must evaluate the

bypass status every 60 minutes. The hospital must update EMResource when the hospital goes off trauma or adult and/or pediatric bypass. The resource and regional trauma facilities must communicate with each other to coordinate the bypass prior to going on bypass. Only one resource or regional trauma facility can go on the same bypass status simultaneously.

- Trauma bypass includes patients that meet the Iowa Trauma System definition of trauma, excluding direct admit patients who have been previously accepted by the hospital and physician.
- Adult ER bypass includes adult patients inbound by ambulance, excluding direct admit patients who have been previously accepted by the hospital and physician. Adult ER bypass indicates the hospital is at or has exceeded its capacity to care for adult patients needing trauma, intensive care or urgent care.
- Pediatric ER bypass includes pediatric patients (18 years or under) inbound by ambulance, excluding direct admit patients who have been previously accepted by the hospital and physician. Pediatric ER bypass indicates the hospital is at or has exceeded its capacity to care for pediatric patients needing trauma, intensive care or urgent care.
- Adult and Pediatric bypass includes both adult and pediatric patients inbound by ambulance, excluding direct admit patients who have been previously accepted by the hospital and physician. Adult and pediatric ER bypass indicates the hospital is at or has exceeded its capacity to care for adult and pediatric patients needing trauma, intensive care or urgent care.

Current Emergency Department bypass status information should be communicated to the responding unit when dispatched. Each communication center is responsible for notifying the ambulances for which they dispatch. Ambulance services are encouraged to contact the hospital before the ambulance leaves the scene.

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